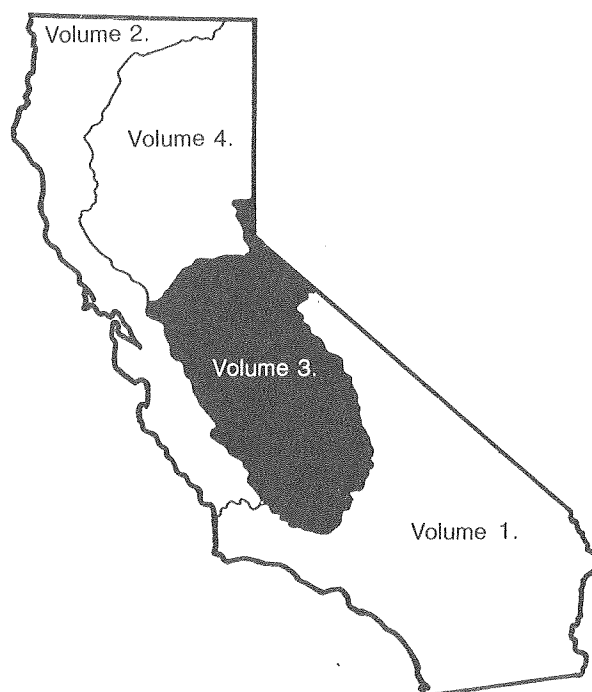


Water Resources Data California

Water Year 1983

Volume 3. Southern Central Valley Basins and
The Great Basin from Walker River
to Truckee River



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-83-3
Prepared in cooperation with the California Department of
Water Resources and with other agencies

CALENDAR FOR WATER YEAR 1983

1982

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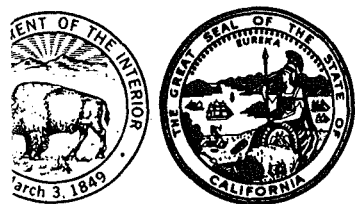
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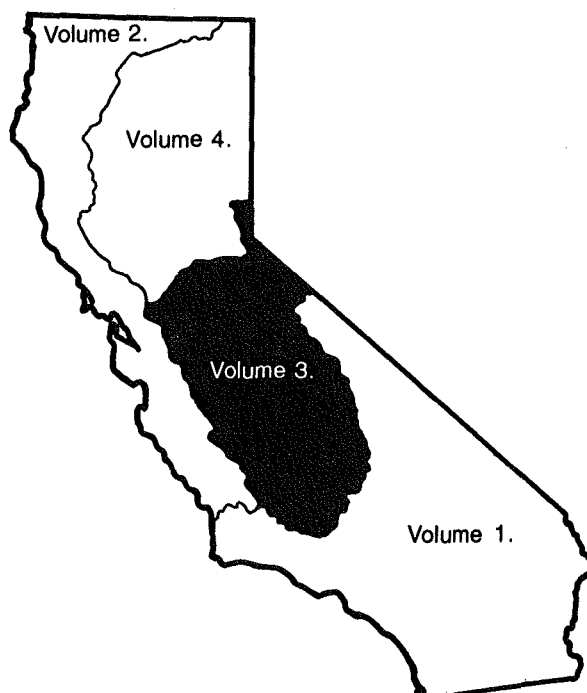
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Water Resources Data California Water Year 1983

Volume 3. Southern Central Valley Basins and
The Great Basin from Walker River
to Truckee River

by R.P. Fogelman, T.C. Hunter, J.R. Mullen, R.G. Simpson, D.A. Grillo



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-83-3
Prepared in cooperation with the California Department of
Water Resources and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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PREFACE

This volume of the annual hydrologic data report of California is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for California are contained in 4 volumes:

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

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

This report was prepared in cooperation with the California Department of Water Resources and with other agencies under the general supervision of Timothy J. Durbin, District Chief, California.

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CONTENTS

	Page
Preface.....	III
List of surface-water and water-quality stations, in downstream order, for which records are published.....	IX
Introduction.....	1
Cooperation.....	2
Summary of hydrologic conditions.....	3
Definition of terms.....	5
Downstream order and station number.....	16
Numbering system for wells and miscellaneous sites.....	17
Local well numbers.....	18
Special networks and programs.....	19
Explanation of stage and water-discharge records.....	20
Collection and computation of data.....	20
Accuracy of field data and computed results.....	23
Other data available.....	24
Records of discharge collected by agencies other than the Geological Survey.....	24
Explanation of water-quality records.....	24
Collection and examination of data.....	24
Water analysis.....	24
pH.....	25
Water temperature.....	25
Sediment.....	26
Turbidity.....	27
Explanation of ground-water level records.....	27
Collection of the data.....	27
Publications of Techniques of Water-Resources Investigations.....	28
Gaging-station and water-quality records.....	29
Sacramento-San Joaquin Delta, inflows and diversions.....	354
Discharge at partial-record stations.....	355
Crest-stage partial-record stations.....	355
Ground-water records.....	357
Ground-water level records listed by county.....	357
Ground-water quality records listed by county.....	385
Index.....	391

ILLUSTRATIONS

	Page
Figure 1. Map of California showing runoff for the current water year...	4
2. System for numbering wells and miscellaneous sites (latitude and longitude).....	17
3. Local well-numbering system.....	18
4-11. Schematic diagrams showing diversions and storage:	
4. Kern River basin.....	113
5. Tule River basin.....	136
6. Kaweah River basin.....	148
7. Kings River basin.....	166
8. San Joaquin River basin.....	189
9. Tuolumne River basin.....	245
10. Stanislaus River basin.....	270
11. Mokelumne River basin.....	328
12. Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin Delta.....	353

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

IX

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

	Page
<u>THE GREAT BASIN</u>	
WALKER LAKE BASIN	
Virginia Creek (head of Walker River):	
Upper Twin Lake near Bridgeport (l).....	29
Lower Twin Lake near Bridgeport (l).....	29
East Walker River (continuation of Virginia Creek):	
Bridgeport Reservoir near Bridgeport (l).....	30
East Walker River near Bridgeport (d).....	31
West Walker River:	
Little Walker River near Bridgeport (d).....	32
West Walker River below Little Walker River, near Coleville (d)....	33
West Walker River near Coleville (d).....	34
Topaz Lake near Topaz (l).....	35
HUMBOLDT-CARSON SINK BASIN	
CARSON RIVER BASIN	
East Fork Carson River (head of Carson River) below Markleeville	
Creek, near Markleeville (d).....	36
West Fork Carson River at Woodfords (d).....	37
PYRAMID AND WINNEMUCCA LAKES BASIN	
Upper Truckee River (head of Truckee River) near Meyers (d).....	38
Upper Truckee River at South Lake Tahoe (dts).....	39
Lake Tahoe:	
Taylor Creek:	
Fallen Leaf Lake near Camp Richardson (l).....	45
Taylor Creek near Camp Richardson (d).....	46
General Creek near Meeks Bay (dts).....	47
Blackwood Creek near Tahoe City (dts).....	53
Ward Creek at State Highway 89, near Tahoe Pines, (dts).....	59
Snow Creek at Tahoe Vista (dts).....	65
Third Creek near Crystal Bay, NV (dts).....	71
Marlette Lake near Carson City, NV (l).....	77
Marlette Creek near Carson City, NV (d).....	78
Edgewood Creek near Stateline, NV (dts).....	79
Trout Creek near Tahoe Valley (dts).....	84
Lake Tahoe at Tahoe City (l).....	90
Truckee River at Tahoe City (d).....	91
Donner Creek at Donner Lake, near Truckee (d).....	92
Martis Creek at State Highway 267, near Truckee (cts).....	93
Martis Creek Lake near Truckee (lcs).....	96
Martis Creek near Truckee (dcts).....	98
Prosser Creek Reservoir near Truckee (l).....	102
Prosser Creek below Prosser Creek Dam, near Truckee (d).....	103
Independence Creek near Truckee (d).....	104
Sagehen Creek near Truckee (ds).....	105
Stampede Reservoir near Truckee (l).....	108
Little Truckee River above Boca Reservoir, near Truckee (d).....	109
Boca Reservoir near Truckee (l).....	110
Little Truckee River below Boca Dam, near Truckee (d).....	111
Truckee River at Farad (d).....	112
<u>PACIFIC SLOPE BASINS IN CALIFORNIA</u>	
BUENA VISTA LAKE BASIN	
Kern River near Kernville (d).....	114
Kern River at Kernville (dcts).....	116
Borel Canal below Isabella Dam (d).....	120
South Fork Kern River near Onyx (d).....	121

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

Page

PACIFIC SLOPE BASINS IN CALIFORNIA -- Continued

BUENA VISTA LAKE BASIN -- Continued

Isabella Lake near Lake Isabella (l).....	122
Kern River below Isabella Dam (dt).....	123
Kern River near Democrat Springs (d).....	126
Caliente Creek above Tehachapi Creek, near Caliente (d).....	128
Tehachapi Creek near Tehachapi (d).....	129

TULARE LAKE BASIN

Tulare Lake in Kings County (l).....	130
Avenal Creek near Avenal (d).....	131
Poso Creek near Oildale (d).....	132
White River near Ducor (d).....	133
Deer Creek near Fountain Springs (d).....	134
Deer Creek diversion near Terra Bella (d).....	135
Middle Fork Tule River (head of Tule River):	
North Fork of Middle Fork Tule River near Springville (d).....	137
Tule River near Springville (dt).....	139
South Fork Tule River near Success (d).....	142
Pioneer ditch below Success Dam (d).....	143
Success Lake near Success (l).....	144
Tule River below Success Dam (dt).....	145
Middle Fork Kaweah River (head of Kaweah River) near Potwisha	
Camp (d).....	149
Marble Fork Kaweah River at Potwisha Camp (d).....	151
Kaweah River at Three Rivers (dt).....	153
South Fork Kaweah River at Three Rivers (d).....	156
Lemoncove ditch below Terminus Dam (d).....	157
Lake Kaweah near Lemoncove (l).....	158
Foothill ditch below Terminus Dam (d).....	159
Kaweah River below Terminus Dam (dt).....	160
Dry Creek near Lemoncove (d).....	163
Cottonwood Creek near Elderwood (d).....	164
Sand Creek near Orange Cove (d).....	165
Courtright Reservoir near Nelson Mountain (l).....	167
Helms Creek below Courtright Dam (d).....	168
Wishon Reservoir near Cliff Camp (l).....	169
North Fork Kings River near Cliff Camp (d).....	170
Teakettle Creek at Site No. 3, near Dinkey Creek (d).....	171
Teakettle Creek tributary No. 2 near Dinkey Creek (d).....	172
Teakettle Creek tributary No. 2A near Dinkey Creek (d).....	173
Teakettle Creek tributary No. 1 near Dinkey Creek (d).....	174
North Fork Kings River above Dinkey Creek, at Balch Camp (d).....	175
Dinkey Creek at Dinkey Meadow, near Shaver Lake (d).....	176
North Fork Kings River below Dinkey Creek, near Balch Camp (d).....	177
Kings River below North Fork, near Trimmer (dcts).....	178
Pine Flat Lake near Piedra (l).....	183
Kings River below Pine Flat Dam (dt).....	184
Mill Creek near Piedra (d).....	187
Los Gatos Creek above Nunez Canyon, near Coalinga (d).....	188

SAN JOAQUIN RIVER BASIN

San Joaquin River at Miller Crossing (d).....	190
Granite Creek near Cattle Mountain (d).....	191
South Fork San Joaquin River:	
Florence Lake:	
Ward tunnel intake at Florence Lake (d).....	192
Florence Lake near Big Creek (l).....	193
South Fork San Joaquin River below Hooper Creek, near Florence	
Lake (d).....	194

	Page
<u>PACIFIC SLOPE BASINS IN CALIFORNIA -- Continued</u>	
SAN JOAQUIN RIVER BASIN -- Continued	
South Fork San Joaquin River -- Continued	
Bear Creek near Lake Thomas A. Edison (d).....	195
Lake Thomas A. Edison near Big Creek (l).....	196
Mono Creek below Lake Thomas A. Edison (d).....	197
Mammoth Pool Reservoir near Big Creek (l).....	198
San Joaquin River above Shakeflat Creek, near Big Creek (d).....	199
Big Creek:	
Ward tunnel outlet at Huntington Lake (d).....	200
Huntington Lake near Big Creek (l).....	201
Big Creek:	
Pitman Creek below Tamarack Creek (d).....	202
Stevenson Creek:	
Huntington-Shaver conduit outlet near Shaver Lake (d).....	203
Shaver Lake near Big Creek (l).....	204
Redinger Lake near Auberry (l).....	205
San Joaquin River above Willow Creek, near Auberry (d).....	206
North Fork Willow Creek near Sugar Pine (d).....	207
Bass Lake near Bass Lake (l).....	208
Pacific Gas and Electric Co. conduit No. 3 near Bass Lake (d).....	209
North Fork Willow Creek near Bass Lake (d).....	210
Willow Creek at mouth, near Auberry (d).....	211
Millerton Lake:	
Madera Canal at Friant (d).....	212
Friant-Kern Canal at Friant (d).....	213
Millerton Lake at Friant (l).....	214
San Joaquin River below Friant (d).....	215
Cantua Creek near Cantua Creek (d).....	216
James Bypass near San Joaquin (d).....	217
Fresno River:	
Fresno River near Knowles (dt).....	218
Hensley Lake near Daulton (l).....	221
Fresno River below Hidden Dam, near Daulton (dt).....	222
Chowchilla River:	
Chowchilla River above Willow Creek, near Raymond (dt).....	225
H. V. Eastman Lake near Raymond (l).....	228
Chowchilla River below Buchanan Dam, near Raymond (dt).....	229
Merced River at Happy Isles Bridge, near Yosemite (dcts).....	232
Merced River at Pohono Bridge, near Yosemite (d).....	236
Lake McClure at Exchequer (l).....	237
Merced River below Merced Falls Dam, near Snelling (d).....	238
Merced River at Shaffer Bridge, near Cressey (d).....	239
Dry Creek near Snelling (d).....	240
Merced River near Stevinson (d).....	241
San Joaquin River near Newman (d).....	242
Orestimba Creek near Newman (d).....	243
Del Puerto Creek near Patterson (d).....	244
Falls Creek near Hetch Hetchy (d).....	246
Hetch Hetchy Reservoir at Hetch Hetchy (l).....	247
Tuolumne River near Hetch Hetchy (d).....	248
Tuolumne River above Early Intake, near Mather (d).....	249
Tuolumne River below Early Intake, near Mather (d).....	250
Cherry Creek:	
Cherry Lake near Hetch Hetchy (l).....	251
Cherry Creek below Cherry Valley Dam, near Hetch Hetchy (d).....	252
Eleanor Creek:	
Lake Eleanor near Hetch Hetchy (l).....	253
Eleanor Creek near Hetch Hetchy (d).....	254

PACIFIC SLOPE BASINS IN CALIFORNIA -- Continued	Page
SAN JOAQUIN RIVER BASIN -- Continued	
Cherry Creek -- Continued	
Cherry Creek near Early Intake (d).....	255
Cherry Creek below Dion R. Holm powerhouse, near Mather (d).....	256
South Fork Tuolumne River near Oakland Recreation Camp (d).....	257
Middle Tuolumne River at Oakland Recreation Camp (d).....	258
Lily Creek (head of Clavey River):	
Clavey River near Buck Meadows (d).....	259
Big Creek above Whites Gulch, near Groveland (d).....	260
North Fork Tuolumne River near Long Barn (d).....	261
Don Pedro Reservoir near La Grange (l).....	262
Tuolumne River:	
Modesto Canal near La Grange (d).....	263
Turlock Canal near La Grange (d).....	264
Tuolumne River below La Grange Dam, near La Grange (dt).....	265
Tuolumne River at Modesto (d).....	269
Middle Fork Stanislaus River (head of Stanislaus River) at Kennedy Meadows, near Dardanelle (d).....	271
Clark Fork Stanislaus River near Dardanelle (d).....	272
Donnell Lake near Dardanelle (l).....	273
Middle Fork Stanislaus River at Hells Half Acre Bridge, near Pinecrest (d).....	274
Beardsley Lake near Strawberry (l).....	275
Middle Fork Stanislaus River below Beardsley Dam (d).....	276
North Fork Stanislaus River below Silver Creek (d).....	277
Highland Creek below Spicer Meadows Reservoir (d).....	278
North Fork Stanislaus River near Avery (d).....	279
Stanislaus River near Hathaway Pines (dt).....	280
South Fork Stanislaus River at Strawberry (d).....	283
Philadelphia Canal near Strawberry (d).....	284
Tuolumne Canal near Long Barn (d).....	285
South Fork Stanislaus River near Long Barn (d).....	286
New Melones Reservoir near Sonora (l).....	287
Black Creek near Copperopolis (d).....	288
Tulloch Reservoir near Knights Ferry (l).....	289
Stanislaus River below Tulloch powerplant, near Knights Ferry (t).....	290
South San Joaquin Canal near Knights Ferry (d).....	292
South San Joaquin Canal below Diversion Point, near Knights Ferry (d).....	293
South San Joaquin Canal below Woodward Reservoir, near Oakdale (d).....	294
North Main Canal below Diversion Point, near Knights Ferry (d).....	296
Oakdale Canal near Knights Ferry (d).....	297
Stanislaus River below Goodwin Dam, near Knights Ferry (dt).....	298
Stanislaus River at Ripon (d).....	301
San Joaquin River near Vernalis (dcts).....	302
Calaveras River above New Hogan Lake, near San Andreas (t).....	321
New Hogan Lake near Valley Springs (l).....	322
Calaveras River below New Hogan Dam, near Valley Springs (dt).....	323
Bear Creek near Lockeford (d).....	326
Delta-Mendota Canal at Tracy pumping plant, near Tracy (d).....	327
North Fork Mokelumne River (head of Mokelumne River):	
Salt Springs Reservoir near West Point (l).....	329
Tiger Creek powerhouse conduit below Salt Springs Dam (d).....	330
North Fork Mokelumne River below Salt Springs Dam (d).....	331
Cole Creek near Salt Springs Dam (d).....	332
Bear River near Salt Springs Dam (d).....	333

PACIFIC SLOPE BASINS IN CALIFORNIA -- Continued

SAN JOAQUIN RIVER BASIN -- Continued

Mokelumne River:

 Middle Fork Mokelumne River:

Forest Creek near Wilseyville (d).....	334
Middle Fork Mokelumne River at West Point (d).....	335
South Fork Mokelumne River at West Point (d).....	336
Mokelumne River near Mokelumne Hill (d).....	337
Pardee Reservoir near Valley Springs (l).....	338
Camanche Reservoir near Clements (l).....	339
Mokelumne River below Camanche Dam (d).....	340
Woodbridge Canal at Woodbridge (d).....	341
Mokelumne River at Woodbridge (dcts).....	342
Dry Creek:	
Dry Creek near Galt (d).....	346
North Fork Cosumnes River (head of Cosumnes River):	
Camp Creek near Somerset (d).....	347
North Fork Cosumnes River near El Dorado (d).....	348
Cosumnes River at Michigan Bar (d).....	349
Beach Lake:	
Morrison Creek near Sacramento (d).....	350
Contra Costa Canal near Oakley (d).....	351
Dutch Slough:	
Marsh Creek near Byron (d).....	352

WATER RESOURCES DATA FOR CALIFORNIA, 1983

Volume 3

INTRODUCTION

Water-resources data for the 1983 water year for California consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and records of water levels in selected observation wells. Records for a few pertinent streamflow and water-quality stations in bordering States are also included. These data, a contribution to the National Water Data System, were collected by the Geological Survey and cooperating local, State, and Federal agencies in California.

Records of discharge or stage of streams and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface-Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released, either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published together as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report CA-83-3." For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. Water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (916) 484-4606.

COOPERATION

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

California Department of Water Resources, David N. Kennedy, Director.
California State Water Resources Control Board, John M. Youngerman, Chief Surveillance and Monitoring Section.
East Bay Municipal Utility District, Jerome B. Gilbert, General Manager.
El Dorado County Water Agency, Toni Padgett, Deputy Clerk, Board of Supervisors.
Kern County Water Agency, Stuart T. Pyle, Engineer-Manager.
Kings River Conservation District, Jeff L. Taylor, General Manager-Chief Engineer.
Madera Irrigation District, Bob L. Stanfield, General Manager-Chief Engineer.
Merced, City of, Steven M. Stroud, City Engineer.
Merced Irrigation District, Tom Reta, Chief Engineer and Manager.
San Francisco, City and County, Hetch-Hetchy Water and Power, Dean Coffee, General Manager.
South San Joaquin Irrigation District, Noel Negley, Manager.
Terra Bella Irrigation District, John E. Boudreau, Engineer-Manager.
Tulare County Flood Control District, Jack L. Carlsen, Flood-Control Engineer.
Turlock Irrigation District, Paul S. Brown, Controller.
University of California (Berkeley), College of Natural Resources, Department of Forestry and Resource Management, Don C. Erman.
University of California (Davis), Division of Environmental Studies, Dr. Charles R. Goldman.
Woodbridge Irrigation District, Mabel Hall, Manager/Secretary.

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

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

SUMMARY OF HYDROLOGIC CONDITIONS

The 1983 water year was one of the wettest recorded in California. Rainfall exceeded 200 percent of normal which makes it one of the wettest years of the century. In 1983, an unusual occurrence known as the El Nino/Southern Oscillation caused rises in the water temperature of the ocean surface and major reversals in wind patterns near the Equator. The high-pressure ridge near the Equator was intensified while the low-pressure system over the Gulf of Alaska became extremely low. As a result, climatological changes occurred and the South American coast received record rainfall and had ocean temperatures of 30°C. Severe storms on the central California coast resulted from the fast movement of air and intensified jet stream caused by the El Nino/Southern Oscillation.

During January to April, the San Joaquin River rose above the flood-warning stage at Vernalis and more than 12,000 acres were flooded when flood-control project levees failed. The spring snowpack in the Sierra Nevada was record depth and snow-water content was 360 percent of normal in the Tule River basin. Flooding did not occur in other areas because less than normal air temperatures decreased runoff and allowed the reservoirs to contain the spring runoff.

The Kings, Kaweah, Tule, and Kern Rivers drain into the Tulare Lake in the San Joaquin Valley. The lake bed is extensively farmed and is highly productive. Flood-control releases from Pine Flat Reservoir are normally routed into the San Joaquin River, however, excessive runoff in 1983 necessitated the diversion of flood flows into Tulare Lake. An estimated 8,000 acres of prime agricultural land were taken out of production because of the 880,000 acre-ft of water in the lake. Additional flooding was avoided when about 800,000 acre-ft of runoff was diverted via the Kern River-California Aqueduct Intertie to the State Water Project. Nine of the 18 counties included in this volume were declared national disaster areas by June 1983.

Surface Water

Runoff was greater than normal during the 1983 water year for the area included in this volume and averaged 337 percent of the median runoff for water years 1951-80. Runoff at three representative gaging stations for which long-term records are available averaged 253 percent of the mean and ranged from a minimum of 240 percent for Merced River at Pohono Bridge, near Yosemite to a maximum of 265 percent for Kern River near Kernville, east of Bakersfield (fig. 1).

Precipitation was greater than normal for the 1983 water year. Divisional data (data from similar meteorological areas) indicate that precipitation was 55 percent greater than normal and exceeded normals for 9 months of the year.

There were no peaks of discharge for the period of record despite the increased runoff during the year. Several islands in the Sacramento-San Joaquin Delta were inundated when levees yielded to increased runoff, high tides, and strong winds. The Prospect, Shima, and Mildred Island breaks inundated 4,600 acres of prime agricultural land.

The total contents in the 10 major reservoirs of northern and central California were 134 percent of average at the start of the year, decreased to 103 percent prior to late spring runoff in May, and then increased to 135 percent of average at the end of the year.

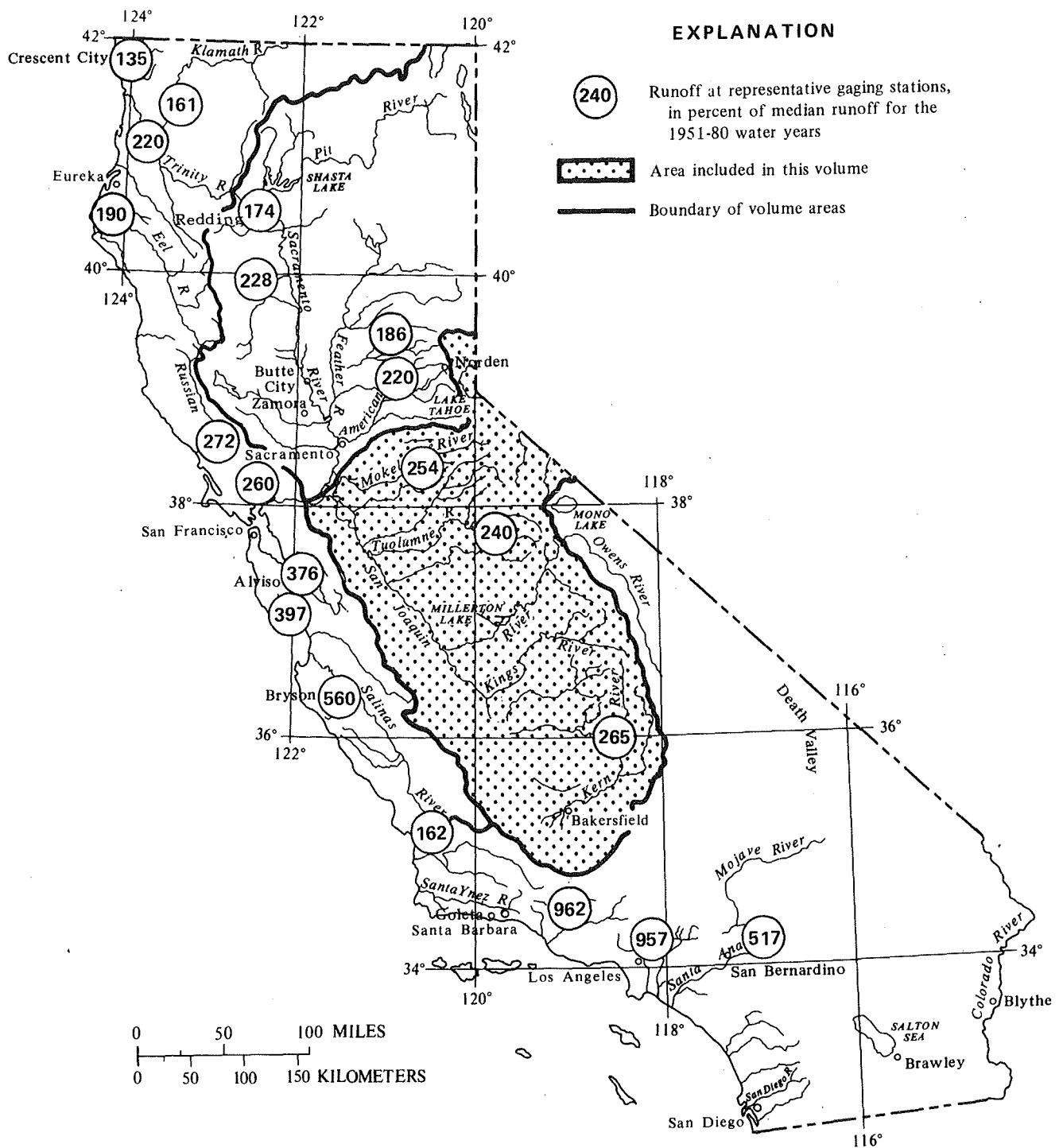


FIGURE 1. — Runoff for the 1983 water year.

Ground Water

The geography and geology of California are sufficiently complex that a summary of ground-water conditions in the State is difficult. Descriptions of conditions in specific basins and valleys apply only to those areas and cannot be transferred to other areas.

Ground-water levels fluctuate in response to a variety of stresses and changes in stress. Short- and long-term climatic conditions can lead to changes in natural recharge and discharge. Ground-water pumping also can cause changes in ground-water levels.

Throughout much of the San Joaquin Valley, water levels in observation wells reached the highest levels for the period of record. West of Mendota, water levels continued to rise, continuing a trend of several years. The lowest water level was 296.4 ft below land surface on October 1, 1982 and the highest level was 278.87 ft below land surface on September 8, 1983.

At an observation well south of Cantua Creek, water levels were higher than the previous year's highs throughout much of the year. The highest water level was 291.48 ft below land surface, a high for the period of record. The lowest water level recorded was 318.3 ft below land surface on December 14, 1983.

At an observation well south of Pixley, water levels throughout the year were higher than the highest levels the preceding year. The highest water level was 72.2 ft below land surface September 7, 1983, a new high for the period of record. The lowest water level was 78.3 ft below land surface on October 1, 1982.

Water Quality

Water samples collected at the four NASQAN stations and one Hydrologic Benchmark station reported in this volume were analyzed for water quality constituents. Dissolved-solids concentrations were less than those during the previous year. In 1983, the median dissolved-solids concentration was 115 mg/L for San Joaquin River near Vernalis; in 1982, the median was 209 mg/L. Concentrations of water-quality constituents at all stations were less than the maximum recommended by the U.S. Environmental Protection Agency or other public health standards or guidelines.

The largest density of fecal-coliform bacteria in water sampled from San Joaquin River near Vernalis ranged from K65 to >1,200 col/100 mL and was similar to the densities measured in 1982.

Sediment

Suspended-sediment discharge and concentrations were monitored daily at nine stations and periodically at eight stations in the area included in this volume. Eight of the nine stations monitored daily surround the north, south, and west borders of Lake Tahoe. The high resistance to erosion of the granitic and volcanic rock surrounding the lake as well as the presence of a snowcover during a significant part of the year results in small sediment-discharge rates and concentrations. San Joaquin River near Vernalis, in the northern part of the San Joaquin Valley, is highly regulated, also resulting in small sediment-discharge rates and concentrations. The stations monitored periodically are from as far north as Truckee to as far south as the town of Kernville, near Isabella Reservoir.

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

During the 1983 water year, sediment discharge in the Lake Tahoe basin averaged 71 percent of the sediment discharge for water year 1982. Sediment discharge at the San Joaquin River near Vernalis in 1983 was 290 percent of the mean sediment discharge for the 1957-82 water years.

During the 1983 water year, sediment discharge for the stations monitored daily ranged from 160 ton/yr for Snow Creek at Tahoe Vista to 1.01 million ton/yr for the San Joaquin River near Vernalis. Annual sediment discharge per square mile of drainage area ranged from a minimum of 36 ton/mi² for General Creek near Meeks Bay to a maximum of 242 ton/mi² for Blackwood Creek near Tahoe City.

Sediment discharge was almost evenly distributed through the autumn, winter, and spring because of flow regulation on the San Joaquin River and because of snowmelt in the Lake Tahoe basin. Maximum sediment discharge ranged from 9.2 ton/d (5 percent of annual total) for Snow Creek at Tahoe Vista to 11,200 ton/d (1 percent of annual total) for San Joaquin River near Vernalis. Maximum daily concentrations ranged from 40 mg/L for General Creek near Meeks Bay to 403 mg/L for Edgewood Creek near Stateline.

DEFINITION OF TERMS

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

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

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

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

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

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

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

Bacteria (continued)

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

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

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

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

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

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

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

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

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

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

Bottom material: See Bed material.

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

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

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

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile or 0.3468 millimeter from 1 square kilometer.

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

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

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

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

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

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

Cubic foot per second (ft³/s), is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

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

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

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

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

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

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

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

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

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

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

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

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

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

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

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

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

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

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

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

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

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

Organism (continued)

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of the habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

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

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in chemically dispersed distilled water.

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

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

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

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

Periphyton are microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, the periphyton also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

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

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

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

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

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

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

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

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

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

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

Primary Productivity (continued)

Milligrams of carbon per area or volume per unit time [mg C/(m².time) for periphyton and macrophytes and mg C/(m³.time)] for phytoplankton are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O₂/(m².time) for periphyton and macrophytes and mg O₂/(m³.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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

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

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

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

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft or 0.09 m above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

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

Suspended-sediment load (tons per day) is the quantity of suspended sediment passing a section in a specified period.

Sediment (continued)

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

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

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each surface-water station, water-quality station, and partial-record station has been assigned a station number. These are in the same downstream order as used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging or partial-record stations have the same number as the gaging or partial-record station. Gaps are left between the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 11264500, which appears just to the left of the station name, includes the 2-digit number "11" plus the 6-digit downstream order number "264500". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records for California are in Part 10 (The Great Basin), and Part 11 (Pacific slope basins in California). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream-order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well- and miscellaneous-site number system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 2.

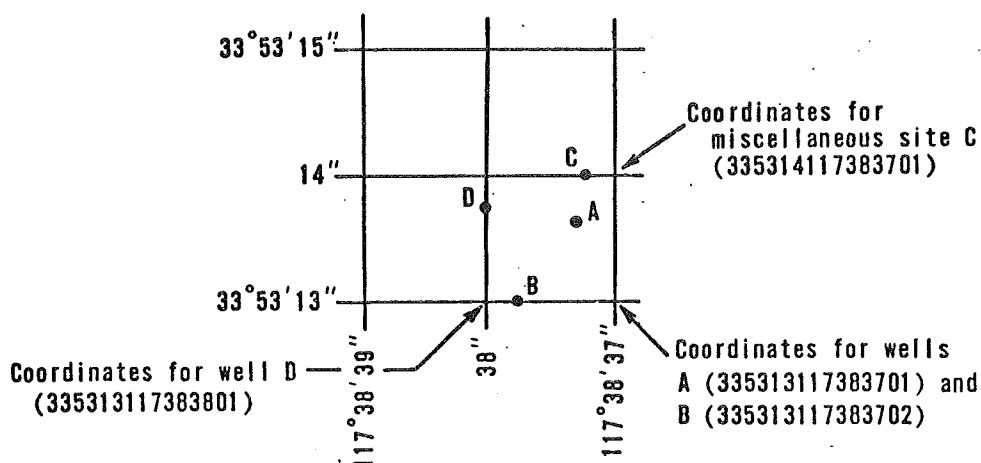


FIGURE 2.--System for numbering wells and miscellaneous sites (latitude and longitude)

Local well numbers

Wells and springs in California are assigned numbers according to their location on the rectangular system for the subdivision of public land. For example, in the number 005S/010E-22G01 M, the part of the number preceding the slash indicates the township (T.5 S.) and the number between the slash and hyphen indicates the range (R.10 E.); the digits following the hyphen indicate the section (sec.22); the letter following the section number indicates the 40-acre subdivision of the section. Within each 40-acre tract, the wells are numbered serially, as indicated by the final digit. The final letter, separated from the rest of the number by a space, indicates the base line and meridian. Base-line and meridian designations are as follows: H, Humboldt, M, Mount Diablo; S, San Bernardino. See figure 3.

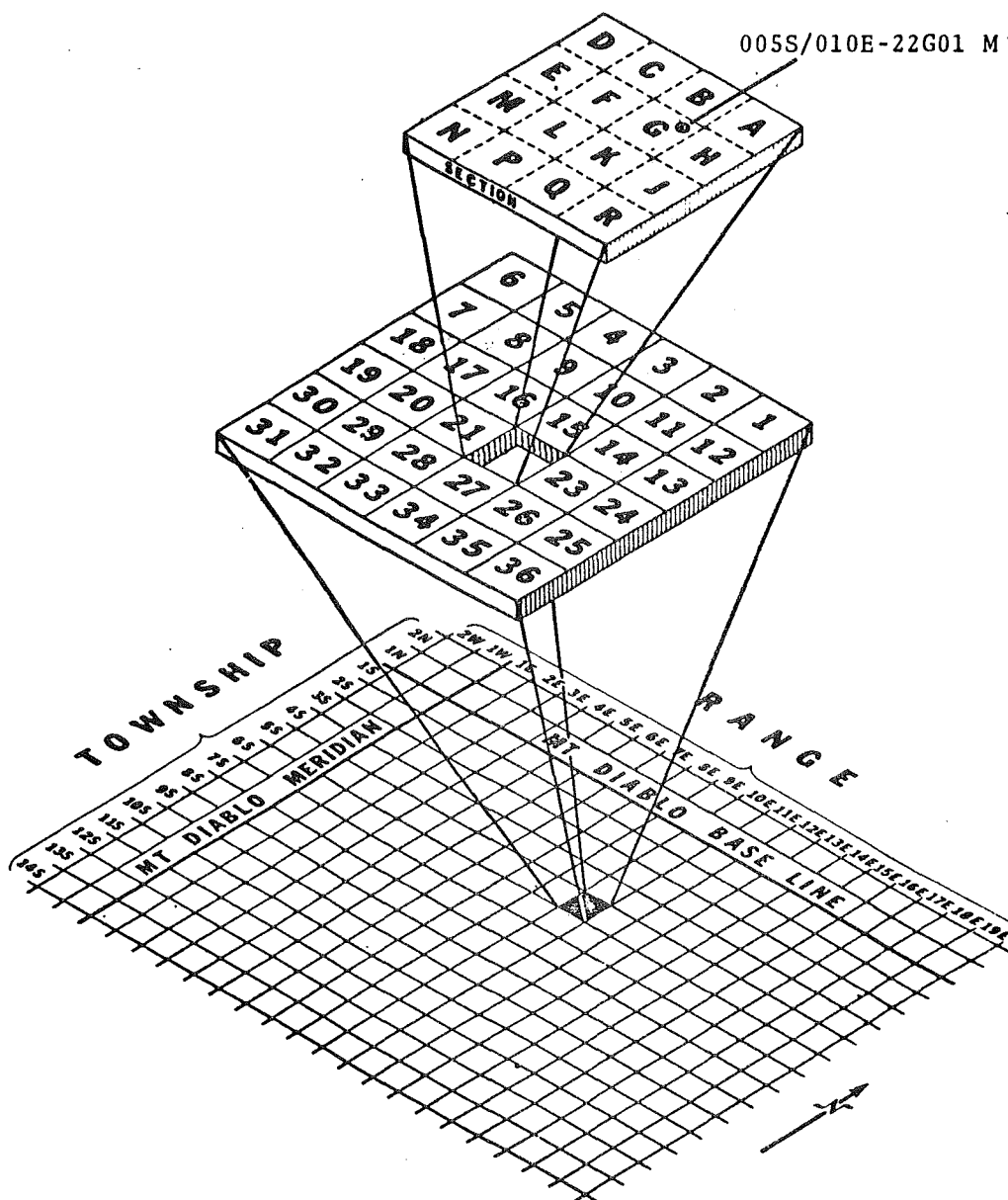


FIGURE 3.--California well-numbering system.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

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

Volume 2:

11475560 Elder Creek near Branscomb, CA

Volume 3:

11264500 Merced River at Happy Isles Bridge, near Yosemite, CA

National stream-quality accounting network is an accounting network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on the river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality. Stations in this network are listed below:

Volume 1:

10254670 Alamo River at Drop No. 3, near Calipatria, CA
10254970 New River at International Boundary, at Calexico, CA
10261500 Mojave River at lower narrows, near Victorville, CA
10277400 Owens River below Tinemaha Reservoir, near Big Pine, CA
11042000 San Luis River at Oceanside, CA
11074000 Santa Ana River below Prado Dam, CA
11103010 Los Angeles River at Willow Street Bridge, at Long Beach, CA
11108500 Santa Clara River at Los Angeles-Ventura County Line, CA

Volume 2:

11152300 Salinas River near Chualar, CA
11159000 Pajaro River at Chittenden, CA
11458000 Napa River near Napa, CA
11467000 Russian River near Guerneville, CA
11477000 Eel River at Scotia, CA
11530500 Klamath River near Klamath, CA
11532500 Smith River near Crescent City, CA

National stream-quality accounting network (continued)Volume 3:

11187000 Kern River at Kernville, CA
11218500 Kings River below North Fork, near Trimmer, CA
11303500 San Joaquin River near Vernalis, CA
11325500 Mokelumne River at Woodbridge, CA

Volume 4:

10356500 Susan River at Susanville, CA
11370500 Sacramento River at Keswick, CA
11447650 Sacramento River at Freeport, CA

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in areas where contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

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

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams and canals, and stage and contents of lakes and reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily readings on a nonrecording gage or from a water-stage recorder that gives a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in the U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For a stream-gaging station, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as weirs), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

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

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

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

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

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

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

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATIONS" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published, along with the current records, in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revision, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only the peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum of 1929, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 10.

Information pertaining to the accuracy of the discharge records, and to conditions that affect the natural flow at the gaging station, is given under "REMARKS"; for reservoir stations information on the dam forming in the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is also given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

Under "EXTREMES" are given": First, the extremes for the period of record; second, information available outside the period of record; and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest-stage gage, obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR CURRENT YEAR; if they are, all independent peaks (including the maximum for the year) above the selected base, with the time of occurrence and corresponding gage heights, are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively for the month. Discharge for the month also may

be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

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

For most gaging stations on lakes and reservoirs the data presented comprise a description of the the station and monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but it is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation by storage, increase or decrease due to artificial causes, or to other factors. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is on file in the District Office. Also, most gaging-station records are available in computer-usable form and many statistical analyses have been made. Information on the availability of unpublished data or statistical analyses may be obtained from the District Office.

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

Records of discharge collected by agencies other than the Geological Survey

Records of discharge not published by the Geological Survey have been collected at numerous sites by many other Federal, State, County, City, and local agencies and by private organizations. A listing of stream-gaging stations and the agencies operating them is published in California Department of Water Resources Bulletin 230-81, "Index to Sources of Hydrologic Data." The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

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

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

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations, listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District Office.

Ground-water quality normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site.

pH

At some stations, pH is measured on a continual basis. The results are reported as maximum, minimum, and mean values for each day and month. The mean pH values reported were computed from the pH values recorded by the monitor and is equal to the negative logarithm of the geometric mean of the hydrogen-ion activity.

Water temperature

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

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and month. Water temperatures taken at the time of discharge measurements are on file in the district office. They will be used, with all other temperature data for reports such as the open-file reports by subregion, "Water Temperature of California Streams, 1970."

Sediment

Suspended-sediment concentration and particle-size distribution data are determined from samples collected with depth-integrating samplers at one or more verticals across a measuring cross-section. The concentration data are then combined with water discharge data to compute suspended-sediment discharge. Samples of surface bed material are also collected and the particle-size distribution of these samples are published along with the suspended-sediment data. The sampling and computational methods used are in accordance with those described in the U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapters C1 and C3.

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

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

In addition to the records of suspended-sediment discharge, estimates of bedload and total-sediment discharge are included for some stations. Computations of monthly bedload discharges are based on the relation between instantaneous water discharge and corresponding bedload discharge for the station. Values of bedload discharge used in defining this relation are based on samples obtained by use of the Helley-Smith bedload sampler or by modified-Einstein or Meyer-Peter Muller computation procedures. Application of the bedload-transport relation at a station was made on a daily basis or subdivided-day basis. The Helley-Smith sampler is designed to collect a time-weighted sample for the sediment moving within 0.25 ft (0.076 m) of the stream-bed. Sediment moving in this portion of the flow cannot be sampled with standard suspended-sediment samplers. Calibration of the Helley-Smith sampler has not been completed, and a trap efficiency of 1.0 has been assumed applicable to this device. Error sources in the theoretical methods, based on analysis of bed-material characteristics, channel geometry, and associated hydraulic factors, are also undefined. In consequence, figures of bedload discharge must be used with caution. They are estimates, at best, and are subject to revision.

Turbidity

At some stations samples for the determination of turbidity were collected at the same frequency as samples collected for determination of suspended sediment. Turbidity, measured in Nephelometric turbidity units (NTU), is shown in relation to the concentration of sediment in the simultaneously collected sample.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water-level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on the grid system of latitude and longitude as shown in figure 2, and (2) a local number that is provided for continuity with older reports and for other use as dictated by local needs (fig. 3).

Measurements are made in many types of wells under various conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at a well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (lsd). National Geodetic Vertical Datum is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum referred to National Geodetic Vertical Datum is given in the well description. The height of the measuring point (MP above or below land-surface datum), if known, is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

In this report basin names and numbers, for example San Joaquin Valley (5-22), are from "California's Ground Water," California Department of Water Resources Bulletin No. 118, 1975, 135 p.

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehler, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

10290300 UPPER TWIN LAKE NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°09'15", long 119°20'58", in NW 1/4 NE 1/4 sec.5, T.3 N., R.24 E., Mono County, Hydrologic Unit 16050301, Toiyabe National Forest, at outlet of upper lake dam on Robinson Creek, and 10 mi southwest of Bridgeport.

DRAINAGE AREA.--29.5 mi².

PERIOD OF RECORD.--December 1961 to February 1964, September 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (project datum of U.S. Indian Irrigation Service).

REMARKS.--Contents regulated by dam at outlet. Figures given herein represent usable contents. Usable contents, 2,070 acre-ft between elevations 7,200 ft natural rim, and 7,207 ft, spillway crest.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 2,990 acre-ft July 7, 1983, elevation, 7,209.85 ft; minimum observed, 62 acre-ft Oct. 31, Nov. 1, 1964, elevation, 7,200.22 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--No usable contents Oct. 17, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,990 acre-ft July 7, elevation, 7,209.85 ft; minimum, 2,180 acre-ft Jan. 25-27, elevation, 7,207.35 ft.

ELEVATION NGVD AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,208.15	2,440	--
Oct. 31.....	7,208.03	2,400	-40
Nov. 30.....	7,207.65	2,280	-120
Dec. 31.....	7,207.52	2,240	-40
CAL YR 1982.....	--	--	+10
Jan. 31.....	--	g2,270	+30
Feb. 28.....	--	g2,260	-10
Mar. 31.....	--	g2,240	-20
Apr. 30.....	7,207.52	2,240	0
May 31.....	7,209.34	2,820	+580
June 30.....	7,209.45	2,860	+40
July 31.....	7,209.08	2,740	-120
Aug. 31.....	7,208.30	2,490	-250
Sept. 30.....	7,207.84	2,340	-150
WTR YR 1983.....	--	--	-100

g Interpolated.

10290400 LOWER TWIN LAKE NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°10'05", long 119°19'33", in NE 1/4 NE 1/4 sec.33, T.4 N., R.24 E., Mono County, Hydrologic Unit 16050301, Toiyabe National Forest, at outlet of lower lake dam on Robinson Creek, 8 mi southwest of Bridgeport.

DRAINAGE AREA.--38.9 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (project datum of U.S. Indian Irrigation Service).

REMARKS.--Contents regulated by dam at outlet and by Upper Twin Lake (station 10290300). Figures given herein represent usable contents. Usable contents, 4,010 acre-ft between elevations 7,190 ft natural rim, and 7,200 ft, spillway crest. One transarea diversion out of Tamarack Creek into Summers Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 5,560 acre-ft June 19, 1983, elevation, 7,203.58 ft; no usable contents Nov. 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 5,560 acre-ft June 19, elevation, 7,203.58 ft; minimum, 2,690 acre-ft Dec. 31, elevation, 7,196.73 ft.

ELEVATION NGVD AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	7,201.12	4,480	--
Oct. 31.....	--	g3,760	-720
Nov. 30.....	--	g3,240	-520
Dec. 31.....	7,196.75	2,700	-540
CAL YR 1982.....	--	--	-240
Jan. 31.....	7,200.60	4,260	+1,560
Feb. 28.....	7,200.22	4,100	-160
Mar. 31.....	--	g4,230	+130
Apr. 30.....	7,200.21	4,100	-130
May 31.....	7,202.61	5,130	+1,030
June 30.....	7,202.26	4,980	-150
July 31.....	7,201.59	4,680	-300
Aug. 31.....	7,199.77	3,920	-760
Sept. 30.....	7,197.05	2,820	-1,100
WTR YR 1983.....	--	--	-1,660

g Interpolated.

10292500 BRIDGEPORT RESERVOIR NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°19'30", long 119°12'40", in SE 1/4 NE 1/4 sec.34, T.6 N., R.25 E., Mono County, Hydrologic Unit 16050301, Toiyabe National Forest, at Bridgeport Dam on East Walker River, 4.5 mi north of Bridgeport.

DRAINAGE AREA.--358 mi².

PERIOD OF RECORD.--March 1926 to current year. Monthend contents only for some periods, published in WSP 1314.

REVISED RECORDS.--WSP 1180: 1949. WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (project datum).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1923. Dam completed in November 1924. Capacity, 42,460 acre-ft between elevations 6,415 ft, approximate elevation of outlet tunnel, and 6,460.75 ft, crest of spillway. There are four siphons that become operative prior to the water level reaching the crest of the spillway. Elevation of sill of outlet gate, 6,412 ft. No dead storage. Figures given herein represent total contents. Water is used for irrigation by Walker River Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,880 acre-ft June 16, 1974, elevation, 6,460.78 ft; no usable contents during fall of 1929-30, 1960, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,950 acre-ft Aug. 9, elevation, 6,460.16 ft; minimum, 8,510 acre-ft, May 14, elevation, 6,44.42 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

6,435	2,920	6,449	17,060
6,440	6,240	6,451	20,620
6,445	11,380	6,455	29,620
6,447	13,990	6,461	45,490

CONTENTS, IN ACRE FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35200	33730	29880	23700	28540	32310	23680	9770	18490	34870	42850	40060
2	35410	33250	29350	23620	28680	31800	23280	9610	19000	35330	42920	39920
3	35490	32770	28490	23660	28880	31140	22480	9460	19500	35990	42920	39740
4	35470	32260	27730	23770	29110	30360	21560	9430	19920	36550	42880	39570
5	35520	31720	26950	23850	29350	29640	20550	9330	20330	37240	42850	39400
6	35440	31310	26220	23980	29620	28950	19440	9220	20680	37700	42760	39200
7	35310	31330	25500	24140	29880	28330	18390	9050	21090	38150	42760	39040
8	35250	31500	25010	24300	30120	27550	17420	8990	21680	38260	42880	38790
9	35200	31920	24450	24430	30220	26790	16520	8970	22250	38400	42950	38540
10	35140	32360	24120	24560	30290	26050	15530	8960	22660	38710	42880	38350
11	35060	32740	23940	24750	30340	25340	14520	8890	23220	38870	42700	38150
12	35010	32840	23830	24920	30510	25010	13720	8690	23960	38900	42520	37900
13	34980	32940	23600	25100	30730	24990	13140	8540	24490	38740	42260	37540
14	34900	33070	23660	25300	30850	24730	12870	8510	24900	38570	42260	37240
15	34800	33090	23770	25520	31020	24260	12740	8590	25320	38120	42460	36900
16	34640	33070	23830	25690	31210	23750	12500	8810	25830	38850	42490	36630
17	34560	33120	23870	25960	31400	23140	12210	8950	26490	39430	42290	36280
18	34430	33650	23910	26240	31620	22620	11940	9020	27440	39800	42140	36070
19	34270	33780	24040	26350	31900	22830	11750	9170	28680	40120	42320	35730
20	34220	33430	24160	26500	32130	23370	11570	9340	29660	40510	42260	35490
21	34140	33040	24350	26840	32310	23790	11380	9620	30390	40880	42370	35360
22	34090	32560	24840	27140	32490	24220	11260	10070	30950	41350	42170	35120
23	34040	32230	24920	27370	32490	24660	11180	10680	31430	41670	41910	35010
24	34040	31950	24990	27710	32410	25080	11030	11270	32130	41880	41640	34870
25	34330	31600	24920	27900	32380	25430	10830	11890	32740	42080	41410	34690
26	34820	31260	25030	28240	32430	25120	10520	12620	33220	42230	41350	34540
27	34800	30920	24900	28380	32490	24640	10270	13530	33810	42340	41200	34300
28	34640	30560	24640	28400	32490	24300	10160	14520	34040	42490	40970	34270
29	34410	30390	24510	28380	---	24180	10100	15570	34250	42610	40740	34350
30	34250	30390	24240	28360	---	24040	9950	16760	34560	42700	40450	34330
31	34190	---	23960	28400	---	24100	---	17700	---	42670	40270	---
MAX	35520	33780	29880	28400	32490	32310	23680	17700	34560	42700	42950	40060
MIN	34040	30390	23600	23620	28540	22620	9950	8510	18490	34870	40270	34270
a	6457.03	6455.51	6452.66	6454.67	6456.36	6452.73	6443.77	6449.37	6457.17	6460.07	6459.25	6457.08
b	-950	-3800	-6430	+4440	+4090	-8390	-14150	+7750	+16860	+8110	-2400	-5940

CAL YR 1982 MAX 42790 MIN 15840 b +8250
WTR YR 1983 MAX 42950 MIN 8510 b -810

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°19'40", long 119°12'50", in SW 1/4 NE 1/4 sec.34, T.6 N., R.25 E., Mono County, Hydrologic Unit 16050301, Toiyabe National Forest, on right bank 1,500 ft downstream from Bridgeport Reservoir, 5 mi north of Bridgeport, and 10 mi upstream from Sweetwater Creek.

DRAINAGE AREA.--359 mi².

PERIOD OF RECORD.--July 1911 to September 1914 (gage heights only), October 1921 to current year. No winter record water years 1922, 1925.

REVISED RECORDS.--WSP 1927: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,400 ft, from topographic map. See WSP 2127 for history of changes prior to May 25, 1939.

REMARKS.--Records good. Diversions for irrigation of pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (station 10292500).

AVERAGE DISCHARGE (unadjusted).--60 years (water years 1923-24, 1926-83), 145 ft³/s, 105,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (water years 1922-83).--Maximum discharge, 1,390 ft³/s June 19, 1963, gage height, 4.64 ft; maximum gage height, 4.95 ft Jan. 22, 1943, top of surge; minimum daily discharge, 0.2 ft³/s on many days in 1955 and 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,110 ft³/s June 30, gage height, 3.93 ft; minimum daily, 22 ft³/s Jan. 16, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	515	458	258	85	397	728	402	868	860	609	451
2	251	512	554	167	62	508	748	379	868	865	617	447
3	251	512	654	114	27	523	758	378	868	872	642	448
4	251	508	654	104	27	601	754	378	867	872	663	446
5	251	509	658	104	27	564	744	376	687	916	654	427
6	251	431	652	90	27	525	776	375	961	1020	646	418
7	252	193	559	58	48	542	791	373	982	1090	633	396
8	251	56	477	57	130	617	781	372	982	1090	629	405
9	251	48	512	57	130	617	779	371	982	1090	732	426
10	250	44	358	54	130	612	774	372	987	1090	824	427
11	251	101	291	34	130	612	741	383	987	966	810	426
12	250	174	290	30	115	498	621	406	987	833	782	426
13	250	174	243	33	88	536	502	378	987	759	719	425
14	250	191	195	30	88	612	368	362	992	684	667	425
15	249	214	182	32	88	606	341	361	997	650	650	424
16	250	221	185	22	89	607	423	374	997	557	693	406
17	249	221	186	23	89	613	447	408	971	527	710	386
18	249	269	186	23	89	613	447	436	872	530	701	385
19	247	423	185	23	89	267	448	470	782	534	714	385
20	246	458	188	22	89	28	445	522	805	512	719	384
21	246	458	188	22	88	28	445	525	886	454	719	385
22	246	458	189	23	139	27	437	524	911	423	714	384
23	247	423	196	23	238	27	422	580	921	444	667	382
24	247	394	236	27	207	27	422	690	921	504	613	381
25	278	397	239	24	178	27	422	774	921	534	561	381
26	342	397	238	39	178	300	420	831	946	508	472	381
27	368	397	276	165	178	483	417	841	946	490	444	381
28	393	397	291	165	193	182	419	890	1000	494	440	380
29	409	334	290	165	---	182	418	935	1020	501	440	379
30	411	314	290	165	---	416	418	946	992	546	447	380
31	458	---	289	128	---	727	---	957	---	581	451	---
TOTAL	8645	9743	10389	2281	3046	12924	16656	16369	27893	21796	19782	12177
MEAN	279	325	335	73.6	109	417	555	528	930	703	638	406
MAX	458	515	658	258	238	727	791	957	1020	1090	824	451
MIN	246	44	182	22	27	27	341	361	687	423	440	379
AC-FT	17150	19330	20610	4520	6040	25630	33040	32470	55330	43230	39240	24150
CAL YR 1982	TOTAL	113252.4	MEAN 310	MAX 1000	MIN 4.8	AC-FT 224600						
WTR YR 1983	TOTAL	161701.0	MEAN 443	MAX 1090	MIN 22	AC-FT 320700						

WALKER LAKE BASIN

10295500 LITTLE WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION.--Lat 38°21'30", long 119°26'38", in NW 1/4 NW 1/4 sec.22, T.6 N., R.23 E., Mono County, Hydrologic Unit 16050302, Toiyabe National Forest, on right bank 0.8 mi north of Sonora Junction, 1.5 mi upstream from mouth, and 14 mi northwest of Bridgeport.

DRAINAGE AREA.--63.1 mi².

PERIOD OF RECORD.--April to August 1910, October 1944 to current year. Prior to October 1958, published as East Fork West Walker River near Bridgeport.

REVISED RECORDS.--WDR CA-82-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,790 ft, from topographic map. April to August 1910, nonrecording gage at site 1 mi upstream at different datum.

REMARKS.--Records good except those for winter periods and period of no gage-height record Mar. 31 to May 21, which are fair. Small diversions above station.

AVERAGE DISCHARGE.--39 years (water years 1945-83), 52.9 ft³/s, 38,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft³/s Jan. 31, 1963, gage height, 3.22 ft, from rating curve extended above 350 ft³/s on basis of slope-area measurement at gage height 2.80 ft; maximum gage height recorded, 3.63 ft Jan. 3, 1945, backwater from ice; minimum discharge, 1.4 ft³/s Nov. 20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 696 ft³/s May 28, gage height, 2.56 ft, no other peak above base of 200 ft³/s; minimum daily, 24 ft³/s Jan. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	54	28	28	25	28	51	72	433	328	197	89
2	52	50	26	28	26	31	55	71	373	341	192	82
3	49	47	26	28	27	32	53	82	364	354	188	71
4	46	46	26	29	26	31	49	94	359	359	176	66
5	45	45	27	28	27	30	46	90	382	392	167	62
6	44	44	27	28	28	31	43	90	392	382	164	61
7	43	42	28	28	27	31	42	96	406	377	171	60
8	42	40	29	28	25	31	44	104	406	307	177	59
9	41	39	30	27	27	33	47	110	417	264	187	56
10	40	43	30	27	27	34	48	112	417	229	183	54
11	39	45	30	26	27	35	47	100	462	225	160	52
12	38	45	30	26	29	37	46	102	433	235	144	52
13	38	45	30	26	32	61	45	110	396	260	138	51
14	39	44	30	26	37	55	45	120	396	291	166	52
15	38	43	31	26	29	54	46	150	401	287	158	51
16	37	43	32	27	29	51	52	170	406	253	144	50
17	36	38	32	27	28	47	56	175	417	232	139	51
18	35	55	30	28	28	42	60	190	392	215	130	48
19	35	51	30	26	36	38	66	230	382	199	148	47
20	36	52	31	25	32	36	70	270	377	190	130	45
21	36	48	32	25	29	35	68	310	364	182	122	45
22	46	43	31	24	28	33	78	364	359	190	112	50
23	44	41	29	25	29	33	82	408	382	193	104	51
24	47	40	34	26	28	31	78	451	392	187	97	49
25	77	38	35	26	28	32	70	487	373	182	91	49
26	93	39	35	27	28	33	65	515	387	171	86	47
27	59	38	35	27	28	33	64	535	368	171	83	49
28	53	37	33	28	26	33	70	582	341	182	78	51
29	54	34	32	29	---	37	73	590	328	185	72	57
30	77	31	28	28	---	47	74	571	332	187	67	58
31	63	---	29	26	---	51	---	506	---	201	84	---
TOTAL	1478	1300	936	833	796	1166	1733	7857	11637	7751	4255	1665
MEAN	47.7	43.3	30.2	26.9	28.4	37.6	57.8	253	388	250	137	55.5
MAX	93	55	35	29	37	61	82	590	462	392	197	89
MIN	35	31	26	24	25	28	42	71	328	171	67	45
AC-FT	2930	2580	1860	1650	1580	2310	3440	15580	23080	15370	8440	3300
CAL YR 1982	TOTAL	32567	MEAN	89.2	MAX	384	MIN	16	AC-FT	64600		
WTR YR 1983	TOTAL	41407	MEAN	113	MAX	590	MIN	24	AC-FT	82130		

10296000 WEST WALKER RIVER BELOW LITTLE WALKER RIVER, NEAR COLEVILLE, CA

LOCATION.--Lat 38°22'47", long 119°26'57", in NE 1/4 SE 1/4 sec.9, T.6 N., R.23 E., Mono County, Hydrologic Unit 16050302, Toiyabe National Forest, on right bank 150 ft downstream from Little Walker River, 60 ft upstream from bridge on U.S. Highway 395, and 13 mi southeast of Coleville.

DRAINAGE AREA.--181 mi².

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1958, published as "below East Fork."

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,591.39 ft National Geodetic Vertical Datum of 1929, supplementary adjustment of 1958. Oct. 1, 1939, to Sept. 30, 1969, at site 100 ft upstream at same datum. Prior to Oct. 1, 1939, at site 25 ft downstream at datum 1.00 ft higher.

REMARKS.--Records good. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poor Lake Reservoir (capacity unknown) 7 mi upstream.

AVERAGE DISCHARGE.--45 years, 265 ft³/s, 192,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,220 ft³/s Nov. 20, 1950, gage height, 8.10 ft, from rating curve extended above 1,900 ft³/s on basis of slope-area measurement of peak flow; minimum, 4.0 ft³/s Nov. 18, 1948, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed prior to 1938, 5,800 ft³/s Dec. 11, 1937, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,300 ft³/s June 5, gage height, 6.00 ft, no other peak above base of 1,120 ft³/s; minimum daily, 89 ft³/s Feb. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	290	108	108	95	117	176	248	1990	1720	1060	559
2	207	257	100	108	97	120	191	249	1590	1920	1010	482
3	188	234	100	109	101	117	180	288	1480	2080	1000	381
4	171	222	100	110	98	110	169	334	1530	1980	926	315
5	158	212	102	108	100	108	158	310	1640	2260	824	291
6	151	209	105	107	98	108	149	307	1880	2460	803	293
7	145	200	109	107	95	109	145	327	2010	2300	849	289
8	141	186	113	105	96	112	151	363	1940	1690	945	288
9	135	175	113	102	97	122	164	384	2040	1460	1020	273
10	129	184	113	101	95	125	167	389	2210	1170	945	246
11	126	173	113	100	101	130	162	347	2670	1190	784	228
12	122	170	113	99	108	137	155	354	2360	1280	704	225
13	119	162	113	100	118	237	156	377	1920	1460	706	221
14	118	154	115	99	122	230	155	422	1940	1660	750	225
15	119	153	117	100	109	202	162	530	2290	1710	756	224
16	115	149	124	102	103	186	181	595	2520	1370	681	213
17	110	147	120	99	101	174	199	611	2620	1150	623	223
18	105	187	115	100	89	162	209	665	2870	1100	575	210
19	106	184	113	91	115	151	231	806	2480	1020	665	191
20	106	185	119	94	118	144	248	943	2020	965	644	178
21	106	174	123	94	105	139	238	1090	1900	924	541	170
22	179	174	124	92	99	133	272	1340	1980	992	477	187
23	270	164	110	94	102	131	282	1530	2200	1060	439	204
24	324	154	138	100	102	129	266	1740	2260	975	398	191
25	693	142	144	100	102	127	242	1960	2070	960	369	179
26	730	137	150	100	104	123	225	2140	2110	915	354	170
27	377	138	135	101	106	125	222	2270	2010	909	338	172
28	312	139	129	108	106	125	246	2450	1860	988	322	165
29	284	135	121	110	---	132	251	2700	1820	1060	306	179
30	384	115	105	108	---	162	253	2720	1780	1070	299	202
31	342	---	109	100	---	177	---	2350	---	1080	425	---
TOTAL	6795	5305	3613	3156	2882	4404	6005	31139	61990	42878	20538	7374
MEAN	219	177	117	102	103	142	200	1004	2066	1383	663	246
MAX	730	290	150	110	122	237	282	2720	2870	2460	1060	559
MIN	105	115	100	91	89	108	145	248	1480	909	299	165
AC-FT	13480	10520	7170	6260	5720	8740	11910	61760	123000	85050	40740	14630
CAL YR 1982	TOTAL	171872	MEAN	471	MAX	2090	MIN	68	AC-FT	340900		
WTR YR 1983	TOTAL	196079	MEAN	537	MAX	2870	MIN	89	AC-FT	388900		

WALKER LAKE BASIN

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA

LOCATION.--Lat 38°30'55", long 119°27'15", in NW 1/4 NE 1/4 sec.28, T.8 N., R.23 E., Mono County, Hydrologic Unit 16050302, Toiyabe National Forest, on left bank 0.2 mi downstream from Rock Creek, and 5 mi southeast of Coleville.

DRAINAGE AREA.--250 mi².

PERIOD OF RECORD.--October 1902 to July 1908 (published as West Fork of Walker River near Coleville 1903, 1905-8 and as Walker River, West Fork, near Coleville 1904), March 1909 to September 1910, June 1915 to March 1938, May 1957 to current year. Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WSP 880: 1917 (runoff in acre-ft). WSP 1514: 1918, 1923. WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft from topographic map. See WSP 2127 for history of changes prior to Sept. 10, 1963.

REMARKS.--Records good. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poor Lake Reservoir (capacity unknown) 17 mi upstream.

AVERAGE DISCHARGE.--54 years (water years 1903-7, 1910, 1916-37, 1958-83), 280 ft³/s, 202,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s Dec. 11, 1937, from slope-area measurement of peak flow; minimum, 5 ft³/s Dec. 3, 1924, Aug. 27, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,540 ft³/s May 30, gage height, 4.83 ft, no other peak above base of 1,120 ft³/s; minimum daily, 98 ft³/s Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	306	135	117	108	159	179	255	2160	1750	1090	522
2	235	271	120	118	110	155	196	251	1790	1930	1020	471
3	219	252	110	119	118	153	189	288	1650	2090	1020	380
4	200	244	110	120	109	144	178	348	1760	1970	951	324
5	184	235	112	116	111	139	169	326	1820	2190	850	302
6	177	233	116	116	110	137	159	319	1950	2230	830	301
7	167	226	118	116	114	137	155	338	2060	2180	863	300
8	163	213	118	114	115	140	159	376	1940	1670	944	295
9	155	198	120	112	114	154	171	399	2010	1470	1010	286
10	148	210	120	110	110	155	175	407	2200	1170	979	267
11	144	197	120	108	116	161	171	365	2530	1220	811	250
12	138	192	120	108	129	166	165	368	2290	1350	729	246
13	135	185	125	109	147	255	165	397	1870	1560	729	242
14	135	175	132	108	129	249	166	453	1880	1750	753	242
15	137	176	130	110	131	226	171	580	2170	1800	779	242
16	132	170	141	112	126	210	185	706	2380	1460	704	231
17	128	170	137	110	124	200	207	734	2460	1210	639	238
18	114	207	130	108	121	184	212	827	2700	1150	589	231
19	110	221	129	98	122	172	229	1020	2370	1070	639	212
20	109	212	135	102	134	165	248	1200	1950	1020	645	203
21	107	201	145	102	128	160	237	1400	1890	965	551	197
22	155	202	147	100	124	150	264	1690	1940	1040	489	208
23	229	191	121	100	127	145	286	1950	2150	1100	449	224
24	317	180	150	110	128	146	269	2190	2150	1020	411	214
25	706	165	153	110	133	141	248	2490	2010	1000	383	203
26	802	159	172	110	133	134	236	2550	2100	951	370	193
27	429	161	159	116	138	135	230	2650	1990	931	352	198
28	334	161	139	123	138	136	247	2850	1850	1010	343	193
29	296	165	134	124	---	137	256	2950	1850	1080	326	199
30	391	155	117	121	---	165	257	2870	1780	1090	317	218
31	365	---	119	110	---	184	---	2460	---	1100	403	---
TOTAL	7310	6033	4034	3457	3447	5094	6179	36007	61650	43527	20968	7832
MEAN	236	201	130	112	123	164	206	1162	2055	1404	676	261
MAX	802	306	172	124	147	255	286	2950	2700	2230	1090	522
MIN	107	155	110	98	108	134	155	251	1650	931	317	193
AC-FT	14500	11970	8000	6860	6840	10100	12260	71420	122300	86340	41590	15530
CAL YR 1982	TOTAL	173547	MEAN	475	MAX	1980	MIN	75	AC-FT	344200		
WTR YR 1983	TOTAL	205538	MEAN	563	MAX	2950	MIN	98	AC-FT	407700		

10297000 TOPAZ LAKE NEAR TOPAZ, CA

LOCATION.--Lat 38°41'35", long 119°31'10", in NW 1/4 NE 1/4 sec.33, T.10 N., R.22 E., Douglas County, Nevada, Hydrologic Unit 16050301, at outlet of Topaz Lake on West Walker River, 5.5 mi north of Topaz.

PERIOD OF RECORD.--December 1921 to September 1931 (monthly contents only published in WSP 1734), October 1931 to current year.

GAGE.--Float and nonrecording gages read once daily. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, at datum 4.62 ft higher.

REMARKS.--Topaz Lake, formerly known as Alkali Lake and Topaz Reservoir, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in the rim of the lake. Storage began about December 1921. Usable capacity, 59,440 acre-ft between elevations 4,967.68 ft, lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation, 4,965.4 ft, and 5,000.38 ft, 3 ft below top of levee. Usable capacity of reservoir was increased from about 45,000 acre-ft to 59,440 acre-ft in October 1937 by an earthfill, rockfaced levee at south end. Figures given herein represent usable contents. There is 65,000 acre-ft of lake volume below the point of controllable storage. Water is used for irrigation in Walker River Irrigation District.

COOPERATION.--Elevations furnished by Walker River Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,680 acre-ft July 3, 1980, elevation, 5,000.92 ft, no usable contents at times in 1924, 1960, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 59,900 acre-ft Aug. 10, elevation, 5,000.58 ft; minimum contents observed, 15,560 acre-ft May 14, elevation, 4977.48 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

4,977	14,770	4,990	37,360
4,979	18,080	4,995	47,540
4,981	21,440	5,000	58,570
4,985	28,310	5,001	60,870

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45830	48600	45180	34800	42040	46540	32440	17270	38480	58090	59720	57340
2	46060	48350	44300	34730	42180	46120	31800	17050	39890	57860	59720	57390
3	46180	48070	43290	34730	42370	45280	31080	16840	39950	57730	59600	57410
4	46250	47810	42220	34750	42530	44300	30460	16570	39970	57610	59530	57270
5	46290	47490	40790	34870	42740	43210	29760	16450	41680	57840	59370	57050
6	46310	47240	39930	35080	43000	42080	29090	16260	42390	58050	59320	56890
7	46330	47070	39020	35220	43270	40970	28240	16090	43410	58270	59280	56620
8	46310	46900	38100	35350	43620	39790	27230	16040	44550	58320	59390	56350
9	46250	46790	37170	35480	43870	38580	26190	16040	45490	57840	59670	55810
10	46200	46860	36330	35620	44120	37480	25160	15980	46540	57110	59900	55290
11	46180	46880	35820	35840	44340	36330	24300	15980	47710	56230	59780	54550
12	46140	46900	35300	36140	44570	35430	23510	15890	49530	55580	59510	54130
13	46100	46920	34780	36400	44970	34400	22830	15700	50390	55360	59280	53750
14	46080	46920	34620	36650	45070	33800	22390	15560	50870	55650	59100	53460
15	46060	46860	34670	36940	45180	33000	22050	15600	51370	56190	59050	53290
16	46010	46840	34620	37260	45280	32240	21710	15650	52250	56820	59050	52840
17	45950	46790	34580	37530	45340	31440	21360	15860	53420	57180	58910	52360
18	45890	46820	34580	37820	45510	30840	20980	16020	54690	57360	58870	51830
19	45850	47320	34530	38150	45760	31080	20700	16310	55920	57590	58870	51310
20	45760	47320	34600	38390	45910	31550	20140	16800	56930	57840	59050	50650
21	45700	47260	34600	38660	46120	32070	19840	17720	57070	58180	59160	50070
22	45590	47130	34690	38920	46220	32570	19540	18720	57320	58430	59190	49570
23	45720	47010	35710	39650	46330	33140	19300	20060	57610	58750	59050	48820
24	45850	46770	35710	40160	46370	33690	19200	21660	57980	59070	58820	48350
25	46800	46520	35710	40910	46290	33960	19050	23360	58430	59050	58520	47900
26	48300	46220	35710	41470	46310	34360	18800	25420	58640	59050	58390	47450
27	49010	45950	35690	41650	46290	34970	18450	27440	58710	59210	58180	47010
28	49120	45590	35440	41860	46330	34780	18130	29670	58710	59320	58110	46690
29	49030	45340	35170	41900	---	34580	17850	32070	58570	59510	57930	46220
30	48750	45450	34910	41960	---	34310	17550	34600	58340	59670	57700	45760
31	48750	---	34820	41960	---	33220	---	36750	---	59670	57390	---
MAX	49120	48600	45180	41960	46370	46540	32440	36750	58710	59670	59900	57410
MIN	45590	45340	34530	34730	42040	30840	17550	15560	38480	55360	57390	45760
a	4995.57	4994.01	4988.65	4992.32	4994.43	4987.77	4978.68	4989.68	4999.90	5000.48	4999.48	4994.16
b	+3280	-3300	-10630	+7140	+4370	-13110	-15670	+19200	+21590	+1330	-2280	-11630
CAL YR 1982	MAX	59780	MIN	25430	b +9660							
WTR YR 1983	MAX	59900	MIN	15560	b +290							

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

CARSON RIVER BASIN

10308200 EAST FORK CARSON RIVER BELOW MARKLEEVILLE CREEK, NEAR MARKLEEVILLE, CA

LOCATION.--Lat 38°42'50", long 119°45'50", in SW 1/4 SE 1/4 sec.15, T.10 N., R.20 E., Alpine County, Hydrologic Unit 16050201, on right bank 0.5 mi downstream from Markleeville Creek and 1.5 mi northeast of Markleeville.

DRAINAGE AREA.--276 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft, from topographic map. Prior to Oct. 1, 1967, at present site at datum 2.00 ft higher.

REMARKS.--Records good. A few small diversions for irrigation above station. Flow slightly regulated by several small reservoirs, total capacity, about 5,000 acre-ft.

AVERAGE DISCHARGE.--23 years, 377 ft³/s, 273,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s Jan. 31, 1963, gage height, 10.21 ft, present datum; minimum daily, 9.5 ft³/s Nov. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0400	3,180	5.84	Mar. 13	1400	2,070	5.10
Nov. 18	2000	1,520	4.64	May 30	0100	*7,640	8.02

Minimum daily, 153 ft³/s Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	515	256	199	221	599	488	544	3800	2060	740	506
2	234	449	261	202	220	499	513	511	2830	2370	704	345
3	219	405	270	206	228	425	482	543	2400	2360	689	291
4	202	378	264	206	215	387	436	679	2420	2130	640	265
5	192	355	256	203	212	372	403	627	2580	2540	589	249
6	187	343	256	211	210	372	379	583	2940	2750	369	241
7	184	325	251	213	262	374	366	611	3140	2450	610	234
8	183	306	226	214	334	392	379	694	2890	1980	711	228
9	178	293	214	211	271	436	422	730	2900	1700	661	227
10	174	298	226	202	249	457	441	749	3410	1430	729	226
11	171	277	225	201	250	481	420	661	4650	1390	574	220
12	174	266	224	196	304	483	390	646	3530	1410	511	213
13	171	261	232	202	454	1480	382	678	2710	1540	475	210
14	166	259	208	201	343	952	364	774	2780	1610	512	207
15	175	251	223	201	315	676	361	973	3460	1550	533	181
16	171	245	225	202	301	578	379	1180	3740	1350	473	203
17	164	249	226	199	296	524	422	1150	4210	1210	442	200
18	158	693	213	198	320	483	442	1290	4250	1120	415	200
19	156	554	212	206	290	443	500	1620	3140	1040	447	187
20	158	376	233	184	294	419	552	1880	2620	970	428	188
21	153	320	349	184	296	403	533	2180	2460	927	397	183
22	203	316	629	262	296	382	585	2810	2630	941	363	205
23	296	292	487	255	315	366	634	3320	3020	938	337	213
24	436	275	339	447	330	371	592	4010	2930	884	314	214
25	1160	261	267	309	328	351	558	4520	2650	856	295	214
26	1790	248	282	289	327	338	527	4730	2670	808	280	234
27	662	255	271	332	319	337	504	5050	2460	785	282	280
28	494	260	250	268	319	339	525	5640	2270	789	267	229
29	440	285	240	263	---	335	556	6230	2250	808	259	255
30	780	273	202	245	---	411	563	5750	2140	793	248	317
31	645	---	198	227	---	519	---	4830	---	776	303	---
TOTAL	10725	9883	8215	7138	8119	14984	14098	66193	89880	44265	14797	7165
MEAN	346	329	265	230	290	483	470	2135	2996	1428	477	239
MAX	1790	693	629	447	454	1480	634	6230	4650	2750	740	506
MIN	153	245	198	184	210	335	361	511	2140	776	248	181
AC-FT	21270	19600	16290	14160	16100	29720	27960	131300	178300	87800	29350	14210
CAL YR 1982	TOTAL 244947	MEAN 671	MAX 6350	MIN 139	AC-FT 485900							
WTR YR 1983	TOTAL 295462	MEAN 809	MAX 6230	MIN 153	AC-FT 586000							

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA

LOCATION.--Lat 38°46'10", long 119°49'55", in NW 1/4 SE 1/4 sec.34, T.11 N., R.19 E., Alpine County, Hydrologic Unit 16050201, Toiyabe National Forest, on left bank 0.3 mi downstream from bridge on State Highway 88-89, 0.6 mi southwest of Woodfords, and 3.8 mi downstream from Willow Creek.

DRAINAGE AREA.--65.4 mi².

PERIOD OF RECORD.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1314. January 1890 to March 1892, June 1907 to September 1920 (except portions of 1910-11), at site 0.7 mi downstream; records not equivalent owing to diversions for irrigation.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,754.5 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, nonrecording gage at same site at different datum. Oct. 1, 1938, to Nov. 11, 1958, water-stage recorder at same site at datum 1.02 ft lower. Nov. 13, 1958, to Jan. 30, 1963, water-stage recorder at site 150 ft downstream at datum 3.06 ft lower.

REMARKS.--Records good. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs, total capacity, about 1,500 acre-ft.

AVERAGE DISCHARGE.--52 years (water years 1901-7, 1939-83), 114 ft³/s, 82,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,890 ft³/s Feb. 1, 1963, gage height, 9.0 ft, on basis of slope-area measurement of peak flow; minimum, about 5 ft³/s Dec. 23, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 11, 1937, reached a stage of 8.0 ft present datum, from floodmarks, discharge, 3,500 ft³/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0700	795	3.56
May 29	2000	*2,290	5.86

Minimum daily, 29 ft³/s Oct. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	156	57	62	61	60	116	154	1170	685	272	339
2	43	138	73	59	59	58	119	141	938	783	264	215
3	40	125	76	56	55	59	106	171	917	700	262	173
4	38	118	73	57	53	61	99	194	944	617	260	156
5	37	110	70	55	53	63	93	181	1010	677	244	142
6	35	109	68	55	51	63	89	187	1090	733	238	137
7	36	104	64	55	53	62	87	199	1130	700	246	129
8	37	93	58	55	52	63	91	220	1020	582	291	124
9	36	90	67	56	52	70	99	229	1030	492	298	120
10	34	91	62	55	52	75	102	237	1150	427	267	115
11	33	87	60	54	53	79	100	227	1510	413	245	107
12	33	85	60	53	56	81	94	236	1140	411	225	122
13	32	81	59	54	56	114	89	263	991	423	214	129
14	31	77	61	54	57	102	86	300	1010	435	221	120
15	32	76	52	54	59	110	85	356	1140	431	227	115
16	31	74	58	54	54	109	89	365	1160	383	206	110
17	30	73	59	54	55	105	101	376	1230	359	207	115
18	29	74	58	55	52	98	107	417	1190	348	207	86
19	29	73	58	52	56	92	124	501	946	336	213	80
20	29	94	58	56	57	88	139	572	868	322	202	79
21	29	91	54	57	56	86	129	680	849	303	201	75
22	47	91	49	54	54	79	147	832	883	304	185	82
23	103	82	47	52	57	78	174	910	928	306	174	82
24	149	76	57	53	62	76	154	1060	896	293	167	76
25	271	71	71	51	62	76	135	1150	861	288	162	73
26	390	67	75	52	59	71	125	1210	843	278	156	83
27	161	68	82	42	56	72	110	1490	805	274	150	115
28	122	70	75	51	60	69	111	1570	771	282	146	104
29	109	53	71	55	---	76	133	1720	753	281	142	107
30	187	44	81	54	---	94	146	1570	706	285	139	102
31	193	---	74	57	---	118	---	1470	---	281	175	---
TOTAL	2452	2641	1987	1683	1562	2507	3379	19188	29879	13432	6606	3612
MEAN	79.1	88.0	64.1	54.3	55.8	80.9	113	619	996	433	213	120
MAX	390	156	82	62	62	118	174	1720	1510	783	298	339
MIN	29	44	47	42	51	58	85	141	706	274	139	73
AC-FT	4860	5240	3940	3340	3100	4970	6700	38060	59260	26640	13100	7160
CAL YR 1982	TOTAL	67723	MEAN 186	MAX 898	MIN 29	AC-FT 134300						
WTR YR 1983	TOTAL	88928	MEAN 244	MAX 1720	MIN 29	AC-FT 176400						

PYRAMID AND WINNEMUCCA LAKES BASIN

10336600 UPPER TRUCKEE RIVER NEAR MEYERS, CA

LOCATION.--Lat 38°50'35", long 120°01'25", in NE 1/4 SE 1/4 sec.31, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank 0.4 mi upstream from mouth of Echo Lake outlet, 1.1 mi southwest of Meyers, and 2.5 mi upstream from Angora Creek.

DRAINAGE AREA.--33.1 mi².

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

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,321.89 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Some small diversions above station for domestic use.

AVERAGE DISCHARGE.--23 years, 66.9 ft³/s, 48,470 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s Feb. 1, 1963, gage height, 12.41 ft; minimum daily, 1.5 ft³/s Aug. 31 to Sept. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0315	542	8.03	June 11	0430	*1,160	9.69
Oct. 30	0915	243	6.47	Sept. 1	1030	225	6.16
May 29	2045	1,120	9.62				

Minimum daily, 14 ft³/s Oct. 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	76	33	28	27	44	50	55	588	430	121	133
2	24	61	33	27	26	38	50	55	493	544	116	73
3	22	52	33	27	26	35	46	67	482	470	112	55
4	20	47	33	27	26	32	42	82	508	468	103	47
5	18	43	32	27	25	32	40	71	555	511	94	42
6	18	42	32	27	25	32	39	68	608	524	91	38
7	19	39	32	27	32	34	39	77	638	469	93	35
8	19	36	31	27	33	36	41	91	588	381	115	34
9	18	34	30	27	29	39	45	99	582	318	113	32
10	17	34	29	26	27	41	45	98	644	280	98	30
11	17	31	29	26	27	42	43	91	874	280	93	29
12	16	31	30	26	29	43	40	99	638	296	81	28
13	16	29	30	26	36	127	39	109	584	302	75	27
14	16	29	29	26	31	89	38	132	618	307	86	27
15	16	27	29	26	29	65	38	168	685	281	94	25
16	15	26	28	26	27	57	41	185	692	239	76	24
17	15	27	31	26	27	52	44	188	740	217	70	24
18	14	57	30	26	30	48	48	217	682	201	65	22
19	14	49	29	26	29	45	54	264	552	188	76	21
20	14	40	33	26	27	43	62	293	520	175	66	21
21	15	37	40	27	27	42	63	345	518	169	62	20
22	21	40	36	27	28	41	75	420	561	172	58	24
23	55	38	35	27	30	39	75	467	604	165	53	27
24	65	35	34	27	31	39	63	517	575	157	49	26
25	196	34	33	27	31	37	57	569	553	149	45	24
26	250	33	33	30	30	36	53	629	539	139	42	26
27	98	33	32	29	31	36	51	652	498	136	39	32
28	72	38	31	28	31	35	54	743	486	135	37	27
29	67	38	30	28	---	35	56	839	487	134	35	39
30	187	33	29	27	---	40	57	777	444	133	33	47
31	108	---	29	27	---	55	---	701	---	127	57	---
TOTAL	1488	1169	978	834	807	1409	1488	9168	17536	8497	2348	1059
MEAN	48.0	39.0	31.5	26.9	28.8	45.5	49.6	296	585	274	75.7	35.3
MAX	250	76	40	30	36	127	75	839	874	544	121	133
MIN	14	26	28	26	25	32	38	55	444	127	33	20
AC-FT	2950	2320	1940	1650	1600	2790	2950	18180	34780	16850	4660	2100

CAL YR 1982	TOTAL	41034	MEAN	112	MAX	767	MIN	12	AC-FT	81390
WTR YR 1983	TOTAL	46781	MEAN	128	MAX	874	MIN	14	AC-FT	92790

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA

LOCATION.--Lat 38°55'22", long 119°59'23", in NW 1/4 SE 1/4 sec.4, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank on downstream side of U.S. Highway 50 bridge, 1.0 mi northeast of South Lake Tahoe Post Office, and 1.4 mi upstream from Lake Tahoe.

DRAINAGE AREA.--54.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to September 1974, October 1976 to June 1977, October 1977 to June 1978, March 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,231.04 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for December to February and July to August, which are fair. Two small dams may cause slight regulation at times. Some small diversions above station for domestic use.

AVERAGE DISCHARGE.--6 years, 128 ft³/s, 92,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s Feb. 16, 1982, gage height, 8.12 ft; minimum daily, 1.7 ft³/s on many days during September 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	1045	599	4.21	Mar. 13	1500	763	4.57
Oct. 30	1300	428	3.52	May 30	0345	*1,300	5.94
Nov. 18	Unknown	Unknown	Unknown	June 11	1130	1,270	5.87

Minimum daily, 22 ft³/s Oct. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	140	84	72	57	128	165	165	887	600	160	203
2	32	120	80	70	56	126	161	154	748	640	155	204
3	31	108	77	68	56	110	137	170	667	700	140	121
4	28	87	75	67	56	97	119	195	699	620	135	68
5	27	75	73	65	56	91	110	198	725	660	125	61
6	26	69	68	64	56	93	105	180	765	680	120	57
7	28	63	66	72	69	100	108	195	858	640	125	52
8	28	59	64	74	72	111	120	210	806	550	150	48
9	27	59	62	75	72	116	136	225	772	460	150	45
10	25	56	60	77	71	119	135	190	829	385	135	42
11	25	54	59	69	70	129	121	175	1090	370	125	40
12	24	53	56	71	80	134	110	190	949	385	110	39
13	24	69	56	65	95	564	106	202	811	400	100	38
14	24	88	56	62	90	393	101	225	800	405	110	37
15	24	74	58	52	82	228	105	280	860	370	125	36
16	22	66	57	52	78	183	119	309	900	330	105	34
17	22	64	68	53	76	157	131	300	970	290	92	33
18	22	205	73	53	75	138	138	338	936	260	83	32
19	23	170	64	53	77	122	159	405	840	240	95	30
20	23	103	75	53	76	113	177	454	755	225	96	29
21	24	87	120	53	73	110	174	511	722	220	86	30
22	32	89	107	53	72	102	205	616	760	225	81	33
23	58	91	100	56	76	103	204	701	800	215	76	40
24	71	77	94	60	81	97	173	769	790	205	71	39
25	196	70	90	64	76	93	160	834	749	190	67	37
26	369	67	86	65	76	93	145	927	710	180	61	36
27	185	66	83	64	78	97	136	910	660	175	56	46
28	140	87	81	63	84	94	159	997	650	175	52	37
29	118	100	79	62	---	94	173	1090	650	170	49	49
30	328	90	76	59	---	116	171	1120	690	170	46	64
31	194	---	74	58	---	202	---	1010	---	165	67	---
TOTAL	2235	2606	2321	1944	2036	4453	4263	14245	23848	11300	3148	1660
MEAN	72.1	86.9	74.9	62.7	72.7	144	142	460	795	365	102	55.3
MAX	369	205	120	77	95	564	205	1120	1090	700	160	204
MIN	22	53	56	52	56	91	101	154	650	165	46	29
AC-FT	4430	5170	4600	3860	4040	8830	8460	28250	47300	22410	6240	3290

CAL YR 1982	TOTAL	68098	MEAN	187	MAX	2010	MIN	18	AC-FT	135100
WTR YR 1983	TOTAL	74059	MEAN	203	MAX	1120	MIN	22	AC-FT	146900

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-74, 1978, 1980 to current year.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1972-74, 1978, 1980 to current year.

SEDIMENT RECORDS: Water years 1972-74, 1978, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1981 to September 1983 (discontinued).

WATER TEMPERATURES: March 1981 to September 1983 (discontinued).

SEDIMENT RECORDS: October 1971 to June 1974, October 1977 to June 1978, March 1980 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by Lahontan Regional Water Quality Control Board.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 187 micromhos Sept. 24, 1981; minimum recorded, 8 micromhos Apr. 25, 1981.

WATER TEMPERATURES: Maximum recorded, 26.0°C Aug. 18, 1982; minimum recorded, 0.0°C on many days in winter months.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 312 mg/L Dec. 29, 1973; minimum daily mean, 0 mg/L on several days during October 1973, January 1981, and October 1982.

SEDIMENT DISCHARGE: Maximum daily, 377 tons Apr. 11, 1982; minimum daily, 0 ton on several days during October 1973, January 1981, and October 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 130 micromhos May 18; minimum recorded, 17 micromhos Sept. 1, 2.

WATER TEMPERATURES: Maximum recorded, 19.0°C Sept. 5, 6, 12; minimum recorded, 0.0°C Dec. 1-15, 17.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 229 mg/L Mar. 13; minimum daily mean, 0 mg/L Oct. 15-20.

SEDIMENT DISCHARGE: Maximum daily, 349 tons Mar. 13; minimum daily, 0 ton Oct. 15-20.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	40	62	71	64	54	36	38	24	30	30	33
2	72	41	63	68	66	60	33	39	25	30	30	19
3	73	40	65	66	63	62	51	43	26	29	29	26
4	70	44	68	67	62	64	60	60	27	30	29	39
5	67	46	68	68	63	64	32	51	27	30	29	42
6	67	49	69	69	66	66	33	42	27	30	29	43
7	64	50	67	65	55	68	33	54	27	30	29	45
8	61	52	69	66	50	66	34	57	28	30	29	46
9	60	53	67	66	54	66	35	52	28	30	30	46
10	66	54	68	65	55	66	34	49	30	35	33	48
11	64	57	70	64	57	65	36	38	29	55	34	49
12	61	57	70	63	59	66	35	54	29	37	37	49
13	61	56	66	63	56	33	36	57	29	31	38	49
14	62	45	61	61	57	29	37	54	30	30	39	49
15	63	49	68	61	60	59	38	33	30	31	38	50
16	63	51	70	62	60	63	38	28	30	38	41	51
17	64	54	70	61	64	66	37	31	30	43	42	51
18	66	51	68	61	64	69	37	86	---	42	43	52
19	66	58	70	57	63	69	35	33	---	42	41	53
20	67	62	70	53	74	70	57	26	---	41	39	54
21	67	63	58	57	70	70	64	27	---	40	43	54
22	75	64	56	56	67	62	55	25	---	39	45	54
23	71	64	52	54	65	72	48	25	30	37	44	51
24	61	64	53	56	63	70	39	25	30	38	46	50
25	44	65	57	53	62	74	41	25	30	36	44	51
26	32	66	61	58	56	74	43	25	30	35	46	51
27	39	65	59	55	53	74	44	25	30	33	47	51
28	40	67	54	57	53	75	43	26	30	33	48	53
29	42	63	55	55	---	77	40	26	30	31	51	52
30	38	62	58	54	---	76	37	25	30	31	52	48
31	42	---	67	64	---	41	---	24	---	33	50	---
MONTH	60	55	64	61	61	64	41	39	29	35	39	47
YEAR	MAX	86	MIN	19	MEAN	50						

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	5.0	7.0	3.0	0.0	0.0	0.5	0.5	1.0	0.5	2.0	0.5
2	13.0	6.0	7.0	2.5	0.0	0.0	0.5	0.5	1.0	0.5	4.0	1.0
3	13.0	7.0	7.0	2.5	0.0	0.0	0.5	0.5	1.0	0.5	5.0	2.0
4	12.0	7.0	6.5	2.5	0.5	0.0	0.5	0.5	1.0	0.5	6.0	1.5
5	11.5	5.5	7.0	2.5	2.5	0.0	1.5	0.5	1.0	0.5	6.0	1.5
6	10.5	6.0	7.5	3.0	3.0	0.0	2.5	1.0	1.0	0.5	6.0	1.5
7	10.5	5.5	6.0	3.0	0.5	0.0	4.0	1.0	1.0	0.5	5.5	2.0
8	10.0	4.5	3.0	1.0	0.5	0.0	4.0	0.5	1.0	0.5	6.5	2.0
9	10.0	4.5	1.0	1.0	0.0	0.0	3.0	0.5	1.0	0.5	6.5	2.0
10	10.5	4.5	2.5	1.0	1.0	0.0	2.5	1.0	3.5	0.5	7.0	2.0
11	10.5	4.5	4.5	1.0	1.5	0.0	2.0	1.0	4.5	1.0	7.0	2.0
12	10.5	5.0	4.0	1.0	2.5	0.0	1.5	0.5	3.5	1.5	4.0	2.5
13	9.5	5.5	4.5	1.0	1.0	0.0	1.5	0.5	3.0	0.5	2.0	1.0
14	10.5	5.5	5.0	1.0	0.0	0.0	2.5	0.5	4.0	0.5	3.0	0.5
15	11.0	6.0	4.5	1.5	1.5	0.0	3.5	0.5	4.5	1.0	5.5	1.0
16	10.0	6.0	5.0	1.0	2.5	0.5	3.0	2.0	5.5	0.5	4.5	1.0
17	11.0	6.5	5.5	3.0	2.0	0.0	4.5	1.5	5.5	1.0	4.0	1.5
18	9.5	5.0	4.0	1.0	1.5	0.5	4.5	1.0	3.0	0.5	4.5	1.0
19	8.0	6.0	3.0	1.0	2.5	0.5	1.0	0.5	1.0	0.5	7.5	1.0
20	8.0	5.5	4.0	1.5	2.0	0.5	1.0	0.5	3.5	0.5	4.0	1.5
21	8.0	5.5	3.0	0.5	1.0	0.5	1.0	0.5	5.0	1.0	6.0	1.5
22	10.0	6.5	3.5	2.0	0.5	0.5	1.0	0.5	6.5	2.0	2.5	0.5
23	8.5	7.0	4.0	2.0	0.5	0.5	1.0	0.5	6.0	2.0	4.0	0.5
24	8.5	6.5	4.5	1.0	0.5	0.5	1.0	0.5	6.5	1.5	1.5	0.5
25	7.5	6.0	4.0	0.5	0.5	0.5	1.0	0.5	2.5	0.5	5.0	0.5
26	6.0	3.5	2.5	0.5	0.5	0.5	1.0	0.5	1.0	0.5	5.0	0.5
27	6.0	2.5	3.5	1.0	0.5	0.5	1.0	0.5	1.0	0.5	4.0	0.5
28	7.0	2.5	3.5	1.5	0.5	0.5	0.5	0.5	1.0	0.5	5.5	0.5
29	7.5	4.5	1.5	0.5	0.5	0.5	1.0	0.5	---	---	5.5	1.5
30	5.5	4.5	0.5	0.5	0.5	0.5	1.0	0.5	---	---	8.0	1.5
31	7.0	4.0	---	---	0.5	0.5	1.0	0.5	---	---	6.5	1.5
MONTH	13.0	2.5	7.5	0.5	3.0	0.0	4.5	0.5	6.5	0.5	8.0	0.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	1.0	6.0	2.0	7.5	3.0	9.0	6.5	17.0	10.5	15.0	11.0
2	7.5	1.5	11.0	2.0	7.0	3.5	11.0	6.5	17.0	10.5	17.5	11.5
3	4.5	1.0	11.0	2.0	8.5	3.5	11.0	5.0	16.5	10.0	18.0	11.0
4	4.5	0.5	7.0	2.5	9.5	4.0	12.5	7.0	16.5	9.5	18.0	10.0
5	6.0	0.5	7.0	2.0	10.5	4.0	11.5	7.0	17.0	9.5	19.0	11.0
6	7.5	0.5	10.5	1.0	9.5	4.0	11.5	8.0	17.5	10.5	19.0	12.0
7	8.5	0.5	10.5	2.0	8.0	4.5	10.5	7.0	15.5	12.0	18.5	11.5
8	9.0	1.5	9.5	2.0	8.5	4.0	10.0	6.5	14.5	11.5	18.0	11.0
9	8.0	1.5	10.5	1.5	11.0	3.5	9.0	6.0	17.0	11.5	18.5	10.0
10	7.0	2.0	7.5	2.0	10.0	4.0	9.5	6.5	15.5	12.0	18.0	10.0
11	5.5	1.0	11.5	2.5	10.5	5.0	12.0	7.0	17.5	10.5	18.5	10.5
12	7.0	1.0	10.5	2.5	10.5	3.5	13.5	8.0	16.0	10.0	19.0	11.0
13	6.0	1.0	11.0	2.5	11.0	4.0	13.5	8.0	16.0	10.5	18.0	11.5
14	6.0	1.0	11.0	2.0	10.5	4.5	13.5	8.5	12.5	10.0	18.5	10.0
15	7.5	1.0	11.0	3.0	10.5	5.0	12.5	7.5	16.5	10.5	18.0	10.0
16	8.5	2.0	10.5	4.0	10.5	4.0	12.0	6.5	17.0	10.0	18.0	11.0
17	6.5	2.0	11.0	4.0	11.0	4.5	12.5	7.0	14.5	10.5	18.5	11.5
18	9.0	2.0	9.0	3.5	---	---	12.0	6.5	14.0	9.5	17.0	11.0
19	8.0	2.0	8.0	5.0	---	---	12.5	7.0	14.0	10.5	17.0	10.0
20	5.5	2.0	8.0	4.5	---	---	12.0	6.0	15.0	8.5	16.0	9.0
21	7.0	2.5	8.0	4.0	---	---	13.5	7.5	13.5	9.5	15.0	9.5
22	8.5	2.0	9.0	4.5	---	---	14.5	8.5	16.0	10.5	13.0	10.5
23	4.0	0.5	8.5	4.0	10.5	4.5	13.5	7.5	17.5	9.5	12.5	10.0
24	4.5	0.5	8.0	4.5	10.5	4.5	14.0	8.5	18.0	10.0	13.5	8.0
25	7.0	0.5	9.0	4.0	11.5	5.0	14.0	8.5	17.5	9.5	14.5	7.5
26	6.5	1.5	8.5	4.0	11.0	4.5	14.0	8.0	17.5	9.5	12.0	9.0
27	6.0	2.0	9.0	4.0	11.0	4.5	15.0	8.5	17.5	10.0	12.5	7.0
28	8.0	2.0	8.5	4.5	10.5	4.5	15.5	9.0	18.0	10.0	11.5	8.5
29	8.5	1.5	10.0	4.5	10.5	5.5	16.0	10.0	17.5	10.0	10.0	7.0
30	8.5	2.5	10.5	3.0	10.5	5.5	16.5	10.5	17.5	10.0	9.0	6.5
31	---	---	10.0	3.5	---	---	16.0	11.0	14.5	11.5	---	---
MONTH	9.0	0.5	11.5	1.0	11.5	3.0	16.5	5.0	18.0	8.5	19.0	6.5

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	35	3	.28	140	12	4.5	84	6	1.4
2	32	3	.26	120	10	3.2	80	6	1.3
3	31	2	.17	108	9	2.6	77	6	1.2
4	28	2	.15	87	8	1.9	75	5	1.0
5	27	2	.15	75	8	1.6	73	5	.99
6	26	2	.14	69	7	1.3	68	5	.92
7	29	2	.15	63	7	1.2	66	6	1.1
8	28	2	.15	59	7	1.1	64	6	1.0
9	27	1	.07	59	8	1.3	62	6	1.0
10	25	1	.07	56	7	1.1	60	6	.97
11	25	1	.07	54	8	1.2	59	6	.96
12	24	1	.06	53	8	1.1	56	6	.91
13	24	1	.06	69	13	2.4	56	6	.91
14	24	1	.06	88	10	2.4	56	5	.76
15	24	0	0	74	8	1.6	58	5	.78
16	22	0	0	66	5	.89	57	5	.77
17	22	0	0	64	4	.69	68	9	1.7
18	22	0	0	205	105	58	73	9	1.8
19	23	0	0	170	50	23	64	10	1.7
20	23	0	0	103	13	3.6	75	23	4.7
21	24	1	.06	87	6	1.4	120	32	10
22	32	1	.09	89	6	1.4	107	65	19
23	58	25	6.4	91	8	2.0	100	60	16
24	71	35	6.7	77	6	1.2	94	25	6.3
25	196	106	58	70	6	1.1	90	15	3.6
26	369	134	144	67	6	1.1	86	12	2.8
27	185	25	12	66	6	1.1	83	9	2.0
28	140	12	4.5	87	10	2.3	81	7	1.5
29	118	12	3.8	100	16	4.3	79	6	1.3
30	328	139	138	90	9	2.2	76	6	1.2
31	194	30	16	---	---	---	74	6	1.2
TOTAL	2235	---	391.39	2606	---	132.78	2321	---	90.77

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	72	6	1.2	57	7	1.1	128	37	13
2	70	6	1.1	56	6	.91	126	19	6.5
3	68	6	1.1	56	6	.91	110	9	2.7
4	67	6	1.1	56	5	.76	97	7	1.8
5	65	5	.88	56	5	.76	91	7	1.7
6	64	5	.86	56	5	.76	93	7	1.8
7	72	5	.97	69	13	2.4	100	8	2.2
8	74	7	1.4	72	12	2.3	111	10	3.0
9	75	10	2.0	72	9	1.7	116	9	2.8
10	77	13	2.7	71	7	1.3	119	8	2.6
11	69	16	3.0	70	6	1.1	129	9	3.1
12	71	17	3.3	80	5	1.1	134	30	11
13	65	16	2.8	95	7	1.8	564	229	349
14	62	13	2.2	90	7	1.7	393	75	80
15	52	12	1.7	82	5	1.1	228	36	22
16	52	12	1.7	78	4	.84	183	18	8.9
17	53	12	1.7	76	3	.62	157	14	5.9
18	53	12	1.7	75	3	.61	138	12	4.5
19	53	11	1.6	77	3	.62	122	11	3.6
20	53	10	1.4	76	3	.62	113	10	3.1
21	53	9	1.3	73	4	.79	110	10	3.0
22	53	9	1.3	72	4	.78	102	10	2.8
23	56	9	1.4	76	4	.82	103	9	2.5
24	60	9	1.5	81	4	.87	97	9	2.4
25	64	12	2.1	76	4	.82	93	10	2.5
26	65	11	1.9	76	4	.82	93	10	2.5
27	64	10	1.7	78	4	.84	97	10	2.6
28	63	10	1.7	84	6	1.4	94	10	2.5
29	62	9	1.5	---	---	---	94	12	3.0
30	59	8	1.3	---	---	---	116	25	7.8
31	58	7	1.1	---	---	---	202	100	55
TOTAL	1944	---	51.21	2036	---	30.15	4453	---	615.8

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	165	30	13	165	7	3.1	887	18	43
2	161	18	7.8	154	7	2.9	748	25	50
3	137	14	5.2	170	13	6.0	667	27	49
4	119	10	3.2	195	17	9.0	699	24	45
5	110	8	2.4	198	18	9.6	725	21	41
6	105	7	2.0	180	17	8.3	765	19	39
7	108	8	2.3	195	18	9.5	858	15	35
8	120	13	4.2	210	22	12	806	13	28
9	136	23	8.4	225	29	18	772	11	23
10	135	20	7.3	190	26	13	829	14	31
11	121	13	4.2	175	21	9.9	1090	14	41
12	110	8	2.4	190	23	12	949	15	38
13	106	7	2.0	202	25	14	811	16	35
14	101	5	1.4	225	32	19	800	17	37
15	105	5	1.4	280	45	34	860	13	30
16	119	7	2.2	309	55	46	900	14	34
17	131	8	2.8	300	40	32	970	13	34
18	138	12	4.5	338	55	50	936	11	28
19	159	17	7.3	405	70	77	840	9	20
20	177	20	9.6	454	75	92	755	17	35
21	174	20	9.4	511	72	99	722	29	57
22	205	32	18	616	70	116	760	26	53
23	204	25	14	701	52	98	800	13	28
24	173	16	7.5	769	35	73	790	12	26
25	160	17	7.3	834	28	63	749	19	38
26	145	10	3.9	927	28	70	710	29	56
27	136	7	2.6	910	20	49	660	37	66
28	159	14	6.0	997	17	46	650	42	74
29	173	24	11	1090	16	47	650	41	72
30	171	12	5.5	1120	16	48	690	32	60
31	---	---	---	1010	17	46	---	---	---
TOTAL	4263	---	178.8	14245	---	1232.3	23848	---	1246
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	600	34	55	160	17	7.3	203	111	68
2	640	27	47	155	16	6.7	204	62	34
3	700	19	36	140	16	6.0	121	16	5.2
4	620	18	30	135	16	5.8	68	9	1.7
5	660	18	32	125	15	5.1	61	8	1.3
6	680	17	31	120	15	4.9	57	8	1.2
7	640	16	28	125	15	5.1	52	8	1.1
8	550	16	24	150	18	7.3	48	7	.91
9	460	17	21	150	42	17	45	7	.85
10	385	18	19	135	28	10	42	6	.68
11	370	20	20	125	19	6.4	40	6	.65
12	385	23	24	110	19	5.6	39	6	.63
13	400	24	26	100	19	5.1	38	5	.51
14	405	26	28	110	18	5.3	37	5	.50
15	370	28	28	125	17	5.7	36	4	.39
16	330	28	25	105	16	4.5	34	4	.37
17	290	27	21	92	14	3.5	33	4	.36
18	260	26	18	83	12	2.7	32	3	.26
19	240	25	16	95	10	2.6	30	3	.24
20	225	23	14	96	10	2.6	29	3	.23
21	220	21	12	86	9	2.1	30	3	.24
22	225	19	12	81	9	2.0	33	3	.27
23	215	19	11	76	8	1.6	40	4	.43
24	205	19	11	71	8	1.5	39	5	.53
25	190	18	9.2	67	8	1.4	37	4	.40
26	180	18	8.7	61	8	1.3	36	4	.39
27	175	18	8.5	56	8	1.2	46	6	.75
28	175	18	8.5	52	8	1.1	37	4	.40
29	170	17	7.8	49	8	1.1	49	5	.66
30	170	17	7.8	46	8	.99	64	8	1.4
31	165	17	7.6	67	8	1.4	---	---	---
TOTAL	11300	---	647.1	3148	---	134.89	1660	---	124.55
YEAR	74059.0		4875.74						

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
25...	0930	177	6.0	146	70	34	--	--	--	--
25...	1650	251	7.0	86	58	45	64	86	97	100
26...	1600	369	5.5	94	94	17	--	--	--	--
30...	1700	373	5.0	92	93	15	--	--	--	--
NOV										
18...	1530	242	3.0	154	101	49	--	--	--	--
DEC										
20...	2310	123	1.0	51	17	64	--	--	--	--
MAR										
13...	1105	668	1.0	300	541	47	66	86	96	100
14...	0035	556	0.5	118	177	28	--	--	--	--
MAY										
16...	1420	279	6.0	29	22	70	--	--	--	--
JUNE										
8...	1210	812	4.5	14	31	47	--	--	--	--

10336625 FALLEN LEAF LAKE NEAR CAMP RICHARDSON, CA

LOCATION.--Lat 38°54'00", long 120°04'14", in NE 1/4 SW 1/4 sec.11, T.12 W., R.17 E., El Dorado County, Hydrologic Unit 16050101, Eldorado National Forest, 200 ft north of Cathedral Creek, 1.5 mi south of Fallen Leaf Dam, 2.9 mi southwest of Camp Richardson, and 3.7 mi west of South Lake Tahoe Post Office.

DRAINAGE AREA.--16.7 mi².

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1973, published as "near Tahoe Valley."

GAGE.--Water-stage recorder. Datum of gage is 6,372.30 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Lake levels regulated by a concrete dam at the outlet constructed in 1934. Regulation is for maintenance of lake level and enhancement of fishery.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 5.85 ft Jan. 13, 1980; minimum, 1.79 ft Jan. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.29 ft May 30; minimum, 2.32 ft Jan. 15.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.40	3.28	2.78	2.46	2.57	2.80	2.61	2.60	4.10	3.82	4.13	3.77
2	3.37	3.13	2.73	2.44	2.53	2.76	2.63	2.59	3.90	4.02	4.12	3.85
3	3.32	3.02	2.67	2.42	2.51	2.73	2.61	2.58	3.78	4.06	4.12	3.82
4	3.27	2.93	2.64	2.40	2.48	2.68	2.57	2.60	3.75	4.04	4.10	3.76
5	3.24	2.87	2.61	2.39	2.47	2.65	2.55	2.63	3.75	4.07	4.08	3.68
6	3.19	2.80	2.56	2.37	2.60	2.62	2.52	2.62	3.74	4.15	4.05	3.62
7	3.19	2.73	2.52	2.36	2.72	2.63	2.50	2.61	3.74	4.12	4.03	3.51
8	3.13	2.71	2.48	2.35	2.70	2.60	2.48	2.60	3.72	4.02	4.08	3.45
9	3.09	2.67	2.45	2.35	2.69	2.58	2.46	2.61	3.73	3.87	4.08	3.45
10	3.06	2.66	2.44	2.35	2.66	2.57	2.46	2.63	3.84	3.72	4.07	3.44
11	3.04	2.62	2.43	2.33	2.62	2.57	2.45	2.63	4.05	3.64	4.03	3.44
12	3.00	2.60	2.43	2.33	2.65	2.68	2.44	2.63	3.98	3.68	3.98	3.43
13	2.96	2.57	2.43	2.33	2.67	3.08	2.44	2.65	3.90	3.77	3.90	3.41
14	2.92	2.54	2.39	2.33	2.63	3.02	2.43	2.68	3.85	3.85	3.87	3.40
15	2.89	2.50	2.36	2.32	2.60	2.94	2.41	2.77	3.87	3.90	3.85	3.39
16	2.86	2.47	2.34	2.33	2.57	2.88	2.40	2.84	3.91	3.88	3.82	3.37
17	2.81	2.47	2.39	2.33	2.53	2.85	2.40	2.89	3.96	3.83	3.77	3.35
18	2.78	2.76	2.38	2.39	2.61	2.80	2.40	2.97	3.99	3.84	3.70	3.31
19	2.76	2.79	2.35	2.39	2.58	2.73	2.42	3.06	3.88	3.87	3.67	3.28
20	2.72	2.74	2.49	2.38	2.55	2.69	2.47	3.15	3.77	3.92	3.62	3.26
21	2.74	2.68	2.68	2.37	2.52	2.66	2.48	3.26	3.70	3.97	3.57	3.24
22	2.75	2.68	2.87	2.52	2.49	2.68	2.51	3.38	3.70	4.02	3.51	3.27
23	3.04	2.64	2.84	2.53	2.47	2.69	2.59	3.53	3.79	4.06	3.46	3.26
24	3.13	2.62	2.77	2.69	2.45	2.69	2.65	3.65	3.87	4.07	3.42	3.25
25	3.87	2.58	2.71	2.67	2.59	2.66	2.65	3.78	3.90	4.08	3.40	3.24
26	4.25	2.54	2.67	2.70	2.62	2.62	2.63	3.88	3.89	4.10	3.38	3.23
27	3.97	2.52	2.63	2.72	2.65	2.65	2.62	3.98	3.86	4.10	3.38	3.21
28	3.70	2.59	2.58	2.67	2.72	2.62	2.63	4.10	3.83	4.10	3.37	3.21
29	3.54	2.69	2.55	2.68	---	2.57	2.63	4.26	3.81	4.11	3.37	3.21
30	3.63	2.82	2.51	2.65	---	2.60	2.62	4.29	3.79	4.12	3.35	3.20
31	3.46	---	2.49	2.61	---	2.64	---	4.24	---	4.13	3.45	---
MEAN	3.20	2.71	2.55	2.46	2.59	2.71	2.52	3.12	3.85	3.97	3.77	3.41
MAX	4.25	3.28	2.87	2.72	2.72	3.08	2.65	4.29	4.10	4.15	4.13	3.85
MIN	2.72	2.47	2.34	2.32	2.45	2.57	2.40	2.58	3.70	3.64	3.35	3.20

CAL YR 1982 MEAN 3.07 MAX 4.37 MIN 2.29

WTR YR 1983 MEAN 3.24 MAX 4.29 MIN 2.32

PYRAMID AND WINNEMUCCA LAKES BASIN

10336626 TAYLOR CREEK NEAR CAMP RICHARDSON, CA

LOCATION.--Lat 38°55'18", long 120°03'37", in NE 1/4 NW 1/4 sec.2, T.12 N., R.17 E., El Dorado County, Hydrologic Unit 16050101, Eldorado National Forest, on left bank 0.1 mi downstream from Fallen Leaf Lake outlet, and 1.4 mi southwest of Camp Richardson.

DRAINAGE AREA.--16.7 mi².

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1973, published as "near Tahoe Valley."

GAGE.--Water-stage recorder. Datum of gage is 6,361.08 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. Flow regulated by Fallen Leaf Lake Dam (station 10336625).

AVERAGE DISCHARGE (unadjusted).--15 years, 48.6 ft³/s, 35,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft³/s Jan. 14, 1980, gage height, 6.33 ft; minimum daily, 0.20 ft³/s Oct. 4-7, 1970, Sept. 4-6, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 433 ft³/s May 30, gage height, 4.97 ft; minimum daily, 7.7 ft³/s Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	184	67	29	35	58	41	37	395	224	97	11
2	37	155	58	27	32	58	42	36	354	239	96	50
3	34	127	51	26	30	52	38	35	315	257	95	82
4	32	103	45	24	27	47	35	37	302	275	93	79
5	29	69	40	23	26	43	33	39	298	292	90	77
6	28	71	36	22	27	40	31	39	299	315	89	75
7	26	62	32	21	42	39	29	39	300	352	87	73
8	24	56	29	21	50	40	27	40	296	311	87	38
9	22	52	27	20	49	35	27	38	293	272	93	20
10	22	48	26	20	45	33	26	39	302	245	92	20
11	25	44	24	19	41	34	25	40	360	195	89	20
12	30	32	23	19	40	36	24	40	371	139	99	20
13	29	33	24	18	44	94	24	41	345	142	111	20
14	29	32	23	18	40	112	23	45	324	155	102	20
15	27	32	24	18	39	92	23	51	325	166	101	20
16	27	29	23	18	34	77	22	64	333	167	97	20
17	28	28	24	18	31	69	22	75	341	152	91	19
18	26	44	23	18	35	62	22	88	355	112	85	19
19	23	64	23	22	36	54	22	106	338	87	83	19
20	23	60	25	22	33	50	24	134	309	68	78	19
21	24	53	41	21	30	46	26	164	288	73	73	18
22	26	49	67	23	29	45	28	207	281	80	69	19
23	31	47	78	29	27	46	31	248	270	87	64	19
24	50	43	68	45	26	49	39	280	273	90	47	18
25	92	39	59	46	27	46	43	310	279	92	36	18
26	224	36	52	47	39	42	41	325	283	93	21	18
27	318	34	46	51	43	42	39	341	279	94	10	25
28	268	36	41	46	45	41	40	365	274	94	9.4	28
29	225	45	37	46	---	37	40	394	256	95	7.7	44
30	212	67	33	43	---	35	40	422	236	96	9.3	66
31	213	---	31	39	---	40	---	421	---	97	9.1	---
TOTAL	2253	1774	1200	859	1002	1594	927	4540	9274	5156	2210.5	994
MEAN	72.7	59.1	38.7	27.7	35.8	51.4	30.9	146	309	166	71.3	33.1
MAX	318	184	78	51	50	112	43	422	395	352	111	82
MIN	22	28	23	18	26	33	22	35	236	68	7.7	11
AC-FT	4470	3520	2380	1700	1990	3160	1840	9010	18390	10230	4380	1970
CAL YR 1982	TOTAL	29523.0	MEAN	80.9	MAX	398	MIN	5.4	AC-FT	58560		
WTR YR 1983	TOTAL	31783.5	MEAN	87.1	MAX	422	MIN	7.7	AC-FT	63040		

10336645 GENERAL CREEK NEAR MEEKS BAY, CA

LOCATION.--Lat 39°03'07", long 120°07'03", in NE 1/4 NE 1/4 sec.20, T.14 N., R.17 E., El Dorado County, Hydrologic Unit 16050101, on right bank 200 ft upstream from State Highway 89, 1.1 mi north of Meeks Bay, and 0.4 mi upstream from Lake Tahoe.

DRAINAGE AREA.--7.44 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,250.38 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter months, which are fair. No known diversion or regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 765 ft³/s Dec. 20, 1981, gage height, 5.43 ft; minimum daily, 0.53 ft³/s Sept. 10, 1981.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0345	291	3.08	June 11	0200	323	3.11
May 29	2045	*335	3.24				

Minimum daily, 1.9 ft³/s Sept 16-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	25	11	13	8.0	16	25	17	165	101	8.5	19
2	4.8	18	11	11	7.8	15	22	16	138	138	7.5	13
3	4.5	15	11	11	7.5	14	19	19	147	107	6.8	7.5
4	4.1	13	11	10	7.5	13	17	27	185	109	6.0	5.5
5	3.8	12	11	9.9	7.5	12	16	25	180	110	5.6	4.5
6	3.7	11	11	9.4	7.5	12	15	22	173	106	5.5	3.9
7	4.1	10	10	9.0	8.2	12	15	23	164	91	5.2	3.1
8	4.4	9.6	9.8	8.9	8.5	13	15	29	162	71	5.3	2.9
9	4.4	9.5	9.5	8.9	8.6	13	16	30	169	55	5.0	2.7
10	4.1	9.4	8.9	8.9	8.9	14	16	30	191	49	5.0	2.7
11	3.9	8.9	8.7	8.5	8.6	15	15	27	241	57	4.8	2.5
12	3.6	8.5	8.4	8.4	10	16	15	31	162	61	4.4	2.3
13	3.5	8.2	8.4	8.4	15	61	14	37	158	59	4.0	2.1
14	3.4	8.0	8.9	8.4	13	62	14	45	171	56	4.3	2.1
15	3.3	7.7	9.4	8.4	11	38	13	61	189	48	6.6	2.1
16	3.1	7.5	9.4	8.4	11	30	14	66	177	40	6.0	1.9
17	3.1	7.7	11	8.4	10	25	14	64	199	35	4.7	1.9
18	3.1	25	9.1	8.5	10	22	15	72	171	29	4.2	1.9
19	3.1	22	8.9	8.6	9.6	20	17	86	136	27	5.3	1.9
20	3.1	15	12	8.6	9.4	19	19	97	131	25	5.2	1.9
21	3.3	13	22	8.7	9.4	18	21	113	135	21	4.7	1.9
22	4.6	12	17	8.8	9.4	17	24	144	152	21	4.7	3.1
23	17	12	16	8.9	9.8	15	25	176	156	20	4.2	3.4
24	15	11	15	9.1	10	15	22	187	145	17	3.6	3.6
25	60	11	15	10	10	14	21	206	141	16	3.2	3.4
26	122	11	15	11	10	13	18	213	133	14	2.9	3.1
27	35	10	15	10	10	13	17	223	124	13	2.7	3.1
28	23	12	15	9.5	10	13	17	230	121	12	2.5	4.2
29	20	13	14	9.0	---	13	18	259	122	11	2.4	7.5
30	64	12	14	8.5	---	14	18	218	110	10	2.3	12
31	41	---	13	8.2	---	30	---	201	---	9.6	3.1	---
TOTAL	481.1	368.0	369.4	286.3	266.2	617	527	2994	4748	1538.6	146.2	130.7
MEAN	15.5	12.3	11.9	9.24	9.51	19.9	17.6	96.6	158	49.6	4.72	4.36
MAX	122	25	22	13	15	62	25	259	241	138	8.5	19
MIN	3.1	7.5	8.4	8.2	7.5	12	13	16	110	9.6	2.3	1.9
AC-FT	954	730	733	568	528	1220	1050	5940	9420	3050	290	259

CAL YR 1982	TOTAL	10673.4	MEAN	29.2	MAX	414	MIN	1.5	AC-FT	21170
WTR YR 1983	TOTAL	12472.5	MEAN	34.2	MAX	259	MIN	1.9	AC-FT	24740

PYRAMID AND WINNEMUCCA LAKES BASIN

10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1981 to current year.

SEDIMENT RECORDS: Water years 1981 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1983 (discontinued).

WATER TEMPERATURES: October 1980 to September 1983 (discontinued).

SEDIMENT RECORDS: October 1980 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 65 micromhos Sept. 25, 1981; minimum recorded, 7 micromhos several days during May 1982.

WATER TEMPERATURES: Maximum recorded, 24.0°C July 2, 1981; minimum recorded, 0.0°C on many days in most years.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 266 mg/L Dec. 20, 1981; minimum daily mean, 0 mg/L on many days in most years.

SEDIMENT DISCHARGE: Maximum daily, 457 tons Dec. 20, 1981; minimum daily, 0 ton on many days in most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 57 micromhos Sept. 19, 20, 22; minimum recorded, 7 micromhos May 29, July 1, 2.

WATER TEMPERATURES: Maximum recorded, 14.0°C July 30 to Aug. 6, 9; minimum recorded, 0.0°C many days.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 40 mg/L Oct. 26; minimum daily mean, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 23 tons Oct. 26; minimum daily, 0 ton on many days.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	27	30	40	37	33	31	35	15	8	32	34
2	36	27	31	40	37	33	31	36	17	8	34	28
3	36	29	31	41	37	34	32	34	17	10	35	34
4	39	30	30	41	36	37	32	31	15	9	36	39
5	39	31	30	40	36	38	33	31	12	10	38	42
6	40	32	30	40	38	38	33	32	14	10	39	45
7	40	32	30	40	36	38	34	32	13	10	41	47
8	41	33	29	40	36	37	34	30	13	10	43	48
9	42	33	37	39	34	37	33	29	12	11	46	49
10	44	34	44	39	36	36	33	27	12	11	47	50
11	44	34	45	39	36	35	33	28	12	11	47	51
12	47	36	44	39	37	35	33	28	12	11	48	53
13	47	36	43	39	34	30	34	27	12	11	50	53
14	48	37	44	38	35	28	34	25	12	11	51	53
15	49	37	44	38	35	30	34	22	11	11	48	53
16	49	37	44	38	36	30	35	19	12	12	46	54
17	49	37	43	38	37	31	34	20	12	13	48	55
18	51	35	43	38	35	31	34	20	12	13	50	55
19	51	32	44	37	34	32	34	21	13	14	51	55
20	52	31	42	37	37	32	32	18	10	14	48	55
21	54	31	39	37	37	33	32	18	12	15	49	55
22	54	30	40	37	37	33	32	20	12	15	45	56
23	43	31	40	37	38	34	32	19	11	15	43	55
24	36	31	39	36	36	33	32	18	12	16	45	52
25	30	31	40	35	35	34	32	18	12	21	46	51
26	23	30	41	36	34	34	33	17	13	26	46	51
27	23	30	41	36	34	34	34	15	12	27	48	51
28	24	30	40	37	33	34	35	9	12	28	49	50
29	24	30	41	38	---	34	35	8	12	29	50	43
30	24	30	41	37	---	34	36	12	10	30	51	32
31	25	---	41	38	---	31	---	13	---	31	51	---
MONTH	40	32	39	38	36	34	33	23	13	15	45	48
YEAR	MAX	56	MIN	8	MEAN	33						

10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.0	4.5	3.5	2.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0
2	7.5	5.0	3.5	2.5	0.5	0.5	0.5	0.0	1.0	0.5	1.5	0.5
3	7.5	5.5	3.5	2.5	1.0	0.5	0.5	0.0	1.0	0.5	1.5	1.0
4	7.0	5.5	3.0	2.0	1.0	0.5	1.0	0.5	1.0	0.5	2.0	1.0
5	7.0	4.5	3.5	2.0	1.5	1.0	1.0	0.5	1.0	0.5	2.0	1.0
6	6.5	4.5	3.5	2.5	1.5	1.0	1.5	1.0	1.0	0.5	2.0	1.0
7	6.0	4.5	3.5	2.5	1.0	0.5	1.5	1.0	1.0	0.5	2.0	1.0
8	5.5	4.0	2.5	1.0	0.5	0.5	1.5	1.0	1.5	0.5	2.0	1.0
9	6.0	4.5	1.0	0.5	0.5	0.0	1.0	0.5	1.5	1.0	2.0	1.0
10	6.5	4.5	1.5	1.0	0.5	0.0	1.0	0.5	2.0	1.0	2.5	1.0
11	6.0	4.0	1.5	0.5	1.0	0.5	0.5	0.0	2.0	1.5	2.0	1.0
12	6.5	4.5	2.0	0.5	1.5	0.0	0.5	0.0	2.0	1.0	1.5	1.0
13	6.5	4.5	1.5	0.5	0.5	0.0	0.5	0.0	1.0	0.5	0.5	0.0
14	6.5	4.5	1.5	0.5	0.5	0.0	0.5	0.0	1.5	0.5	0.5	0.0
15	6.5	5.0	1.5	0.5	1.0	0.5	1.5	0.5	2.0	1.0	1.5	0.0
16	6.5	4.5	1.5	0.5	1.5	1.0	1.5	1.5	2.0	1.0	1.5	0.5
17	6.5	4.5	2.5	1.5	1.0	0.5	2.0	1.5	2.0	1.0	1.5	0.5
18	5.5	4.0	2.0	0.5	1.0	0.0	2.0	0.5	2.0	0.5	1.5	0.5
19	5.5	4.5	1.0	0.5	0.5	0.0	0.5	0.0	1.0	0.5	2.0	0.0
20	6.0	4.5	1.5	1.0	1.0	0.5	0.5	0.0	2.0	0.5	1.5	1.0
21	6.5	4.5	1.0	0.5	0.5	0.0	0.5	0.5	2.0	1.0	2.0	1.0
22	7.0	5.5	1.5	1.0	0.0	0.0	0.5	0.5	2.5	1.5	1.0	0.0
23	7.0	6.0	2.5	1.5	0.0	0.0	1.0	0.5	2.5	1.5	1.5	0.0
24	7.0	5.5	2.0	1.5	0.0	0.0	1.0	0.5	2.0	1.0	1.0	0.0
25	6.5	5.5	2.0	1.0	0.0	0.0	0.5	0.5	1.5	0.0	1.0	0.0
26	5.5	3.0	2.0	0.5	0.5	0.0	1.0	0.5	0.5	0.0	1.5	0.0
27	3.0	2.5	2.5	1.0	1.0	0.5	1.0	0.5	1.0	0.0	1.5	0.5
28	3.5	2.5	2.5	1.0	0.5	0.0	1.0	0.5	1.0	0.5	2.0	0.5
29	4.5	3.5	1.0	0.5	0.5	0.0	1.0	0.5	---	---	2.5	1.0
30	4.5	3.5	0.5	0.5	0.5	0.0	1.0	0.5	---	---	3.0	1.5
31	4.0	3.5	---	---	0.0	0.0	0.5	0.5	---	---	2.0	0.5
MONTH	7.5	2.5	3.5	0.5	1.5	0.0	2.0	0.0	2.5	0.0	3.0	0.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.5	0.5	2.5	1.0	3.5	1.0	7.0	3.5	14.0	10.0	11.0	9.0
2	2.5	1.0	3.5	1.5	3.5	1.5	7.5	3.5	14.0	10.0	11.5	8.5
3	2.0	0.5	4.0	1.0	5.0	1.5	8.5	3.0	14.0	10.0	11.5	8.5
4	2.5	0.5	2.5	1.0	5.0	1.5	9.0	4.0	14.0	9.5	11.0	8.0
5	2.0	0.5	3.0	1.0	5.5	1.0	8.5	4.5	14.0	9.5	11.5	8.5
6	2.5	0.5	4.0	0.5	5.0	1.5	9.0	4.5	14.0	10.0	12.0	8.5
7	3.0	0.5	4.5	1.0	4.0	1.5	8.0	4.5	13.0	11.0	12.0	8.5
8	3.5	1.0	4.0	1.0	4.5	1.5	6.5	4.5	13.0	11.0	11.5	9.0
9	3.5	1.0	4.0	1.0	6.0	1.5	6.5	3.5	14.0	10.0	11.0	8.0
10	3.0	1.0	3.0	1.0	5.5	1.5	8.5	4.0	13.0	11.0	11.0	7.5
11	2.0	0.5	4.5	1.0	5.0	1.5	9.0	5.0	13.5	9.5	11.0	7.5
12	2.5	0.5	4.0	1.0	6.0	1.5	10.0	6.0	13.5	9.5	11.5	8.0
13	3.0	1.0	4.0	1.0	6.0	1.5	10.0	6.0	13.0	10.0	11.5	8.5
14	2.5	0.5	4.0	1.0	6.0	1.5	10.5	6.5	11.5	10.0	11.0	8.0
15	3.0	1.0	3.5	0.5	7.0	1.5	10.0	6.5	12.5	10.0	11.0	7.5
16	3.0	1.5	3.5	0.5	7.0	2.5	9.5	6.5	13.5	9.5	11.5	8.0
17	3.0	1.5	4.0	1.0	7.0	2.5	10.0	6.5	12.0	10.0	11.5	8.5
18	3.5	1.5	4.0	0.5	7.0	2.5	9.5	6.5	12.0	9.0	10.5	8.0
19	4.0	1.5	3.5	0.5	7.0	2.0	10.0	7.0	12.0	10.0	10.0	7.5
20	2.5	1.5	3.5	0.5	7.0	2.5	10.0	6.5	12.5	9.5	9.5	7.0
21	3.5	1.5	4.0	0.5	7.5	2.5	11.0	7.5	11.0	9.0	9.5	7.0
22	3.5	1.5	3.5	0.5	7.5	2.5	12.0	8.5	11.0	9.0	8.5	8.0
23	2.0	0.5	3.0	0.5	7.0	2.5	11.5	8.0	11.5	8.0	8.5	7.5
24	1.0	0.0	3.5	0.5	7.5	3.0	12.0	8.5	11.5	8.0	9.0	7.0
25	2.0	0.0	3.5	0.5	8.0	3.0	12.0	8.5	11.5	8.0	9.5	7.0
26	2.5	0.5	3.5	0.5	7.5	2.5	12.0	8.0	11.5	7.5	9.0	7.5
27	2.0	1.0	4.0	1.0	8.0	3.0	12.5	8.5	11.5	8.0	9.0	6.5
28	2.5	1.0	3.0	1.0	7.5	3.0	13.0	8.5	11.5	8.0	9.0	7.5
29	2.5	1.0	4.0	1.0	7.5	3.5	13.5	9.0	11.5	8.0	7.5	6.5
30	3.0	1.0	4.5	1.0	7.5	3.5	14.0	10.0	11.5	8.0	7.0	6.5
31	---	---	4.5	1.0	---	---	14.0	10.5	11.0	9.0	---	---
MONTH	4.0	0.0	4.5	0.5	8.0	1.0	14.0	3.0	14.0	7.5	12.0	6.5

10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5.1	0	0	25	2	.14	11	1	.03
2	4.8	0	0	18	2	.10	11	1	.03
3	4.5	0	0	15	2	.08	11	1	.03
4	4.1	0	0	13	2	.07	11	1	.03
5	3.8	0	0	12	2	.06	11	1	.03
6	3.7	0	0	11	2	.06	11	1	.03
7	4.1	0	0	10	2	.05	10	1	.03
8	4.4	0	0	9.6	2	.05	9.8	2	.05
9	4.4	0	0	9.5	2	.05	9.5	2	.05
10	4.1	0	0	9.4	2	.05	8.9	2	.05
11	3.9	0	0	8.9	2	.05	8.7	2	.05
12	3.6	0	0	8.5	2	.05	8.4	2	.05
13	3.5	0	0	8.2	3	.07	8.4	1	.02
14	3.4	0	0	8.0	5	.11	8.9	1	.02
15	3.3	0	0	7.7	7	.15	9.4	1	.03
16	3.1	0	0	7.5	6	.12	9.4	1	.03
17	3.1	0	0	7.7	5	.10	11	1	.03
18	3.1	0	0	25	7	.47	9.1	1	.02
19	3.1	0	0	22	6	.36	8.9	1	.02
20	3.1	0	0	15	5	.20	12	2	.06
21	3.3	0	0	13	4	.14	22	2	.12
22	4.6	1	.01	12	3	.10	17	2	.09
23	17	4	.18	12	2	.06	16	2	.09
24	15	0	0	11	2	.06	15	2	.08
25	60	17	3.7	11	1	.03	15	2	.08
26	122	40	23	11	1	.03	15	2	.08
27	35	4	.38	10	1	.03	15	2	.08
28	23	2	.12	12	1	.03	15	2	.08
29	20	1	.05	13	1	.04	14	2	.08
30	64	6	1.0	12	1	.03	14	2	.08
31	41	2	.22	---	---	---	13	4	.14
TOTAL	481.1	---	28.66	368.0	---	2.94	369.4	---	1.69

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	13	3	.11	8.0	0	0	16	0	0
2	11	2	.06	7.8	0	0	15	0	0
3	11	2	.06	7.5	0	0	14	0	0
4	10	1	.03	7.5	0	0	13	0	0
5	9.9	1	.03	7.5	0	0	12	0	0
6	9.4	1	.03	7.5	0	0	12	0	0
7	9.0	1	.02	8.2	0	0	12	0	0
8	8.9	0	0	8.5	0	0	13	0	0
9	8.9	0	0	8.6	0	0	13	0	0
10	8.9	0	0	8.9	0	0	14	0	0
11	8.5	0	0	8.6	0	0	15	0	0
12	8.4	0	0	10	0	0	16	1	.04
13	8.4	0	0	15	1	.04	61	21	3.5
14	8.4	0	0	13	1	.04	62	5	.84
15	8.4	0	0	11	1	.03	38	2	.21
16	8.4	0	0	11	0	0	30	2	.16
17	8.4	0	0	10	0	0	25	1	.07
18	8.5	0	0	10	0	0	22	1	.06
19	8.6	0	0	9.6	0	0	20	1	.05
20	8.6	0	0	9.4	0	0	19	1	.05
21	8.7	0	0	9.4	0	0	18	0	0
22	8.8	0	0	9.4	0	0	17	0	0
23	8.9	0	0	9.8	0	0	15	0	0
24	9.1	0	0	10	0	0	15	0	0
25	10	0	0	10	0	0	14	0	0
26	11	0	0	10	0	0	13	0	0
27	10	0	0	10	0	0	13	0	0
28	9.5	0	0	10	0	0	13	0	0
29	9.0	0	0	---	---	---	13	0	0
30	8.5	0	0	---	---	---	14	1	.04
31	8.2	0	0	---	---	---	30	3	.24
TOTAL	286.3	---	.34	266.2	---	.11	617	---	5.26

10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	25	1	.07	17	1	.05	165	5	2.2
2	22	1	.06	16	1	.04	138	5	1.9
3	19	1	.05	19	1	.05	147	7	2.8
4	17	1	.05	27	1	.07	185	8	4.0
5	16	1	.04	25	1	.07	180	9	4.4
6	15	1	.04	22	1	.06	173	7	3.3
7	15	1	.04	23	1	.06	164	7	3.1
8	15	1	.04	29	1	.08	162	7	3.1
9	16	1	.04	30	1	.08	169	8	3.7
10	16	1	.04	30	1	.08	191	18	9.3
11	15	1	.04	27	1	.07	241	15	9.8
12	15	1	.04	31	1	.08	162	8	3.5
13	14	1	.04	37	1	.10	158	6	2.6
14	14	1	.04	45	2	.24	171	7	3.2
15	13	1	.04	61	3	.49	189	8	4.1
16	14	1	.04	66	3	.53	177	7	3.3
17	14	2	.08	64	4	.69	199	13	9.0
18	15	2	.08	72	7	1.4	171	11	5.1
19	17	2	.09	86	8	1.9	136	6	2.2
20	19	1	.05	97	10	2.6	131	6	2.1
21	21	1	.06	113	13	4.0	135	6	2.2
22	24	0	0	144	13	5.1	152	14	5.7
23	25	0	0	176	15	7.1	156	11	4.6
24	22	0	0	187	15	7.6	145	8	3.1
25	21	1	.06	206	16	8.9	141	7	2.7
26	18	1	.05	213	17	9.8	133	7	2.5
27	17	1	.05	223	18	11	124	7	2.3
28	17	1	.05	230	19	12	121	6	2.0
29	18	1	.05	259	21	15	122	5	1.6
30	18	1	.05	218	17	10	110	4	1.2
31	---	---	---	201	10	5.4	---	---	---
TOTAL	527	---	1.38	2994	---	104.64	4748	---	110.6
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	101	3	.82	8.5	1	.02	19	5	.26
2	138	4	1.5	7.5	1	.02	13	2	.07
3	107	3	.87	6.8	1	.02	7.5	1	.02
4	109	3	.88	6.0	1	.02	5.5	1	.01
5	110	3	.89	5.6	1	.02	4.5	1	.01
6	106	4	1.1	5.5	1	.01	3.9	0	0
7	91	4	.98	5.2	1	.01	3.1	0	0
8	71	3	.58	5.3	1	.01	2.9	0	0
9	55	3	.45	5.0	1	.01	2.7	0	0
10	49	3	.40	5.0	1	.01	2.7	0	0
11	57	3	.46	4.8	1	.01	2.5	0	0
12	61	3	.49	4.4	1	.01	2.3	0	0
13	59	2	.32	4.0	1	.01	2.1	0	0
14	56	2	.30	4.3	1	.01	2.1	0	0
15	48	2	.26	6.6	2	.04	2.1	0	0
16	40	2	.22	6.0	2	.03	1.9	0	0
17	35	2	.19	4.7	1	.01	1.9	0	0
18	29	2	.16	4.2	1	.01	1.9	0	0
19	27	1	.07	5.3	1	.01	1.9	0	0
20	25	2	.14	5.2	1	.01	1.9	0	0
21	21	2	.11	4.7	0	0	1.9	0	0
22	21	2	.11	4.7	0	0	3.1	1	.01
23	20	1	.05	4.2	0	0	3.4	1	.01
24	17	1	.05	3.6	0	0	3.6	1	.01
25	16	1	.04	3.2	1	.01	3.4	1	.01
26	14	1	.04	2.9	1	.01	3.1	1	.01
27	13	1	.04	2.7	1	.01	3.1	1	.01
28	12	1	.03	2.5	1	.01	4.2	1	.01
29	11	1	.03	2.4	1	.01	7.5	2	.04
30	10	1	.03	2.3	1	.01	12	1	.03
31	9.6	1	.03	3.1	1	.01	---	---	---
TOTAL	1538.6	---	11.64	146.2	---	.37	130.7	---	.51
YEAR	12472.5		268.14						

10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 25...	1255	86	6.0	53	12	18
MAY 20...	1800	103	3.0	12	3.3	79
23...	1900	200	1.5	25	14	20

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA

LOCATION.--Lat 39°06'27", long 120°09'40", in NW 1/4 NE 1/4 sec.36, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, on right bank 300 ft upstream from bridge on State Highway 89, 1,000 ft upstream from Lake Tahoe, and 4.6 mi south of Tahoe City.

DRAINAGE AREA.--11.2 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft, from topographic map. Oct. 1, 1960, to Sept. 30, 1964, at datum 10.25 ft lower and Oct. 1, 1964 to Aug. 27, 1970, at datum 12 ft lower, at site 400 ft downstream.

REMARKS.--Records good except those for the winter months, which are fair. No known diversion or regulation.

AVERAGE DISCHARGE.--23 years, 38.6 ft³/s, 27,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s Dec. 22 or 24, 1964, from indirect measurement of peak flow; maximum gage height, 9.90 ft Dec. 22, 1964; minimum discharge, 0.30 ft³/s Sept. 19, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0145	578	3.52	May 29	1945	*687	3.79
Mar. 13	1230	273	2.69	June 11	0030	633	3.66

Minimum daily, 5.3 ft³/s Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	44	18	17	14	28	46	33	334	231	74	47
2	11	35	18	16	14	25	41	32	280	306	71	24
3	10	30	18	16	14	24	36	37	294	248	68	17
4	9.5	27	18	16	14	23	33	45	345	248	63	14
5	8.7	24	18	16	14	22	31	43	340	264	57	12
6	8.7	23	17	16	15	22	29	39	339	271	55	10
7	9.2	21	17	16	15	23	29	39	336	230	55	9.4
8	9.0	20	17	16	15	25	29	44	340	182	53	8.8
9	9.0	19	16	16	15	26	32	47	361	147	50	8.4
10	8.7	19	16	15	15	28	31	49	400	138	47	7.6
11	8.3	18	16	15	14	32	30	45	491	142	43	7.2
12	7.8	18	16	15	18	34	28	51	339	161	39	6.7
13	7.6	17	16	15	33	188	27	60	308	167	35	6.1
14	7.3	17	15	15	23	119	26	72	331	174	35	5.9
15	7.5	17	15	15	21	73	26	96	360	161	39	5.4
16	7.3	16	15	15	20	57	27	105	345	138	33	5.3
17	7.3	17	16	15	20	50	28	105	402	125	30	5.7
18	7.2	28	15	15	19	44	28	122	346	112	27	6.1
19	7.0	30	15	15	18	40	32	151	279	104	30	5.9
20	7.1	24	17	15	18	38	35	173	260	97	26	5.6
21	7.2	22	26	15	18	36	37	218	260	96	24	5.6
22	8.7	22	22	15	18	35	44	284	293	101	26	8.3
23	24	20	20	16	18	36	48	338	323	96	22	12
24	24	19	19	16	18	35	42	367	307	92	19	9.6
25	124	18	18	16	20	30	43	402	297	90	17	8.1
26	193	18	18	16	22	28	35	427	280	83	15	7.3
27	57	18	18	16	20	27	33	461	263	79	14	7.0
28	41	20	18	16	21	26	33	487	251	79	13	6.7
29	35	20	18	15	---	25	33	554	259	79	13	9.8
30	104	19	18	15	---	27	33	453	238	83	12	12
31	61	---	17	14	---	58	---	430	---	80	15	---
TOTAL	849.1	660	541	480	504	1284	1005	5809	9601	4604	1120	304.5
MEAN	27.4	22.0	17.5	15.5	18.0	41.4	33.5	187	320	149	36.1	10.2
MAX	193	44	26	17	33	188	48	554	491	306	74	47
MIN	7.0	16	15	14	14	22	26	32	238	79	12	5.3
AC-FT	1680	1310	1070	952	1000	2550	1990	11520	19040	9130	2220	604
CAL YR 1982	TOTAL	22069.3	MEAN	60.5	MAX	684	MIN	4.4	AC-FT	43770		
WTR YR 1983	TOTAL	26761.6	MEAN	73.3	MAX	554	MIN	5.3	AC-FT	53080		

PYRAMID AND WINNEMUCCA LAKES BASIN

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-78, 1980 to current year.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1975-78, 1980 to current year.

SEDIMENT RECORDS: Water years 1975-78, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1980 to September 1983 (discontinued).

WATER TEMPERATURES: October 1974 to June 1978 (1977-78 storm season only), October 1979 to September 1983 (discontinued).

SEDIMENT RECORDS: October 1974 to June 1978 (1977-78 storm season only), October 1979 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 121 micromhos Sept. 7, 1981; minimum recorded, 11 micromhos Sept. 18, 1983.

WATER TEMPERATURES: Maximum recorded, 22.5°C July 27, 28, 1981; minimum recorded, 0.0°C on several winter days during most years.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,200 mg/L Jan. 13, 1980; minimum daily mean, 0 mg/L on many days each year.

SEDIMENT DISCHARGE: Maximum daily, 2,590 tons Jan. 13, 1980; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 81 micromhos Feb. 27; minimum recorded, 11 micromhos Sept. 18.

WATER TEMPERATURES: Maximum recorded, 15.0°C on several days during August and September; minimum recorded, 0.0°C on many days.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 148 mg/L Mar. 13; minimum daily mean, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 201 tons May 29; minimum daily, 0 ton on many days.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	43	63	64	63	58	58	64	38	32	34	44
2	60	44	63	65	63	57	59	64	39	29	34	49
3	60	46	51	66	62	59	60	62	38	30	35	52
4	61	47	52	66	62	59	61	60	36	30	36	53
5	62	48	52	65	62	60	61	60	36	29	37	54
6	63	49	55	65	61	60	62	61	35	28	37	56
7	62	49	55	66	59	59	62	61	35	30	37	51
8	61	51	54	66	58	60	62	59	35	32	37	47
9	62	50	60	66	59	60	61	59	34	34	38	53
10	63	49	59	66	59	60	61	58	34	34	38	53
11	63	51	59	66	59	58	62	59	32	33	39	46
12	64	52	58	66	56	57	62	58	35	31	41	40
13	65	53	63	66	55	44	62	56	35	30	42	32
14	66	55	63	66	58	50	63	54	34	29	41	26
15	65	54	60	66	60	54	64	51	33	30	41	20
16	64	53	60	66	64	56	64	51	33	31	41	20
17	65	53	59	66	63	57	64	52	31	32	42	15
18	66	47	61	65	67	59	63	50	32	32	43	14
19	67	48	64	65	62	60	62	47	34	33	43	14
20	68	53	60	62	51	60	62	45	34	34	43	15
21	67	55	55	52	51	60	62	43	33	33	44	17
22	66	56	59	64	53	60	60	42	32	32	45	44
23	50	59	61	64	54	60	59	41	31	32	46	64
24	50	62	61	62	59	59	60	40	31	33	48	64
25	33	62	63	62	75	61	60	39	31	33	48	57
26	27	62	62	47	74	62	62	38	31	33	45	50
27	38	64	66	46	71	61	62	37	32	34	44	62
28	41	63	67	47	63	62	62	37	31	33	43	65
29	44	57	68	62	---	63	63	35	31	33	45	68
30	34	60	65	63	---	61	63	36	31	33	46	66
31	41	---	64	63	---	52	---	36	---	33	47	---
MONTH	57	53	60	63	61	58	62	50	34	32	41	44
YEAR	MAX	75	MIN	14	MEAN	51						

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	5.5	6.0	3.0	0.5	0.5	0.5	0.0	1.0	0.0	1.0	0.5
2	10.5	6.0	6.0	3.5	0.5	0.0	1.0	0.0	1.5	0.0	2.0	1.0
3	10.0	6.5	6.0	3.0	2.0	0.5	1.5	0.0	1.5	1.0	3.0	1.5
4	9.5	6.5	5.5	2.5	2.0	0.5	2.0	1.0	2.0	0.5	3.5	1.5
5	9.5	5.5	6.0	3.0	2.5	1.0	2.0	0.5	1.5	1.0	3.5	1.5
6	9.0	5.5	6.0	3.5	2.5	1.0	2.0	1.0	1.5	0.5	4.0	1.5
7	8.5	5.0	5.5	3.5	1.5	0.0	2.0	1.0	0.5	0.5	3.5	1.5
8	8.5	4.5	3.5	1.0	1.0	0.0	2.0	1.0	1.0	0.5	4.0	2.0
9	9.0	5.5	2.5	1.0	1.5	0.0	2.0	0.5	1.0	0.5	4.5	2.0
10	9.0	6.0	3.0	2.0	2.0	0.0	2.0	0.0	2.0	0.5	5.0	2.0
11	9.0	5.0	4.0	1.5	2.5	0.5	1.5	0.0	2.5	1.0	4.5	1.5
12	9.5	6.0	4.0	1.5	2.5	0.0	1.0	0.0	1.5	0.5	2.5	1.0
13	9.5	5.5	4.0	1.0	1.5	0.0	1.0	0.0	1.0	0.5	1.0	0.5
14	9.0	5.5	4.0	1.0	1.0	0.0	1.5	0.0	2.5	0.5	0.5	0.5
15	9.5	5.5	4.0	1.5	1.5	0.5	2.5	0.5	2.5	1.0	3.0	0.5
16	9.0	5.5	4.0	1.0	2.5	0.5	2.0	1.5	3.0	1.0	3.5	1.0
17	9.0	6.0	5.0	3.0	1.0	0.0	3.0	1.5	3.0	1.5	3.5	1.0
18	8.0	4.5	3.5	0.5	1.5	0.0	2.5	0.0	2.0	0.5	3.5	1.5
19	7.5	5.5	2.5	0.5	1.5	0.0	0.0	0.0	1.5	0.5	4.5	0.5
20	8.0	6.0	3.5	1.5	1.0	0.5	0.5	0.0	3.5	0.5	3.0	1.5
21	8.5	6.0	3.0	1.0	0.5	0.0	1.5	0.0	4.0	1.0	4.0	1.0
22	9.0	6.5	3.5	2.0	0.0	0.0	1.0	0.0	4.0	2.0	2.0	0.0
23	8.0	7.0	4.0	3.0	0.0	0.0	1.0	0.0	4.0	2.0	2.5	0.0
24	8.0	6.5	4.5	2.5	0.0	0.0	0.5	0.0	4.0	1.5	0.5	0.0
25	7.0	6.0	4.0	2.0	0.0	0.0	0.5	0.0	2.5	0.5	2.5	0.0
26	5.5	3.5	3.5	1.0	0.0	0.0	1.5	0.0	0.5	0.5	3.5	0.0
27	6.0	3.0	4.5	2.0	1.0	0.0	0.0	0.0	0.5	0.5	2.5	0.0
28	6.5	3.0	4.0	1.0	1.0	0.0	1.0	0.0	1.0	0.5	4.0	1.0
29	6.5	4.5	1.0	0.5	0.5	0.0	0.5	0.0	---	---	4.0	1.5
30	5.0	3.5	0.5	0.5	0.5	0.0	1.5	0.0	---	---	6.0	2.0
31	6.5	4.0	---	---	0.5	0.0	1.0	0.0	---	---	5.0	1.0
MONTH	10.5	3.0	6.0	0.5	2.5	0.0	3.0	0.0	4.0	0.0	6.0	0.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.5	1.0	6.0	1.5	5.5	2.0	8.5	2.5	13.5	5.5	10.5	8.0
2	4.5	1.0	6.5	2.0	5.5	2.0	8.0	2.5	13.5	5.5	13.5	6.5
3	4.0	0.5	8.5	1.5	7.5	2.0	9.5	2.0	13.5	5.5	13.5	7.0
4	4.5	0.5	5.0	1.5	7.0	2.0	9.5	2.5	13.5	5.5	14.0	7.0
5	3.5	0.5	4.0	1.0	7.5	2.0	9.0	3.0	14.0	5.5	15.0	8.0
6	5.5	0.5	7.5	0.5	7.5	2.0	9.0	3.0	14.5	6.5	15.0	8.5
7	6.5	1.0	8.0	1.5	6.0	2.5	8.0	3.0	12.0	8.0	14.5	8.0
8	6.5	1.5	7.5	1.5	6.5	2.5	7.0	2.5	12.5	7.5	14.0	8.5
9	6.0	1.5	7.5	1.0	7.5	2.0	7.5	2.0	14.0	7.0	14.0	7.0
10	3.5	1.5	6.0	1.5	7.0	2.0	10.0	2.5	13.5	8.5	14.0	7.0
11	3.5	1.0	8.0	1.5	6.5	2.5	10.5	2.5	14.5	7.0	14.5	7.0
12	6.0	0.5	7.5	1.5	7.5	2.0	11.0	3.0	14.5	7.0	15.0	8.0
13	5.5	1.0	8.0	1.5	8.0	2.0	11.0	2.5	13.5	8.0	15.0	8.5
14	6.0	1.0	8.0	1.5	8.0	2.5	10.5	3.0	11.0	8.0	14.5	7.5
15	6.5	1.5	7.0	1.5	7.5	2.5	10.0	3.0	13.5	8.5	14.0	7.0
16	6.5	2.0	6.5	1.0	8.0	2.0	10.5	2.5	15.0	8.0	15.0	8.0
17	5.5	2.0	7.0	1.5	7.5	2.0	10.5	3.0	12.0	8.5	14.5	8.5
18	6.5	2.0	6.5	1.5	7.5	2.0	10.5	3.0	13.0	7.5	13.0	8.0
19	7.0	2.0	7.0	1.5	8.0	1.5	10.5	3.0	12.5	9.0	12.5	7.0
20	5.0	2.0	7.0	1.5	8.0	2.0	11.0	2.5	14.0	7.5	12.0	6.5
21	6.5	2.5	7.0	1.5	8.5	2.0	12.0	3.5	10.5	8.0	12.5	6.5
22	6.0	2.0	6.5	1.5	8.5	2.5	12.0	4.0	12.5	7.0	10.5	8.5
23	3.5	0.0	6.0	1.5	8.0	2.5	11.5	3.0	12.5	6.5	9.0	7.5
24	2.0	0.0	6.0	1.5	8.0	2.5	12.0	4.0	13.5	7.0	11.5	7.0
25	4.5	0.0	6.0	1.5	8.5	2.5	11.5	4.0	13.5	6.5	12.0	7.0
26	4.5	1.0	6.0	1.5	8.5	2.0	11.5	3.5	13.5	6.5	10.5	7.5
27	3.5	2.0	6.0	1.5	8.5	2.0	12.5	4.0	14.0	6.5	11.0	6.5
28	4.5	1.0	5.0	2.0	8.5	2.5	13.0	4.0	14.5	7.0	10.0	7.5
29	5.0	1.5	5.5	1.5	8.5	2.5	13.0	4.5	14.0	7.5	8.5	6.0
30	5.5	1.5	6.5	1.5	8.5	2.5	13.5	5.5	13.5	7.0	8.5	6.0
31	---	---	6.5	2.0	---	---	12.5	5.5	12.0	8.5	---	---
MONTH	7.0	0.0	8.5	0.5	8.5	1.5	13.5	2.0	15.0	5.5	15.0	6.0

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	0	0	44	1	.12	18	5	.24
2	11	0	0	35	1	.09	18	6	.29
3	10	0	0	30	1	.08	18	8	.39
4	9.5	0	0	27	1	.07	18	10	.49
5	8.7	0	0	24	1	.06	18	10	.49
6	8.7	0	0	23	1	.06	17	10	.46
7	9.2	0	0	21	1	.06	17	10	.46
8	9.0	0	0	20	1	.05	17	9	.41
9	9.0	0	0	19	1	.05	16	8	.35
10	8.7	0	0	19	1	.05	16	8	.35
11	8.3	0	0	18	1	.05	16	6	.26
12	7.8	0	0	18	1	.05	16	4	.17
13	7.6	0	0	17	2	.09	16	2	.09
14	7.3	0	0	17	2	.09	15	1	.04
15	7.5	0	0	17	3	.14	15	1	.04
16	7.3	0	0	16	2	.09	15	2	.08
17	7.3	0	0	17	1	.05	16	2	.09
18	7.2	0	0	28	4	.30	15	3	.12
19	7.0	0	0	30	3	.24	15	3	.12
20	7.1	0	0	24	3	.19	17	4	.18
21	7.2	0	0	22	3	.18	26	6	.42
22	8.7	0	0	22	3	.18	22	4	.24
23	24	10	.91	20	2	.11	20	4	.22
24	24	5	.32	19	2	.10	19	4	.21
25	124	98	53	18	2	.10	18	3	.15
26	193	94	95	18	2	.10	18	3	.15
27	57	5	.77	18	2	.10	18	2	.10
28	41	4	.44	20	4	.22	18	2	.10
29	35	3	.28	20	4	.22	18	2	.10
30	104	20	6.0	19	4	.21	18	2	.10
31	61	4	.66	---	---	---	17	2	.09
TOTAL	849.1	---	157.38	660	---	3.50	541	---	7.00

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17	3	.14	14	2	.08	28	2	.15
2	16	3	.13	14	2	.08	25	2	.14
3	16	3	.13	14	2	.08	24	2	.13
4	16	3	.13	14	2	.08	23	2	.12
5	16	3	.13	14	2	.08	22	2	.12
6	16	3	.13	15	2	.08	22	2	.12
7	16	3	.13	15	4	.16	23	3	.19
8	16	2	.09	15	3	.12	25	3	.20
9	16	1	.04	15	2	.08	26	2	.14
10	15	1	.04	15	2	.08	28	2	.15
11	15	1	.04	14	2	.08	32	3	.26
12	15	1	.04	18	6	.29	34	8	.73
13	15	1	.04	33	11	.98	188	148	82
14	15	1	.04	23	3	.19	119	27	8.7
15	15	1	.04	21	2	.11	73	7	1.4
16	15	1	.04	20	2	.11	57	3	.46
17	15	1	.04	20	2	.11	50	2	.27
18	15	1	.04	19	2	.10	44	2	.24
19	15	3	.12	18	2	.10	40	2	.22
20	15	2	.08	18	2	.10	38	2	.21
21	15	1	.04	18	1	.05	36	1	.10
22	15	1	.04	18	1	.05	35	1	.09
23	16	1	.04	18	1	.05	36	1	.10
24	16	1	.04	18	1	.05	35	2	.19
25	16	1	.04	20	1	.05	30	1	.08
26	16	1	.04	22	1	.06	28	0	0
27	16	1	.04	20	1	.05	27	0	0
28	16	1	.04	21	1	.06	26	0	0
29	15	1	.04	---	---	---	25	0	0
30	15	1	.04	---	---	---	27	2	.15
31	14	1	.04	---	---	---	58	15	2.3
TOTAL	480	---	2.05	504	---	3.51	1284	---	98.96

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

APRIL				MAY				JUNE	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	46	3	.37	33	2	.18	334	30	27
2	41	1	.11	32	2	.17	280	30	23
3	36	1	.10	37	4	.40	294	35	28
4	33	1	.09	45	6	.73	345	55	51
5	31	1	.08	43	3	.35	340	54	50
6	29	1	.08	39	2	.21	339	32	29
7	29	1	.08	39	2	.21	336	27	24
8	29	1	.08	44	2	.24	340	32	29
9	32	1	.09	47	2	.25	361	38	37
10	31	1	.08	49	2	.26	400	49	60
11	30	1	.08	45	3	.36	491	77	102
12	28	1	.08	51	5	.69	339	48	44
13	27	1	.07	60	6	.97	308	37	31
14	26	1	.07	72	8	1.6	331	42	38
15	26	1	.07	96	11	2.9	360	50	49
16	27	1	.07	105	10	2.8	345	49	46
17	28	3	.23	105	12	3.4	402	65	71
18	28	5	.38	122	15	4.9	346	43	40
19	32	6	.52	151	26	11	279	30	23
20	35	9	.85	173	37	17	260	33	23
21	37	11	1.1	218	42	25	260	33	23
22	44	20	2.4	284	57	44	293	45	36
23	48	20	2.6	338	69	72	323	45	39
24	42	14	1.6	367	74	80	307	38	31
25	43	15	1.7	402	82	89	297	34	27
26	35	9	.85	427	73	84	280	31	23
27	33	4	.36	461	90	112	263	28	20
28	33	2	.18	487	102	134	251	27	18
29	33	2	.18	554	125	201	259	27	19
30	33	2	.18	453	93	114	238	31	20
31	---	---	---	430	50	58	---	---	---
TOTAL	1005	---	14.73	5809	---	1061.62	9601	---	1081
JULY				AUGUST				SEPTEMBER	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	231	35	22	74	2	.40	47	35	5.4
2	306	59	49	71	2	.38	24	4	.26
3	248	37	25	68	2	.37	17	2	.09
4	248	35	23	63	2	.34	14	2	.08
5	264	32	23	57	2	.31	12	3	.10
6	271	33	24	55	2	.30	10	3	.08
7	230	20	12	55	1	.15	9.4	3	.08
8	182	13	6.4	53	1	.14	8.8	4	.10
9	147	12	4.8	50	1	.14	8.4	4	.09
10	138	14	5.2	47	1	.13	7.6	4	.08
11	142	19	7.3	43	1	.12	7.2	5	.10
12	161	30	13	39	1	.11	6.7	5	.09
13	167	27	12	35	1	.09	6.1	5	.08
14	174	21	9.9	35	1	.09	5.9	4	.06
15	161	15	6.5	39	2	.21	5.4	4	.06
16	138	8	3.0	33	1	.09	5.3	4	.06
17	125	6	2.0	30	1	.08	5.7	4	.06
18	112	6	1.8	27	1	.07	6.1	3	.05
19	104	5	1.4	30	2	.16	5.9	3	.05
20	97	5	1.3	26	2	.14	5.6	3	.05
21	96	5	1.3	24	2	.13	5.6	3	.05
22	101	6	1.6	26	2	.14	8.3	5	.11
23	96	7	1.8	22	2	.12	12	5	.16
24	92	7	1.7	19	1	.05	9.6	3	.08
25	90	6	1.5	17	1	.05	8.1	3	.07
26	83	5	1.1	15	1	.04	7.3	3	.06
27	79	5	1.1	14	1	.04	7.0	3	.06
28	79	4	.85	13	1	.04	6.7	3	.05
29	79	3	.64	13	1	.04	9.8	4	.11
30	83	3	.67	12	1	.03	12	4	.13
31	80	2	.43	15	2	.08	---	---	---
TOTAL	4604	---	265.29	1120	---	4.58	304.5	---	7.90
YEAR	26761.6		2707.52						

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
23...	1045	39	7.0	34	3.6	--	--	--
25...	0900	87	6.5	143	34	--	--	--
25...	1200	161	6.0	162	70	9	18	28
25...	2215	217	6.0	204	120	--	--	--
MAR								
13...	1240	273	1.0	213	157	--	--	--
MAY								
20...	1925	210	2.5	92	52	--	--	--
26...	1800	478	3.0	109	141	--	--	--
29...	1730	658	3.5	235	418	--	--	--
JUNE								
06...	1235	277	6.5	15	11	--	--	--
09...	1740	406	6.0	65	71	--	--	--
15...	1055	290	5.0	26	20	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
23...	--	--	56	--	--	--	--	--
25...	--	--	36	--	--	--	--	--
25...	40	49	55	69	89	98	100	--
25...	--	--	38	--	--	--	--	--
MAR								
13...	--	--	37	--	--	--	--	--
MAY								
20...	--	--	43	61	82	97	100	--
26...	--	--	26	--	--	--	--	--
29...	--	--	45	62	81	93	98	100
JUNE								
06...	--	--	34	--	--	--	--	--
09...	--	--	21	--	--	--	--	--
15...	--	--	34	--	--	--	--	--

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA

LOCATION.--Lat 39°07'56", long 120°09'24", in NW 1/4 SE 1/4 sec.24, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, Tahoe National Forest, on right bank 165 ft downstream from State Highway 89 bridge, 2.1 mi north of Tahoe Pines, and 2.6 mi southwest of Tahoe City.

DRAINAGE AREA.--9.70 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,230 ft, from topographic map.

REMARKS.--Records fair. Minor diversion for local water supply.

AVERAGE DISCHARGE.--11 years, 29.1 ft³/s, 21,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s Dec. 19, 1981, gage height, 8.05 ft, from rating curve extended above 800 ft³/s; no flow many days during 1977-78, 1981.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0100	578	5.84	May 29	1815	461	5.73
Oct. 30	0300	122	4.85	June 10	2400	*637	6.38
Mar. 13	1145	Unknown	a 6.38				

a Backwater from ice.

Minimum daily, 4.3 ft³/s Sept. 21.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	39	18	14	9.8	27	45	31	225	223	54	26
2	11	33	17	13	9.8	21	41	31	177	310	52	15
3	9.8	30	16	13	9.8	19	36	35	198	235	49	13
4	9.2	27	16	12	9.3	18	35	43	226	233	46	11
5	8.0	25	16	11	9.1	17	33	41	241	251	42	9.9
6	7.3	23	16	11	8.9	16	31	30	243	257	41	9.4
7	7.9	22	15	11	9.9	16	29	33	251	215	41	8.8
8	7.9	22	15	11	9.8	19	32	39	267	154	40	8.3
9	7.6	21	15	11	9.8	19	34	44	281	122	37	7.8
10	6.7	21	15	11	9.8	19	33	43	344	109	35	7.3
11	6.0	19	13	11	9.1	23	31	39	434	108	32	7.0
12	5.8	19	13	11	14	23	29	42	307	121	28	6.6
13	5.8	18	13	11	24	110	27	50	275	125	27	6.3
14	5.8	18	13	11	16	96	27	56	271	131	27	5.9
15	5.3	17	12	11	15	84	27	64	295	117	28	5.6
16	4.7	15	12	11	14	60	29	74	299	99	24	5.3
17	4.7	17	13	11	14	52	31	72	349	90	22	4.9
18	4.8	33	15	11	14	47	32	81	292	80	20	4.6
19	4.6	34	15	11	14	42	34	99	247	77	21	4.5
20	4.6	27	18	11	13	39	35	117	232	70	19	4.4
21	4.5	24	25	11	13	37	37	139	228	69	18	4.3
22	5.7	22	19	12	13	35	40	180	262	71	20	7.9
23	23	22	18	12	14	33	48	205	300	67	17	9.1
24	15	20	18	12	14	34	42	230	282	67	15	6.8
25	98	20	17	13	15	29	35	246	272	65	13	6.0
26	152	20	16	13	17	27	31	275	252	61	12	5.6
27	54	20	16	12	14	27	31	304	240	58	11	5.3
28	41	21	16	12	16	27	31	307	226	57	11	5.6
29	37	21	16	12	---	26	31	361	235	57	9.9	6.7
30	76	19	15	11	---	27	31	319	212	61	9.4	9.0
31	50	---	14	10	---	63	---	311	---	59	13	---
TOTAL	695.7	689	486	358	359.1	1132	1008	3941	7963	3819	834.3	237.9
MEAN	22.4	23.0	15.7	11.5	12.8	36.5	33.6	127	265	123	26.9	7.93
MAX	152	39	25	14	24	110	48	361	434	310	54	26
MIN	4.5	15	12	10	8.9	16	27	30	177	57	9.4	4.3
AC-FT	1380	1370	964	710	712	2250	2000	7820	15790	7570	1650	472

CAL YR 1982	TOTAL	18111.4	MEAN	49.6	MAX	518	MIN	2.3	AC-FT	35920
WTR YR 1983	TOTAL	21523.0	MEAN	59.0	MAX	434	MIN	4.3	AC-FT	42690

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1980 to current year.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1973-78, 1980 to current year.

SEDIMENT RECORDS.--Water years 1973-78, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1983 (discontinued).

WATER TEMPERATURES: October 1972 to June 1978 (storm season only for water years 1977-78), October 1979 to September 1983 (discontinued).

SEDIMENT RECORDS: October 1972 to June 1978 (storm season only for water years 1977-78), October 1979 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 82 micromhos Sept. 25, 26, 1981; minimum recorded, 21 micromhos Nov. 23, 1981 and June 23, 1983.

WATER TEMPERATURES: Maximum recorded, 23.5°C Aug. 8, 12, 13, 1981; minimum recorded, 0.0°C many days in winter months.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,510 mg/L Dec. 19, 1981; minimum daily mean, 0 mg/L on many days each year.

SEDIMENT DISCHARGE: Maximum daily, 3,720 tons Dec. 19, 1981; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 79 micromhos Sept. 14; minimum recorded, 21 micromhos June 23.

WATER TEMPERATURES: Maximum recorded, 15.0°C Sept. 5; minimum recorded, 0.0°C Mar. 12-16.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 223 mg/L Oct. 25; minimum daily mean, 0 mg/L several days.

SEDIMENT DISCHARGE: Maximum daily, 128 tons May 29; minimum daily, 0 ton several days.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	51	56	56	---	64	55	60	---	36	41	48
2	---	52	56	56	---	60	56	59	---	35	41	52
3	---	53	57	58	---	61	61	57	---	37	41	53
4	---	54	57	58	---	61	58	55	---	38	41	54
5	---	54	58	60	---	61	58	56	---	36	43	54
6	---	54	58	59	---	64	57	56	---	34	42	56
7	---	55	60	61	---	66	59	56	---	34	41	55
8	---	55	62	58	---	68	57	55	---	36	41	54
9	---	55	62	60	---	67	56	56	---	38	42	56
10	---	56	57	58	---	66	56	56	---	38	40	57
11	---	57	59	59	---	65	58	57	---	39	43	57
12	---	56	57	59	55	63	60	56	---	37	45	58
13	---	55	58	57	58	51	57	56	---	37	43	58
14	---	58	56	56	52	56	56	57	---	36	43	60
15	---	58	58	59	54	63	58	53	---	36	43	59
16	---	58	58	58	57	59	59	55	---	38	45	60
17	---	59	56	58	53	61	60	54	---	38	45	60
18	---	54	53	56	53	61	60	54	---	39	46	60
19	64	55	58	50	60	64	61	55	---	39	45	60
20	66	58	56	53	59	61	61	53	---	40	47	61
21	66	58	50	54	59	61	62	51	---	41	48	61
22	64	58	48	55	60	60	62	52	---	40	49	61
23	56	58	47	51	56	58	61	51	30	40	50	56
24	56	59	54	52	56	58	60	50	36	40	51	61
25	45	59	54	50	56	60	59	51	36	39	51	62
26	42	58	52	53	56	63	62	50	36	40	52	63
27	48	59	53	52	57	59	61	49	36	40	53	64
28	49	56	59	50	59	59	61	---	---	41	53	64
29	50	56	58	53	---	59	61	---	---	41	54	63
30	46	59	60	53	---	59	60	---	---	40	54	60
31	50	---	57	---	---	51	---	---	---	40	52	---
MONTH	---	56	56	56	---	61	59	54	---	38	46	58

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	4.5	1.5							---	---
2	---	---	4.0	1.5							---	---
3	---	---	4.0	1.5							---	---
4	---	---	3.0	1.0							---	---
5	---	---	3.0	1.0							---	---
6	---	---	2.5	1.0							---	---
7	---	---	3.0	1.0							---	---
8	---	---	---	---							---	---
9	---	---	---	---							3.0	1.5
10	---	---	---	---							3.0	1.5
11	---	---	---	---							3.0	1.0
12	---	---	---	---							2.0	0.0
13	---	---	---	---							0.5	0.0
14	---	---	---	---							0.5	0.0
15	---	---	---	---							2.0	0.0
16	---	---	---	---							2.5	0.0
17	---	---	---	---							2.5	1.0
18	---	---	---	---							3.0	1.0
19	5.5	2.5	---	---							4.0	0.5
20	7.0	4.0	---	---							3.0	1.0
21	7.5	5.0	---	---							3.5	1.5
22	7.5	5.0	---	---							1.5	0.5
23	8.0	5.0	---	---							2.0	0.5
24	7.5	5.0	---	---							0.5	0.5
25	6.0	5.0	---	---							2.5	0.5
26	5.5	2.0	---	---							3.0	0.5
27	6.0	2.0	---	---							3.0	0.5
28	5.5	2.0	---	---							3.5	0.5
29	6.0	2.0	---	---							4.5	1.5
30	5.0	2.0	---	---							5.5	1.5
31	5.5	2.0	---	---							4.0	1.0
MONTH	---	---	---	---							---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.0	1.0	5.0	1.5	---	---	8.0	3.0	12.5	4.5	11.0	8.0
2	4.5	1.0	5.5	1.5	---	---	7.5	3.0	12.5	4.5	14.0	6.5
3	3.0	0.5	7.5	1.5	---	---	9.0	2.5	12.5	4.5	13.5	6.5
4	4.0	1.0	4.5	1.5	---	---	9.0	3.0	12.5	4.5	14.0	6.5
5	3.0	1.0	4.0	1.0	---	---	8.0	3.5	13.0	4.5	15.0	7.5
6	5.0	0.5	7.0	1.0	---	---	9.0	3.5	13.5	5.0	14.5	8.0
7	5.5	0.5	7.0	1.5	---	---	8.0	3.5	10.5	6.5	14.0	8.0
8	6.0	1.0	6.5	1.5	---	---	8.0	3.0	11.5	6.0	13.5	8.5
9	5.5	1.5	7.0	1.5	---	---	8.0	3.0	12.5	5.5	13.0	7.0
10	3.5	1.5	4.5	1.5	---	---	10.5	3.0	12.0	6.5	13.5	6.5
11	3.5	1.0	7.5	1.5	---	---	11.0	3.0	13.0	5.0	13.5	6.5
12	4.5	0.5	6.5	2.0	---	---	11.0	4.0	13.0	5.0	14.0	7.5
13	5.0	1.0	7.0	2.0	---	---	11.0	3.5	12.0	6.5	13.5	8.0
14	5.5	0.5	7.0	1.5	---	---	10.0	3.5	10.0	6.0	13.5	7.5
15	6.0	1.0	6.5	2.0	---	---	10.0	3.5	11.5	7.0	13.0	6.5
16	6.0	1.5	6.0	1.5	---	---	9.5	2.5	12.5	6.0	14.0	8.0
17	5.0	1.5	6.5	2.0	---	---	9.5	3.0	10.0	6.5	13.5	8.5
18	6.0	1.5	6.0	2.0	---	---	10.5	3.0	11.0	5.5	12.5	7.5
19	6.5	1.5	6.0	1.5	---	---	10.5	3.5	11.0	7.0	12.0	7.0
20	4.0	2.0	5.5	1.5	---	---	11.0	3.0	11.5	5.5	11.0	6.0
21	6.0	2.0	5.5	1.0	---	---	11.5	3.5	9.5	6.0	11.5	6.0
22	5.0	2.0	5.0	1.5	---	---	11.5	4.0	12.0	7.0	9.5	8.0
23	3.5	0.5	5.5	1.0	---	---	11.5	3.0	13.0	6.0	9.0	7.0
24	2.0	0.5	5.0	1.5	7.5	2.5	11.5	3.5	14.0	6.5	11.0	6.0
25	5.0	0.5	5.0	1.0	7.5	2.5	10.5	3.5	13.5	6.0	11.5	6.0
26	5.0	1.0	4.5	1.0	7.5	2.5	11.0	3.0	13.5	6.0	10.0	7.0
27	3.5	2.0	5.0	1.0	7.5	2.0	11.5	3.5	13.5	6.5	10.5	5.5
28	4.0	1.0	---	---	8.0	2.5	12.0	3.5	14.0	7.0	9.0	6.5
29	5.0	1.5	---	---	---	---	12.0	4.0	14.0	7.0	8.0	5.0
30	5.5	1.5	---	---	---	---	12.5	4.5	13.5	7.0	8.5	5.5
31	---	---	---	---	---	---	11.5	4.5	12.0	8.5	---	---
MONTH	6.5	0.5	7.5	1.0	---	---	12.5	2.5	14.0	4.5	15.0	5.0

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	0	0	39	2	.21	18	2	.10
2	11	0	0	33	2	.18	17	1	.05
3	9.8	0	0	30	2	.16	16	1	.04
4	9.2	0	0	27	2	.15	16	1	.04
5	8.0	0	0	25	2	.14	16	1	.04
6	7.3	0	0	23	2	.12	16	1	.04
7	7.9	0	0	22	2	.12	15	1	.04
8	7.9	0	0	22	2	.12	15	1	.04
9	7.6	1	.02	21	2	.11	15	1	.04
10	6.7	1	.02	21	2	.11	15	1	.04
11	6.0	1	.02	19	2	.10	13	1	.04
12	5.8	1	.02	19	2	.10	13	1	.04
13	5.8	1	.02	18	2	.10	13	1	.04
14	5.8	1	.02	18	2	.10	13	1	.04
15	5.3	1	.01	17	1	.05	12	1	.03
16	4.7	1	.01	15	2	.08	12	1	.03
17	4.7	1	.01	17	2	.09	13	1	.04
18	4.8	1	.01	33	6	.53	15	2	.08
19	4.6	1	.01	34	3	.28	15	2	.08
20	4.6	1	.01	27	2	.15	18	4	.19
21	4.5	1	.01	24	2	.13	25	5	.34
22	5.7	5	.08	22	2	.12	19	3	.15
23	23	40	2.5	22	1	.06	18	2	.10
24	15	5	.20	20	1	.05	18	2	.10
25	98	223	111	20	1	.05	17	2	.09
26	152	120	102	20	1	.05	16	1	.04
27	54	5	.73	20	1	.05	16	1	.04
28	41	2	.22	21	1	.06	16	1	.04
29	37	1	.10	21	1	.06	16	1	.04
30	76	12	2.5	19	3	.15	15	1	.04
31	50	3	.41	---	---	---	14	1	.04
TOTAL	695.7	---	219.93	689	---	3.78	486	---	2.10

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	14	1	.04	9.8	1	.03	27	5	.36
2	13	1	.04	9.8	1	.03	21	2	.11
3	13	1	.04	9.8	1	.03	19	1	.05
4	12	1	.03	9.3	1	.03	18	1	.05
5	11	1	.03	9.1	1	.02	17	1	.05
6	11	2	.06	8.9	1	.02	16	1	.04
7	11	2	.06	9.9	1	.03	16	1	.04
8	11	2	.06	9.8	1	.03	19	1	.05
9	11	2	.06	9.8	0	0	19	1	.05
10	11	2	.06	9.8	0	0	19	1	.05
11	11	2	.06	9.1	0	0	23	1	.06
12	11	2	.06	14	3	.11	23	4	.25
13	11	2	.06	24	4	.26	110	108	65
14	11	2	.06	16	2	.09	96	42	11
15	11	2	.06	15	2	.08	84	25	5.7
16	11	2	.06	14	2	.08	60	13	2.1
17	11	2	.06	14	2	.08	52	5	.70
18	11	2	.06	14	2	.08	47	3	.38
19	11	2	.06	14	2	.08	42	2	.23
20	11	3	.09	13	1	.04	39	2	.21
21	11	3	.09	13	1	.04	37	2	.20
22	12	3	.10	13	1	.04	35	2	.19
23	12	2	.06	14	1	.04	33	2	.18
24	12	2	.06	14	1	.04	34	2	.18
25	13	2	.07	15	1	.04	29	2	.16
26	13	2	.07	17	1	.05	27	2	.15
27	12	2	.06	14	1	.04	27	2	.15
28	12	2	.06	16	2	.09	27	2	.15
29	12	2	.06	---	---	---	26	2	.14
30	11	2	.06	---	---	---	27	4	.29
31	10	1	.03	---	---	---	63	20	3.4
TOTAL	358	---	1.83	359.1	---	1.50	1132	---	91.67

10336676 WARD CREEK AT STATE HIGHWAY 89, NEAR TAHOE PINES, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	45	3	.36	31	1	.08	225	32	19
2	41	2	.22	31	1	.08	177	22	11
3	36	2	.19	35	1	.09	198	27	14
4	35	1	.09	43	1	.12	226	34	21
5	33	1	.09	41	1	.11	241	35	23
6	31	1	.08	30	1	.08	243	33	22
7	29	1	.08	33	1	.09	251	24	16
8	32	1	.09	39	1	.11	267	37	27
9	34	1	.09	44	1	.12	281	42	36
10	33	1	.09	43	1	.12	344	58	70
11	31	1	.08	39	2	.21	434	93	117
12	29	1	.08	42	2	.23	307	33	27
13	27	1	.07	50	2	.27	275	30	22
14	27	1	.07	56	2	.30	271	40	29
15	27	1	.07	64	4	.69	295	48	38
16	29	1	.08	74	5	1.0	299	47	38
17	31	1	.08	72	5	.97	349	63	59
18	32	1	.09	81	12	2.6	292	33	26
19	34	2	.18	99	22	5.9	247	27	18
20	35	4	.38	117	25	7.9	232	21	13
21	37	4	.40	139	36	16	228	21	13
22	40	4	.43	180	35	19	262	23	16
23	48	4	.52	205	52	33	300	25	20
24	42	4	.45	230	56	37	282	22	17
25	35	3	.28	246	53	38	272	18	13
26	31	2	.17	275	38	31	252	13	8.8
27	31	1	.08	304	57	52	240	12	7.8
28	31	1	.08	307	64	57	226	10	6.1
29	31	1	.08	361	116	128	235	10	6.3
30	31	1	.08	319	86	81	212	8	4.6
31	---	---	---	311	71	62	---	---	---
TOTAL	1008	---	5.13	3941	---	575.07	7963	---	758.6
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	223	18	11	54	2	.29	26	22	1.8
2	310	24	20	52	2	.28	15	2	.08
3	235	14	8.9	49	2	.26	13	1	.04
4	233	16	10	46	2	.25	11	1	.03
5	251	14	9.5	42	2	.23	9.9	1	.03
6	257	15	10	41	2	.22	9.4	1	.03
7	215	11	6.4	41	2	.22	8.8	1	.02
8	154	8	3.3	40	2	.22	8.3	1	.02
9	122	5	1.6	37	2	.20	7.8	1	.02
10	109	5	1.5	35	2	.19	7.3	1	.02
11	108	6	1.7	32	1	.09	7.0	1	.02
12	121	7	2.3	28	1	.08	6.6	1	.02
13	125	7	2.4	27	1	.07	6.3	1	.02
14	131	6	2.1	27	1	.07	5.9	1	.02
15	117	4	1.3	28	1	.08	5.6	1	.02
16	99	3	.80	24	1	.06	5.3	1	.01
17	90	4	.97	22	1	.06	4.9	1	.01
18	80	3	.65	20	1	.05	4.6	1	.01
19	77	3	.62	21	2	.11	4.5	1	.01
20	70	3	.57	19	2	.10	4.4	1	.01
21	69	3	.56	18	2	.10	4.3	1	.01
22	71	3	.58	20	3	.16	7.9	3	.06
23	67	3	.54	17	2	.09	9.1	17	.42
24	67	3	.54	15	2	.08	6.8	3	.06
25	65	3	.53	13	1	.04	6.0	2	.03
26	61	2	.33	12	1	.03	5.6	1	.02
27	58	2	.31	11	1	.03	5.3	1	.01
28	57	2	.31	11	1	.03	5.6	1	.02
29	57	2	.31	9.9	1	.03	6.7	3	.05
30	61	2	.33	9.4	1	.03	9.0	15	.36
31	59	2	.32	13	2	.07	---	---	---
TOTAL	3819	---	100.27	834.3	---	3.82	237.9	---	3.28
YEAR	21523.0		1766.98						

PYRAMID AND WINNEMUCCA LAKES BASIN

10336676 WARD CREEK AT HIWAY 89 NEAR TAHOE PINES, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
23...	1030	36	6.0	111	11	--	--	--
25...	0840	62	6.0	253	42	--	--	--
25...	1105	88	6.0	161	38	18	28	43
25...	2140	217	6.0	657	385	8	12	21
MAR								
13...	1145	220	0.5	557	331	--	--	--
MAY								
23...	1840	250	1.5	116	78	--	--	--
JUNE								
09...	1900	359	3.5	114	111	--	--	--
14...	2015	338	3.0	69	63	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
23...	--	--	94	--	--	--	--	--
25...	--	--	74	--	--	--	--	--
25...	63	80	90	95	99	100	--	--
25...	34	49	63	72	81	91	100	--
MAR								
13...	--	--	25	35	58	86	99	100
MAY								
23...	--	--	38	53	71	86	98	100
JUNE								
09...	--	--	24	--	--	--	--	--
14...	--	--	29	40	60	79	100	--

10336689 SNOW CREEK AT TAHOE VISTA, CA

LOCATION.--Lat 39°14'18", long 120°02'19", in SE 1/4 NW 1/4 sec.13, T.16 N., R.17 E., Placer County, Hydrologic Unit 16050101, on right bank 300 ft downstream from State Highway 28, 0.6 mi east of Tahoe Vista Post Office, and 20 ft upstream from Lake Tahoe.

DRAINAGE AREA.--4.43 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,225.24 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except flows below 5 ft³/s which are poor. Some small diversions above station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100 ft³/s May 29, 1983, gage height, 4.34 ft; minimum discharge, no flow many days during July, August, and September, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 13	1700	32	2.98	May 29	1800	*100	4.34
Apr. 22	1945	21	2.76				

Minimum daily, 0.20 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	1.3	1.0	1.1	1.2	6.2	7.8	10	71	12	1.7	1.5
2	.50	1.1	.95	1.1	1.2	4.6	7.8	9.7	64	11	1.7	1.2
3	.50	.95	.95	1.1	1.1	4.0	7.1	11	63	8.4	1.6	.95
4	.52	.90	1.1	1.1	1.1	3.7	6.7	14	65	7.4	1.6	.85
5	.50	.84	1.1	1.1	1.1	3.9	6.1	13	62	7.6	1.5	.74
6	.58	1.3	1.0	1.1	1.0	4.1	6.0	13	60	7.0	1.5	.67
7	.48	.85	.88	1.1	1.4	4.8	6.2	15	57	6.6	1.4	.64
8	.40	1.1	.69	1.1	1.6	4.6	7.0	18	53	6.2	1.4	.60
9	.30	.75	.70	1.1	1.8	5.3	7.8	20	49	5.9	1.3	.56
10	.27	.66	.70	1.1	1.5	6.5	8.0	18	46	5.6	1.3	.54
11	.26	.65	.70	1.1	1.6	8.3	7.5	17	43	5.7	1.3	.51
12	.26	.65	.77	1.1	2.5	8.6	6.9	20	36	5.9	1.3	.49
13	.24	.65	.81	1.1	3.0	24	6.8	23	30	6.0	1.3	.47
14	.23	.65	.71	1.1	2.0	15	6.9	25	28	4.6	1.4	.45
15	.22	.65	.97	1.1	1.9	9.1	7.4	31	27	4.4	1.5	.42
16	.22	.68	.74	1.1	1.8	7.6	8.3	31	25	4.0	1.5	.41
17	.21	.75	.70	1.2	1.7	6.7	8.9	32	26	3.5	1.4	.43
18	.21	4.5	.73	1.2	3.4	5.9	10	35	24	3.5	1.3	.47
19	.21	2.1	1.0	1.5	3.1	5.2	12	39	20	3.2	1.3	.51
20	.20	1.0	1.5	1.2	2.6	4.8	15	44	18	3.3	1.2	.51
21	.67	1.1	1.4	1.2	2.4	4.6	15	48	16	3.2	1.1	.50
22	1.1	1.4	1.3	1.2	2.4	4.7	17	54	15	3.0	1.1	.60
23	.97	1.7	1.3	1.1	2.4	5.2	17	58	15	2.7	1.0	.75
24	.94	1.6	1.2	1.4	2.4	6.0	14	60	15	2.5	1.0	.70
25	2.9	.62	1.2	1.4	2.5	5.5	13	65	14	2.3	.97	.68
26	2.4	.39	1.2	1.6	2.6	5.1	11	76	13	2.1	.94	.67
27	1.5	1.1	1.1	1.5	2.6	5.4	10	85	13	2.0	.91	.66
28	1.0	2.6	1.1	1.4	3.4	5.2	11	88	12	1.9	.87	.70
29	2.0	1.5	.99	1.3	---	5.0	12	89	11	1.8	.85	.75
30	3.4	1.1	1.0	1.3	---	6.3	11	84	11	1.8	.82	.97
31	1.5	---	1.1	1.2	---	9.2	---	78	---	1.7	.88	---
TOTAL	25.23	35.14	30.59	37.3	57.3	205.1	291.2	1223.7	1002	146.8	38.94	19.90
MEAN	.81	1.17	.99	1.20	2.05	6.62	9.71	39.5	33.4	4.74	1.26	.66
MAX	3.4	4.5	1.5	1.6	3.4	24	17	89	71	12	1.7	1.5
MIN	.20	.39	.69	1.1	1.0	3.7	6.0	9.7	11	1.7	.82	.41
AC-FT	50	70	61	74	114	407	578	2430	1990	291	.77	.39

CAL YR 1982	TOTAL	1648.26	MEAN	4.52	MAX	44	MIN	.11	AC-FT	3270
WTR YR 1983	TOTAL	3113.20	MEAN	8.53	MAX	89	MIN	.20	AC-FT	6180

10336689 SNOW CREEK AT TAHOE VISTA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1981 to current year.

SEDIMENT RECORDS: Water years 1981 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1981 to September 1983 (discontinued).

WATER TEMPERATURES: October 1980 to September 1983 (discontinued).

SEDIMENT RECORDS: October 1980 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 222 micromhos Feb. 20, 1983; minimum daily, 67 micromhos Nov. 16, 1981.

WATER TEMPERATURES: Maximum recorded, 22.0°C June 23, July 10, 11, 1982; minimum recorded, 0.0°C on several days during most years.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 936 mg/L Oct. 7, 1981; minimum daily mean, 1 mg/L on several days during most years.

SEDIMENT DISCHARGE: Maximum daily, 23 tons Nov. 21, 1981; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 222 micromhos Feb. 20; minimum daily, 69 micromhos Dec. 27.

WATER TEMPERATURES: Maximum recorded, 20.5°C July 30, Aug. 1; minimum recorded, 0.0°C on many days in March and April.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 359 mg/L Oct. 25; minimum daily mean, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 9.2 tons Mar. 13; minimum daily, 0 ton on many days.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	171	143	188	180	184	---	86	106	143	179
2	---	---	180	144	198	179	186	---	88	108	145	184
3	---	---	176	138	184	186	190	---	87	110	146	182
4	---	---	172	146	184	192	195	---	85	112	148	181
5	---	---	168	151	198	195	196	---	84	114	151	181
6	---	---	---	158	216	201	194	---	---	116	153	182
7	---	---	166	160	188	---	191	---	---	117	155	181
8	---	---	166	162	188	---	186	---	---	118	156	183
9	---	---	163	165	201	178	184	---	---	119	157	181
10	---	---	164	168	217	177	188	156	---	120	160	179
11	---	---	168	171	202	175	191	155	---	121	163	181
12	---	---	161	175	185	179	192	151	---	124	161	182
13	171	---	168	183	192	139	201	148	---	127	163	185
14	172	---	166	175	197	167	191	143	---	126	161	184
15	171	---	162	170	202	166	186	137	88	122	168	184
16	173	170	167	170	198	174	183	133	87	122	175	186
17	173	166	178	167	185	193	183	129	87	124	173	186
18	172	---	167	185	183	185	180	123	87	125	173	186
19	172	---	168	167	218	181	177	117	89	126	169	185
20	170	---	182	195	222	180	177	115	91	126	175	185
21	171	---	123	178	211	184	175	111	93	128	174	186
22	178	---	91	190	213	183	170	105	94	129	169	182
23	180	---	75	200	220	189	172	104	94	131	180	193
24	---	161	74	182	208	184	---	122	95	131	178	198
25	---	162	73	185	178	190	---	161	96	132	177	197
26	---	167	73	190	198	191	---	81	97	133	177	195
27	---	170	69	180	202	200	---	88	99	135	177	193
28	---	186	88	189	187	193	---	86	101	135	177	192
29	---	173	134	184	---	193	---	87	102	137	177	188
30	---	169	139	189	---	190	---	84	104	139	178	182
31	---	---	140	189	---	178	---	84	---	141	175	---
MONTH	---	---	143	173	199	183	---	---	---	124	166	185
YEAR	MAX	222	MIN	69	MEAN	160						

10336689 SNOW CREEK AT TAHOE VISTA, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	1.5	1.0	0.5	0.5	0.5	0.5	0.5	0.0
2	---	---	---	---	1.5	1.0	0.5	0.5	0.5	0.5	1.5	0.5
3	---	---	---	---	2.5	1.0	0.5	0.5	0.5	0.5	2.5	0.5
4	---	---	---	---	3.0	0.5	0.5	0.5	0.5	0.5	3.5	0.5
5	---	---	---	---	3.5	1.0	0.5	0.5	0.5	0.5	4.0	0.5
6	---	---	---	---	3.5	1.0	1.0	0.5	0.5	0.5	4.0	0.0
7	---	---	---	---	1.0	0.5	1.0	0.5	0.5	0.5	---	---
8	---	---	---	---	1.0	0.5	1.5	0.5	0.5	0.5	---	---
9	---	---	---	---	1.0	0.5	1.0	0.5	1.0	0.5	4.5	0.5
10	---	---	---	---	2.0	0.5	1.0	0.5	1.5	0.5	5.0	0.5
11	---	---	---	---	2.0	0.5	0.5	0.5	2.0	0.5	5.0	0.5
12	---	---	---	---	3.0	1.0	0.5	0.5	1.5	0.5	2.0	0.0
13	10.5	6.0	---	---	1.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0
14	10.5	5.5	---	---	1.0	0.5	1.0	0.5	1.5	0.5	1.0	0.0
15	10.5	6.5	---	---	2.0	1.0	1.5	0.5	2.5	0.5	2.5	0.0
16	10.0	5.5	---	---	2.5	1.0	1.0	1.0	3.0	0.5	3.0	0.0
17	9.5	5.5	---	---	2.5	0.5	2.5	1.0	3.5	0.5	3.5	0.5
18	8.5	4.5	---	---	1.5	0.5	2.0	0.5	1.0	0.5	3.0	0.5
19	8.0	5.0	---	---	1.5	0.5	1.0	0.5	1.0	0.5	6.0	0.0
20	9.0	5.5	---	---	1.5	0.5	1.5	0.5	3.0	0.5	3.5	0.5
21	9.0	6.5	---	---	0.5	0.5	0.5	0.5	3.5	0.5	4.0	0.5
22	9.5	7.5	---	---	0.5	0.5	0.5	0.5	4.0	1.0	1.5	0.0
23	10.0	7.5	---	---	0.5	0.5	0.5	0.5	4.0	1.0	2.0	0.0
24	---	---	4.5	1.5	0.5	0.5	0.5	0.5	4.0	0.5	0.5	0.0
25	---	---	4.0	1.0	0.5	0.5	0.5	0.5	1.0	0.5	3.0	0.0
26	---	---	4.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	2.0	0.0
27	---	---	3.5	1.0	0.5	0.5	0.5	0.5	1.0	0.5	4.5	0.5
28	---	---	4.5	2.5	0.5	0.5	0.5	0.5	0.5	0.5	4.5	0.5
29	---	---	2.5	1.5	0.5	0.5	0.5	0.5	---	---	3.0	1.0
30	---	---	1.5	1.0	0.5	0.5	0.5	0.5	---	---	7.5	0.5
31	---	---	---	---	0.5	0.5	0.5	0.5	---	---	6.5	0.5
MONTH	---	---	---	---	3.5	0.5	2.5	0.5	4.0	0.5	7.5	0.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	0.5	---	---	8.5	4.0	12.0	7.5	20.5	10.5	16.5	11.0
2	6.0	0.5	---	---	7.5	4.5	15.5	7.0	20.0	10.5	16.5	9.0
3	5.0	0.5	---	---	13.0	4.0	17.0	6.5	20.0	10.5	17.0	8.5
4	4.0	0.5	---	---	11.5	4.5	18.5	8.0	20.0	10.0	17.0	8.5
5	4.5	0.0	---	---	14.5	4.0	17.0	9.5	20.0	9.5	17.5	9.0
6	7.0	0.0	---	---	---	---	18.0	9.0	20.0	11.0	17.5	10.0
7	8.0	0.0	---	---	---	---	15.0	8.5	17.5	12.5	16.5	9.5
8	8.5	0.5	---	---	---	---	16.0	7.5	18.5	12.5	15.5	10.0
9	8.0	1.0	---	---	---	---	13.0	6.0	20.0	11.0	13.5	8.5
10	7.0	1.0	8.5	1.5	---	---	16.0	5.5	17.5	13.0	13.5	8.0
11	5.0	0.5	13.0	1.5	---	---	17.5	7.0	19.5	10.5	13.5	8.5
12	5.0	0.5	12.0	2.0	---	---	18.0	8.0	19.0	10.0	14.0	9.0
13	8.0	0.5	13.0	2.0	---	---	18.5	8.0	18.5	12.0	15.0	9.5
14	9.0	0.5	13.5	1.5	14.5	5.0	18.0	8.5	15.5	11.5	14.0	9.0
15	9.5	0.5	13.5	2.5	15.5	5.5	17.5	8.0	17.5	12.0	13.5	8.0
16	9.0	1.0	13.0	2.0	15.5	5.5	17.0	7.0	20.0	10.5	14.5	9.0
17	7.5	1.5	13.5	2.0	16.0	6.0	17.0	7.0	15.0	11.5	15.0	9.5
18	9.0	1.0	13.5	2.5	15.5	5.5	17.0	7.0	16.0	10.5	14.5	8.5
19	9.5	1.5	13.5	2.5	15.5	4.5	16.5	7.0	17.0	11.5	12.5	8.0
20	5.0	1.5	14.0	2.5	15.5	5.5	17.0	5.5	18.0	10.5	12.5	7.5
21	6.0	1.5	14.0	2.5	17.5	6.0	18.5	7.5	15.0	10.0	12.5	7.5
22	9.0	1.5	14.0	3.0	17.0	6.5	19.0	8.5	17.5	10.5	12.0	9.5
23	5.5	0.5	14.0	3.0	16.5	7.0	18.5	7.0	17.0	9.0	11.5	9.0
24	---	---	13.5	3.0	16.5	7.0	18.0	8.0	17.5	9.0	13.5	6.5
25	---	---	13.5	3.5	17.5	7.0	17.0	8.0	17.0	8.5	14.5	7.5
26	---	---	12.0	3.5	16.5	7.0	18.0	7.5	17.0	8.0	13.5	8.5
27	---	---	13.5	3.5	17.0	7.0	19.0	8.5	16.5	8.5	14.0	7.0
28	---	---	11.5	4.0	16.5	7.0	19.5	8.5	16.0	8.5	13.5	8.0
29	---	---	13.5	4.0	16.5	7.5	20.0	9.0	16.5	9.0	12.0	7.0
30	---	---	13.0	3.5	16.5	7.0	20.5	10.0	15.5	9.0	11.0	7.5
31	---	---	13.0	4.0	---	---	19.5	10.5	14.5	11.5	---	---
MONTH	---	---	---	---	---	---	20.5	5.5	20.5	8.0	17.5	6.5

10336689 SNOW CREEK AT TAHOE VISTA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

OCTOBER					NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	.54	1	0	1.3	2	.01	1.0	3	.01	
2	.50	1	0	1.1	4	.01	.95	2	.01	
3	.50	3	0	.95	3	.01	.95	3	.01	
4	.52	4	.01	.90	2	0	1.1	6	.02	
5	.50	1	0	.84	1	0	1.1	7	.02	
6	.58	5	.01	1.3	7	.02	1.0	8	.02	
7	.48	3	0	.85	6	.01	.88	7	.02	
8	.40	2	0	1.1	15	.04	.69	5	.01	
9	.30	2	0	.75	10	.02	.70	6	.01	
10	.27	2	0	.66	13	.02	.70	6	.01	
11	.26	2	0	.65	17	.03	.70	4	.01	
12	.26	2	0	.65	21	.04	.77	4	.01	
13	.24	2	0	.65	26	.05	.81	4	.01	
14	.23	3	0	.65	30	.05	.71	4	.01	
15	.22	2	0	.65	34	.06	.97	5	.01	
16	.22	2	0	.68	34	.06	.74	8	.02	
17	.21	2	0	.75	20	.04	.70	5	.01	
18	.21	2	0	4.5	81	1.8	.73	5	.01	
19	.21	2	0	2.1	50	.28	1.0	5	.01	
20	.20	2	0	1.0	8	.02	1.5	19	.08	
21	.67	5	.01	1.1	7	.02	1.4	25	.09	
22	1.1	4	.01	1.4	6	.02	1.3	13	.05	
23	.97	3	.01	1.7	5	.02	1.3	7	.02	
24	.94	79	.41	1.6	5	.02	1.2	7	.02	
25	2.9	359	3.5	.62	4	.01	1.2	6	.02	
26	2.4	130	2.1	.39	3	0	1.2	5	.02	
27	1.5	2	.01	1.1	5	.01	1.1	5	.01	
28	1.0	1	0	2.6	6	.04	1.1	4	.01	
29	2.0	4	.02	1.5	8	.03	.99	4	.01	
30	3.4	13	.12	1.1	6	.02	1.0	4	.01	
31	1.5	2	.01	---	---	---	1.1	3	.01	
TOTAL	25.23	---	6.22	35.14	---	2.76	30.59	---	.59	

JANUARY					FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	1.1	3	.01	1.2	5	.02	6.2	31	.52	
2	1.1	3	.01	1.2	5	.02	4.6	17	.21	
3	1.1	3	.01	1.1	5	.01	4.0	12	.13	
4	1.1	3	.01	1.1	5	.01	3.7	10	.10	
5	1.1	3	.01	1.1	5	.01	3.9	8	.08	
6	1.1	3	.01	1.0	13	.04	4.1	7	.08	
7	1.1	3	.01	1.4	64	.24	4.8	13	.17	
8	1.1	3	.01	1.6	49	.21	4.6	7	.09	
9	1.1	3	.01	1.8	40	.19	5.3	6	.09	
10	1.1	3	.01	1.5	36	.15	6.5	8	.14	
11	1.1	4	.01	1.6	34	.15	8.3	10	.22	
12	1.1	11	.03	2.5	34	.23	8.6	26	.60	
13	1.1	22	.07	3.0	31	.25	24	147	9.2	
14	1.1	19	.06	2.0	29	.16	15	25	1.0	
15	1.1	10	.03	1.9	28	.14	9.1	11	.27	
16	1.1	6	.02	1.8	26	.13	7.6	8	.16	
17	1.2	5	.02	1.7	24	.11	6.7	8	.14	
18	1.2	5	.02	3.4	35	.32	5.9	8	.13	
19	1.5	4	.02	3.1	29	.24	5.2	8	.11	
20	1.2	3	.01	2.6	23	.16	4.8	8	.10	
21	1.2	2	.01	2.4	20	.13	4.6	7	.09	
22	1.2	2	.01	2.4	16	.10	4.7	8	.10	
23	1.1	3	.01	2.4	11	.07	5.2	8	.11	
24	1.4	15	.06	2.4	8	.05	6.0	7	.11	
25	1.4	5	.02	2.5	9	.06	5.5	6	.09	
26	1.6	4	.02	2.6	11	.08	5.1	4	.06	
27	1.5	5	.02	2.6	10	.07	5.4	4	.06	
28	1.4	5	.02	3.4	17	.16	5.2	5	.07	
29	1.3	5	.02	---	---	---	5.0	5	.07	
30	1.3	5	.02	---	---	---	6.3	13	.22	
31	1.2	5	.02	---	---	---	9.2	24	.60	
TOTAL	37.3	---	.62	57.3	---	3.51	205.1	---	15.12	

10336689 SNOW CREEK AT TAHOE VISTA, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL				MAY				JUNE			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)			
1	7.8	14	.29	10	14	.38	71	12	2.3			
2	7.8	12	.25	9.7	11	.29	64	10	1.7			
3	7.1	11	.21	11	10	.30	63	20	3.4			
4	6.7	9	.16	14	10	.38	65	14	2.5			
5	6.1	8	.13	13	8	.28	62	10	1.7			
6	6.0	9	.15	13	6	.21	60	10	1.6			
7	6.2	13	.22	15	12	.49	57	10	1.5			
8	7.0	17	.32	18	17	.83	53	11	1.6			
9	7.8	12	.25	20	28	1.5	49	10	1.3			
10	8.0	9	.19	18	9	.44	46	9	1.1			
11	7.5	8	.16	17	11	.50	43	9	1.0			
12	6.9	7	.13	20	11	.59	36	8	.78			
13	6.8	6	.11	23	12	.75	30	11	.89			
14	6.9	8	.15	25	20	1.4	28	11	.83			
15	7.4	8	.16	31	32	2.7	27	12	.87			
16	8.3	6	.13	31	15	1.3	25	13	.88			
17	8.9	4	.10	32	16	1.4	26	13	.91			
18	10	6	.16	35	32	3.0	24	12	.78			
19	12	14	.45	39	34	3.6	20	12	.65			
20	15	14	.57	44	38	4.5	18	11	.53			
21	15	9	.36	48	36	4.7	16	10	.43			
22	17	13	.60	54	45	6.6	15	9	.36			
23	17	13	.60	58	47	7.4	15	8	.32			
24	14	12	.45	60	45	7.3	15	9	.36			
25	13	14	.49	65	34	6.0	14	9	.34			
26	11	16	.48	76	34	7.0	13	8	.28			
27	10	21	.57	85	35	8.0	13	8	.28			
28	11	24	.71	88	33	7.8	12	7	.23			
29	12	25	.81	89	35	8.4	11	6	.18			
30	11	20	.59	84	28	6.4	11	6	.18			
31	---	---	---	78	15	3.2	---	---	---			
TOTAL	291.2	---	9.95	1223.7	---	97.64	1002	---	29.78			
DAY	JULY				AUGUST				SEPTEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)			
1	12	7	.23	1.7	4	.02	1.5	5	.02			
2	11	7	.21	1.7	4	.02	1.2	4	.01			
3	8.4	7	.16	1.6	5	.02	.95	3	.01			
4	7.4	7	.14	1.6	5	.02	.85	3	.01			
5	7.6	7	.14	1.5	5	.02	.74	3	.01			
6	7.0	8	.15	1.5	5	.02	.67	2	0			
7	6.6	8	.14	1.4	5	.02	.64	2	0			
8	6.2	7	.12	1.4	6	.02	.60	1	0			
9	5.9	7	.11	1.3	6	.02	.56	1	0			
10	5.6	6	.09	1.3	6	.02	.54	1	0			
11	5.7	6	.09	1.3	6	.02	.51	1	0			
12	5.9	6	.10	1.3	5	.02	.49	1	0			
13	6.0	6	.10	1.3	4	.01	.47	1	0			
14	4.6	9	.11	1.4	4	.02	.45	1	0			
15	4.4	8	.10	1.5	4	.02	.42	1	0			
16	4.0	8	.09	1.5	4	.02	.41	1	0			
17	3.5	8	.08	1.4	4	.02	.43	1	0			
18	3.5	8	.08	1.3	4	.01	.47	1	0			
19	3.2	7	.06	1.3	4	.01	.51	1	0			
20	3.3	7	.06	1.2	4	.01	.51	1	0			
21	3.2	7	.06	1.1	4	.01	.50	1	0			
22	3.0	7	.06	1.1	4	.01	.60	5	.01			
23	2.7	6	.04	1.0	4	.01	.75	2	0			
24	2.5	6	.04	1.0	4	.01	.70	2	0			
25	2.3	5	.03	.97	4	.01	.68	2	0			
26	2.1	5	.03	.94	4	.01	.67	2	0			
27	2.0	4	.02	.91	4	.01	.66	2	0			
28	1.9	3	.02	.87	4	.01	.70	2	0			
29	1.8	3	.01	.85	4	.01	.75	2	0			
30	1.8	3	.01	.82	4	.01	.97	2	.01			
31	1.7	3	.01	.88	10	.02	---	---	---			
TOTAL	146.8	---	2.69	38.94	---	.48	19.90	---	.08			
YEAR	3113.20		169.44									

PYRAMID AND WINNEMUCCA LAKES BASIN

10336689 SNOW CREEK AT TAHOE VISTA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 18...	0945	11	1.0	36	1.1	48
FEB 12...	1440	2.5	1.0	34	.23	92
MAR 13...	0125	15	0.5	155	6.3	35
MAY 22...	2015	63	8.0	100	17	71
31...	1055	75	6.5	15	3.0	57

10336698 THIRD CREEK NEAR CRYSTAL BAY, NV

LOCATION.--Lat 39°14'26", long 119°56'41", in SW 1/4 NE 1/4 sec.22, T.16 N., R.18 E., Washoe County, Hydrologic Unit 16050101, on right bank 50 ft upstream from culvert on Lakeshore Boulevard, 600 ft upstream from mouth, and 3 mi east of Crystal Bay.

DRAINAGE AREA.--6.05 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to September 1973, February to September 1975, October 1977 to current year.

REVISED RECORDS.--WDR CA-78-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,000.00 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter months, which are fair. One transmountain diversion to Washoe Valley.

AVERAGE DISCHARGE.--10 years (water years 1970-73, 1978-83), 8.72 ft³/s, 6,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150 ft³/s June 18, 1982, gage height, 3.40 ft; maximum gage height, 3.77 ft Jan. 23, 1973, backwater from ice; minimum daily discharge, 0.66 ft³/s on several days during October 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	2000	33	2.68	May 29	2130	80	3.14
Oct. 25	2400	80	3.06	July 6	1800	*86	3.23

Minimum daily, 3.6 ft³/s several days during January and February.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.9	8.4	4.2	3.8	5.5	7.4	9.2	49	42	21	14
2	5.2	4.8	8.5	4.1	3.6	5.0	7.2	9.8	40	45	20	11
3	4.8	4.7	6.0	4.1	3.6	4.7	6.2	12	41	45	20	10
4	4.6	4.6	5.7	4.2	3.6	4.4	5.7	13	47	52	19	9.5
5	4.4	4.5	5.6	4.1	3.6	4.2	5.3	11	48	54	18	9.0
6	4.4	4.5	5.4	4.1	3.6	4.4	5.9	11	50	61	19	8.6
7	5.0	4.7	5.2	4.2	4.4	5.4	6.2	12	50	50	19	8.3
8	4.8	5.0	5.0	4.2	4.6	5.7	7.7	13	50	41	20	8.0
9	4.6	5.2	5.0	4.1	3.8	5.8	8.9	11	51	35	19	7.8
10	4.4	5.4	5.0	4.0	3.8	6.2	8.3	9.8	53	33	24	7.3
11	4.4	5.5	4.9	4.1	3.6	6.6	7.4	9.8	52	35	21	6.7
12	4.4	5.3	4.9	4.1	3.8	6.9	6.6	12	46	37	19	6.4
13	4.3	5.6	4.8	4.2	4.4	15	6.4	12	42	16	17	6.3
14	4.4	5.4	4.7	4.1	4.1	8.6	6.2	14	44	17	18	6.2
15	4.4	5.0	4.6	4.2	3.9	6.6	7.4	16	49	18	19	6.1
16	4.2	4.9	4.5	4.4	3.8	6.0	9.2	15	50	14	15	6.0
17	11	4.8	4.9	4.3	4.1	5.9	8.6	15	44	26	13	6.0
18	18	9.7	4.6	4.2	4.3	5.6	9.5	19	42	25	13	5.8
19	4.8	8.4	4.5	4.2	4.3	5.5	8.3	21	38	26	13	5.7
20	4.6	7.2	5.5	4.0	3.9	5.2	13	22	39	27	11	5.6
21	5.0	7.0	7.6	3.9	3.8	5.0	11	25	40	26	12	5.6
22	4.7	6.8	7.3	3.8	4.2	5.2	13	29	45	26	16	7.2
23	6.4	6.8	5.8	4.7	4.7	5.2	12	30	49	25	13	7.8
24	7.4	6.3	5.4	4.4	4.6	5.4	11	39	49	24	12	7.1
25	30	5.8	5.3	4.2	4.5	5.0	11	52	49	23	11	6.9
26	26	5.5	5.2	3.8	4.7	4.6	8.9	61	50	22	11	11
27	8.8	5.1	4.9	3.6	4.6	4.8	8.9	60	47	22	10	10
28	6.2	5.7	4.8	3.7	4.9	4.6	9.8	64	44	21	10	9.0
29	4.9	6.2	4.8	3.8	---	4.6	11	67	44	22	10	9.6
30	9.1	8.1	4.6	3.8	---	6.2	11	62	43	23	11	14
31	5.3	---	4.3	3.8	---	8.9	---	61	---	23	12	---
TOTAL	226.0	173.4	167.7	126.6	114.6	182.7	259.0	817.6	1385	956	486	242.5
MEAN	7.29	5.78	5.41	4.08	4.09	5.89	8.63	26.4	46.2	30.8	15.7	8.08
MAX	30	9.7	8.5	4.7	4.9	15	13	67	53	61	24	14
MIN	4.2	4.5	4.3	3.6	3.6	4.2	5.3	9.2	38	14	10	5.6
AC-FT	448	344	333	251	227	362	514	1620	2750	1900	964	481

CAL YR 1982	TOTAL	4985.9	MEAN	13.7	MAX	99	MIN	2.3	AC-FT	9890
WTR YR 1983	TOTAL	5137.1	MEAN	14.1	MAX	67	MIN	3.6	AC-FT	10190

PYRAMID AND WINNEMUCCA LAKES BASIN

10336698 THIRD CREEK NEAR CRYSTAL BAY, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-73, 1975, 1978 to current year.

CHEMICAL ANALYSIS: Water years 1970-73, 1975, 1978-79.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1980 to current year.

SEDIMENT RECORDS: Water years 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1981 to September 1983 (discontinued).

WATER TEMPERATURES: January 1980 to September 1983 (discontinued).

SEDIMENT RECORDS: January 1980 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by University of California at Davis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 350 micromhos Mar. 30, 1981; minimum daily, 24 micromhos May 14, 1981.

WATER TEMPERATURES: Maximum recorded, 19.5°C on several days during June to August 1981; minimum recorded, 0.0°C on several days during March and April 1981, Mar. 23, 1983.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 800 mg/L June 18, 1980; minimum daily mean, 0 mg/L on several days during October 1980 and December 8, 1981.

SEDIMENT DISCHARGE: Maximum daily, 183 tons June 19, 1982; minimum daily, 0 ton on many days during October 1980 and December 8, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 234 micromhos Feb. 19; minimum daily, 27 micromhos June 30.

WATER TEMPERATURES: Maximum recorded, 15.0°C Aug. 6; minimum recorded, 0.0°C Mar. 23.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 285 mg/L Oct. 25; minimum daily mean, 1 mg/L Oct. 3-16, 19-22.

SEDIMENT DISCHARGE: Maximum daily, 47 tons Oct. 25; minimum daily, 0.01 ton Oct. 3-16, 19-22.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	60	66	84	101	105	---	---	47	31	36	52
2	---	60	62	83	99	113	---	---	54	32	36	59
3	---	61	64	85	96	117	---	---	54	32	36	59
4	---	61	67	94	93	111	---	---	51	31	---	60
5	---	62	68	97	95	110	---	---	46	37	---	60
6	---	62	71	91	93	113	---	---	45	44	---	61
7	---	62	66	92	96	115	---	---	43	---	43	62
8	---	63	64	94	102	116	---	---	43	---	43	63
9	66	63	66	89	102	117	---	---	---	---	---	63
10	67	64	65	88	107	118	---	95	---	---	---	64
11	68	68	62	88	110	120	---	101	38	---	---	65
12	69	68	62	90	114	121	---	107	39	---	---	66
13	70	67	64	94	114	103	---	112	40	---	---	67
14	71	68	65	92	116	139	---	99	41	---	---	67
15	71	68	68	93	115	133	---	95	39	---	48	67
16	71	67	69	118	117	122	---	---	39	43	48	67
17	69	71	69	121	112	146	---	85	38	38	52	67
18	54	65	67	95	94	137	---	79	38	36	53	---
19	61	62	69	92	125	131	---	75	41	38	53	---
20	67	63	70	---	111	119	---	65	43	38	53	69
21	69	62	75	---	107	131	---	63	42	41	54	69
22	73	75	71	---	111	116	---	60	43	48	50	67
23	74	76	69	---	108	121	---	53	42	44	51	69
24	75	74	73	---	113	113	---	45	42	41	51	68
25	68	73	78	---	107	130	---	48	44	41	52	68
26	60	73	81	---	102	108	---	---	45	41	52	63
27	52	73	82	---	96	99	---	36	45	42	53	61
28	55	80	---	95	100	119	---	33	43	42	55	64
29	57	73	---	93	---	124	---	33	35	42	53	64
30	60	69	81	96	---	116	---	33	30	41	50	56
31	61	---	83	96	---	122	---	---	---	37	45	---
MONTH	---	67	70	---	106	120	---	---	43	---	---	64

10336698 THIRD CREEK NEAR CRYSTAL BAY, NV--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	6.5	3.0	1.0	0.5	2.0	0.5	2.0	0.5	4.0	2.5
2	---	---	5.5	2.0	2.0	0.5	2.5	1.0	2.5	0.5	5.0	2.5
3	---	---	6.0	1.5	3.5	1.5	2.5	1.0	2.0	0.5	4.5	2.5
4	---	---	6.0	1.5	3.5	1.0	3.5	2.0	2.5	0.5	5.0	2.0
5	---	---	6.5	2.5	3.0	1.5	3.5	2.0	2.0	0.5	5.5	2.5
6	---	---	6.5	3.0	4.0	1.5	3.5	2.0	2.0	1.0	5.5	2.5
7	---	---	5.5	2.5	1.5	0.5	3.5	2.0	2.5	0.5	5.5	3.0
8	---	---	2.0	1.0	0.5	0.5	4.0	1.5	2.0	0.5	5.5	3.0
9	7.5	4.0	1.5	0.5	2.5	0.5	3.5	1.0	2.5	1.0	5.5	2.5
10	7.5	4.5	2.0	0.5	3.5	1.5	3.5	1.0	3.5	2.0	6.0	2.5
11	8.0	4.0	3.0	0.5	3.0	1.5	3.5	1.0	4.0	1.5	5.5	2.5
12	8.5	5.0	3.5	0.5	3.5	1.5	3.5	0.5	3.0	2.0	3.5	2.0
13	9.0	5.5	3.0	0.5	2.0	1.0	3.5	0.5	2.5	1.0	2.0	1.0
14	9.5	5.5	3.5	0.5	1.5	0.5	3.5	1.0	3.5	0.5	3.5	1.5
15	9.0	5.5	4.0	0.5	3.0	1.5	4.0	2.0	4.5	1.5	3.5	1.0
16	8.5	5.0	4.0	0.5	3.5	2.0	3.5	2.5	4.5	1.5	3.5	1.5
17	8.5	5.5	4.5	3.0	3.0	1.0	4.0	2.5	4.5	1.5	3.0	1.5
18	8.0	5.0	3.5	1.0	2.5	0.5	4.0	1.0	3.0	0.5	2.5	1.0
19	6.5	4.5	1.5	0.5	3.5	0.5	2.0	0.5	3.0	0.5	4.0	0.5
20	7.5	5.0	2.0	0.5	3.0	2.0	---	---	4.0	1.0	3.0	0.5
21	7.5	6.0	2.0	0.5	2.0	0.5	---	---	4.5	1.5	2.5	1.0
22	8.0	6.5	3.0	1.5	1.0	0.5	---	---	5.0	2.5	2.0	0.5
23	8.5	6.5	4.0	2.0	1.0	0.5	---	---	4.5	2.5	3.0	0.0
24	7.5	6.0	4.0	1.5	0.5	0.5	---	---	5.0	0.5	1.5	0.5
25	7.0	5.5	3.5	0.5	1.0	0.5	---	---	2.0	0.5	3.5	1.0
26	5.5	2.5	3.5	0.5	2.5	1.0	---	---	2.0	1.5	3.0	0.5
27	5.0	1.5	3.5	1.5	2.0	1.0	2.0	0.5	3.0	1.5	4.0	1.0
28	5.5	1.5	4.0	1.5	---	---	2.0	0.5	4.0	2.0	4.0	1.5
29	6.5	4.5	2.0	0.5	---	---	2.5	0.5	---	---	4.0	2.5
30	6.0	4.0	0.5	0.5	1.5	0.5	2.5	0.5	---	---	6.0	2.5
31	6.5	2.5	---	---	2.0	0.5	2.0	0.5	---	---	5.5	2.0
MONTH	---	---	6.5	0.5	4.0	0.5	---	---	5.0	0.5	6.0	0.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.0	2.0	5.0	2.5	5.0	3.0	5.5	3.5	14.0	9.0	12.5	9.5
2	6.0	2.0	8.5	2.5	5.5	3.5	7.5	3.5	14.5	9.0	13.0	8.0
3	4.5	1.5	9.0	2.5	8.0	3.5	8.5	3.5	14.0	9.0	12.5	7.5
4	4.5	1.5	6.0	3.0	6.5	3.5	9.5	4.5	13.5	8.0	13.0	8.0
5	5.0	1.0	5.5	2.5	8.0	3.0	8.5	4.5	14.0	8.0	14.0	8.0
6	6.5	1.0	8.0	1.5	7.5	3.0	9.0	5.0	15.0	9.0	14.0	9.0
7	7.0	1.0	8.5	2.0	6.0	3.0	8.5	5.0	13.0	10.5	13.5	8.5
8	7.0	2.0	8.5	2.0	7.5	3.0	8.0	4.5	13.0	11.0	13.0	8.5
9	7.0	2.5	8.0	1.5	---	---	7.5	4.0	---	---	12.0	7.0
10	6.0	2.5	7.0	2.5	---	---	9.5	4.5	---	---	12.5	7.0
11	6.0	2.0	9.5	2.5	6.0	3.0	11.0	5.5	---	---	13.0	7.0
12	2.5	1.5	9.0	3.0	7.0	3.0	11.5	6.5	---	---	13.5	8.0
13	5.5	1.5	9.5	3.0	7.0	3.0	12.0	6.0	---	---	13.5	8.5
14	---	---	9.5	2.0	7.5	3.0	12.0	7.0	---	---	12.5	7.5
15	---	---	9.0	3.0	7.0	3.0	11.5	6.5	13.0	10.0	12.5	7.0
16	---	---	9.0	2.5	7.0	3.0	11.5	5.0	14.5	9.0	13.0	8.0
17	---	---	9.5	2.5	7.0	2.5	10.5	5.5	11.5	9.5	13.0	8.5
18	---	---	10.0	2.5	6.0	3.0	11.0	5.5	12.0	9.0	---	---
19	8.0	2.5	10.0	3.0	6.5	2.5	11.0	6.0	12.5	10.0	---	---
20	4.5	2.5	10.0	3.0	6.5	3.0	11.0	5.0	12.5	9.0	10.5	5.5
21	6.0	3.5	9.5	3.0	7.0	3.0	12.5	6.5	11.0	8.0	11.5	6.0
22	7.0	3.0	9.5	3.0	7.5	3.5	12.5	7.0	12.5	8.5	9.5	8.5
23	6.0	2.0	9.0	3.0	7.0	3.0	12.0	6.0	12.0	7.5	9.0	7.5
24	3.0	1.0	8.5	3.0	7.0	3.0	12.0	6.5	12.5	7.5	10.0	6.0
25	5.0	0.5	8.5	3.0	7.5	3.5	11.0	7.0	12.0	7.0	11.0	7.0
26	5.5	1.5	7.0	2.5	7.5	3.0	12.0	6.5	12.0	6.5	10.5	7.0
27	5.0	3.0	8.0	3.0	7.0	3.0	13.0	7.5	12.5	7.0	10.0	6.0
28	6.0	2.5	7.0	3.0	7.0	3.0	13.0	7.0	12.5	7.5	9.5	7.0
29	7.5	1.5	7.0	3.0	7.0	3.5	14.0	8.0	12.5	7.5	9.0	6.0
30	7.5	2.5	7.0	2.5	7.5	3.5	14.0	8.5	12.5	7.5	7.0	5.5
31	---	---	---	---	---	---	13.5	9.0	11.5	9.5	---	---
MONTH	8.0	0.5	10.0	1.5	8.0	2.5	14.0	3.5	15.0	6.5	14.0	5.5

10336698 THIRD CREEK NEAR CRYSTAL BAY, NV--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5.5	2	.03	4.9	2	.03	8.4	4	.09
2	5.2	2	.03	4.8	2	.03	8.5	5	.11
3	4.8	1	.01	4.7	2	.03	6.0	5	.08
4	4.6	1	.01	4.6	2	.02	5.7	5	.08
5	4.4	1	.01	4.5	2	.02	5.6	5	.08
6	4.4	1	.01	4.5	2	.02	5.4	5	.07
7	5.0	1	.01	4.7	2	.03	5.2	5	.07
8	4.8	1	.01	5.0	2	.03	5.0	5	.07
9	4.6	1	.01	5.2	2	.03	5.0	4	.05
10	4.4	1	.01	5.4	2	.03	5.0	3	.04
11	4.4	1	.01	5.5	2	.03	4.9	3	.04
12	4.4	1	.01	5.3	2	.03	4.9	3	.04
13	4.3	1	.01	5.6	3	.05	4.8	3	.04
14	4.4	1	.01	5.4	3	.04	4.7	3	.04
15	4.4	1	.01	5.0	3	.04	4.6	3	.04
16	4.2	1	.01	4.9	3	.04	4.5	3	.04
17	11	60	5.2	4.8	3	.04	4.9	3	.04
18	18	59	4.5	9.7	73	2.3	4.6	3	.04
19	4.8	1	.01	8.4	15	.34	4.5	3	.04
20	4.6	1	.01	7.2	2	.04	5.5	23	.34
21	5.0	1	.01	7.0	2	.04	7.6	3	.06
22	4.7	1	.01	6.8	2	.04	7.3	3	.06
23	6.4	20	.35	6.8	2	.04	5.8	3	.05
24	7.4	30	.60	6.3	2	.03	5.4	3	.04
25	30	285	47	5.8	2	.03	5.3	3	.04
26	26	214	26	5.5	2	.03	5.2	3	.04
27	8.8	6	.14	5.1	2	.03	4.9	3	.04
28	6.2	2	.03	5.7	2	.03	4.8	3	.04
29	4.9	2	.03	6.2	2	.03	4.8	3	.04
30	9.1	34	1.1	8.1	3	.07	4.6	3	.04
31	5.3	3	.04	---	---	---	4.3	3	.03
TOTAL	226.0	---	85.23	173.4	---	3.59	167.7	---	1.92

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.2	3	.03	3.8	3	.03	5.5	12	.18
2	4.1	3	.03	3.6	3	.03	5.0	10	.14
3	4.1	3	.03	3.6	3	.03	4.7	8	.10
4	4.2	3	.03	3.6	3	.03	4.4	7	.08
5	4.1	3	.03	3.6	3	.03	4.2	7	.08
6	4.1	4	.04	3.6	3	.03	4.4	9	.11
7	4.2	4	.05	4.4	10	.12	5.4	21	.31
8	4.2	4	.05	4.6	10	.12	5.7	11	.17
9	4.1	4	.04	3.8	3	.03	5.8	12	.19
10	4.0	4	.04	3.8	3	.03	6.2	12	.20
11	4.1	4	.04	3.6	3	.03	6.6	12	.21
12	4.1	4	.04	3.8	10	.10	6.9	66	1.5
13	4.2	4	.05	4.4	3	.04	15	154	6.4
14	4.1	4	.04	4.1	3	.03	8.6	43	1.0
15	4.2	4	.05	3.9	3	.03	6.6	17	.30
16	4.4	4	.05	3.8	5	.05	6.0	8	.13
17	4.3	4	.05	4.1	5	.06	5.9	5	.08
18	4.2	3	.03	4.3	7	.08	5.6	5	.08
19	4.2	3	.03	4.3	7	.08	5.5	5	.07
20	4.0	3	.03	3.9	5	.05	5.2	5	.07
21	3.9	3	.03	3.8	5	.05	5.0	5	.07
22	3.8	3	.03	4.2	7	.08	5.2	5	.07
23	4.7	3	.04	4.7	7	.09	5.2	5	.07
24	4.4	3	.04	4.6	7	.09	5.4	4	.06
25	4.2	3	.03	4.5	7	.09	5.0	4	.05
26	3.8	3	.03	4.7	7	.09	4.6	4	.05
27	3.6	3	.03	4.6	7	.09	4.8	4	.05
28	3.7	3	.03	4.9	8	.11	4.6	4	.05
29	3.8	3	.03	---	---	---	4.6	4	.05
30	3.8	3	.03	---	---	---	6.2	43	.72
31	3.8	3	.03	---	---	---	8.9	64	1.5
TOTAL	126.6	---	1.13	114.6	---	1.72	182.7	---	14.14

10336698 THIRD CREEK NEAR CRYSTAL BAY, NV--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

APRIL				MAY				JUNE	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.4	16	.32	9.2	10	.25	49	63	8.3
2	7.2	15	.29	9.8	15	.40	40	38	4.1
3	6.2	10	.17	12	17	.55	41	62	6.9
4	5.7	10	.15	13	14	.49	47	40	5.1
5	5.3	10	.14	11	13	.39	48	40	5.2
6	5.9	11	.18	11	15	.45	50	40	5.4
7	6.2	12	.20	12	16	.52	50	35	4.7
8	7.7	17	.35	13	22	.77	50	35	4.7
9	8.9	17	.41	11	28	.83	51	42	5.8
10	8.3	12	.27	9.8	12	.32	53	60	8.6
11	7.4	10	.20	9.8	14	.37	52	65	9.1
12	6.6	10	.18	12	15	.49	46	36	4.5
13	6.4	15	.26	12	18	.58	42	42	4.8
14	6.2	15	.25	14	51	1.9	44	45	5.3
15	7.4	20	.40	16	75	3.2	49	50	6.6
16	9.2	20	.50	15	53	2.1	50	60	8.1
17	8.6	15	.35	15	56	2.3	44	63	7.5
18	9.5	17	.44	19	70	3.6	42	35	4.0
19	8.3	22	.49	21	67	3.8	38	28	2.9
20	13	23	.81	22	63	3.7	39	31	3.3
21	11	16	.48	25	112	7.6	40	32	3.5
22	13	22	.77	29	94	7.4	45	82	10
23	12	12	.39	30	111	9.0	49	109	14
24	11	10	.30	39	112	12	49	108	14
25	11	12	.36	52	118	17	49	124	16
26	8.9	10	.24	61	118	19	50	101	14
27	8.9	10	.24	60	124	20	47	94	12
28	9.8	12	.32	64	145	25	44	91	11
29	11	13	.39	67	146	26	44	75	8.9
30	11	13	.39	62	156	26	43	68	7.9
31	---	---	---	61	128	21	---	---	---
TOTAL	259.0	---	10.24	817.6	---	217.01	1385	---	226.2
JULY				AUGUST				SEPTEMBER	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	42	41	4.6	21	6	.34	14	14	.53
2	45	52	6.3	20	6	.32	11	8	.24
3	45	55	6.7	20	6	.32	10	8	.22
4	52	65	9.1	19	6	.31	9.5	7	.18
5	54	70	10	18	6	.29	9.0	7	.17
6	61	116	19	19	6	.31	8.6	6	.14
7	50	55	7.4	19	6	.31	8.3	6	.13
8	41	32	3.5	20	6	.32	8.0	6	.13
9	35	18	1.7	19	6	.31	7.8	6	.13
10	33	18	1.6	24	27	1.7	7.3	5	.10
11	35	22	2.1	21	8	.45	6.7	4	.07
12	37	20	2.0	19	6	.31	6.4	3	.05
13	16	27	1.2	17	5	.23	6.3	2	.03
14	17	20	.92	18	15	.73	6.2	2	.03
15	18	18	.87	19	8	.41	6.1	2	.03
16	14	18	.68	15	6	.24	6.0	2	.03
17	26	14	.98	13	6	.21	6.0	2	.03
18	25	10	.68	13	6	.21	5.8	2	.03
19	26	8	.56	13	10	.35	5.7	2	.03
20	27	7	.51	11	7	.21	5.6	2	.03
21	26	6	.42	12	7	.23	5.6	2	.03
22	26	6	.42	16	15	.65	7.2	22	.43
23	25	6	.41	13	6	.21	7.8	5	.11
24	24	6	.39	12	5	.16	7.1	5	.10
25	23	7	.43	11	4	.12	6.9	5	.09
26	22	8	.48	11	3	.09	11	32	.95
27	22	10	.59	10	3	.08	10	6	.16
28	21	10	.57	10	3	.08	9.0	6	.15
29	22	14	.83	10	3	.08	9.6	8	.21
30	23	15	.93	11	17	.50	14	25	.95
31	23	8	.50	12	10	.32	---	---	---
TOTAL	956	---	86.37	486	---	10.40	242.5	---	5.51
YEAR	5137.1		663.46						

PYRAMID AND WINNEMUCCA LAKES BASIN

10336698 THIRD CREEK NEAR CRYSTAL BAY NV--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
25...	1030	22	6.0	140	8.3	62	--	--	--	--
25...	1050	22	5.5	286	17	69	78	90	97	100
25...	1830	63	5.5	906	154	26	--	--	--	--
NOV										
18...	1025	13	1.5	154	5.4	81	86	92	100	--
18...	1625	14	1.0	67	2.5	73	--	--	--	--
DEC										
20...	2215	9.2	2.0	53	1.3	68	--	--	--	--
MAR										
07...	1810	6.9	3.0	42	.78	82	--	--	--	--
MAY										
16...	0910	13	3.0	39	1.4	30	--	--	--	--
31...	1015	58	3.5	109	17	14	--	--	--	--
JUNE										
16...	1830	58	4.5	166	26	22	--	--	--	--
JULY										
13...	2100	43	8.0	94	11	20	--	--	--	--

10336710 MARLETTE LAKE NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'22", long 119°54'15", in SW 1/4 SE 1/4 sec.12, T.15 N., R.18 E., Washoe County, Hydrologic Unit 16050101, Toiyabe National Forest, on west shore 1,000 ft upstream from left side of dam, and 7.5 mi west of Carson City.

DRAINAGE AREA.--2.86 mi².

PERIOD OF RECORD.--November 1973 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by earthfill dam across the outlet of a small natural lake (at one time called Goodwin Lake) on Marlette Creek, built in 1873 to provide water for fluming lumber from Spooner Summit to Carson City. The dam was built higher in 1876 and used to divert water by flume and siphon to Virginia City, until the flume was abandoned prior to 1963. The dam was raised to its present elevation in 1959. Present capacity, 11,780 acre-ft at spillway elevation 7,838.0 ft. Figures given herein represent total contents at 2400 hours. Stored water is used for spawning fish for Pyramid and Walker Lakes (stations 10336500, 10288500) and in dry years is pumped over the mountain to the Hobart system for municipal and domestic use outside the basin in Virginia City and Carson City.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,220 acre-ft June 19, 1983, elevation, 7,839.01 ft; minimum, 10,970 acre-ft Nov. 10-13, 1976, elevation, 7,835.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,220 acre-ft June 19, elevation, 7,839.01 ft; minimum, 11,790 acre-ft July 22-25, elevation, 7,837.97 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

7,836	11,030	7,838	11,790
7,837	11,410	7,839	12,220

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11930	11970	12030	11930	11940	11990	11930	11960	12190	12020	11850	11930
2	11920	11960	12020	11930	11930	11970	11920	11940	12200	12000	11860	11930
3	11910	11950	12000	11920	11930	11970	11920	11930	12200	11990	11860	11930
4	11910	11940	11990	11920	11930	11950	11920	11930	12200	11970	11870	11930
5	11900	11940	11970	11910	11920	11940	11910	11930	12200	11970	11870	11920
6	11880	11930	11960	11900	11940	11930	11900	11930	12190	11950	11880	11920
7	11900	11910	11940	11900	12000	11930	11900	11930	12190	11920	11880	11900
8	11890	11930	11950	11900	11980	11920	11900	11930	12180	11920	11890	11890
9	11870	11950	11940	11900	11980	11910	11890	11920	12180	11910	11890	11890
10	11870	11960	11940	11890	11970	11910	11890	11920	12180	11900	11910	11900
11	11870	11950	11930	11880	11960	11910	11880	11920	12180	11890	11900	11900
12	11870	11940	11930	11880	11960	11940	11880	11920	12190	11880	11910	11890
13	11870	11930	11930	11870	11970	11990	11890	11920	12190	11870	11910	11880
14	11870	11930	11900	11870	11960	11980	11890	11920	12190	11870	11910	11880
15	11870	11930	11920	11860	11940	11960	11890	11930	12200	11860	11920	11870
16	11870	11930	11900	11880	11930	11960	11880	11930	12210	11850	11920	11870
17	11870	11930	11930	11880	11930	11960	11880	11940	12200	11830	11920	11870
18	11850	11970	11930	11880	11970	11960	11870	11950	12210	11830	11920	11860
19	11860	12000	11920	11900	11950	11950	11870	11960	12220	11810	11930	11850
20	11860	11990	11930	11890	11940	11940	11890	11970	12210	11810	11940	11850
21	11860	11980	12000	11890	11930	11930	11900	11980	12200	11810	11960	11850
22	11860	12000	12030	11930	11920	11970	11900	12000	12170	11790	11960	11850
23	11870	11980	12030	11930	11920	11980	11930	12000	12140	11790	11960	11850
24	11880	11970	12010	12000	11910	11980	11950	12020	12120	11790	11950	11860
25	11940	11960	12000	11970	11930	11970	11980	12040	12100	11790	11940	11860
26	11970	11950	11990	11990	11950	11960	11970	12060	12080	11810	11930	11870
27	11960	11950	11970	12000	11970	11960	11950	12100	12070	11810	11930	11870
28	11950	11980	11970	11980	11970	11960	11960	12120	12060	11830	11930	11880
29	11940	12000	11950	11980	---	11940	11970	12150	12050	11840	11910	11880
30	11980	12050	11940	11970	---	11940	11970	12160	12030	11850	11900	11900
31	11970	---	11940	11960	---	11940	---	12180	---	11850	11920	---
MAX	11980	12050	12030	12000	12000	11900	11980	12180	12220	12020	11960	11930
MIN	11850	11910	11900	11860	11910	11910	11870	11920	12030	11790	11850	11850
a	7838.44	7838.62	7838.37	7838.40	7838.44	7838.37	7838.43	7838.92	7838.56	7838.16	7838.31	7838.26
b	+40	+80	-110	+20	+10	-30	+30	+210	-150	-180	+70	-20

CAL YR 1982 MAX 12090 MIN 11800 b +100

WTR YR 1983 MAX 12220 MIN 11790 b -30

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN

10336715 MARLETTE CREEK NEAR CARSON CITY, NV

LOCATION.--Lat 39°10'20", long 119°54'25", in SE 1/4 SW 1/4 sec.12, T.15 N., R.18 E., Washoe County, Hydrologic Unit 16050101, Toiyabe National Forest, on left bank 300 ft below dam on Marlette Lake, 0.7 mi upstream from Marlette Reservoir, and 7 mi west of Carson City.

DRAINAGE AREA.--2.86 mi².

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,760 ft, from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 1 to Jan. 6, which are fair. Flow regulated by Marlette Lake (station 10336710).

AVERAGE DISCHARGE.--10 years, 2.85 ft³/s, 2,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44 ft³/s June 22, 1983, gage height, 3.00 ft; no flow July 12-15, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s June 22, gage height, 3.00 ft; minimum daily, 0.25 ft³/s July. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	3.9	7.1	7.0	7.5	11	7.4	8.8	31	27	1.5	5.6
2	2.5	3.4	6.4	6.3	6.8	10	7.2	7.9	28	26	1.7	5.7
3	2.2	3.2	5.8	5.7	6.3	9.3	6.4	7.3	27	24	1.8	5.5
4	1.9	3.0	5.0	5.1	5.8	8.3	6.4	7.0	30	23	1.9	5.3
5	1.7	2.9	4.4	4.8	5.6	7.5	6.2	7.1	30	21	2.0	5.0
6	1.6	2.7	4.2	4.6	6.2	6.9	5.4	6.9	30	21	2.1	4.8
7	1.6	2.4	3.9	4.4	8.9	6.9	4.9	6.4	32	20	2.2	4.6
8	1.4	2.4	3.8	4.1	11	6.1	4.6	6.0	32	19	2.6	4.1
9	1.2	2.6	3.6	3.8	11	5.6	4.5	5.8	30	18	2.6	3.4
10	1.0	3.0	3.5	3.6	9.3	5.2	4.3	5.8	28	17	2.5	3.3
11	1.0	3.2	3.4	3.3	8.0	5.5	3.9	5.6	25	16	2.7	3.3
12	.95	2.9	3.4	3.2	7.5	5.6	4.1	5.4	25	15	2.8	3.3
13	.95	2.7	3.6	3.0	9.5	11	4.6	5.3	25	14	3.2	3.3
14	.95	2.6	3.4	2.8	8.3	11	4.3	5.3	26	14	4.0	3.1
15	.95	2.4	3.2	2.7	7.1	9.7	4.1	5.7	27	13	4.8	3.0
16	.95	2.3	3.0	2.9	6.1	8.6	3.9	5.7	29	13	4.8	3.0
17	.85	2.3	3.2	3.0	5.4	8.6	3.6	5.9	29	14	4.7	2.8
18	.78	3.0	3.5	3.2	6.7	8.9	3.5	6.3	27	13	4.7	2.7
19	.71	5.6	3.4	3.9	7.7	8.1	3.4	7.0	27	13	5.6	2.4
20	.71	5.2	5.0	3.8	7.2	7.4	4.4	7.6	27	12	5.9	2.1
21	.71	4.6	7.0	3.6	6.5	7.6	4.7	8.7	33	12	7.0	2.0
22	.71	4.8	11	4.8	5.9	7.9	4.5	10	39	12	7.9	2.2
23	.85	4.6	14	5.9	5.4	9.8	4.9	12	41	11	7.5	2.6
24	1.0	4.0	13	10	5.0	11	7.8	14	40	5.5	7.0	2.8
25	1.9	3.7	12	10	5.7	10	11	16	38	.25	6.5	2.5
26	3.7	3.4	11	8.6	7.3	9.1	9.4	18	32	.36	5.9	2.6
27	3.7	3.0	10	11	8.7	9.1	8.7	21	27	.51	5.5	2.9
28	3.4	3.4	9.4	10	9.3	8.6	9.2	22	24	.70	5.3	3.0
29	2.9	4.2	9.0	10	--	8.2	9.6	25	27	.91	4.6	2.9
30	4.2	7.4	8.5	9.4	---	7.8	10	27	28	1.0	4.3	4.1
31	4.2	---	8.0	8.4	---	8.4	---	29	---	1.3	4.1	---
TOTAL	53.67	104.8	195.7	172.9	205.7	258.7	176.9	331.5	894	398.53	129.7	103.9
MEAN	1.73	3.49	6.31	5.58	7.35	8.35	5.90	10.7	29.8	12.9	4.18	3.46
MAX	4.2	7.4	14	11	11	11	11	29	41	27	7.9	5.7
MIN	.71	2.3	3.0	2.7	5.0	5.2	3.4	5.3	24	.25	1.5	2.0
AC-FT	106	208	388	343	408	513	351	658	1770	790	257	206
CAL YR 1982	TOTAL	1710.03	MEAN	4.69	MAX	14	MIN	.17	AC-FT	3390		
WTR YR 1983	TOTAL	3026.00	MEAN	8.29	MAX	41	MIN	.25	AC-FT	6000		

10336759 EDGEWOOD CREEK NEAR STATELINE, NV

LOCATION.--Lat 38°57'50", long 119°55'24", in SW 1/4 NE 1/4 sec.26, T.13 N., R.18 E., Douglas County, Hydrologic Unit 16050101, on right bank 0.1 mi upstream from unnamed tributary, 0.9 mi upstream from U.S. Highway 50, and 1.1 mi northeast of Stateline.

DRAINAGE AREA.--3.20 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to September 1983.

GAGE.--Water-stage recorder. Altitude of gage is 6,420 ft, from topographic map.

REMARKS.--Records good. No known diversion or regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s May 27, (1915 hours), gage height, 2.41 ft, no other peak above base of 15 ft³/s; minimum daily, 1.7 ft³/s Oct. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.7	2.5	2.1	2.0	2.5	4.4	4.9	16	4.9	3.1	4.5
2	2.2	2.5	2.4	2.0	2.0	2.5	4.3	5.5	15	4.9	3.5	3.5
3	2.1	2.5	2.3	2.0	2.0	2.4	3.8	6.6	15	4.7	3.5	3.2
4	2.1	2.4	2.2	2.1	1.9	2.4	3.6	6.8	14	4.6	3.4	3.1
5	2.0	2.3	2.2	2.1	1.9	2.4	3.6	6.6	12	4.5	3.3	3.6
6	2.0	2.3	2.2	2.1	1.9	2.4	3.6	7.0	12	4.4	3.3	3.0
7	2.0	2.3	2.2	2.1	2.0	2.6	3.6	8.0	12	4.3	3.7	2.9
8	2.1	2.2	2.1	2.1	2.1	2.8	3.7	8.5	11	4.3	5.7	2.9
9	2.0	2.2	2.1	2.1	2.0	3.1	4.0	8.5	11	4.3	5.3	2.9
10	2.0	2.3	2.1	2.1	2.0	3.3	4.0	7.7	11	4.2	4.9	2.8
11	1.9	2.2	2.1	2.1	2.1	3.5	3.7	7.2	10	4.1	4.1	2.7
12	1.9	2.2	2.1	2.0	2.3	3.4	3.5	8.3	9.0	4.0	3.8	2.7
13	1.9	2.1	2.1	2.0	2.4	7.0	3.4	9.1	8.5	3.9	3.9	2.6
14	1.8	2.1	2.0	2.0	2.2	4.5	3.4	10	8.3	3.8	4.9	2.7
15	1.8	2.1	2.0	2.0	2.2	3.8	3.4	12	8.0	3.9	4.5	2.7
16	1.7	2.1	2.1	2.0	2.2	3.6	3.5	12	7.7	3.8	3.9	2.7
17	1.7	2.3	2.1	2.0	2.3	3.5	3.9	13	7.3	3.8	3.9	2.7
18	1.7	3.0	2.1	2.0	2.3	3.3	4.5	14	7.0	3.7	3.9	2.8
19	1.8	2.6	2.1	2.0	2.2	3.3	5.0	16	6.7	3.7	4.9	2.7
20	1.8	2.4	2.2	2.0	2.3	3.0	5.4	18	6.5	3.6	4.9	2.7
21	1.9	2.3	2.6	1.9	2.3	3.0	5.8	19	6.4	3.7	5.3	3.0
22	2.1	2.3	2.2	1.9	2.4	2.9	6.5	20	6.2	3.5	4.6	3.6
23	2.3	2.3	2.2	1.9	2.5	3.0	5.9	20	5.8	3.7	4.1	3.7
24	2.5	2.2	2.2	2.1	2.4	2.9	5.7	20	5.8	3.4	3.8	3.3
25	3.8	2.2	2.2	2.0	2.3	2.8	5.2	20	5.5	3.4	3.7	3.4
26	5.0	2.1	2.2	2.0	2.3	2.7	4.6	21	5.4	3.5	3.5	3.1
27	3.2	2.3	2.2	2.0	2.2	2.7	4.4	21	5.2	3.6	3.2	3.1
28	2.8	2.3	2.2	2.0	2.2	2.7	5.0	21	5.1	3.6	3.2	3.5
29	2.8	2.3	2.1	2.0	---	3.3	5.4	21	5.0	3.3	3.1	3.6
30	6.0	2.1	2.1	2.0	---	4.2	5.2	19	5.0	3.3	3.0	4.2
31	3.2	---	2.1	2.0	---	4.9	---	18	---	3.2	3.9	---
TOTAL	74.4	69.2	67.5	62.7	60.9	100.4	132.0	409.7	263.4	121.6	123.8	93.9
MEAN	2.40	2.31	2.18	2.02	2.18	3.24	4.40	13.2	8.78	3.92	3.99	3.13
MAX	6.0	3.0	2.6	2.1	2.5	7.0	6.5	21	16	4.9	5.7	4.5
MIN	1.7	2.1	2.0	1.9	1.9	2.4	3.4	4.9	5.0	3.2	3.0	2.6
AC-FT	148	137	134	124	121	199	262	813	522	241	246	186

WTR YR 1983 TOTAL 1579.5 MEAN 4.33 MAX 21 MIN 1.7 AC-FT 3130

10336759 EDGEWOOD CREEK NEAR STATELINE, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to September 1983.

WATER TEMPERATURES: October 1982 to September 1983.

SEDIMENT RECORDS: October 1982 to September 1983.

PERIOD OF DAILY RECORD.--

SEDIMENT RECORDS: October 1982 to September 1983.

COOPERATION.--Selected sediment samples and water temperature observations furnished by Lahontan Regional Water Quality Control Board.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 403 mg/L May 21; minimum daily mean, 2 mg/L Dec. 13-19.

SEDIMENT DISCHARGE: Maximum daily, 22 tons May 21; minimum daily, 0.01 ton Dec. 13-19.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
ONCE-DAILY

[illegible]

10336759 EDGEWOOD CREEK NEAR STATELINE, NV--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.3	5	.03	2.7	7	.05	2.5	5	.03
2	2.2	5	.03	2.5	7	.05	2.4	4	.03
3	2.1	5	.03	2.5	7	.05	2.3	4	.02
4	2.1	5	.03	2.4	7	.05	2.2	4	.02
5	2.0	5	.03	2.3	6	.04	2.2	4	.02
6	2.0	4	.02	2.3	6	.04	2.2	4	.02
7	2.0	4	.02	2.3	6	.04	2.2	4	.02
8	2.1	4	.02	2.2	6	.04	2.1	3	.02
9	2.0	4	.02	2.2	5	.03	2.1	3	.02
10	2.0	4	.02	2.3	5	.03	2.1	3	.02
11	1.9	4	.02	2.2	5	.03	2.1	3	.02
12	1.9	4	.02	2.2	5	.03	2.1	3	.02
13	1.9	4	.02	2.1	4	.02	2.1	2	.01
14	1.8	4	.02	2.1	4	.02	2.0	2	.01
15	1.8	4	.02	2.1	4	.02	2.0	2	.01
16	1.7	4	.02	2.1	4	.02	2.1	2	.01
17	1.7	4	.02	2.3	4	.02	2.1	2	.01
18	1.7	4	.02	3.0	21	.19	2.1	2	.01
19	1.8	4	.02	2.6	10	.07	2.1	2	.01
20	1.8	4	.02	2.4	6	.04	2.2	7	.04
21	1.9	4	.02	2.3	6	.04	2.6	14	.10
22	2.1	5	.03	2.3	6	.04	2.2	7	.04
23	2.3	10	.06	2.3	6	.04	2.2	5	.03
24	2.5	20	.14	2.2	5	.03	2.2	5	.03
25	3.8	97	1.0	2.2	5	.03	2.2	4	.02
26	5.0	178	2.4	2.1	5	.03	2.2	4	.02
27	3.2	20	.17	2.3	5	.03	2.2	4	.02
28	2.8	10	.08	2.3	4	.02	2.2	3	.02
29	2.8	5	.04	2.3	4	.02	2.1	3	.02
30	6.0	80	1.3	2.1	4	.02	2.1	3	.02
31	3.2	14	.12	---	---	---	2.1	3	.02
TOTAL	74.4	---	5.81	69.2	---	1.18	67.5	---	.71
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.1	3	.02	2.0	5	.03	2.5	23	.16
2	2.0	3	.02	2.0	5	.03	2.5	23	.16
3	2.0	3	.02	2.0	5	.03	2.4	22	.14
4	2.1	3	.02	1.9	5	.03	2.4	22	.14
5	2.1	3	.02	1.9	5	.03	2.4	22	.14
6	2.1	3	.02	1.9	5	.03	2.4	22	.14
7	2.1	3	.02	2.0	10	.05	2.6	23	.16
8	2.1	3	.02	2.1	10	.06	2.8	23	.17
9	2.1	3	.02	2.0	10	.05	3.1	23	.19
10	2.1	3	.02	2.0	10	.05	3.3	23	.20
11	2.1	3	.02	2.1	15	.09	3.5	23	.22
12	2.0	3	.02	2.3	20	.12	3.4	24	.22
13	2.0	3	.02	2.4	20	.13	7.0	215	4.3
14	2.0	3	.02	2.2	15	.09	4.5	38	.46
15	2.0	3	.02	2.2	15	.09	3.8	25	.26
16	2.0	3	.02	2.2	15	.09	3.6	22	.21
17	2.0	3	.02	2.3	20	.12	3.5	21	.20
18	2.0	3	.02	2.3	25	.16	3.3	19	.17
19	2.0	4	.02	2.2	23	.14	3.3	17	.15
20	2.0	4	.02	2.3	22	.14	3.0	16	.13
21	1.9	4	.02	2.3	22	.14	3.0	15	.12
22	1.9	4	.02	2.4	25	.16	2.9	14	.11
23	1.9	4	.02	2.5	25	.17	3.0	14	.11
24	2.1	4	.02	2.4	25	.16	2.9	14	.11
25	2.0	4	.02	2.3	25	.16	2.8	14	.11
26	2.0	4	.02	2.3	25	.16	2.7	14	.10
27	2.0	4	.02	2.2	24	.14	2.7	13	.09
28	2.0	4	.02	2.2	23	.14	2.7	13	.09
29	2.0	4	.02	---	---	---	3.3	31	.28
30	2.0	5	.03	---	---	---	4.2	49	.56
31	2.0	5	.03	---	---	---	4.9	40	.53
TOTAL	62.7	---	.64	60.9	---	2.79	100.4	---	10.13

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

APRIL					MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	4.4	29	.34	4.9	20	.26	16	270	12	
2	4.3	23	.27	5.5	25	.37	15	270	11	
3	3.8	19	.19	6.6	35	.62	15	280	11	
4	3.6	19	.18	6.8	30	.55	14	250	9.5	
5	3.6	19	.18	6.6	25	.45	12	260	8.4	
6	3.6	18	.17	7.0	32	.60	12	320	10	
7	3.6	17	.17	8.0	50	1.1	12	290	9.4	
8	3.7	16	.16	8.5	80	1.8	11	400	12	
9	4.0	14	.15	8.5	80	1.8	11	260	7.7	
10	4.0	12	.13	7.7	70	1.5	11	160	4.8	
11	3.7	12	.12	7.2	60	1.2	10	180	4.9	
12	3.5	13	.12	8.3	70	1.6	9.0	150	3.6	
13	3.4	14	.13	9.1	90	2.2	8.5	145	3.3	
14	3.4	14	.13	10	110	3.0	8.3	135	3.0	
15	3.4	15	.14	12	178	7.3	8.0	122	2.6	
16	3.5	17	.16	12	148	5.4	7.7	100	2.1	
17	3.9	19	.20	13	170	6.8	7.3	90	1.8	
18	4.5	21	.26	14	238	11	7.0	80	1.5	
19	5.0	23	.31	16	317	17	6.7	72	1.3	
20	5.4	25	.36	18	396	21	6.5	65	1.1	
21	5.8	30	.47	19	403	22	6.4	58	1.0	
22	6.5	35	.61	20	370	20	6.2	51	.85	
23	5.9	40	.64	20	360	19	5.8	43	.67	
24	5.7	37	.57	20	300	16	5.8	32	.50	
25	5.2	35	.49	20	280	15	5.5	29	.43	
26	4.6	32	.40	21	230	13	5.4	27	.39	
27	4.4	28	.33	21	220	12	5.2	26	.37	
28	5.0	31	.42	21	200	11	5.1	25	.34	
29	5.4	30	.44	21	230	13	5.0	25	.34	
30	5.2	28	.39	19	210	11	5.0	24	.32	
31	---	---	---	18	250	12	---	---	---	
TOTAL	132.0	---	8.63	409.7	---	249.55	263.4	---	126.21	
JULY					AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	4.9	22	.29	3.1	7	.06	4.5	42	.51	
2	4.9	20	.26	3.5	15	.14	3.5	20	.19	
3	4.7	18	.23	3.5	10	.09	3.2	15	.13	
4	4.6	17	.21	3.4	11	.10	3.1	12	.10	
5	4.5	16	.19	3.3	11	.10	3.6	15	.15	
6	4.4	15	.18	3.3	11	.10	3.0	11	.09	
7	4.3	14	.16	3.7	17	.17	2.9	12	.09	
8	4.3	13	.15	5.7	151	3.6	2.9	12	.09	
9	4.3	13	.15	5.3	121	2.3	2.9	12	.09	
10	4.2	12	.14	4.9	73	.97	2.8	12	.09	
11	4.1	11	.12	4.1	36	.40	2.7	10	.07	
12	4.0	11	.12	3.8	33	.34	2.7	10	.07	
13	3.9	10	.11	3.9	36	.38	2.6	10	.07	
14	3.8	10	.10	4.9	132	2.3	2.7	9	.07	
15	3.9	10	.11	4.5	57	.69	2.7	7	.05	
16	3.8	10	.10	3.9	27	.28	2.7	7	.05	
17	3.8	10	.10	3.9	26	.27	2.7	7	.05	
18	3.7	10	.10	3.9	25	.26	2.8	17	.13	
19	3.7	10	.10	4.9	59	.97	2.7	12	.09	
20	3.6	10	.10	4.9	73	1.4	2.7	12	.09	
21	3.7	15	.15	5.3	64	1.1	3.0	18	.15	
22	3.5	11	.10	4.6	24	.30	3.6	23	.22	
23	3.7	12	.12	4.1	20	.22	3.7	18	.18	
24	3.4	12	.11	3.8	16	.16	3.3	12	.11	
25	3.4	12	.11	3.7	16	.16	3.4	20	.18	
26	3.5	12	.11	3.5	16	.15	3.1	19	.16	
27	3.6	16	.16	3.2	16	.14	3.1	18	.15	
28	3.6	17	.17	3.2	16	.14	3.5	20	.19	
29	3.3	15	.13	3.1	16	.13	3.6	23	.22	
30	3.3	12	.11	3.0	16	.13	4.2	32	.36	
31	3.2	9	.08	3.9	50	.53	---	---	---	
TOTAL	121.6	---	4.37	123.8	---	18.08	93.9	---	4.19	
YEAR	1579.5		432.29							

10336759 EDGEWOOD CREEK NEAR STATELINE, NV--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB						
17...	1550	2.5	3.5	28	.19	76
MAY						
16...	1130	11	4.0	65	1.9	58
19...	2020	22	8.0	709	42	49
21...	1700	20	9.0	665	36	37

PYRAMID AND WINNEMUCCA LAKES BASIN

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA

LOCATION.--Lat 38°55'12", long 119°58'17", in NW 1/4 SE 1/4 sec.3, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank 5 ft upstream from Martin Avenue Bridge, 500 ft upstream from Heavenly Valley Creek, and 1.8 mi east of Tahoe Valley.

DRAINAGE AREA.--36.7 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 6,250 ft, from topographic map.

REMARKS.--Records good except those for winter months, which are fair. Minor diversions for local water supply.

AVERAGE DISCHARGE.--23 years, 38.2 ft³/s, 27,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 535 ft³/s Feb. 1, 1963, gage height, 11.14 ft, from rating curve extended above 250 ft³/s on basis of computation of peak flow (weir formula); no flow for part of Sept. 11, 1966.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0530	110	7.47	Mar. 13	1445	147	7.99
Oct. 30	0800	121	7.63	June 18	0300	*358	10.40

Minimum daily, 26 ft³/s Jan. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	48	34	29	30	40	54	56	292	266	111	80
2	35	45	35	29	30	43	52	56	261	274	106	67
3	34	41	34	29	30	42	48	65	250	261	104	63
4	32	39	32	29	29	40	47	71	254	258	101	59
5	31	38	31	29	29	38	46	65	255	264	97	57
6	31	36	31	29	28	37	42	64	264	265	93	55
7	31	35	30	28	33	37	42	71	275	258	95	53
8	31	33	30	28	36	38	45	78	270	244	110	52
9	31	34	30	27	33	40	48	79	269	224	106	50
10	31	34	30	27	31	41	48	77	281	206	103	50
11	30	34	29	27	30	43	48	72	302	196	94	49
12	30	34	29	27	32	45	46	77	287	194	86	48
13	29	32	29	27	36	121	45	82	281	192	83	47
14	29	32	30	27	33	96	42	89	286	193	101	45
15	28	33	30	27	31	72	42	101	298	194	104	45
16	27	31	28	27	30	60	45	106	304	188	88	44
17	27	32	30	27	30	56	47	106	314	182	85	43
18	27	59	28	28	30	52	50	117	327	177	82	41
19	27	52	28	26	32	48	54	131	307	163	92	39
20	28	43	30	26	31	48	58	142	298	152	93	39
21	29	41	36	30	31	47	58	156	292	146	101	39
22	32	41	36	29	31	45	63	176	293	141	87	45
23	35	39	40	32	32	45	61	195	301	136	81	49
24	38	36	39	37	33	44	57	218	301	134	76	49
25	64	34	38	38	33	42	54	239	298	134	73	46
26	80	34	37	36	32	40	50	255	295	129	70	44
27	51	34	34	34	32	40	49	271	290	125	68	44
28	44	36	33	33	31	39	55	293	285	123	65	44
29	43	37	31	32	---	38	59	309	281	121	64	51
30	90	29	30	31	---	42	59	314	273	119	62	51
31	54	---	29	30	---	59	---	315	---	116	69	---
TOTAL	1165	1126	991	915	879	1518	1514	4446	8584	5775	2750	1488
MEAN	37.6	37.5	32.0	29.5	31.4	49.0	50.5	143	286	186	88.7	49.6
MAX	90	59	40	38	36	121	63	315	327	274	111	80
MIN	27	29	28	26	28	37	42	56	250	116	62	39
AC-FT	2310	2230	1970	1810	1740	3010	3000	8820	17030	11450	5450	2950
CAL YR 1982	TOTAL	25535	MEAN	70.0	MAX	242	MIN	21	AC-FT	50650		
WTR YR 1983	TOTAL	31151	MEAN	85.3	MAX	327	MIN	26	AC-FT	61790		

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1978, 1980 to current year.

SPECIFIC CONDUCTANCE: Water years 1981 to September 1983 (discontinued).

WATER TEMPERATURES: Water years 1974, 1978, 1980 to current year.

SEDIMENT RECORDS: Water years 1974, 1978, 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1981 to September 1983 (discontinued).

WATER TEMPERATURES: February 1981 to September 1983 (discontinued).

SEDIMENT RECORDS: October 1973 to September 1974, October 1977 to June 1978, March 1980 to current year.

COOPERATION.--Selected sediment samples and water temperature observations furnished by Lahontan Regional Water Quality Control Board.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 160 micromhos Aug. 24, 1981, minimum recorded, 14 micromhos May 28, 1982.

WATER TEMPERATURES: Maximum recorded, 24.0°C Aug. 12, 1981; minimum recorded, 0.0°C on many days during most winter months.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 321 mg/L Mar. 13, 1983; minimum daily mean, 0 mg/L Oct. 15, 16, 1973.

SEDIMENT DISCHARGE: Maximum daily, 162 tons Feb. 16, 1982; minimum daily, 0 ton Oct. 15, 16, 1973.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 117 micromhos Mar. 26; minimum recorded, 23 micromhos July 10.

WATER TEMPERATURES: Maximum recorded, 15.0°C July 13; minimum recorded, 0.5°C on many days.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 321 mg/L Mar. 13; minimum daily mean, 2 mg/L Oct. 14-18.

SEDIMENT DISCHARGE: Maximum daily, 108 tons Mar. 13; minimum daily, 0.15 ton Oct. 15-18.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	47	48	54	50	47	50	47	26	28	30	37
2	43	48	50	54	51	48	50	47	26	30	31	38
3	44	49	52	56	48	47	50	46	31	30	31	38
4	44	55	52	56	49	49	51	45	31	30	32	39
5	43	55	53	55	48	---	51	47	30	31	32	39
6	43	53	53	54	48	---	56	48	30	31	32	39
7	42	52	52	54	48	---	54	47	30	33	33	39
8	42	51	53	54	48	---	52	46	30	34	33	41
9	42	51	50	55	52	---	54	44	30	34	33	41
10	45	51	52	57	50	---	62	43	29	26	34	41
11	45	51	53	56	48	---	57	44	28	26	33	41
12	45	51	53	55	48	---	51	45	29	32	33	42
13	46	51	52	54	48	---	52	45	29	32	33	42
14	46	52	47	53	49	---	53	41	28	32	34	43
15	46	52	53	53	50	---	54	31	28	31	35	43
16	45	52	55	53	49	---	65	32	28	31	36	43
17	46	51	54	53	52	---	56	42	27	31	35	44
18	46	41	52	53	51	---	52	40	27	31	35	44
19	47	37	54	52	47	---	52	39	28	30	34	45
20	47	38	54	51	49	---	---	36	28	30	34	46
21	49	41	51	52	50	---	---	32	28	31	34	46
22	50	40	51	46	50	51	48	30	28	30	33	44
23	51	42	52	46	51	52	45	30	28	30	33	43
24	51	43	50	49	51	50	45	29	28	30	34	43
25	50	44	46	52	52	52	46	28	28	30	34	45
26	50	45	53	50	53	58	46	28	27	29	35	46
27	50	48	52	50	51	51	47	28	28	29	35	46
28	49	48	53	48	51	52	47	28	27	30	36	46
29	47	47	54	47	---	53	46	27	27	31	36	43
30	46	47	55	48	---	52	46	27	27	30	37	43
31	47	---	55	47	---	49	---	26	---	30	37	---
MONTH	46	48	52	52	50	---	51	38	28	30	34	42
YEAR	MAX	65	MIN	26	MEAN	43						

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	4.0	5.0	2.5	1.0	0.5	0.5	0.5	1.0	0.5	2.5	0.5
2	8.0	4.5	4.5	2.0	1.0	0.5	1.0	0.5	1.0	0.5	4.0	1.0
3	8.0	5.0	5.0	1.5	1.5	1.0	1.5	0.5	1.5	1.0	4.0	2.0
4	8.0	5.5	5.0	4.5	1.5	1.0	1.5	1.0	1.0	0.5	4.5	2.0
5	7.0	4.5	5.0	4.5	1.5	1.0	1.5	1.0	1.0	1.0	---	---
6	7.0	4.5	4.5	4.0	2.0	1.0	1.5	1.0	1.0	1.0	---	---
7	7.0	5.0	4.5	4.0	1.0	0.5	2.0	1.0	1.5	0.5	---	---
8	6.5	3.5	4.0	4.0	0.5	0.5	2.5	1.0	1.5	0.5	---	---
9	7.0	4.0	3.5	3.0	1.0	0.5	2.0	1.0	1.0	1.0	---	---
10	7.5	4.5	3.0	2.5	1.5	0.5	2.0	0.5	1.5	1.0	---	---
11	7.0	3.5	2.5	2.5	1.5	0.5	1.5	0.5	2.5	1.5	---	---
12	7.5	4.0	2.5	2.5	1.5	0.5	1.0	0.5	3.0	1.5	---	---
13	7.5	4.5	2.5	2.0	1.5	0.5	1.0	0.5	2.5	0.5	---	---
14	7.5	4.5	2.0	2.0	1.0	0.5	1.5	0.5	2.5	0.5	---	---
15	8.0	5.0	2.0	2.0	1.5	1.0	2.5	1.0	4.0	1.0	---	---
16	7.5	4.5	2.0	1.5	2.5	1.5	2.5	2.0	4.0	1.0	---	---
17	8.0	4.5	4.0	1.5	2.5	1.0	3.0	2.0	4.0	1.0	---	---
18	6.5	3.5	3.0	1.5	1.5	0.5	3.5	1.5	2.5	0.5	---	---
19	5.5	4.0	2.0	0.5	1.5	0.5	1.5	1.0	1.5	0.5	---	---
20	6.5	4.5	2.5	0.5	2.5	1.5	1.5	1.0	2.5	1.0	---	---
21	6.5	5.0	1.0	0.5	2.0	0.5	1.0	0.5	4.0	1.0	---	---
22	8.0	6.0	3.0	1.0	1.0	0.5	1.0	0.5	5.0	2.0	2.5	0.5
23	7.5	6.5	3.5	2.0	1.0	0.5	1.0	0.5	5.0	2.0	3.0	0.5
24	7.5	6.5	3.0	1.0	0.5	0.5	1.0	0.5	4.5	1.5	1.5	0.5
25	7.0	6.0	2.0	0.5	1.0	0.5	1.0	0.5	2.5	1.0	3.5	1.0
26	6.5	4.5	1.5	0.5	1.0	1.0	1.5	0.5	2.0	0.5	2.5	1.0
27	5.0	3.0	3.0	1.0	1.0	0.5	1.0	0.5	1.5	0.5	2.5	1.0
28	4.5	2.5	3.5	2.0	0.5	0.5	1.0	0.5	2.5	1.0	3.5	1.5
29	6.0	4.0	2.0	0.5	1.0	0.5	1.0	0.5	---	---	3.5	2.0
30	5.0	4.5	0.5	0.5	0.5	0.5	1.5	1.0	---	---	4.5	2.0
31	5.5	3.5	---	---	0.5	0.5	1.0	0.5	---	---	4.5	2.0
MONTH	8.0	2.5	5.0	0.5	2.5	0.5	3.5	0.5	5.0	0.5	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.5	1.5	4.5	1.5	8.0	4.0	9.5	7.0	13.0	10.0	13.0	9.5
2	5.0	2.0	8.5	2.0	7.5	5.0	12.0	7.5	13.5	9.5	13.0	8.5
3	3.0	1.5	8.5	1.5	9.5	5.0	12.5	6.5	13.5	9.0	12.0	8.0
4	2.5	1.0	5.5	2.0	9.5	5.5	13.5	7.5	13.5	8.5	12.5	8.0
5	2.5	1.0	6.5	2.0	11.0	5.0	13.0	8.5	13.5	8.0	13.0	8.0
6	3.5	1.0	8.0	1.5	10.5	5.0	13.5	8.0	13.5	9.0	13.5	9.0
7	4.0	1.5	8.5	2.0	9.0	6.0	11.5	8.0	12.5	10.5	13.0	8.5
8	4.5	1.5	8.0	1.5	9.0	5.5	11.5	6.5	12.5	10.5	12.5	9.0
9	4.0	2.0	8.0	1.5	11.5	5.5	10.0	5.5	11.5	10.0	12.0	7.5
10	4.0	2.5	5.5	1.5	10.0	5.5	11.5	6.0	11.5	10.5	11.5	7.5
11	3.0	1.5	8.5	2.0	11.0	6.5	12.5	6.5	13.0	10.0	12.5	7.5
12	3.0	1.5	8.0	2.0	11.5	5.0	14.5	8.0	13.0	8.5	12.5	8.5
13	3.5	1.5	8.5	2.5	12.0	6.0	15.0	8.0	12.5	9.5	12.5	8.5
14	3.0	1.5	9.0	2.0	12.0	6.0	14.5	9.0	11.0	9.5	12.0	8.0
15	3.5	1.5	9.5	3.0	12.5	6.5	13.0	8.5	13.0	10.0	11.5	7.0
16	4.0	2.0	8.5	2.5	12.5	6.5	12.0	7.0	11.5	10.0	12.5	8.0
17	3.5	2.5	9.0	2.5	13.0	7.0	11.5	7.5	11.0	10.5	12.5	8.5
18	4.0	2.5	9.0	3.0	12.0	6.5	12.0	7.0	11.5	9.0	11.5	7.5
19	4.5	2.5	9.5	3.5	12.0	5.5	11.5	7.0	11.5	10.0	11.0	7.0
20	4.5	3.5	9.5	3.5	11.5	6.0	11.5	6.0	10.5	10.0	10.0	6.0
21	6.0	2.5	10.0	3.5	12.5	6.0	12.5	7.5	10.5	9.0	10.0	6.0
22	7.0	2.0	10.0	3.5	13.0	6.5	13.0	8.5	11.5	9.0	9.5	8.0
23	3.5	0.5	10.0	4.0	12.0	7.0	12.0	7.5	11.5	7.5	9.5	7.5
24	4.0	0.5	10.0	4.0	12.0	6.5	12.0	8.0	12.0	8.0	9.0	6.0
25	5.5	0.5	10.0	4.0	12.5	7.0	11.5	7.5	12.0	7.5	10.0	6.5
26	5.0	1.0	9.5	4.0	12.0	6.5	12.0	7.5	12.0	7.0	8.5	7.0
27	5.0	2.0	10.5	4.5	12.0	6.0	13.0	8.0	12.0	7.5	9.0	5.5
28	8.0	2.0	9.0	4.5	12.0	6.5	13.0	8.5	12.0	7.5	9.0	6.5
29	6.0	1.5	10.5	5.0	12.0	7.0	13.0	9.5	12.0	7.5	7.5	6.0
30	7.5	2.0	10.5	4.0	12.0	6.5	14.0	10.0	12.5	7.5	7.0	5.5
31	---	---	10.0	4.5	---	---	12.5	10.0	11.0	9.5	---	---
MONTH	8.0	0.5	10.5	1.5	13.0	4.0	15.0	5.5	13.5	7.0	13.5	5.5

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	36	5	.49	48	19	2.5	34	22	2.0
2	35	5	.47	45	16	1.9	35	25	2.4
3	34	5	.46	41	15	1.7	34	24	2.2
4	32	5	.43	39	13	1.4	32	19	1.6
5	31	5	.42	38	13	1.3	31	20	1.7
6	31	6	.50	36	12	1.2	31	18	1.5
7	31	6	.50	35	11	1.0	30	18	1.5
8	31	5	.42	33	10	.89	30	20	1.6
9	31	4	.33	34	23	2.1	30	18	1.5
10	31	4	.33	34	30	2.8	30	16	1.3
11	30	3	.24	34	32	2.9	29	17	1.3
12	30	3	.24	34	35	3.2	29	15	1.2
13	29	3	.23	32	35	3.0	29	19	1.5
14	29	2	.16	32	35	3.0	30	23	1.9
15	28	2	.15	33	35	3.1	30	19	1.5
16	27	2	.15	31	33	2.8	28	17	1.3
17	27	2	.15	32	20	1.7	30	16	1.3
18	27	2	.15	59	101	19	28	17	1.3
19	27	3	.22	52	48	6.7	28	20	1.5
20	28	4	.30	43	25	2.9	30	18	1.5
21	29	6	.47	41	32	3.5	36	22	2.1
22	32	7	.60	41	18	2.0	36	33	3.2
23	35	12	1.1	39	15	1.6	40	32	3.5
24	38	11	1.1	36	15	1.5	39	25	2.6
25	64	92	17	34	25	2.3	38	34	3.5
26	80	95	23	34	32	2.9	37	25	2.5
27	51	25	3.4	34	20	1.8	34	20	1.8
28	44	18	2.1	36	21	2.0	33	25	2.2
29	43	15	1.7	37	25	2.5	31	22	1.8
30	90	123	33	29	20	1.6	30	24	1.9
31	54	32	4.7	---	---	---	29	25	2.0
TOTAL	1165	---	94.51	1126	---	86.79	991	---	58.7
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	29	25	2.0	30	43	3.5	40	37	4.0
2	29	26	2.0	30	38	3.1	43	40	4.6
3	29	20	1.6	30	33	2.7	42	32	3.6
4	29	15	1.2	29	30	2.3	40	30	3.2
5	29	10	.78	29	30	2.3	38	27	2.8
6	29	9	.70	28	25	1.9	37	22	2.2
7	28	8	.60	33	38	3.4	37	20	2.0
8	28	9	.68	36	45	4.4	38	20	2.1
9	27	12	.87	33	35	3.1	40	20	2.2
10	27	17	1.2	31	32	2.7	41	20	2.2
11	27	20	1.5	30	29	2.3	43	20	2.3
12	27	23	1.7	32	27	2.3	45	22	2.7
13	27	32	2.3	36	45	4.4	121	321	108
14	27	34	2.5	33	38	3.4	96	130	34
15	27	25	1.8	31	25	2.1	72	50	9.7
16	27	21	1.5	30	13	1.1	60	25	4.1
17	27	20	1.5	30	10	.81	56	18	2.7
18	28	22	1.7	30	13	1.1	52	15	2.1
19	26	24	1.7	32	18	1.6	48	12	1.6
20	26	26	1.8	31	15	1.3	48	10	1.3
21	30	40	3.2	31	11	.92	47	10	1.3
22	29	46	3.6	31	12	1.0	45	11	1.3
23	32	50	4.3	32	11	.95	45	14	1.7
24	37	50	5.0	33	10	.89	44	12	1.4
25	38	48	4.9	33	10	.89	42	10	1.1
26	36	45	4.4	32	10	.86	40	16	1.7
27	34	45	4.1	32	10	.86	40	11	1.2
28	33	45	4.0	31	12	1.0	39	10	1.1
29	32	45	3.9	---	---	---	38	12	1.2
30	31	40	3.3	---	---	---	42	18	2.0
31	30	40	3.2	---	---	---	59	45	7.2
TOTAL	915	---	73.53	879	---	57.18	1518	---	218.6

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL				MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	54	32	4.7	56	12	1.8	292	60	47	
2	52	26	3.7	56	15	2.3	261	42	30	
3	48	25	3.2	65	22	3.9	250	33	22	
4	47	21	2.7	71	27	5.2	254	33	23	
5	46	19	2.4	65	24	4.2	255	28	19	
6	42	26	2.9	64	22	3.8	264	26	19	
7	42	18	2.0	71	24	4.6	275	31	23	
8	45	19	2.3	78	33	6.9	270	29	21	
9	48	23	3.0	79	38	8.1	269	30	22	
10	48	22	2.9	77	36	7.5	281	32	24	
11	48	13	1.7	72	28	5.4	302	38	31	
12	46	12	1.5	77	40	8.3	287	29	22	
13	45	10	1.2	82	43	9.5	281	25	19	
14	42	8	.91	89	50	12	286	25	19	
15	42	9	1.0	101	63	17	298	22	18	
16	45	11	1.3	106	69	20	304	23	19	
17	47	12	1.5	106	63	18	314	21	18	
18	50	13	1.8	117	79	25	327	18	16	
19	54	15	2.2	131	90	32	307	21	17	
20	58	23	3.6	142	108	41	298	32	26	
21	58	17	2.7	156	110	46	292	36	28	
22	63	20	3.4	176	105	50	293	29	23	
23	61	22	3.6	195	116	61	301	17	14	
24	57	18	2.8	218	120	71	301	19	15	
25	54	15	2.2	239	120	77	298	26	21	
26	50	15	2.0	255	116	80	295	22	18	
27	49	15	2.0	271	104	76	290	24	19	
28	55	20	3.0	293	105	83	285	20	15	
29	59	21	3.3	309	103	86	281	16	12	
30	59	18	2.9	314	78	66	273	23	17	
31	---	---	---	315	63	54	---	---	---	
TOTAL	1514	---	74.41	4446	---	986.5	8584	---	637	
DAY	JULY				AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	266	22	16	111	77	23	80	35	7.6	
2	274	23	17	106	77	22	67	18	3.3	
3	261	24	17	104	78	22	63	15	2.6	
4	258	23	16	101	80	22	59	13	2.1	
5	264	23	16	97	81	21	57	12	1.8	
6	265	30	21	93	80	20	55	10	1.5	
7	258	22	15	95	75	19	53	10	1.4	
8	244	17	11	110	146	49	52	10	1.4	
9	224	21	13	106	86	25	50	10	1.4	
10	206	33	18	103	70	19	50	10	1.4	
11	196	52	28	94	52	13	49	11	1.5	
12	194	53	28	86	45	10	48	11	1.4	
13	192	73	38	83	42	9.4	47	11	1.4	
14	193	80	42	101	131	49	45	11	1.3	
15	194	81	42	104	76	21	45	12	1.5	
16	188	82	42	88	44	10	44	12	1.4	
17	182	80	39	85	43	9.9	43	12	1.4	
18	177	80	38	82	40	8.9	41	12	1.3	
19	163	80	35	92	66	16	39	12	1.3	
20	152	80	33	93	97	30	39	12	1.3	
21	146	73	29	101	86	25	39	12	1.3	
22	141	54	21	87	51	12	45	15	1.8	
23	136	54	20	81	50	11	49	10	1.3	
24	134	57	21	76	48	9.8	49	10	1.3	
25	134	60	22	73	40	7.9	46	10	1.2	
26	129	63	22	70	33	6.2	44	9	1.1	
27	125	65	22	68	25	4.6	44	9	1.1	
28	123	67	22	65	18	3.2	44	11	1.3	
29	121	81	26	64	16	2.8	51	12	1.7	
30	119	78	25	62	15	2.5	51	10	1.4	
31	116	75	23	69	33	6.1	---	---	---	
TOTAL	5775	---	778	2750	---	510.3	1488	---	51.8	
YEAR	31151.0		3627.32							

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
25...	1005	79	7.0	212	45	19	--	--	--	--
26...	1530	68	4.5	49	9.0	32	--	--	--	--
30...	1730	84	4.5	66	15	28	--	--	--	--
NOV										
12...	1205	50	2.5	71	9.6	40	--	--	--	--
18...	1550	82	2.0	208	46	31	48	82	100	--
DEC										
06...	1400	32	2.0	16	1.4	57	--	--	--	--
MAR										
13...	0400	83	1.5	319	71	36	--	--	--	--
13...	1145	146	0.5	379	149	34	48	79	97	100
MAY										
16...	1255	96	6.0	58	15	66	--	--	--	--
18...	2330	140	4.5	124	47	32	--	--	--	--
20...	1620	137	9.0	94	35	34	--	--	--	--
26...	1905	247	8.5	109	73	76	88	96	100	--
JULY										
13...	0945	194	8.0	78	41	13	--	--	--	--

10337000 LAKE TAHOE AT TAHOE CITY, CA

LOCATION.--Lat 39°10'51", long 120°07'06", in NE 1/4 NE 1/4 sec.5, T.15 N., R.17 E., Placer County, Hydrologic Unit 16050101, on U.S. Coast Guard pier at Lake Forest, 1.1 mi northeast of Tahoe City, and 1.8 mi northeast of Lake Tahoe outlet dam on Truckee River at Tahoe City.

DRAINAGE AREA.--506 mi² at lake outlet.

PERIOD OF RECORD.--April 1900 to current year. Monthend elevations only for October 1943 to September 1957, published in WSP 1734. Prior to October 1961, published as "at Tahoe."

REVISED RECORDS.--WDR CA-78-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,220.00 ft Bureau of Reclamation datum, 6,218.86 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1957, nonrecording gages at several sites near outlet of lake at same datum. Oct. 1, 1957, to May 8, 1958, water-stage recorder on left wingwall of dam at outlet of lake at same datum. May 9, 1958, to Sept. 30, 1968, water-stage recorder on pier, 1,000 ft east of dam at lake outlet.

REMARKS.--Lake levels regulated by a 17-gate concrete dam at outlet of lake; storage began about 1874. Monthly figures given herein represent usable contents. Usable capacity, 744,600 acre-ft between elevations 6,223 ft, natural rim of lake and 6,229.1 ft, maximum permissible elevation by Federal Court decree. Lake elevations are referred to Bureau of Reclamation datum because that datum is used as the official reference point by all local, State, and Federal agencies. There are minor diversions for domestic purposes, irrigation, and power.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 6,231.26 ft July 14, 15, 17, 18, 1907; minimum, 6,221.74 ft Dec. 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 6,228.95 ft July 8; minimum, 6,226.99 ft May 16.

Capacity table (elevation, in feet, and contents, in acre-feet)

6,223	0	6,227	486,800
6,224	121,400	6,228	609,300
6,225	243,000	6,229	732,300
6,226	364,800		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.40	8.57	8.15	7.63	7.74	7.71	7.57	7.17	7.80	8.80	8.82	8.67
2	8.39	8.52	8.12	7.61	7.70	7.70	7.58	7.16	7.85	8.85	8.82	8.66
3	8.40	8.50	8.10	7.59	7.68	7.68	7.56	7.15	7.90	8.87	8.80	8.66
4	8.35	8.47	8.08	7.57	7.65	7.66	7.50	7.09	7.93	8.90	8.80	8.65
5	8.33	8.43	8.05	7.56	7.64	7.64	7.48	7.10	7.96	8.93	8.80	8.65
6	8.32	8.41	8.02	7.55	7.67	7.60	7.45	7.08	8.01	8.93	8.81	8.64
7	8.32	8.44	7.98	7.54	7.76	7.62	7.44	7.06	8.05	8.93	8.81	8.63
8	8.32	8.37	7.93	7.53	7.73	7.60	7.39	7.05	8.08	8.95	8.81	8.62
9	8.34	8.32	7.89	7.52	7.71	7.57	7.35	7.04	8.11	8.93	8.79	8.55
10	8.26	8.27	7.87	7.51	7.69	7.55	7.35	7.04	8.15	8.93	8.80	8.56
11	8.26	8.27	7.85	7.50	7.68	7.50	7.33	7.03	8.21	8.93	8.79	8.54
12	8.25	8.21	7.83	7.50	7.68	7.56	7.32	7.02	8.25	8.92	8.79	8.52
13	8.24	8.18	7.82	7.50	7.71	7.75	7.30	7.02	8.28	8.91	8.79	8.51
14	8.23	8.15	7.79	7.49	7.68	7.76	7.27	7.01	8.30	8.89	8.81	8.50
15	8.23	8.12	7.77	7.50	7.64	7.75	7.24	7.00	8.35	8.88	8.83	8.50
16	8.22	8.07	7.67	7.51	7.64	7.72	7.21	6.99	8.41	8.85	8.83	8.47
17	8.21	8.07	7.70	7.50	7.58	7.75	7.21	7.00	8.47	8.85	8.82	8.45
18	8.20	8.28	7.67	7.55	7.66	7.73	7.16	7.02	8.45	8.81	8.81	8.46
19	8.18	8.28	7.65	7.55	7.64	7.71	7.16	7.04	8.48	8.78	8.84	8.45
20	8.17	8.22	7.68	7.55	7.63	7.70	7.18	7.06	8.50	8.80	8.84	8.38
21	8.23	8.18	7.82	7.54	7.59	7.67	7.16	7.07	8.53	8.79	8.83	8.35
22	8.20	8.21	7.95	7.63	7.57	7.71	7.13	7.12	8.58	8.80	8.83	8.38
23	8.20	8.17	7.92	7.62	7.55	7.71	7.16	7.16	8.60	8.79	8.80	8.35
24	8.22	8.13	7.88	7.78	7.53	7.72	7.20	7.21	8.66	8.79	8.79	8.34
25	8.45	8.11	7.86	7.75	7.58	7.69	7.20	7.28	8.68	8.79	8.76	8.32
26	8.45	8.08	7.83	7.83	7.57	7.64	7.18	7.35	8.69	8.78	8.76	8.30
27	8.47	8.06	7.79	7.83	7.62	7.66	7.18	7.42	8.74	8.78	8.72	8.29
28	8.48	8.11	7.76	7.82	7.64	7.61	7.18	7.49	8.76	8.78	8.70	8.26
29	8.51	8.11	7.73	7.80	---	7.60	7.20	7.57	8.76	8.79	8.68	8.28
30	8.55	8.19	7.68	7.79	---	7.59	7.17	7.65	8.79	8.79	8.66	8.29
31	8.53	---	7.66	7.76	---	7.61	---	7.72	---	8.80	8.67	---
MEAN	8.32	8.25	7.85	7.61	7.65	7.66	7.29	7.17	8.34	8.85	8.79	8.47
MAX	8.55	8.57	8.15	7.83	7.76	7.76	7.58	7.72	8.79	8.95	8.84	8.67
MIN	8.17	8.06	7.65	7.49	7.53	7.50	7.13	6.99	7.80	8.78	8.66	8.26
a	674500	632700	567700	579900	565200	561500	507600	575000	706500	707700	691700	645000
b	+14800	-41800	-65000	+12200	-14700	-3700	-53900	+67400	+131500	+1200	-16000	-46700

CAL YR b +194400
WTR YR b -14700

a Usable contents, in acre-feet, at end of month.

b Change in contents, in acre-feet.

Note.--Add 6,220 ft to obtain elevation, Bureau of Reclamation datum, at 2400 hours.

10337500 TRUCKEE RIVER AT TAHOE CITY, CA

LOCATION.--Lat 39°09'59", long 120°08'36", in NE 1/4 NW 1/4 sec.7, T.15 N., R.17 E., Placer County, Hydrologic Unit 16050102, on left bank 510 ft downstream from dam at outlet of Lake Tahoe at Tahoe City.

DRAINAGE AREA.--507 mi².

PERIOD OF RECORD.--July 1895 to February 1896, March 1900 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Prior to October 1961, published as "at Tahoe."

REVISED RECORDS.--WDR CA-78-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,216.59 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 12, 1912, nonrecording gage at site 370 ft upstream at different datum. Nov. 12, 1912, to Sept. 30, 1937, nonrecording gage, Oct. 1, 1937, to Aug. 21, 1957, water-stage recorder at datum 2.26 ft higher and Aug. 22, 1957, to July 10, 1960, at datum 2.42 ft higher; all at site 270 ft upstream.

REMARKS.--Records excellent. Flow regulated by Lake Tahoe, operating capacity, 744,600 acre-ft. There are several diversions for irrigation, power, and domestic water supply. In addition, sewer effluent is pumped from the Lake Tahoe basin.

AVERAGE DISCHARGE (unadjusted).--83 years (water years 1901-83), 254 ft³/s, 184,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft³/s June 19, 1969, gage height, 9.32 ft; no flow for parts of many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,980 ft³/s Jan. 29, gage height, 7.73 ft; maximum gage height, 7.93 ft, Nov. 30; minimum daily, 12 ft³/s Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	1020	1820	1890	1940	1680	1810	1790	153	576	578	556
2	69	1100	1820	1900	1930	1650	1810	1780	444	575	579	555
3	73	1220	1800	1760	1920	1630	1810	1770	773	576	579	562
4	74	1430	1800	1240	1900	1620	1810	1770	943	575	579	573
5	74	1680	1800	855	1900	1630	1810	1740	944	803	579	576
6	74	1730	1800	656	1900	1650	1790	1400	945	1430	579	576
7	74	1730	1800	657	1900	1650	1800	1200	1150	1550	579	575
8	73	1720	1800	657	1890	1690	1810	1190	1460	1550	578	573
9	72	1730	1790	657	1820	1790	1800	1190	1590	1560	579	573
10	72	1720	1780	656	1820	1800	1800	1190	1260	1560	579	573
11	72	1720	1780	573	1760	1790	1800	1190	973	1560	579	571
12	72	1720	1780	304	1730	1790	1810	1190	973	1690	579	570
13	71	1720	1790	300	1750	1360	1800	1190	1190	1790	579	570
14	62	1730	1790	299	1740	1110	1810	1190	1310	1790	581	570
15	33	1720	1800	298	1720	1720	1810	1180	1310	1790	586	568
16	32	1530	1780	299	1710	1810	1800	1090	1290	1790	586	571
17	31	1200	1800	300	1690	1810	1790	900	1410	1740	586	573
18	27	804	1800	300	1700	1820	1780	900	1580	1350	586	574
19	25	893	1800	305	1700	1820	1800	833	1420	1090	586	572
20	20	1470	1800	304	1680	1810	1820	605	1120	912	586	793
21	19	1700	1860	386	1680	1810	1820	609	808	910	586	1090
22	12	1740	1920	499	1660	1820	1800	610	634	783	587	960
23	18	1760	1940	488	1660	1830	1800	422	630	591	580	953
24	31	1750	1940	489	1660	1850	1820	153	630	589	510	936
25	51	1750	1930	741	1660	1840	1830	58	632	589	540	928
26	62	1760	1920	1140	1680	1830	1820	59	631	583	561	928
27	51	1780	1910	1480	1690	1820	1810	60	632	580	561	928
28	75	1790	1900	1870	1680	1820	1810	61	735	579	561	848
29	203	1790	1900	1960	---	1810	1810	65	946	579	560	740
30	405	1830	1890	1960	---	1800	1800	63	795	579	556	663
31	676	---	1890	1950	---	1810	---	63	---	579	555	---
TOTAL	2770	47237	56930	27173	49470	53670	54190	27511	29311	33198	17779	20598
MEAN	89.4	1575	1836	877	1767	1731	1806	887	977	1071	574	687
MAX	676	1830	1940	1960	1940	1850	1830	1790	1590	1790	587	1090
MIN	12	804	1780	298	1660	1110	1780	58	153	575	510	555
AC-FT	5490	93690	112900	53900	98120	106500	107500	54570	58140	65850	35260	40860
CAL YR 1982	TOTAL	223633	MEAN	613	MAX	1940	MIN	12	AC-FT	443600		
WTR YR 1983	TOTAL	419837	MEAN	1150	MAX	1960	MIN	12	AC-FT	832700		

PYRAMID AND WINNEMUCCA LAKES BASIN

10338500 DONNER CREEK AT DONNER LAKE, NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'25", long 120°14'00", in SW 1/4 NW 1/4 sec.17, T.17 N., R.16 E., Nevada County, Hydrologic Unit 16050102, in Donner Memorial State Park, on left bank 10 ft downstream from bridge on Donner Memorial State Park road, 0.2 mi downstream from outlet of Donner Lake, 0.7 mi upstream from Cold Creek, and 2.5 mi west of Truckee.

DRAINAGE AREA.--14.3 mi².

PERIOD OF RECORD.--November 1909 to August 1910, January 1929 to October 1935, January 1936 to March 1938, July to October 1938, January 1939 to February 1943, June 1943 to December 1953, May 1955 to December 1957, October 1958 to current year. Monthly discharge only prior to October 1958, published in WSP 1314 and 1734.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,930 ft, from topographic map. Nov. 1, 1909, to Aug. 31, 1910, nonrecording gage at different datum. January 1929 to December 1957, water-stage recorder at same site at unknown datum.

REMARKS.--Records excellent. Flow regulated by dam at outlet of Donner Lake, usable capacity, 9,500 acre-ft.

AVERAGE DISCHARGE (unadjusted).--46 years (water years 1930-35, 1937, 1940-42, 1944-52, 1956-57, 1959-83), 35.2 ft³/s, 25,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 700 ft³/s, estimated, Nov. 21, 1950; maximum gage height observed, 4.55 ft Dec. 25, 1964; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 368 ft³/s May 31, gage height, 4.01 ft; minimum daily, 1.6 ft³/s Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	135	54	38	40	61	78	77	360	33	13	19
2	88	118	51	35	38	63	80	74	348	24	20	19
3	86	104	47	34	35	61	78	72	340	23	19	19
4	84	92	44	31	33	58	74	76	337	22	19	19
5	96	82	42	30	32	56	70	80	337	21	19	19
6	104	73	40	29	32	54	66	82	333	21	19	13
7	98	65	38	28	38	54	63	81	326	21	18	4.7
8	91	59	36	28	42	55	61	82	318	21	17	4.4
9	84	55	34	27	43	55	61	83	313	19	12	31
10	75	50	32	27	43	56	61	85	313	17	4.8	51
11	68	46	31	26	41	61	60	85	326	17	4.0	51
12	75	42	30	26	44	65	59	86	320	17	3.4	50
13	82	39	32	26	54	125	58	90	308	17	3.0	80
14	76	35	31	25	53	161	56	97	299	16	2.8	181
15	39	33	30	25	50	158	54	109	295	15	2.9	253
16	15	30	28	26	48	148	53	124	289	15	2.5	238
17	14	29	31	25	46	138	53	133	287	15	2.4	222
18	13	40	30	26	48	127	54	143	282	15	2.1	205
19	13	54	29	32	48	116	57	158	269	15	1.9	208
20	13	54	32	31	46	106	61	180	257	13	1.7	211
21	12	51	56	30	44	98	65	203	216	13	1.7	183
22	37	49	68	32	42	93	72	228	193	13	1.7	156
23	58	47	73	33	41	90	79	253	171	12	1.6	134
24	61	44	68	45	40	87	87	265	116	12	1.6	115
25	121	42	62	46	43	81	91	279	92	11	9.2	99
26	188	40	58	44	49	75	86	299	94	18	28	93
27	181	37	54	50	52	71	83	312	62	26	37	89
28	190	40	50	47	55	66	83	325	40	26	36	76
29	178	47	46	47	---	61	83	343	39	17	26	68
30	168	56	43	45	---	59	80	354	39	4.5	20	63
31	153	---	40	43	---	74	---	361	---	3.6	20	---
TOTAL	2652	1688	1340	1037	1220	2633	2066	5219	7319	533.1	370.3	2974.1
MEAN	85.5	56.3	43.2	33.5	43.6	84.9	68.9	168	244	17.2	11.9	99.1
MAX	190	135	73	50	55	161	91	361	360	33	37	253
MIN	12	29	28	25	32	54	53	72	39	3.6	1.6	4.4
AC-FT	5260	3350	2660	2060	2420	5220	4100	10350	14520	1060	734	5900
CAL YR 1982	TOTAL	25660.64	MEAN	70.3	MAX	303	MIN	.82	AC-FT	50900		
WTR YR 1983	TOTAL	29051.5	MEAN	79.6	MAX	361	MIN	1.6	AC-FT	57620		

10339250 MARTIS CREEK AT STATE HIGHWAY 267, NEAR TRUCKEE, CA

LOCATION.--Lat 39°18'08", long 120°07'13", in SW 1/4 SW 1/4 sec.20, T.17 N., R.17 E., Placer County, Hydrologic Unit 16050102, 4.0 mi southeast of Truckee. Water-quality samples are collected 10 ft upstream from State Highway 267. Temperature records are obtained about 300 ft upstream from highway, off left bank immediately downstream from confluence of main stem and Middle Martis Creek.

DRAINAGE AREA.--25.8 mi².

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1975 to current year.

SEDIMENT RECORDS: Water years 1975, 1977 to current year.

REVISED RECORDS.--WDR CA-80-3: Drainage area.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October to November 1974, August 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.5°C July 30, Aug. 3, 1977; minimum recorded, -0.5°C Jan. 5, 10-16, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 20.5°C on July 30, Aug. 2, 6; minimum recorded, 0.0°C on several days during December and January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
NOV 24...	1005	19	111	7.3	2.0	615	3.6	10.9	98
APR 13...	0950	49	84	7.4	2.5	610	3.0	10.5	96
JUN 07...	1015	142	59	7.3	8.0	615	5.5	9.8	103
AUG 30...	1045	12	115	8.2	11.0	615	1.9	9.9	112

DATE	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 24...	63	.300	.100	.60	.70	1.0	.03	--	1
APR 13...	46	.300	.130	.57	.70	1.0	.03	.03	2
JUN 07...	34	2.20	.110	.69	.80	3.0	.02	.02	2
AUG 30...	52	.900	.120	.08	.20	1.1	.03	.02	3

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	3	240	120	32	3	30	14	30	12
APR 13...	7	340	47	24	5	50	20	--	31
JUN 07...	2	530	95	30	7	40	18	110	23
AUG 30...	9	340	140	60	34	50	17	80	11

10339250 MARTIS CREEK AT STATE HIGHWAY 267, NEAR TRUCKEE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	4.0	8.0	2.5	2.5	0.5	0.5	0.0	2.0	0.5	1.5	0.5
2	12.5	5.0	7.5	1.5	2.5	0.5	0.5	0.0	1.5	0.5	2.5	0.5
3	12.5	5.0	7.5	1.5	3.5	1.0	1.0	0.5	2.5	0.5	3.5	1.0
4	12.0	5.5	7.0	1.0	3.5	0.5	2.5	0.5	1.0	0.5	4.5	1.0
5	12.0	4.0	8.0	1.5	4.0	1.5	2.5	0.5	2.0	0.5	5.0	1.0
6	10.5	4.0	7.5	2.0	4.0	0.5	2.5	0.5	3.0	1.0	5.5	1.0
7	11.0	4.5	6.5	2.5	2.0	0.5	3.5	1.0	3.5	0.5	5.0	1.5
8	10.5	2.5	3.5	1.0	1.0	0.5	3.5	0.5	3.0	1.0	5.0	1.0
9	11.0	3.0	3.0	1.0	0.5	0.5	2.5	0.5	2.0	0.5	5.5	1.0
10	11.0	3.0	4.5	1.5	1.5	0.5	2.5	0.5	3.5	1.0	6.5	1.0
11	11.0	2.5	5.0	1.0	2.5	0.5	1.5	0.0	4.0	1.0	6.0	1.0
12	11.5	3.0	4.5	0.5	2.5	0.5	1.0	0.0	2.0	0.5	4.0	0.5
13	11.5	3.5	4.5	0.5	2.0	0.5	1.5	0.5	1.5	0.5	1.0	0.5
14	11.0	4.0	4.5	0.5	0.5	0.5	2.0	0.5	3.0	0.5	3.5	0.5
15	12.0	6.0	5.0	1.0	2.5	0.5	3.0	0.5	4.0	0.5	5.5	0.5
16	11.5	4.5	5.0	0.5	3.0	1.0	3.0	1.5	4.5	0.5	5.0	0.5
17	11.5	4.5	6.0	3.0	2.0	0.5	4.0	2.0	5.0	1.0	6.0	1.0
18	9.5	2.5	4.0	1.0	2.0	0.5	4.5	0.5	2.0	0.5	6.0	0.5
19	7.5	3.5	3.5	0.5	2.0	0.5	2.0	0.5	2.5	0.5	8.5	0.5
20	9.5	4.5	4.0	1.0	2.5	0.5	2.5	0.5	3.5	0.5	4.0	0.5
21	10.0	5.5	2.5	0.5	0.5	0.5	1.5	0.5	4.0	0.5	6.5	1.0
22	10.0	7.5	3.5	2.0	1.0	0.5	2.0	1.0	5.0	1.0	3.5	0.5
23	11.0	7.5	4.5	2.0	1.5	0.5	2.5	0.5	5.5	1.0	4.0	0.5
24	9.5	7.0	4.5	1.5	1.0	0.5	1.0	0.5	5.5	1.0	1.5	0.5
25	9.5	7.5	5.0	2.5	0.5	0.5	1.5	0.5	2.0	0.5	4.5	0.5
26	8.5	5.0	4.0	1.5	2.0	0.5	2.5	0.5	2.5	0.5	3.5	0.5
27	8.0	4.0	5.5	1.0	2.0	0.5	2.0	0.5	2.0	0.5	5.5	1.0
28	8.0	3.0	4.5	2.0	2.0	0.0	2.0	0.5	2.0	0.5	5.5	0.5
29	9.0	5.0	2.0	1.5	1.5	0.0	2.5	0.5	---	---	6.5	2.0
30	7.0	5.5	2.5	0.5	0.5	0.0	3.0	0.5	---	---	8.5	1.5
31	9.0	4.5	---	---	0.5	0.0	2.0	0.5	---	---	8.5	1.0
MONTH	12.5	2.5	8.0	0.5	4.0	0.0	4.5	0.0	5.5	0.5	8.5	0.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	0.5	7.5	1.5	10.0	4.0	11.5	9.0	20.0	10.0	16.0	10.5
2	8.0	1.0	14.5	2.0	9.5	5.0	16.5	8.5	20.5	10.0	17.0	8.0
3	4.5	0.5	16.0	2.0	12.0	5.0	18.5	7.5	20.0	10.0	17.0	8.5
4	5.5	1.0	9.5	2.5	13.0	5.0	19.0	8.5	19.5	9.5	17.5	8.0
5	5.5	0.5	10.5	2.5	14.5	4.0	18.5	10.0	20.0	9.0	18.0	8.5
6	9.0	0.5	14.0	1.0	14.5	4.5	19.0	10.5	20.5	10.0	18.0	9.0
7	10.0	0.5	13.5	2.0	12.0	6.0	17.5	9.5	18.5	12.5	17.5	9.0
8	10.5	0.5	13.0	1.5	12.5	5.0	17.0	8.0	16.0	12.5	17.0	10.0
9	8.5	1.0	13.5	1.5	15.0	5.0	14.5	7.0	20.0	10.0	16.0	7.5
10	9.0	1.5	9.0	2.0	14.0	5.0	17.0	6.5	18.5	12.5	16.5	7.0
11	6.0	0.5	14.0	2.0	14.0	6.0	19.0	7.5	19.5	10.5	17.0	7.5
12	7.5	0.5	12.0	2.0	14.5	5.0	20.0	9.0	19.0	9.0	17.0	8.0
13	8.0	0.5	13.0	2.5	15.0	5.0	20.0	9.0	19.0	11.5	17.5	8.5
14	11.0	0.5	14.0	2.0	15.0	5.5	19.5	9.5	14.5	10.0	16.5	8.0
15	11.0	1.0	13.5	3.5	15.5	6.0	19.0	9.0	16.0	11.5	16.0	7.0
16	11.0	1.0	13.0	2.0	16.0	6.0	18.0	7.5	18.5	10.5	16.0	8.0
17	8.5	1.5	14.0	2.0	16.0	7.0	17.5	8.5	15.0	10.0	16.5	8.5
18	10.5	1.5	13.5	2.5	15.0	6.5	17.5	7.5	15.5	9.5	15.5	7.5
19	13.0	2.0	13.5	3.0	15.5	5.0	17.0	8.0	15.5	11.0	15.0	7.5
20	8.5	3.0	14.0	3.0	14.0	6.0	18.0	6.5	15.5	9.5	14.0	5.5
21	10.5	3.0	14.5	3.0	16.5	6.5	19.0	8.0	13.5	9.0	14.0	6.0
22	12.5	2.5	14.0	3.5	17.0	7.5	19.5	9.5	16.0	10.0	11.5	9.0
23	7.0	1.0	14.0	3.5	16.5	8.0	18.5	7.5	16.5	8.5	11.0	8.5
24	3.5	0.5	14.0	3.5	17.0	7.5	18.5	8.0	16.0	8.5	12.0	7.5
25	7.0	0.5	14.0	3.5	17.5	8.0	18.0	9.0	16.5	8.0	13.5	7.0
26	9.0	0.5	13.0	3.5	17.0	7.5	18.0	7.5	16.5	7.0	12.5	8.0
27	7.5	2.0	14.0	3.5	17.0	7.5	19.0	8.0	16.5	7.5	12.0	7.0
28	12.0	1.0	12.0	4.0	17.0	7.5	19.0	8.5	16.5	7.5	12.0	8.0
29	11.0	2.0	13.5	4.5	17.0	9.0	20.0	9.5	16.5	8.0	10.0	7.5
30	12.0	2.0	14.0	3.5	17.5	8.0	20.5	10.5	16.5	8.5	11.0	7.5
31	---	---	13.0	4.0	---	---	19.5	10.5	14.0	10.0	---	---
MONTH	13.0	0.5	16.0	1.0	17.5	4.0	20.5	6.5	20.5	7.0	18.0	5.5

10339250 MARTIS CREEK AT STATE HIGHWAY 267, NEAR TRUCKEE, CA--Continued

SUSPENDED SEDIMENT MEASUREMENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 24...	1005	19	2.0	2	.10
APR 13...	0950	49	2.5	4	.53
JUN 07...	1015	142	8.0	12	4.6
AUG 30...	1045	12	11.0	6	.19

PYRAMID AND WINNEMUCCA LAKES BASIN

10339380 MARTIS CREEK LAKE NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'38", long 120°06'48", in NE 1/4 NW 1/4 sec.17, T.17 N., R.17 E., Nevada County, Hydrologic Unit 16050102, Tahoe National Forest, in control house at Martis Creek Dam, 2.0 mi upstream from mouth, and 3.5 mi east of Truckee.

DRAINAGE AREA.--39.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to May 1972 (occasional readings only), June 1972 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by rolled-earthfill dam. Storage began Oct. 7, 1971. Total capacity, 20,400 acre-ft between elevations 5,745 ft, streambed elevation at dam, and 5,838 ft, elevation of spillway crest. Figures given herein represent total contents, which include 775 acre-ft of inactive storage below elevation 5,780 ft, intake crest. Reservoir is used for flood control, enhancement of fishery, and recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,700 acre-ft May 11, 12, 1980, elevation, 5,815.16 ft; minimum (since storage began), 768 acre-ft Aug. 24, 1977, elevation, 5,779.88.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1530 acre-ft Mar. 13, elevation, 5,788.97 ft; minimum, 796 acre-ft Sept. 18, elevation 5,780.34 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

5,779	716	5,800	3,255
5,780	775	5,810	5,884
5,785	1,139	5,820	9,718
5,790	1,646		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	866	857	850	820	827	918	874	864	978	841	806	802
2	864	851	845	819	827	899	864	864	960	841	804	803
3	862	846	842	818	823	878	856	875	961	836	804	801
4	861	846	841	820	821	867	848	876	950	831	803	801
5	860	846	839	822	820	864	845	872	945	829	803	800
6	857	845	837	822	827	862	845	872	944	826	803	799
7	854	843	833	822	851	883	850	877	941	824	803	822
8	851	844	831	823	854	881	862	879	935	823	804	806
9	849	843	830	822	843	883	863	881	933	823	804	800
10	848	843	829	818	839	894	855	878	931	821	804	799
11	847	842	829	816	838	889	849	875	927	820	804	798
12	845	841	830	815	885	920	846	878	913	818	804	798
13	844	841	829	815	881	1530	847	883	906	817	804	798
14	844	841	829	813	862	1100	845	890	903	815	804	798
15	845	841	830	815	854	914	848	903	899	815	811	798
16	844	841	831	818	850	890	856	904	895	814	809	797
17	848	841	844	820	851	877	854	907	896	813	806	797
18	852	1010	839	831	852	867	860	914	887	813	806	796
19	854	890	833	831	848	862	869	927	879	812	806	797
20	854	864	892	827	844	858	873	937	874	813	806	797
21	858	853	938	825	841	852	877	959	869	811	806	798
22	866	850	966	843	842	848	883	981	867	811	805	804
23	878	846	909	841	848	845	880	1000	865	810	804	803
24	885	842	871	875	848	844	870	1020	862	810	804	802
25	931	839	854	859	850	841	872	1030	859	810	803	801
26	916	836	853	861	848	836	867	1040	854	810	802	803
27	874	842	848	866	844	835	877	1040	851	809	801	801
28	858	877	834	854	870	832	891	1060	847	808	801	801
29	851	866	825	846	---	837	877	1070	843	807	801	803
30	883	856	824	837	---	883	869	1050	840	805	801	804
31	867	---	822	829	---	887	---	1020	---	804	801	---
MAX	931	1010	966	875	885	1530	891	1070	978	841	811	822
MIN	844	836	822	813	820	832	845	864	840	804	801	796
a	5781.43	5781.27	5780.74	5780.85	5781.47	5781.72	5781.46	5783.55	5781.02	5780.47	5780.42	5780.47
b	-1	-11	-34	+7	+41	+17	-18	+151	-180	-36	-3	+3

CAL YR 1982 b -17

WTR YR 1983 b -64

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

10339380 MARTIS CREEK LAKE NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES: Water years 1975 to current year.

SEDIMENT RECORDS: Water years 1975-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	ALKA- LITY FIELD (MG/L AS CACO3).
NOV 24...	1110	88	7.3	3.0	615	22	10.2	94	45
APR 13...	1110	66	7.4	4.5	613	7.8	10.1	97	47
JUN 07...	1120	60	6.7	14.5	615	5.3	8.9	109	34
AUG 30...	1200	116	9.0	17.0	615	2.5	9.8	126	52

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	COPPER, DIS- SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
NOV 24...	.100	.120	.88	1.0	1.1	.06	.04	2	5
APR 13...	--	.080	.32	.40	--	.03	.02	3	7
JUN 07...	.200	.120	.28	.40	.60	.03	.02	4	5
AUG 30...	.400	.090	.31	.40	.80	.03	.01	5	6

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	890	140	100	4	50	11	80	29
APR 13...	570	120	140	15	40	20	170	15
JUN 07...	380	94	74	6	50	15	40	13
AUG 30...	440	150	71	22	70	33	50	40

SUSPENDED SEDIMENT CONCENTRATION, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)
NOV 24...	1110	3.0	6
APR 13...	1110	4.5	9
JUN 07...	1120	14.5	3
AUG 30...	1200	17.0	15

PYRAMID AND WINNEMUCCA LAKES BASIN

10339400 MARTIS CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°19'44", long 120°07'00", in NE 1/4 NW 1/4 sec.17, T.17 N., R.17 E., Nevada County, Hydrologic Unit 16050102, Tahoe National Forest, on left bank 0.2 mi downstream from Martis Creek Lake Dam, 1.8 mi upstream from mouth, and 3.5 mi east of Truckee.

DRAINAGE AREA.--39.9 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,730 ft, from topographic map. Prior to July 10, 1972, at site 1.0 mi downstream at different datum.

REMARKS.--Records excellent. Flow subject to regulation by Martis Creek Lake Dam since Oct. 7, 1971.

AVERAGE DISCHARGE (unadjusted).--25 years, 26.5 ft³/s, 19,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft³/s Feb. 1, 1963, gage height, 6.16 ft, site and datum then in use; minimum, 1.1 ft³/s July 19, 20, 1961. Maximum discharge since construction of Martis Creek Lake Dam in 1971, 648 ft³/s Apr. 2, 1974, gage height, 6.01 ft; minimum daily, 0.20 ft³/s Nov. 9-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 578 ft³/s Mar. 13, gage height, 5.41 ft; minimum daily, 11 ft³/s Oct. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	35	28	37	169	127	113	313	59	21	21
2	15	20	31	27	36	172	118	103	266	60	21	21
3	15	18	29	26	35	129	99	112	267	55	20	20
4	14	15	27	26	33	99	86	132	259	48	20	20
5	14	15	26	26	32	88	77	128	244	45	20	20
6	14	15	26	26	29	86	73	120	239	43	20	20
7	15	15	24	25	37	101	76	124	240	41	20	14
8	15	15	22	25	65	119	89	134	234	39	20	23
9	14	15	21	24	53	118	105	139	225	39	20	20
10	14	15	21	23	44	127	100	142	223	38	21	18
11	14	15	21	22	41	140	88	127	228	36	21	18
12	14	14	21	21	67	136	79	133	206	34	20	17
13	14	14	22	21	132	511	79	138	186	33	19	17
14	14	14	20	20	91	555	75	146	175	32	20	17
15	14	14	21	20	69	292	77	167	170	31	23	17
16	14	14	21	20	60	173	86	186	162	30	25	17
17	11	14	27	22	57	143	92	184	155	29	22	17
18	11	110	28	23	65	123	93	194	149	28	21	17
19	12	138	24	30	58	106	106	216	135	27	23	17
20	13	55	29	27	53	96	124	233	123	27	22	17
21	12	38	182	24	49	88	122	250	113	26	21	18
22	12	34	172	30	48	81	132	280	106	26	22	19
23	16	32	186	39	54	74	141	308	100	25	21	21
24	20	29	107	84	59	65	131	335	96	24	20	20
25	38	27	71	74	59	68	117	355	90	24	20	20
26	114	25	54	57	60	58	112	379	85	24	19	20
27	47	25	49	78	55	56	114	384	79	23	19	20
28	26	35	46	63	58	53	140	390	73	23	19	20
29	20	54	39	52	---	52	141	397	68	23	19	20
30	32	41	31	45	---	80	125	387	64	22	19	22
31	32	---	29	42	---	179	---	356	---	21	19	---
TOTAL	646	909	1462	1070	1536	4337	3124	6792	5073	1035	637	568
MEAN	20.8	30.3	47.2	34.5	54.9	140	104	219	169	33.4	20.5	18.9
MAX	114	138	186	84	132	555	141	397	313	60	25	23
MIN	11	14	20	20	29	52	73	103	64	21	19	14
AC-FT	1280	1800	2900	2120	3050	8600	6200	13470	10060	2050	1260	1130

CAL YR 1982 TOTAL 20060.4 MEAN 55.0 MAX 568 MIN 7.9 AC-FT 39790
WTR YR 1983 TOTAL 27189 MEAN 74.5 MAX 555 MIN 11 AC-FT 53930

10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.
 CHEMICAL ANALYSES: Water years 1975 to current year.
 WATER TEMPERATURES: Water years 1975 to current year.
 SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
 WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Unpublished chemical-quality, water temperatures, and sediment data prior to October 1974, available at State office in Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.--
 WATER TEMPERATURE: Maximum recorded, 24.0°C on several days in 1977 and 1979; minimum recorded, 0.0°C Feb. 16, 17, 1982.

EXTREMES FOR CURRENT YEAR.--
 WATER TEMPERATURES: Maximum recorded, 19.5°C Aug. 6 and Sept. 7; minimum recorded, 0.5°C Mar. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
NOV 24...	1155	29	98	7.3	3.5	615	18	11.1	105
APR 13...	1150	76	89	7.4	5.0	615	4.2	11.6	113
JUN 07...	1155	239	65	6.5	11.5	615	7.0	9.8	112
AUG 30...	1245	19	124	8.8	17.0	615	2.4	9.0	116

DATE	ALKA- LITY FIELD (MG/L AS CACO3)	NITRO- GEN, NO2+NO3 (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 24...	45	.800	.130	.77	.90	1.7	.06	.03	2
APR 13...	46	.400	.090	.41	.50	.90	.03	.02	1
JUN 07...	41	3.80	.220	.68	.90	4.7	.05	.04	5
AUG 30...	68	.200	.070	.23	.30	.50	.02	.03	4

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	HANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	HANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	5	730	130	85	6	60	13	50	6
APR 13...	6	310	93	40	3	30	20	60	10
JUN 07...	9	550	63	73	29	70	20	210	42
AUG 30...	10	340	120	110	60	30	22	100	52

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.5	10.5	8.0	7.0	3.5	3.0	---	---	2.0	1.5	2.0	1.5
2	13.5	10.5	7.5	6.5	3.0	3.0	---	---	2.0	1.5	1.5	1.0
3	13.5	11.0	8.0	6.0	3.0	2.5	---	---	2.0	1.5	1.5	1.5
4	13.0	11.0	7.5	6.0	3.5	2.5	---	---	2.0	1.0	2.0	1.5
5	12.5	10.5	7.5	6.0	3.0	2.5	---	---	2.0	1.5	2.5	2.0
6	12.0	10.5	7.5	6.0	3.5	2.5	---	---	2.0	1.5	3.0	2.0
7	11.5	10.0	7.5	6.0	3.5	2.5	---	---	2.0	1.5	3.0	2.5
8	11.0	9.5	6.5	5.5	3.5	2.5	3.0	2.0	2.0	1.5	3.0	2.5
9	11.0	9.0	6.0	5.0	3.5	2.5	2.5	2.0	2.0	1.5	3.0	2.5
10	11.0	9.0	6.0	5.0	3.5	3.0	3.0	2.0	2.0	1.5	3.0	2.5
11	11.0	9.0	6.0	5.0	3.5	3.0	3.0	2.0	2.5	1.5	3.0	2.5
12	11.5	9.0	5.5	4.5	3.5	2.5	3.0	2.0	2.0	2.0	3.0	3.0
13	11.5	9.5	5.5	4.0	---	---	3.0	2.0	2.0	1.5	3.0	1.0
14	11.5	9.5	5.0	4.0	---	---	3.0	2.0	1.5	1.0	1.0	0.5
15	12.0	10.0	5.0	4.0	---	---	3.0	2.5	1.5	1.0	1.5	1.0
16	12.0	10.0	5.5	4.0	---	---	2.5	2.5	2.0	1.5	2.0	1.5
17	12.0	10.0	5.5	4.5	---	---	3.0	2.5	2.5	1.5	2.5	2.0
18	11.5	9.5	5.0	3.5	---	---	3.0	2.0	2.5	1.5	2.5	2.0
19	10.5	9.5	3.5	2.5	---	---	2.5	2.0	2.0	1.5	3.0	2.5
20	10.5	9.5	3.0	2.5	---	---	3.0	2.0	2.5	1.5	3.5	2.5
21	11.0	9.5	3.0	2.5	---	---	3.0	2.0	2.5	1.5	3.5	3.0
22	11.0	9.5	3.5	3.0	---	---	2.5	2.0	2.5	2.0	3.5	2.5
23	10.5	9.5	3.5	3.0	---	---	2.5	2.0	3.0	2.0	3.0	2.0
24	10.0	9.5	3.5	3.0	---	---	2.0	1.5	3.0	2.5	3.0	2.0
25	10.0	9.5	3.5	3.5	---	---	1.5	1.5	2.5	2.5	2.5	2.0
26	9.5	9.0	4.0	3.5	---	---	1.5	1.5	3.0	2.0	2.5	2.0
27	9.5	8.5	4.5	3.5	---	---	1.5	1.5	2.5	2.0	3.0	2.5
28	9.0	8.0	4.0	4.0	---	---	1.5	1.0	2.0	2.0	3.5	2.5
29	8.5	8.0	4.0	3.5	---	---	1.5	1.0	---	---	3.5	2.5
30	8.0	7.5	3.5	3.0	---	---	2.0	1.5	---	---	4.0	3.0
31	8.0	7.0	---	---	---	---	2.0	1.5	---	---	4.0	3.0
MONTH	13.5	7.0	8.0	2.5	---	---	---	---	3.0	1.0	4.0	0.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.0	3.0	7.5	6.5	10.0	8.0	15.0	13.5	19.0	16.5	16.5	14.5
2	4.0	3.5	8.0	6.5	9.0	8.0	15.0	12.5	18.5	16.5	16.5	14.5
3	4.5	3.5	9.5	7.5	9.5	8.0	16.5	13.0	19.0	17.0	16.5	14.5
4	4.0	3.5	11.0	9.0	10.0	7.5	17.0	14.0	19.0	17.0	16.5	14.0
5	4.0	3.0	9.0	7.5	13.0	10.0	17.0	15.0	19.0	16.5	17.5	14.5
6	4.0	3.0	8.5	7.5	12.5	10.0	17.0	15.5	19.5	16.5	17.5	15.0
7	4.0	3.5	10.0	8.0	11.5	10.5	17.0	15.0	18.5	17.5	19.5	10.5
8	4.5	3.5	9.0	8.0	10.5	9.0	15.5	14.0	19.0	17.5	17.0	9.5
9	---	---	8.5	8.5	12.5	10.0	15.0	13.5	19.0	17.0	16.5	14.5
10	---	---	9.0	7.5	13.0	10.5	15.5	13.0	19.0	17.5	16.5	14.0
11	---	---	8.0	7.5	12.0	10.5	16.5	14.0	19.0	17.0	17.0	14.0
12	---	---	10.0	8.0	12.0	10.5	17.5	15.0	19.0	17.0	17.0	14.0
13	---	---	9.5	7.0	13.5	10.5	18.0	15.0	19.0	17.0	17.0	14.5
14	5.0	4.0	11.0	8.5	13.5	11.5	17.5	15.5	18.5	17.0	17.0	14.5
15	5.0	4.0	10.5	9.5	12.5	11.0	17.5	15.5	18.5	17.0	17.0	14.5
16	5.5	4.0	9.5	7.5	15.0	12.0	17.5	15.5	18.0	17.0	17.0	14.5
17	5.5	5.0	11.0	8.5	14.5	12.5	17.0	15.0	17.5	16.5	17.0	14.5
18	5.5	5.0	10.5	8.5	13.0	11.5	16.5	15.0	18.0	16.0	17.0	14.5
19	5.5	5.0	12.5	8.5	14.0	12.0	16.5	15.0	17.5	16.0	16.5	14.0
20	5.5	5.5	11.0	8.0	13.5	12.5	17.0	14.5	17.0	15.5	15.5	13.5
21	6.0	5.5	11.0	8.0	14.5	12.0	16.5	14.5	16.5	15.0	15.5	13.5
22	8.0	6.5	12.0	9.0	15.0	12.5	17.0	15.0	16.5	15.0	14.5	14.0
23	7.5	6.5	11.5	9.0	15.0	13.0	17.5	15.0	16.5	15.0	14.0	13.5
24	6.5	5.0	11.0	8.5	15.5	13.0	17.5	15.5	17.0	15.0	14.0	13.0
25	5.0	3.5	11.0	8.5	16.0	13.5	17.0	15.5	17.0	15.0	14.5	12.5
26	6.0	4.0	11.0	8.5	16.5	14.0	17.5	15.5	17.0	14.5	14.5	13.0
27	6.5	5.0	11.0	8.5	15.5	13.5	17.0	15.0	17.5	14.5	14.0	12.5
28	7.0	5.5	10.5	8.5	14.5	13.5	17.0	15.5	17.0	14.5	13.5	12.0
29	7.5	6.0	11.0	8.5	16.0	14.0	18.0	15.5	17.0	14.5	13.0	12.0
30	8.5	7.5	11.5	9.0	16.5	14.0	18.5	16.0	17.5	14.5	13.0	12.0
31	---	---	11.0	9.0	---	---	18.5	16.5	16.0	14.5	---	---
MONTH	8.5	3.0	12.5	6.5	16.5	7.5	18.5	12.5	19.5	14.5	19.5	9.5

10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

SUSPENDED SEDIMENT MEASUREMENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR 13...	1150	76	5.0	1	.21
JUN 07...	1155	239	11.5	4	2.6
AUG 30...	1245	19	17.0	5	.26

10340300 PROSSER CREEK RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°22'40", long 120°08'10", in NW 1/4 SW 1/4 sec.30, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, in control house at Prosser Creek Dam on Prosser Creek, 1.4 mi upstream from mouth, and 4.2 mi northeast of Truckee.

DRAINAGE AREA.--50.3 mi².

PERIOD OF RECORD.--January 1963 to current year. Prior to October 1976, published as "near Boca."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REVISED RECORDS.--WDR CA-76-3: 1975. WDR CA-79-3: Drainage area.

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Jan. 30, 1963. Usable capacity, 28,640 acre-ft between elevations, 5,660.6 ft top of inactive storage, and 5,741.2 ft spillway crest. Inactive storage, 1,200 acre-ft, includes 83 acre-ft dead storage below elevation 5,660.6 ft. Figures given herein represent total contents at 0800 hours. Reservoir is used for flood control, enhancement of fishery, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,269 acre-ft June 1, 1973, elevation, 5,744.33 ft; minimum observed, 83 acre-ft Aug. 18, 1976 to Apr. 18, 1977, July 8 to Dec. 26, 1977, Feb. 19 to Mar. 21, 1978; minimum elevation observed, 5,637.01 ft July 20 to Dec. 19, 1977, Feb. 24 to Mar. 17, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,856 acre-ft Aug. 17, elevation, 5,742.53 ft; minimum observed, 1,378 acre-ft Sept. 30, elevation, 5,662.51 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	5,728.99	21,606	--
Oct. 31.....	5,702.15	9,316	-12,290
Nov. 30.....	5,701.80	9,203	-113
Dec. 31.....	5,699.70	8,545	-658
CAL YR 1982.....	--	--	-562
Jan. 31.....	5,701.25	9,027	+482
Feb. 28.....	5,702.60	9,464	+437
Mar. 31.....	5,701.80	9,203	-261
Apr. 30.....	5,701.40	9,075	-128
May 31.....	5,706.75	10,906	+1,831
June 30.....	5,718.46	15,881	+4,975
July 31.....	5,739.80	28,804	+12,923
Aug. 31.....	5,741.90	30,371	+1,567
Sept. 30.....	5,662.51	1,378	-28,993
WTR YR 1983.....	--	--	-20,228

10340500 PROSSER CREEK BELOW PROSSER CREEK DAM, NEAR TRUCKEE, CA

LOCATION.--Lat 39°22'24", long 120°07'50", in NW 1/4 NE 1/4 sec.31, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank 300 ft downstream from Station Creek, 0.5 mi downstream from Prosser Creek Dam, 0.9 mi upstream from mouth, and 4.2 mi northeast of Truckee.

DRAINAGE AREA.--52.9 mi².

PERIOD OF RECORD.--October 1902 to June 1903 (gage heights only), October 1942 to December 1950, June 1951 to current year. Prior to October 1976, published as "near Boca." Monthly discharge only for October 1942 to December 1950, published in WSP 1734. Records for April 1889 to November 1890, published in the 11th and 12th Annual Reports, Part 2, have been found to be unreliable and should not be used.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,602.31 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). See WSP 2127 for history of changes prior to September 1956. October 1956 to May 1976, water-stage recorder at site 0.8 mi downstream at datum 29.69 ft lower.

REMARKS.--Records excellent. Flow regulated by Prosser Creek Dam since Jan. 31, 1963.

AVERAGE DISCHARGE (adjusted for change in contents in Prosser Creek Reservoir since 1963).--40 years (water years 1943-50, 1952-83), 89.8 ft³/s, 65,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (water years 1943-83).--Maximum discharge, 4,560 ft³/s Dec. 23, 1955, gage height, 10.13 ft present datum, from rating curve extended above 910 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 11.0 ft from floodmarks, present datum, Nov. 20, 1950; minimum discharge, 0.4 ft³/s July 18, 1961, result of work on dam upstream. Maximum discharge since construction of Prosser Creek Dam in 1963, 1,610 ft³/s Dec. 25, 1964, gage height, 6.28 ft; minimum daily, 0.02 ft³/s Jan. 2, 1975, result of temporary closing of Prosser Creek Dam for spillway maintenance.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft³/s May 25, gage height, 6.19 ft; minimum daily, 9.4 ft³/s Oct. 17-19, Dec. 16, Jan. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	153	41	23	76	131	221	240	897	16	15	55
2	257	153	41	9.9	76	129	284	243	895	15	15	56
3	257	67	62	9.9	76	127	281	245	887	15	16	55
4	305	11	76	9.9	37	127	234	246	795	15	16	54
5	335	81	76	9.9	11	127	206	245	656	14	20	52
6	385	126	76	9.8	11	127	177	290	609	14	29	50
7	413	125	76	9.4	13	129	160	321	614	14	39	319
8	424	74	76	9.4	13	129	149	321	498	14	47	458
9	428	40	76	9.4	64	129	143	322	319	14	56	598
10	424	40	76	27	98	130	144	322	364	14	58	679
11	419	40	76	37	98	158	169	320	475	14	58	671
12	415	40	76	37	101	178	184	320	542	14	62	818
13	410	40	76	37	102	140	184	319	622	14	63	900
14	406	40	76	61	100	213	184	319	653	13	65	1030
15	400	40	36	75	100	319	173	318	654	13	72	1100
16	144	40	9.4	75	87	422	167	319	655	14	81	973
17	9.4	40	30	75	79	485	169	321	654	14	83	883
18	9.4	47	43	76	80	477	169	683	654	14	81	855
19	9.4	79	42	75	80	472	174	903	652	14	86	709
20	28	102	44	75	80	466	217	796	603	14	87	613
21	41	100	51	75	57	332	247	738	572	14	83	518
22	65	100	50	76	43	250	294	737	467	14	84	456
23	113	100	48	76	43	192	322	739	402	15	83	441
24	180	86	132	78	43	156	319	741	403	15	79	426
25	338	78	191	77	66	143	317	1000	184	15	75	408
26	410	55	189	77	81	133	315	1150	18	15	70	342
27	537	40	189	78	81	134	274	1060	17	15	66	395
28	597	41	185	77	109	107	247	762	17	15	62	277
29	345	42	98	76	---	91	245	772	17	15	59	75
30	216	42	42	76	---	109	241	891	16	15	55	37
31	178	---	41	76	---	125	---	895	---	15	53	---
TOTAL	8756.2	2062	2400.4	1592.6	1905	6387	6610	16898	14811	446	1818	14303
MEAN	282	68.7	77.4	51.4	68.0	206	220	545	494	14.4	58.6	477
MAX	597	153	191	78	109	485	322	1150	897	16	87	1100
MIN	9.4	11	9.4	9.4	11	91	143	240	16	13	15	37
AC-FT	17370	4090	4760	3160	3780	12670	13110	33520	29380	885	3610	28370

CAL YR 1982	TOTAL	61951.6	MEAN	170	MAX	1250	MIN	9.4	AC-FT	122900	MEAN a	169	AC-FT a	122300
WTR YR 1983	TOTAL	77989.2	MEAN	214	MAX	1150	MIN	9.4	AC-FT	154700	MEAN a	186	AC-FT a	134500

a Adjusted for change in contents in Prosser Creek Reservoir.

10343000 INDEPENDENCE CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°27'20", long 120°17'13", in SW 1/4 NW 1/4 sec.35, T.19 N., R.15 E., Sierra County, Hydrologic Unit 16050102, Tahoe National Forest, on left bank 0.3 mi downstream from Independence Lake outlet, and 10.5 mi northwest of Truckee.

DRAINAGE AREA.--8.10 mi².

PERIOD OF RECORD.--November 1902 to September 1907, November 1909 to June 1910, August 1968 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,940 ft, from topographic map. July 1, 1904, to June 30, 1910, nonrecording gage 75 ft downstream from Independence Lake outlet; prior to July 1, 1904, nonrecording gage 600 ft downstream at approximately same datum.

REMARKS.--Records good. Flow regulated by Independence Lake, usable capacity, 17,500 acre-ft.

AVERAGE DISCHARGE (unadjusted).--20 years (water years 1903-7, 1969-83), 28.3 ft³/s, 20,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 291 ft³/s Dec. 20, 1981, gage height, 6.12 ft; no flow Sept. 28 to Nov. 10, 1905, June 1, 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 256 ft³/s May 29, gage height, 5.56 ft; minimum daily, 4.9 ft³/s Feb. 18, 26, Mar. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	63	99	6.0	5.2	4.9	6.2	6.8	221	150	47	38
2	11	53	56	6.0	5.2	5.0	6.2	6.8	193	152	47	38
3	11	59	6.0	6.0	5.2	5.0	6.2	6.8	199	148	47	38
4	11	72	6.0	6.0	5.2	5.0	6.2	6.8	213	145	47	38
5	14	79	6.0	5.8	5.2	5.0	6.5	6.8	201	146	47	21
6	12	84	6.0	5.7	5.2	5.0	6.5	6.9	194	150	46	13
7	11	85	6.0	5.7	5.2	5.0	6.5	6.9	190	149	44	13
8	11	85	6.0	5.7	5.2	5.0	6.5	6.9	186	143	44	13
9	10	84	5.9	5.7	5.2	5.0	6.5	6.9	185	122	44	13
10	10	89	5.7	5.4	5.2	5.1	6.5	7.0	193	88	44	13
11	9.9	104	5.7	5.4	5.2	5.2	6.5	7.2	212	75	43	13
12	9.9	112	5.7	5.4	5.3	5.2	6.5	7.5	205	76	42	13
13	9.5	111	5.7	5.4	5.3	6.0	6.5	7.6	213	77	42	13
14	9.5	111	5.7	5.4	5.2	6.0	6.5	8.3	217	79	42	12
15	9.5	110	5.7	5.4	5.2	5.7	6.5	10	209	80	42	12
16	9.2	109	5.7	5.4	5.0	5.4	6.5	11	201	81	42	13
17	9.1	108	5.7	5.4	5.0	5.4	6.5	13	202	81	41	13
18	9.0	109	5.7	5.4	4.9	5.4	6.5	14	197	79	41	13
19	8.8	108	5.7	5.3	5.0	5.4	6.6	17	186	77	41	13
20	8.8	107	5.8	5.2	5.0	5.4	6.8	19	177	75	40	13
21	8.8	107	5.9	5.2	5.0	5.4	6.8	24	169	73	40	13
22	8.8	106	6.0	5.2	5.0	5.7	6.8	52	167	61	40	13
23	10	105	6.0	5.2	5.0	5.7	6.8	124	170	55	40	13
24	17	104	6.0	5.3	5.0	5.7	6.8	188	171	54	40	13
25	56	103	6.0	5.2	5.0	5.7	6.5	207	170	54	39	13
26	124	102	6.0	5.4	4.9	5.7	6.8	209	170	51	39	13
27	102	102	6.0	5.2	5.1	5.7	6.8	209	166	51	39	13
28	83	101	6.0	5.2	5.0	5.8	6.8	219	161	49	39	13
29	67	101	6.0	5.2	---	5.8	6.8	240	157	48	39	13
30	65	100	6.0	5.2	---	6.0	6.8	247	153	48	39	13
31	69	---	6.0	5.2	---	6.2	---	244	---	47	39	---
TOTAL	815.8	2873	325.6	169.2	143.1	168.5	196.9	2146.2	5648	2764	1306	496
MEAN	26.3	95.8	10.5	5.46	5.11	5.44	6.56	69.2	188	89.2	42.1	16.5
MAX	124	112	99	6.0	5.3	6.2	6.8	247	221	152	47	38
MIN	8.8	53	5.7	5.2	4.9	4.9	6.2	6.8	153	47	39	12
AC-FT	1620	5700	646	336	284	334	391	4260	11200	5480	2590	984
CAL YR 1982	TOTAL	16870.7	MEAN	46.2	MAX	167	MIN	5.7	AC-FT	33460		
WTR YR 1983	TOTAL	17052.3	MEAN	46.7	MAX	247	MIN	4.9	AC-FT	33820		

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA

LOCATION.--Lat 39°25'54", long 120°14'13", in NE 1/4 NE 1/4 sec.7, T.18 N., R.16 E., Nevada County, Hydrologic Unit 16050102, on left bank 2.2 mi upstream from bridge on State Highway 89, and 7.5 mi north of Truckee.

DRAINAGE AREA.--10.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,320 ft, from topographic map. Prior to Dec. 2, 1953, nonrecording gage at site 100 ft upstream at different datum.

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

AVERAGE DISCHARGE.--30 years, 13.0 ft³/s, 9,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 765 ft³/s Feb. 1, 1963, gage height, 4.64 ft from floodmarks, from rating curve extended above 160 ft³/s on basis of slope-area measurement at gage height 4.28 ft; minimum, 0.6 ft³/s Aug. 8, 1960, Aug. 7, 1961, result of temporary regulation.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0115	119	3.14	May 29	1845	*270	4.13
Mar. 13	1430	88	2.98				

Minimum daily, 4.4 ft³/s Oct. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	11	7.7	6.9	5.9	10	22	19	183	75	15	10
2	5.8	9.6	7.3	6.8	5.9	9.2	20	19	163	72	15	8.7
3	5.3	8.8	7.2	6.8	5.9	8.8	18	23	167	66	15	8.2
4	5.0	8.2	7.2	6.5	5.8	8.3	17	27	177	64	14	7.9
5	4.9	7.9	7.2	6.5	5.9	8.1	15	26	171	64	13	7.7
6	4.9	7.6	7.1	6.5	5.8	8.0	15	24	178	64	13	7.5
7	5.9	7.3	6.9	6.4	5.8	8.4	15	28	180	60	13	7.2
8	5.3	7.2	6.7	6.4	5.9	9.4	16	31	173	54	13	7.0
9	5.0	7.2	6.8	6.3	5.9	11	17	32	174	49	12	7.0
10	4.8	7.1	6.7	6.2	5.9	13	17	31	188	44	12	7.0
11	4.7	6.9	6.4	6.1	5.9	14	15	31	206	41	12	6.9
12	4.7	6.7	6.4	6.1	8.1	14	14	35	184	39	11	6.7
13	4.7	6.5	6.4	6.0	9.6	72	14	40	170	37	11	6.6
14	4.8	6.2	6.2	5.9	7.9	52	13	47	157	36	11	6.5
15	4.9	6.2	6.2	6.0	7.4	36	14	62	151	35	15	6.4
16	4.6	6.1	6.2	6.1	7.1	30	15	67	144	32	13	6.3
17	4.5	7.0	6.4	5.9	7.2	26	17	70	147	30	12	6.2
18	4.4	18	6.2	6.1	7.6	22	18	79	137	28	11	6.2
19	4.4	14	6.2	6.0	7.1	20	21	94	123	27	14	6.1
20	4.5	10	8.2	5.9	6.9	19	22	105	116	26	12	6.2
21	4.9	9.3	12	5.9	6.8	17	24	120	111	24	12	6.2
22	6.4	8.8	8.9	6.2	7.0	16	28	128	112	23	13	9.9
23	16	8.3	8.3	6.1	7.4	15	27	136	112	22	11	9.6
24	19	8.0	8.1	6.3	7.7	14	23	142	106	21	10	7.8
25	46	7.6	8.1	6.6	7.8	13	20	146	101	20	9.5	7.2
26	56	7.4	7.6	6.6	7.5	13	19	152	96	19	9.0	7.0
27	18	7.4	7.4	6.6	7.4	12	19	160	91	19	8.6	7.0
28	13	8.2	7.1	6.2	7.8	12	19	166	85	18	8.4	7.7
29	12	8.2	7.0	6.3	---	12	19	189	81	17	8.1	10
30	21	8.0	7.0	6.1	---	15	20	197	76	17	7.9	12
31	13	---	6.9	6.0	---	29	---	192	---	16	9.8	---
TOTAL	324.8	250.7	224.0	194.3	192.9	567.2	553	2618	4260	1159	364.3	226.7
MEAN	10.5	8.36	7.23	6.27	6.89	18.3	18.4	84.5	142	37.4	11.8	7.56
MAX	56	18	12	6.9	9.6	72	28	197	206	75	15	12
MIN	4.4	6.1	6.2	5.9	5.8	8.0	13	19	76	16	7.9	6.1
AC-FT	644	497	444	385	383	1130	1100	5190	8450	2300	723	450

CAL YR 1982	TOTAL	9434.6	MEAN	25.8	MAX	223	MIN	3.7	AC-FT	18710
WTR YR 1983	TOTAL	10934.9	MEAN	30.0	MAX	206	MIN	4.4	AC-FT	21690

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

SEDIMENT RECORDS: Water years 1981 to current year.

SUSPENDED SEDIMENT MEASUREMENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT					
04...	1250	5.1	8.0	1	.01
11...	0900	4.9	3.0	1	.01
18...	0900	4.3	2.5	2	.02
25...	1515	36	7.0	7	.68
NOV					
01...	0850	11	1.5	2	.06
08...	0855	7.3	0.5	2	.04
15...	0940	5.9	--	2	.03
24...	1445	8.0	2.0	5	.11
29...	1500	8.5	0.0	1	.02
DEC					
06...	1020	6.8	0.5	1	.02
13...	1100	6.4	0.0	1	.02
20...	0910	6.2	1.0	2	.03
27...	1135	7.3	0.5	2	.04
JAN					
03...	1335	6.8	0.0	4	.07
10...	1445	6.2	1.0	13	.22
14...	0805	5.9	0.0	2	.03
17...	1210	5.9	2.0	2	.03
27...	1540	6.6	0.5	2	.04
31...	1030	6.4	0.0	10	.17
FEB					
07...	1320	5.9	2.0	3	.05
21...	1300	6.6	2.0	1	.02
28...	0930	7.1	1.0	2	.04
MAR					
07...	1140	8.0	2.0	2	.04
14...	1020	51	0.0	9	1.2
28...	1520	11	2.0	2	.06
APR					
04...	0950	17	1.0	1	.05
12...	1545	15	1.0	1	.04
21...	1210	22	2.0	1	.06
25...	1120	20	2.0	0	0.0
MAY					
02...	0650	18	1.0	1	.05
09...	0830	30	0.0	2	.16
16...	0700	60	0.5	5	.81
17...	1515	77	3.0	11	2.3
18...	1600	95	2.0	22	5.6
19...	1700	119	1.0	29	9.3
22...	1615	143	1.5	43	17
23...	1615	149	1.5	58	23
24...	1640	153	2.0	39	16
25...	1620	155	2.5	45	19
26...	1535	153	3.5	45	19
27...	1600	175	3.0	51	24
28...	1625	198	4.0	24	13
30...	0930	153	3.0	8	3.3
31...	1000	180	3.0	5	2.4

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

SUSPENDED SEDIMENT MEASUREMENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JUN					
01...	0930	177	--	5	2.4
02...	1030	151	3.0	2	.82
03...	1000	141	4.0	2	.76
04...	1000	160	5.0	3	1.3
05...	0730	145	2.5	4	1.6
06...	0915	151	4.0	3	1.2
07...	0900	160	3.0	3	1.3
08...	0850	155	3.0	3	1.3
09...	0845	145	3.0	3	1.2
10...	0915	155	4.0	3	1.3
11...	0915	195	4.0	6	3.2
12...	0900	177	3.0	4	1.9
13...	0840	160	4.0	4	1.7
14...	0805	139	4.0	3	1.1
20...	1530	117	11.0	5	1.6
27...	1500	89	13.0	7	1.7
JUL					
04...	0815	63	7.0	9	1.5
11...	1400	39	4.0	4	.42
22...	0800	24	--	3	.19
25...	1000	21	9.0	3	.17
AUG					
08...	1040	14	13.0	4	.15
26...	0815	9.7	7.0	4	.10
29...	1315	8.0	13.5	2	.04
SEP					
09...	1200	7.3	10.0	3	.06
13...	1230	6.8	12.5	2	.04
19...	1440	5.9	11.5	2	.03
27...	1150	7.3	8.0	2	.04

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
MAY 29...	1845	221	3.0	40	24	82	87	92	97	100

PYRAMID AND WINNEMUCCA LAKES BASIN

10344300 STAMPEDE RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°28'16", long 120°06'10", in NW 1/4 NW 1/4 sec.28, T.19 N., R.17 E., Sierra County, Hydrologic Unit 16050102, Tahoe National Forest, in control house near base of spillway of Stampede Dam on Little Truckee River, 0.2 mi upstream from Worn Mill Canyon, and 11.0 mi northeast of Truckee.

DRAINAGE AREA.--136 mi².

PERIOD OF RECORD.--August 1969 to current year. August 1969 to September 1977 (monthend elevations and contents only). Prior to October 1976, published as "near Boca."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Aug. 1, 1969. Total capacity, 226,500 acre-ft at elevation 5,948.7 ft, spillway crest. Inactive storage, 5,010 acre-ft, includes 660 acre-ft dead storage below elevation 5,798.3 ft. Figures given herein, including extremes, represent total contents at 0800 hours. Reservoir is used for flood control, municipal water supply, enhancement of fishery, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 254,493 acre-ft June 1, 1983, elevation, 5,956.55 ft; minimum since reservoir first filled, 30,772 acre-ft Jan. 31, Feb. 1, 1978, elevation, 5,853.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 254,493 acre-ft June 1, elevation, 5,956.55 ft; minimum, 184,417 acre-ft Oct. 13, elevation, 5,935.77 ft.

Capacity table (elevation, in feet NGVD, and contents in acre-feet)

5,850	27,915	5,900	94,535
5,855	31,951	5,910	115,865
5,860	36,470	5,920	140,141
5,865	41,505	5,930	167,355
5,870	47,204	5,940	197,630
5,875	53,295	5,950	231,005
5,880	60,185	5,960	267,386
5,890	76,008		

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 0800

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184570	192191	204890	210642	201685	202589	202944	227879	254493	239567	192782	193034
2	184590	193506	205232	210854	201750	202750	203690	228710	254272	238963	193113	193128
3	184610	193821	205574	211066	201879	202767	204436	229858	253425	238359	193443	193254
4	184631	194137	205726	211278	202008	202783	205183	231005	253168	237755	193695	193380
5	184631	194453	205878	211489	202159	202729	205689	232054	252707	236712	193947	193506
6	184631	194738	206031	211489	202310	202675	206194	233103	252287	235669	194253	193601
7	184570	195023	206162	211489	202460	202621	206717	232636	251847	233686	194559	193695
8	184509	195307	206292	211621	202638	202556	207240	232169	251445	231703	194864	193695
9	184540	195641	206357	211257	202815	202492	207930	231703	250823	229200	193729	193695
10	184571	195974	206422	210860	202831	202525	208620	231267	250385	226697	192594	193706
11	184601	196212	206564	210381	202847	202557	209309	230831	250531	224195	190845	193717
12	184509	196450	206706	209902	202869	203443	209969	231302	250220	221844	189097	193727
13	184417	196748	206847	208636	202890	204329	210628	231773	249910	219494	189335	193774
14	184494	197046	206995	207371	202912	205216	211291	233342	249400	217005	189573	193821
15	184570	197343	207142	206957	202799	206065	211953	234911	248890	214516	189811	193821
16	184621	197687	207290	206543	202686	206913	212641	236481	248563	211785	190029	193821
17	184672	198031	207437	206129	202621	206700	213329	239105	248236	209054	190247	193821
18	184723	198926	207535	205737	202556	206488	214016	239105	247644	206324	190512	193821
19	184815	199821	207633	205346	202491	205555	214986	239550	247052	203425	190777	193821
20	184906	200271	207731	204874	202428	204622	215956	239995	246459	200527	191038	193600
21	184998	200721	208388	204403	202363	203689	217201	241032	245646	198012	191299	193380
22	185090	201170	209045	204187	202250	203884	218446	242069	244834	195497	191559	193664
23	185653	201492	209218	203971	202137	204078	219758	243107	244383	192405	191747	193947
24	186216	201814	209391	203754	202040	204598	221070	244838	243933	189438	191935	193979
25	186778	202137	209564	203381	201943	205118	222382	246568	243407	189874	192076	194011
26	188684	202137	209737	203009	202072	204403	223306	247957	242881	190264	192217	194042
27	190590	202870	209910	202734	202201	203527	224229	249346	242354	190653	192332	194121
28	191184	203280	210083	202460	202330	202524	225191	250706	241727	191059	192447	194200
29	191778	203689	210256	202137	---	201041	226153	252066	241101	191465	192562	194327
30	192327	204565	210430	202008	---	201847	226981	253425	240351	191920	193157	194453
31	192876	---	210430	201879	---	202201	---	254161	---	192374	193751	---
MAX	192876	204565	210430	211621	202912	206913	226981	254161	254493	239567	194864	194453
MIN	184417	192191	204890	201879	201685	201041	202944	227879	240351	189438	189097	193034
a	5938.50	5942.15	5943.94	5941.32	5941.46	5941.42	5948.84	5956.46	5952.65	5938.34	5938.46	5939.00
b	+8245	+11689	+5865	-8551	+451	-129	+24780	+27180	-13810	-47977	+1377	+702

CAL YR 1982 b +96605

WTR YR 1983 b +9822

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

10344400 LITTLE TRUCKEE RIVER ABOVE BOCA RESERVOIR, NEAR TRUCKEE, CA

LOCATION.--Lat 39°26'09", long 120°05'00", in SW 1/4 SW 1/4 sec.3, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank 1 mi upstream from Boca Reservoir, 1.5 mi upstream from Dry Creek, 3.0 mi downstream from Stampede Dam, and 5.5 mi northeast of Truckee.

DRAINAGE AREA.--146 mi².

PERIOD OF RECORD.--June 1903 to October 1910, September 1939 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Published as "at Pine Station" June 1903 to December 1907, as "at Starr" January 1908 to October 1910, and as "near Boca" September 1939 to September 1976.

REVISED RECORDS.--WSP 1564: 1903-4, 1906-7, 1910, drainage area at site used in 1903-7.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,618.67 ft National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). June 1903 to October 1910, nonrecording gages at different sites and datums.

REMARKS.--Records excellent. Flow regulated by Independence Lake, capacity, 17,500 acre-ft, one transbasin diversion to Sierra Valley, and Stampede Reservoir (station 10344300) since 1969.

AVERAGE DISCHARGE (adjusted for change in contents in Stampede Reservoir since 1969).--51 years (water years 1904-10, 1940-83), 194 ft³/s, 140,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s Feb. 1, 1963, gage height, 9.00 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft³/s Sept. 16-21, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,830 ft³/s Jan. 13, gage height, 3.82 ft; minimum daily, 16 ft³/s many days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	21	20	95	196	83	65	1990	1240	41	18
2	16	19	20	20	46	192	82	72	2230	1220	40	18
3	16	19	20	20	45	188	77	91	2230	1190	40	18
4	16	18	19	20	47	213	72	137	2190	1160	40	18
5	16	18	19	27	45	231	68	156	2140	1540	40	18
6	16	18	20	42	46	232	67	541	2040	1940	40	17
7	16	18	20	80	77	233	59	1020	1980	1740	40	17
8	16	18	22	187	96	236	49	999	1940	1970	41	17
9	16	18	21	279	95	240	56	926	1890	1900	962	17
10	16	18	20	304	94	245	54	990	1820	1850	1690	17
11	16	18	19	304	139	250	47	910	1880	1690	853	17
12	16	18	19	663	174	252	44	687	1860	1900	44	17
13	16	18	19	783	179	399	42	121	1810	1860	42	17
14	16	18	19	315	175	299	42	154	1780	1840	41	17
15	16	18	19	304	173	264	45	212	1750	1830	42	17
16	16	18	18	304	173	429	52	289	1730	1820	32	17
17	16	18	20	304	174	656	54	604	1700	1810	19	18
18	16	30	20	305	178	739	58	1390	1670	1850	18	18
19	16	26	20	304	175	874	65	1430	1650	1860	19	18
20	16	22	21	304	173	872	75	1410	1600	1500	18	18
21	16	20	33	303	173	587	75	1450	1550	1860	18	18
22	16	21	32	305	173	100	80	1510	1500	1850	19	19
23	18	20	30	304	176	92	77	1570	1470	1850	18	19
24	19	19	25	309	177	91	68	1610	1460	760	18	19
25	30	19	24	304	180	400	62	1590	1430	46	19	18
26	36	19	23	306	178	652	54	1780	1400	43	18	20
27	22	19	22	308	177	760	54	1860	1370	43	17	19
28	20	21	22	304	180	862	60	1940	1340	42	17	19
29	20	22	21	230	---	454	64	2000	1310	42	18	19
30	21	23	21	164	---	72	62	2080	1270	41	18	20
31	20	---	20	163	---	92	---	2170	---	40	18	---
TOTAL	558	590	669	7889	3813	11402	1847	31764	51980	40327	4300	539
MEAN	18.0	19.7	21.6	254	136	368	61.6	1025	1733	1301	139	18.0
MAX	36	30	33	783	180	874	83	2170	2230	1970	1690	20
MIN	16	18	18	20	45	72	42	65	1270	40	17	17
AC-FT	1110	1170	1330	15650	7560	22620	3660	63000	103100	79990	8530	1070

CAL YR 1982 TOTAL 78889 MEAN 216 MAX 2460 MIN 16 AC-FT 156500 MEAN a 350 AC-FT a 253100
WTR YR 1983 TOTAL 155678 MEAN 427 MAX 2230 MIN 16 AC-FT 308800 MEAN a 440 AC-FT a 318600

a Adjusted for change in contents in Stampede Reservoir.

PYRAMID AND WINNEMUCCA LAKES BASIN

10344490 BOCA RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°23'20", long 120°05'43", in NE 1/4 NW 1/4 sec.28, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, in control house at Boca Dam on Little Truckee River 1,800 ft upstream from mouth, and 6.3 mi northeast of Truckee.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--December 1938 to current year. Prior to October 1976 published as "at Boca." Monthend contents only for December 1938 to September 1957, published in WSP 1734.

REVISED RECORDS.--WSP 1634: Drainage area.

GAGE.--Pressure gage with mercury column read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1938. Usable capacity, 40,870 acre-ft between elevations 5,521 ft outlet sill, and 5,605 ft top of spillway gates. Elevation of spillway (gate open) is 5,589.01 ft. Dead storage, 241 acre-ft. Figures given herein represent usable contents at 0800 hours. Water is used for irrigation in the State of Nevada and for power development.

COOPERATION.--Records furnished by Bureau of Reclamation, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 41,440 acre-ft Dec. 23, 1955, elevation, 5,605.55 ft; minimum, 37 acre-ft Mar. 4-9, 1955, elevation, 5,521.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,868 acre-ft July 17, 19, 20, elevation, 5,605.00 ft; minimum, 5,863 acre-ft May 6, elevation, 5,552.65 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

5,548	4,352	5,576	17,359
5,552	5,636	5,580	20,002
5,556	7,112	5,585	23,589
5,560	8,778	5,590	27,488
5,564	10,627	5,595	31,699
5,568	12,671	5,600	36,128
5,572	14,915	5,605	40,868

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33556	24420	25499	18655	25694	24306	27732	9912	31177	28718	40381	39945
2	33335	24382	25538	18524	25734	24306	27732	8911	31004	28635	40381	39945
3	33070	24344	25577	18458	25773	24306	27569	7963	30660	28553	40332	39993
4	32763	24344	25499	18372	25812	24306	27488	7230	30531	28470	40332	39993
5	32457	24306	25499	18294	25891	24306	26843	6499	30403	28387	40332	40042
6	32196	24268	25499	18196	25969	24344	26364	5863	30317	29386	40332	40042
7	31936	24192	25460	18131	26088	24382	26285	6499	30317	30275	40332	40090
8	31699	24116	25460	18196	26285	24496	26206	7511	30275	30703	40332	40090
9	31394	24116	25111	18458	26364	24572	26206	8430	30147	31264	39080	40090
10	31004	24116	24841	18821	26444	24726	26206	9225	30062	31699	39512	40042
11	30660	24154	24496	19255	26523	24956	26206	10006	29977	31936	39945	39993
12	30232	24192	24116	19729	26563	25188	25655	10627	29977	32982	39800	39897
13	29935	24230	23814	20209	26484	25969	25227	10290	29977	34762	39800	39800
14	29512	24268	23216	22189	26404	28058	24726	9451	29977	36312	39849	39416
15	29302	24344	22773	22626	26246	28718	24268	8647	29892	38084	39945	39080
16	28635	24344	22298	23068	26127	28718	23589	8005	29850	39704	40042	38699
17	27977	24382	21685	23439	25969	28635	22847	7551	29808	40868	40090	38272
18	27326	24572	21187	23965	25812	28635	22189	8131	29723	40819	40090	37801
19	26843	24879	20695	24420	25655	28718	21471	9497	29639	40868	40090	37426
20	26285	24956	20209	24879	25499	28885	20835	10822	29554	40868	40139	37193
21	25812	25034	19934	25227	25305	28968	20002	12194	29512	40673	40139	36913
22	25460	25111	19729	25655	25188	28058	19255	13656	29386	40624	40139	36774
23	25111	25188	19900	26048	24956	28058	18327	15032	29344	40429	40139	36682
24	24802	25266	19900	26763	24802	27732	17359	16791	29260	40527	40139	36497
25	24611	25266	19866	26603	24649	27407	16234	18327	29218	40527	39849	36312
26	24649	25266	19831	26523	24534	27407	15032	20071	29135	40527	39849	36128
27	24649	25266	19763	26444	24420	27936	13937	21828	29051	40478	39849	35944
28	24496	25266	19661	26206	24306	28223	12832	23965	28968	40478	39849	35899
29	24496	25343	19525	26206	---	28553	11881	26048	28885	40478	39848	35899
30	24496	25499	19255	26088	---	27813	10921	28058	28801	40429	39897	35442
31	24496	---	18988	25891	---	27813	---	29977	---	40429	39945	---
MAX	33556	25499	25577	26763	26563	28968	27732	29977	31177	40868	40381	40090
MIN	24496	24116	18988	18131	24306	24306	10921	5863	28801	28387	39080	35442
a	5586.20	5587.50	5578.50	5588.00	5585.95	5590.40	5564.60	5593.00	5591.60	5604.55	5604.05	5599.25
b	-9460	+1003	-6511	+6903	-1585	+3507	-16892	+19056	-1176	+11628	-484	-4503

CAL YR 1982 b -13513

WTR YR 1983 b +1486

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

10344500 LITTLE TRUCKEE RIVER BELOW BOCA DAM, NEAR TRUCKEE, CA

LOCATION.--Lat 39°23'13", long 120°05'40", in NE 1/4 NW 1/4 sec.28, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on right bank 800 ft upstream from mouth, 1,000 ft downstream from Boca Dam, and 6.2 mi northeast of Truckee.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--April to October 1890 (monthly discharge only), January 1911 to September 1915, January 1939 to current year. Prior to October 1976 published as "at Boca." Monthly discharge only for January 1939 to September 1957, published in WSP 1734.

REVISED RECORDS.--WDR CA-79-3: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,500 ft, from topographic map. Jan. 1, 1911, to Sept. 30, 1915, nonrecording gage at site 650 ft downstream at different datum. January 1939 to September 1957, records computed from daily log of rated settings of needle valve in dam, and from computed flow over spillway.

REMARKS.--Records good. Flow regulated by Boca Reservoir (station 10344490), capacity, 40,870 acre-ft, Independence Lake, capacity, 17,500 acre-ft, one transmountain diversion to Sierra Valley, and Stampede Reservoir (station 10344300), capacity, 226,500 acre-ft since 1969.

AVERAGE DISCHARGE (unadjusted).--48 years (water years 1912-15, 1940-83), 189 ft³/s, 136,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,800 ft³/s Dec. 24, 1955, from records of Washoe County Water Conservation District; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s July 17, gage height, 6.11 ft; minimum daily, 0.63 ft³/s several days during November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	47	33	131	131	316	284	720	1880	1370	51	2.9
2	144	47	33	88	33	316	274	707	2240	1340	45	2.9
3	144	47	42	88	38	316	258	692	2140	1310	39	2.9
4	144	47	58	88	39	317	370	680	2070	1280	36	2.7
5	144	47	61	88	39	318	437	668	2030	1290	36	2.6
6	144	47	66	88	39	319	322	658	2010	1470	35	2.7
7	144	47	90	89	68	319	197	674	1990	1560	35	2.6
8	164	23	117	89	83	321	197	692	1960	1630	377	2.6
9	195	.63	140	89	83	322	197	706	1940	1690	1200	16
10	195	.63	164	89	85	324	197	720	1900	1730	1430	49
11	194	.63	185	91	164	325	293	731	1890	1390	779	49
12	194	.63	220	92	276	327	394	739	1890	977	151	74
13	193	.63	275	94	319	155	393	732	1880	991	4.5	132
14	193	.63	295	95	318	164	391	721	1850	1000	4.3	176
15	290	.63	294	96	318	404	468	711	1830	1010	4.2	197
16	338	.63	292	96	317	655	540	700	1800	1020	3.6	197
17	336	.63	291	97	316	853	537	693	1780	1660	7.5	195
18	304	.96	290	98	317	836	568	708	1760	1910	3.4	195
19	275	.76	288	98	316	889	594	728	1740	1890	3.4	167
20	248	.71	288	99	316	923	638	745	1710	1650	3.3	98
21	228	.66	288	99	316	910	680	762	1680	1930	3.0	98
22	204	.70	159	100	315	448	743	777	1630	1920	3.0	98
23	183	.66	88	100	315	309	802	791	1590	1850	3.0	98
24	183	16	88	307	314	367	795	807	1570	732	111	98
25	132	32	88	437	314	447	786	820	1550	74	78	98
26	101	32	88	436	315	548	774	834	1520	63	2.9	98
27	103	33	88	435	315	634	764	847	1500	62	2.9	98
28	59	33	88	369	315	731	754	862	1470	62	2.8	98
29	32	33	139	304	---	757	743	876	1440	62	2.8	98
30	42	33	186	304	---	420	731	982	1400	62	2.8	166
31	45	---	186	304	---	295	---	1320	---	62	3.0	---
TOTAL	5471	574.12	5008	5078	6134	14585	15121	23803	53640	35047	4463.4	2614.9
MEAN	176	19.1	162	164	219	470	504	768	1788	1131	144	87.2
MAX	338	47	295	437	319	923	802	1320	2240	1930	1430	197
MIN	32	.63	33	88	33	155	197	658	1400	62	2.8	2.6
AC-FT	10850	1140	9930	10070	12170	28930	29990	47210	106400	69520	8850	5190
CAL YR 1982	TOTAL	95519.42	MEAN	262	MAX	2030	MIN	.63	AC-FT	189500		
WTR YR 1983	TOTAL	171539.42	MEAN	470	MAX	2240	MIN	.63	AC-FT	340200		

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA

LOCATION.--Lat 39°25'41", long 120°01'59", in SE 1/4 NE 1/4 sec.12, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank 0.5 mi upstream from Mystic Canyon, 0.7 mi downstream from Farad powerplant, 2.5 mi north of Floriston, 3.4 mi downstream from Bronco Creek, and 3.5 mi upstream from California-Nevada State line.

DRAINAGE AREA.--932 mi².

PERIOD OF RECORD.--March to October 1890 (monthly discharge only), September 1899 to current year. Monthly discharge only for January 1944 to July 1957, published in WSP 1734. Published as "near Boca" March to October 1890, "at or near Nevada-California State line" September 1899 to August 1912, and as "at Iceland" August 1912 to December 1937.

REVISED RECORDS.--WSP 1714: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,153.21 ft National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). See WSP 2127 for history of changes prior to Aug. 26, 1957.

REMARKS.--Records excellent. Flow regulated by Lake Tahoe, Martis Creek Lake, Prosser Creek, Stampede, and Boca Reservoirs (stations 10337000, 10339380, 10340300, 10344300, and 10344490), Donner and Independence Lakes, and by several powerplants.

AVERAGE DISCHARGE.--84 years (water years 1900-83), 811 ft³/s, 587,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s Nov. 21, 1950, gage height, 14.5 ft present datum, from floodmarks, from slope-area measurement of peak flow; minimum, 28 ft³/s Dec. 18, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,500 ft³/s June 17, gage height, 8.71 ft; minimum daily, 409 ft³/s Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	733	1490	2170	2130	2070	2740	2980	3410	5620	3060	1050	895
2	683	1530	2140	2050	2050	2720	3030	3350	5800	3210	1050	842
3	673	1550	2160	2020	2040	2600	2940	3390	5900	3010	1030	821
4	699	1640	2180	1600	2000	2530	2950	3480	6110	2960	1010	819
5	736	1960	2170	1230	1960	2500	2940	3440	5960	3110	995	814
6	784	2130	2170	943	1960	2510	2760	3210	5930	4000	987	806
7	823	2120	2180	928	2050	2540	2580	2930	6070	4250	996	980
8	833	2040	2190	926	2140	2580	2620	3020	6120	4140	1230	1160
9	868	1960	2200	921	2080	2730	2670	3060	6150	4060	2050	1290
10	852	1950	2210	929	2100	2780	2660	3110	6040	4010	2310	1440
11	837	1930	2220	940	2160	2880	2740	3050	5970	3710	1760	1440
12	831	1930	2250	691	2330	2900	2870	3100	5640	3330	1090	1590
13	838	1930	2310	629	2580	4490	2860	3160	5620	3540	914	1780
14	833	1930	2310	642	2460	3140	2830	3260	5780	3560	915	2030
15	865	1930	2290	665	2410	3760	2890	3460	5820	3520	965	2270
16	691	1850	2220	671	2360	3900	3000	3610	5750	3420	941	2140
17	497	1470	2280	667	2340	4110	3030	3290	5830	3940	923	2030
18	468	1420	2280	675	2380	3980	3070	3730	6040	3940	906	1990
19	425	1290	2260	696	2340	3910	3180	4270	5630	3560	930	1820
20	424	1770	2300	678	2320	3890	3380	4110	5200	3040	917	1670
21	409	2080	2770	674	2280	3710	3480	4270	4770	3290	905	2010
22	422	2130	2650	875	2260	3090	3650	4620	4440	3260	924	1780
23	573	2160	2600	870	2270	2810	3770	4770	4420	2920	891	1760
24	697	2130	2490	1190	2290	2810	3670	4640	4280	1950	909	1690
25	1190	2120	2480	1320	2340	2830	3620	4830	3950	1170	900	1640
26	2020	2090	2440	1780	2360	2880	3560	5220	3650	1120	847	1580
27	1260	2090	2400	2040	2350	2960	3490	5270	3500	1110	847	1600
28	1170	2160	2370	2390	2400	3010	3510	5190	3370	1100	840	1480
29	990	2220	2300	2430	---	3020	3520	5360	3580	1090	827	1180
30	1160	2210	2230	2390	---	2760	3470	5340	3470	1080	809	1110
31	1220	---	2210	2200	---	3070	---	5530	---	1080	818	---
TOTAL	25504	57210	71430	38790	62680	96140	93720	122480	156410	90540	32486	44457
MEAN	823	1907	2304	1251	2239	3101	3124	3951	5214	2921	1048	1482
MAX	2020	2220	2770	2430	2580	4490	3770	5530	6150	4250	2310	2270
MIN	409	1290	2140	629	1960	2500	2580	2930	3370	1080	809	806
AC-FT	50590	113500	141700	76940	124300	190700	185900	242900	310200	179600	64440	88180
CAL YR 1982	TOTAL	577428	MEAN	1582	MAX	4900	MIN	372	AC-FT	1145000		
WTR YR 1983	TOTAL	891847	MEAN	2443	MAX	6150	MIN	409	AC-FT	1769000		

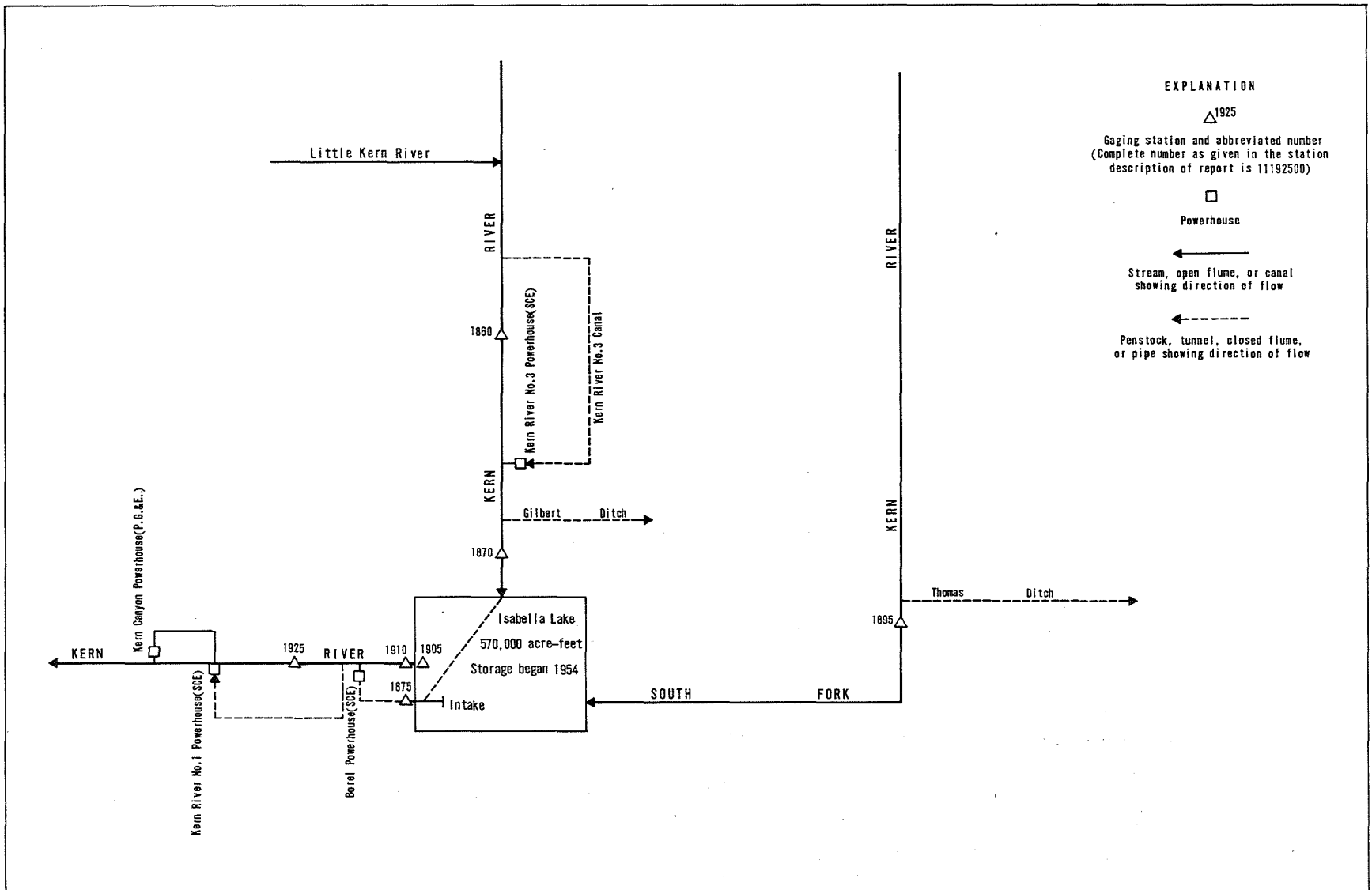


FIGURE 4. — Schematic diagram showing diversions and storage in Kern River basin.

11186000 KERN RIVER NEAR KERNVILLE, CA

LOCATION.--Lat 35°56'43", long 118°28'36", unsurveyed, Tulare County, Hydrologic Unit 18030001, on left bank at Packsaddle Canyon Creek, 100 ft downstream from diversion dam, and 13.4 mi north of Kernville.

DRAINAGE AREA.--846 mi².

PERIOD OF RECORD.--January 1912 to current year. Records for water year 1912 incomplete, yearly estimates published in WSP 1315-A. March 1921 to October 1953, records for river and canal published separately; combined flow only, October 1953 to September 1960.

REVISED RECORDS.--WSP 1445: 1912, 1916(M). WSP 1930: 1914(M), 1918(M).

GAGE.--Water-stage recorder on river; water-stage recorder and rectangular concrete-lined flume for canal diversion. Altitude of gage is 3,620 ft, from topographic map. Prior to Apr. 1, 1913, at site 1.4 mi downstream at different datum. Apr. 1 to Sept. 14, 1913, nonrecording gage and Sept. 15, 1913, to Sept. 30, 1967, water-stage recorder, at site 1.2 mi downstream at different datum.

REMARKS.--Records good. Since 1921 Kern River No. 3 Canal diverts up to 630 ft³/s 100 ft upstream from station, from left bank of Kern River for power development; water is returned to river 15 mi downstream from station. See schematic diagram of Kern River basin. For records of combined discharge of river and canal, see following page.

COOPERATION.--Gage-height record and 14 discharge measurements for Kern River and gage-height record and 12 discharge measurements for canal furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--River only: 9 years (water years 1912-20), 790 ft³/s, 571,900 acre-ft/yr; 56 years (water years 1921-53, 1961-83), 404 ft³/s, 292,700 acre-ft/yr.
Combined river and diversion: 63 years (water years 1921-83), 755 ft³/s, 547,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 60,000 ft³/s Dec. 6, 1966, gage height, 22.77 ft site and datum then in use, from floodmarks, from rating curve extended above 6,000 ft³/s on basis of computed flow over dam at gage height 17.55 ft, basic data for computation furnished by Southern California Edison Co., and slope-area measurement of maximum flow; no flow many days in 1924, 1925.

Combined river and diversion: Maximum discharge, 60,000 ft³/s Dec. 6, 1966; minimum daily, 78 ft³/s Aug. 30, 31, Sept. 17, 19, 1924.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 8,050 ft³/s June 18, gage height, 9.82 ft; minimum daily, 39 ft³/s Nov. 9-12, 16.

Combined river and diversion: Maximum discharge, 8,640 ft³/s June 18; minimum daily, 417 ft³/s Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	638	317	409	52	245	1710	1590	1710	7700	5680	1900	599
2	519	197	257	46	225	1540	1690	1570	6900	5860	1980	628
3	429	126	288	41	197	1420	1670	1710	6530	6190	1950	590
4	358	93	232	42	156	1250	1440	1950	6120	6200	1720	519
5	292	70	159	45	143	1150	1340	1990	6130	6440	1640	472
6	241	51	121	45	191	1080	1210	1830	6580	6160	1560	463
7	202	44	92	43	675	1100	1190	1940	6890	5370	1710	455
8	174	41	50	45	784	1140	1180	2290	6980	4550	2250	431
9	145	39	46	46	574	1250	1250	2430	7030	4170	2420	390
10	124	39	51	44	484	1360	1270	2560	7360	3560	2870	339
11	108	39	42	46	437	1330	1130	2360	7920	3520	2330	304
12	92	39	43	46	447	1230	1110	2360	7490	3670	1790	290
13	86	41	41	47	1280	1800	1060	2330	6770	3790	1450	281
14	90	41	41	46	770	2400	1010	2240	6780	3830	1440	277
15	63	40	41	46	641	1620	1010	2460	6730	3570	1840	286
16	56	39	42	86	589	1510	1060	2660	6900	3290	2030	280
17	55	40	42	90	582	1580	1170	2810	7230	2990	2100	270
18	54	60	41	63	686	1470	1280	3020	7410	2750	2160	250
19	54	440	41	126	582	1310	1190	3340	7100	2260	2450	214
20	54	79	45	58	549	1220	1300	3890	6940	2030	2150	169
21	54	44	43	52	554	1280	1280	4580	6900	2050	1520	135
22	54	41	1780	611	575	1190	1360	5370	6830	2250	1260	164
23	55	41	1320	585	645	1150	1520	5970	6800	2200	1080	175
24	55	41	503	1220	622	1220	1680	6460	6670	2090	933	137
25	56	41	400	800	648	1070	1670	6630	6400	1980	804	105
26	468	41	359	548	1020	1030	1650	7030	6450	1900	735	85
27	214	40	273	597	1950	1080	1640	7520	6530	1900	658	98
28	92	40	206	440	1360	1170	1700	8020	6220	1930	623	73
29	56	57	154	435	---	1190	1740	8390	6320	1960	590	78
30	561	1830	102	345	---	1380	1860	8200	5950	1920	553	172
31	618	---	79	289	---	1550	---	8310	---	1870	580	---
TOTAL	6117	4091	7343	7025	17611	41780	41250	123930	204560	107930	49076	8729
MEAN	197	136	237	227	629	1348	1375	3998	6819	3482	1583	291
MAX	638	1830	1780	1220	1950	2400	1860	8390	7920	6440	2870	628
MIN	54	39	41	41	143	1030	1010	1570	5950	1870	553	73
AC-FT	12130	8110	14560	13930	34930	82870	81820	245800	405700	214100	97340	17310
CAL YR 1982	TOTAL	299079	MEAN	819	MAX	5530	MIN	31	AC-FT	593200		
WTR YR 1983	TOTAL	619442	MEAN	1697	MAX	8390	MIN	39	AC-FT	1229000		

11186000 KERN RIVER NEAR KERNVILLE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER
NO. 3 CANAL NEAR KERNVILLE, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	905	1000	650	841	2310	2170	2290	8280	6250	2500	1190
2	957	781	855	623	824	2130	2270	2160	7480	6430	2570	1220
3	863	707	887	620	796	2000	2250	2300	7110	6770	2540	1180
4	789	675	831	604	753	1830	2020	2530	6700	6780	2310	1110
5	720	646	757	602	739	1740	1920	2570	6710	7020	2230	1060
6	667	625	719	608	788	1660	1790	2410	7160	6730	2150	1060
7	625	601	690	615	1270	1680	1770	2520	7470	5940	2300	1050
8	596	574	642	625	1380	1720	1760	2870	7560	5120	2840	1020
9	564	554	646	646	1170	1830	1830	3010	7610	4730	3010	981
10	541	542	650	639	1080	1940	1850	3140	7940	4120	3460	929
11	524	534	629	639	1040	1910	1710	2940	8490	4090	2920	894
12	506	545	612	645	1050	1810	1700	2940	8060	4250	2380	880
13	493	527	610	644	1880	2380	1650	2910	7340	4370	2040	871
14	480	518	575	634	1370	2960	1600	2820	7350	4410	2040	867
15	467	505	575	643	1240	2200	1600	3040	7300	4150	2430	876
16	462	503	562	685	1190	2090	1650	3240	7470	3870	2620	870
17	451	486	548	681	1180	2160	1750	3390	7810	3570	2690	860
18	442	541	538	653	1290	2050	1860	3600	8010	3330	2750	839
19	435	1040	529	716	1180	1890	1770	3920	7690	2840	3040	803
20	431	676	532	637	1150	1800	1880	4470	7540	2610	2750	757
21	427	611	541	617	1150	1860	1860	5160	7490	2630	2120	721
22	421	589	2370	1200	1170	1770	1940	5950	7430	2830	1850	750
23	417	573	1910	1170	1250	1730	2100	6550	7400	2780	1660	761
24	419	551	1090	1810	1220	1800	2260	7040	7270	2670	1520	722
25	485	516	993	1400	1250	1650	2250	7200	7000	2560	1400	690
26	1020	508	952	1150	1620	1610	2230	7600	7030	2470	1330	669
27	771	506	862	1200	2550	1660	2220	8100	7110	2470	1250	682
28	656	511	796	1030	1960	1750	2280	8600	6800	2510	1220	657
29	615	637	746	1030	---	1770	2320	8970	6900	2550	1180	662
30	1130	2420	691	938	---	1960	2440	8780	6530	2520	1140	755
31	1200	---	670	882	---	2130	---	8890	---	2470	1170	---
TOTAL	19654	19907	25008	25236	34381	59780	58700	141910	222040	125840	67410	26386
MEAN	634	664	807	814	1228	1928	1957	4578	7401	4059	2175	880
MAX	1200	2420	2370	1810	2550	2960	2440	8970	8490	7020	3460	1220
MIN	417	486	529	602	739	1610	1600	2160	6530	2470	1140	657
AC-FT	38980	39490	49600	50060	68190	118600	116400	281500	440400	249600	133700	52340
CAL YR 1982	TOTAL	490107	MEAN	1343	MAX	6070	MIN	261	AC-FT	972100		
WTR YR 1983	TOTAL	826252	MEAN	2270	MAX	8970	MIN	417	AC-FT	1639000		

BUENA VISTA LAKE BASIN

11187000 KERN RIVER AT KERNVILLE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 35°45'16", long 118°25'21", in NE 1/4 SW 1/4 sec.15, T.25 S., R.33 E., Kern County, Hydrologic Unit 18030001, on right bank 300 ft downstream from highway bridge at Kernville, 1.1 mi upstream from Caldwell Creek, 8.9 mi upstream from Isabella Dam, and 42 mi northeast of Bakersfield.

DRAINAGE AREA.--1,009 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1905 to December 1912, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,621.57 ft National Geodetic Vertical Datum of 1929. January 1905 to September 1912, nonrecording gage at two sites 3.5 mi downstream at different datums. October 1953 to Feb. 20, 1967, at present site and datum. Feb. 20, 1967, to Oct. 11, 1976, water-stage recorder 0.6 mi upstream at datum 2,634.57 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. Slight regulation at times by operation of Kern River No. 3 canal and powerplant. A few small diversions for irrigation above station. Gilbert irrigation ditch diverts up to 7 ft³/s around station during irrigation season.

COOPERATION.--Nine discharge measurements furnished by Southern California Edison Co.

AVERAGE DISCHARGE.--37 years, 920 ft³/s, 666,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft³/s Dec. 6, 1966, gage height, 20.2 ft, from floodmarks, present site, from rating curve extended above 11,000 ft³/s on basis of slope-area measurement of maximum flow; minimum, 70 ft³/s Sept. 29, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known from at least 1912 to December 1966, 18.4 ft from floodmarks, Nov. 19, 1950, site and datum then in use, discharge, 38,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 30	2315	2,010	6.85	Mar. 14	0100	5,580	8.75
Nov. 30	1015	7,770	9.57	Apr. 3	0115	2,900	7.47
Dec. 22	2145	7,550	9.49	May 29	0345	*11,700	10.67
Jan. 22	2400	4,540	8.30	June 11	0600	9,220	10.03
Feb. 13	1000	3,080	7.58	Aug. 10	1000	3,480	7.75
Mar. 1	0930	4,690	8.37				

Minimum daily, 431 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	986	1280	771	1070	3730	2740	2590	9580	6280	2550	1180
2	1030	833	957	726	1030	3570	2810	2420	8280	6350	2620	1200
3	893	748	944	727	992	3130	2810	2560	7740	6640	2620	1200
4	786	698	911	712	946	2690	2530	2840	7320	6580	2430	1130
5	719	668	839	722	914	2380	2360	2850	7190	6790	2310	1070
6	665	643	793	720	1040	2260	2190	2760	7560	6590	2230	1050
7	625	615	759	714	2060	2240	2090	2930	7900	5900	2330	1050
8	607	584	718	721	2090	2220	2030	3280	7990	5190	2750	1030
9	568	561	711	733	1690	2260	2080	3510	8050	4770	3040	999
10	547	552	719	716	1490	2340	2140	3630	8410	4200	3300	948
11	543	541	708	716	1380	2360	2040	3340	8930	4070	2940	905
12	513	549	692	709	1320	2300	1950	3360	8500	4240	2350	883
13	500	534	690	702	2440	2880	1850	3310	7780	4360	2070	867
14	491	531	640	706	1830	4200	1800	3180	7760	4400	1980	861
15	495	518	642	715	1600	2960	1770	3510	7970	4180	2330	858
16	471	515	629	717	1500	2630	1800	3940	8150	3860	2630	864
17	463	501	612	771	1460	2680	1960	4080	8520	3530	2620	855
18	457	520	609	743	1550	2590	2070	4260	8730	3280	2660	848
19	444	1120	603	783	1490	2330	2000	4610	8220	2910	2830	828
20	431	759	605	745	1390	2190	2120	5310	7790	2650	2700	794
21	441	666	617	682	1370	2290	2080	6040	7510	2630	2200	760
22	437	621	2920	1290	1370	2250	2120	6920	7500	2810	1890	744
23	437	604	3070	2090	1440	2310	2350	7580	7490	2800	1680	780
24	439	572	1490	2110	1430	2600	2530	8240	7190	2700	1520	770
25	504	546	1240	1870	1420	2290	2530	8620	6950	2600	1410	741
26	913	538	1170	1420	2020	2160	2520	9070	6960	2510	1330	720
27	971	532	1050	1560	3440	2140	2500	9640	7020	2520	1270	704
28	723	537	968	1390	2920	2280	2550	10200	6760	2580	1230	705
29	648	665	920	1370	---	2250	2570	10700	6780	2610	1190	693
30	895	3380	861	1220	---	2480	2740	10400	6500	2580	1160	757
31	1410	---	803	1140	---	2720	---	10600	---	2550	1170	---
TOTAL	20266	21637	30170	30711	44692	79710	67630	166280	233030	125660	67340	26794
MEAN	654	721	973	991	1596	2571	2254	5364	7768	4054	2172	893
MAX	1410	3380	3070	2110	3440	4200	2810	10700	9580	6790	3300	1200
MIN	431	501	603	682	914	2140	1770	2420	6500	2510	1160	693
AC-FT	40200	42920	59840	60920	88650	158100	134100	329800	462200	249200	133600	53150

CAL YR 1982	TOTAL	532115	MEAN	1458	MAX	7760	MIN	257	AC-FT	1055000
WTR YR 1983	TOTAL	913920	MEAN	2504	MAX	10700	MIN	431	AC-FT	1813000

11187000 KERN RIVER AT KERNNVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

CHEMICAL ANALYSES: Water years 1975 to current year.

BIOLOGICAL DATA: Water years 1978-81.

WATER TEMPERATURES: Water years 1962 to current year.

SEDIMENT RECORDS: Water years 1967-74, 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1962 to current year.

INSTRUMENTATION.--Temperature recorder since June 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.5°C Aug. 20, 1972; minimum recorded, 0.0°C on several days in 1976, 1978-79, 1982.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 19.0°C Sept. 1, 2; minimum recorded, 1.0°C Dec. 25, 31, Jan. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 24...	1030	571	88	7.6	5.0	690	.50	11.2	97	K4	K12
FEB 08...	1515	2000	83	7.2	6.0	690	7.8	11.2	99	K7	K13
MAR 17...	1500	2550	83	7.4	7.0	685	3.2	10.9	100	K6	200
MAY 12...	0930	3400	62	7.3	8.0	695	2.5	11.0	102	K7	170
JUL 19...	1045	2970	--	6.6	12.0	695	2.5	9.7	99	K12	K24
SEP 19...	1430	815	85	7.1	16.5	690	1.1	9.6	112	K27	23

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 24...	29	0	9.3	1.4	8.3	37	.7	1.1	--	6.0	3.0
FEB 08...	27	0	8.4	1.4	6.6	34	.6	1.1	38	6.6	1.7
MAR 17...	30	0	9.1	1.7	6.6	31	.5	1.2	39	5.1	1.5
MAY 12...	25	0	7.8	1.3	5.4	31	.5	1.2	33	4.3	1.6
JUL 19...	15	0	4.9	.70	4.1	36	.5	.60	16	2.6	.80
SEP 19...	25	0	8.2	1.2	6.5	35	.6	1.0	41	4.8	2.1

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 24...	.10	16	50	70	.07	<.10	<.06	.90	.02	.02	<.01
FEB 08...	.10	19	69	68	.09	<.10	<.06	.60	.05	.03	.02
MAR 17...	.40	22	63	71	.09	<.10	.10	.50	.05	.01	.02
MAY 12...	.10	18	59	60	.08	<.10	<.06	.60	.05	.02	.02
JUL 19...	.20	10	33	34	.04	<.10	.08	.90	.06	.03	.02
SEP 19...	.20	14	55	63	.07	<.10	.12	.70	<.01	<.01	<.01

See footnotes at end of table.

BUENA VISTA LAKE BASIN

11187000 KERN RIVER AT KERNVILLE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 24...	1030	40	3	12	<.5	<1	<1	<3	1	93	2
FEB 08...	1515	--	2	17	<.5	<1	<1	<3	3	58	1
MAY 12...	0930	80	1	13	<.5	1	<1	<3	1	70	<1
SEP 19...	1430	10	2	12	<.5	<1	<1	<3	10	52	5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	22	5	.4	<10	1	<1	<1	66	<6	13
FEB 08...	17	4	<.1	<10	3	<1	<1	61	<6	5
MAY 12...	11	8	<.1	<10	1	<1	<1	63	<6	29
SEP 19...	12	5	.1	<10	2	<1	<1	57	<6	32

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.0	8.5	9.5	7.5	3.5	2.0	2.0	1.0	4.0	2.5	7.0	5.5
2	12.5	9.0	8.5	7.0	3.0	2.0	2.5	1.5	3.5	2.5	6.5	5.5
3	12.5	10.0	7.5	6.0	3.5	1.5	3.0	1.5	4.0	3.0	7.5	6.0
4	12.5	10.0	7.0	6.0	4.0	2.5	3.5	2.0	4.0	3.0	8.0	6.0
5	12.5	10.5	7.0	5.5	4.5	3.0	4.5	3.0	3.5	2.0	8.0	5.5
6	12.0	10.0	7.0	5.5	4.5	3.5	4.5	3.5	3.0	2.0	8.5	7.0
7	12.5	10.5	7.0	5.5	4.5	3.5	5.0	3.5	5.5	3.0	9.5	7.0
8	12.0	10.0	6.5	6.0	3.5	2.5	4.5	4.0	6.0	4.5	9.5	7.0
9	11.5	9.5	6.0	4.0	5.0	3.5	4.5	3.5	6.5	4.5	9.0	7.5
10	11.5	10.0	4.5	3.5	5.5	5.0	4.5	3.5	6.5	4.5	9.5	8.0
11	11.5	9.5	4.5	3.5	5.5	4.5	4.5	3.5	6.5	5.0	9.5	8.0
12	11.5	9.5	4.0	3.0	5.0	4.0	5.0	3.5	6.5	5.5	8.5	6.5
13	12.0	9.5	4.5	3.0	5.0	4.0	4.0	3.5	6.5	5.0	8.0	7.5
14	11.5	10.0	4.5	3.5	4.0	2.5	4.0	3.5	6.0	4.0	7.5	5.5
15	11.0	9.5	5.0	3.5	3.0	2.0	5.0	3.5	6.5	5.0	7.0	5.0
16	11.5	9.5	5.0	4.0	3.5	2.5	6.0	5.0	8.0	5.5	7.0	5.5
17	11.5	9.5	5.0	3.5	4.0	2.5	5.5	4.5	7.5	5.5	7.0	5.5
18	11.0	9.5	5.5	5.0	3.5	2.5	5.0	3.5	6.5	5.0	6.5	5.5
19	11.5	9.5	6.5	5.5	3.5	2.5	5.5	3.5	6.5	4.5	7.5	5.0
20	11.5	10.0	5.5	4.5	4.0	2.5	3.5	2.5	7.0	5.0	6.5	5.5
21	11.0	9.5	5.0	4.0	4.5	3.5	2.5	1.5	7.5	5.5	6.0	4.5
22	11.0	10.0	4.5	3.5	5.5	4.5	4.5	2.5	8.0	5.5	5.0	4.5
23	13.0	11.0	5.5	4.5	5.0	2.5	4.5	3.0	7.5	6.5	5.5	3.5
24	12.5	12.0	5.5	4.5	2.5	1.5	5.5	4.0	7.0	6.0	4.5	4.0
25	13.5	11.5	5.5	4.0	2.0	1.0	4.5	3.0	7.0	6.0	7.0	3.5
26	13.0	10.5	4.5	3.5	3.5	1.5	5.0	4.0	7.0	5.5	7.0	4.5
27	10.0	8.0	4.5	3.5	3.5	2.0	5.0	4.0	6.5	6.0	7.5	5.5
28	8.5	6.5	6.5	4.5	3.5	3.0	4.5	3.0	7.0	5.5	9.0	7.0
29	9.0	6.5	6.5	6.0	3.5	3.0	5.0	4.0	---	---	9.5	6.0
30	10.5	8.5	7.0	3.0	3.0	2.0	4.5	3.0	---	---	10.0	7.0
31	10.0	8.0	---	---	2.0	1.0	4.0	2.5	---	---	10.0	7.5
MONTH	13.5	6.5	9.5	3.0	5.5	1.0	6.0	1.0	8.0	2.0	10.0	3.5

11187000 KERN RIVER AT KERNNVILLE, CA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	7.0	9.5	7.5	11.0	8.0	12.5	12.0	17.0	15.0	19.0	16.0
2	9.0	7.5	10.5	7.5	10.5	8.0	13.0	12.0	17.5	15.5	19.0	16.0
3	8.0	6.0	11.0	8.5	10.5	8.5	13.0	12.0	17.5	15.5	17.5	15.0
4	6.5	4.5	11.0	9.0	11.5	8.5	14.0	13.0	17.5	15.0	18.0	15.0
5	7.0	6.0	10.0	8.0	11.5	9.5	14.0	13.5	17.5	15.0	18.5	15.5
6	6.5	5.0	10.5	8.0	12.0	10.0	14.0	13.0	18.0	15.5	18.5	15.5
7	7.5	5.5	11.0	8.5	12.0	10.0	13.0	12.0	18.5	16.0	18.0	15.5
8	9.0	6.0	11.0	8.5	11.5	9.0	12.5	11.5	18.0	16.0	18.0	15.5
9	9.5	7.0	10.5	8.5	12.0	9.5	12.5	12.0	15.5	14.5	17.5	15.0
10	8.5	7.0	10.0	8.0	12.5	10.0	13.0	11.0	17.0	14.5	16.5	14.0
11	7.5	6.0	9.5	7.0	12.5	9.5	14.0	12.5	17.0	15.5	17.5	14.5
12	6.5	5.0	10.0	8.0	11.5	8.5	15.0	13.5	17.5	15.0	18.0	15.5
13	7.5	4.5	10.0	8.5	11.5	9.5	15.0	13.5	17.5	15.0	18.0	15.5
14	8.0	5.0	10.5	8.0	12.0	10.0	14.5	13.5	17.5	16.5	18.5	16.0
15	9.0	6.0	11.5	9.5	12.0	10.0	14.5	13.5	17.5	16.0	18.5	16.0
16	10.0	7.0	11.0	8.5	12.5	10.5	14.5	13.0	17.5	16.0	18.0	16.0
17	9.0	7.5	11.0	8.5	12.5	10.5	14.5	12.5	17.5	15.5	18.5	16.0
18	8.5	7.5	11.0	8.5	13.0	10.5	13.5	12.0	17.5	16.0	17.5	15.5
19	9.5	6.5	12.0	9.0	12.0	10.0	13.5	11.0	16.0	15.0	16.5	15.0
20	9.5	8.0	12.0	9.5	12.0	10.5	14.0	12.0	16.5	14.5	16.0	14.5
21	9.5	8.0	12.5	9.0	12.0	10.5	15.0	12.5	17.0	14.5	16.5	14.5
22	11.0	8.0	12.0	9.0	12.5	11.0	15.5	13.5	16.5	14.5	17.0	15.0
23	10.0	8.0	12.0	8.5	12.5	11.0	15.0	13.0	16.0	13.5	17.0	15.5
24	10.5	9.0	12.0	9.0	12.0	10.5	15.5	13.0	16.5	13.5	15.5	14.0
25	10.0	8.0	12.0	8.5	12.0	11.0	15.5	13.5	16.5	13.5	14.5	13.5
26	9.5	7.5	12.0	8.5	12.5	11.0	15.0	12.5	16.5	13.5	14.5	13.5
27	9.0	8.0	12.0	8.5	12.5	11.5	16.0	13.0	17.0	14.0	14.0	12.5
28	9.0	8.0	11.5	8.5	12.5	11.5	16.5	14.0	17.0	14.0	14.0	13.0
29	10.5	8.5	11.5	8.5	12.5	11.5	16.5	14.5	17.0	14.0	13.5	12.0
30	9.5	7.5	12.0	8.5	12.5	11.5	16.0	14.5	17.0	14.0	12.0	11.5
31	---	---	12.0	8.5	---	---	17.0	14.5	18.5	15.0	---	---
MONTH	11.0	4.5	12.5	7.0	13.0	8.0	17.0	11.0	18.5	13.5	19.0	11.5
YEAR	19.0	1.0										

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 24...	1130	571	5.0	3	4.6	41
FEB 08...	1515	2000	6.0	27	146	39
MAR 17...	1500	2550	6.5	25	172	60
MAY 12...	0930	3400	8.0	18	165	71
JUL 19...	1100	2970	12.0	24	192	33
SEP 19...	1430	815	15.5	4	8.8	40
20...	1500	951	16.0	2	5.1	--

BUENA VISTA LAKE BASIN

11187500 BOREL CANAL BELOW ISABELLA DAM, CA

LOCATION.--Lat 35°38'32", long 118°28'09", in SW 1/4 NE 1/4 sec.30, T.26 S., R.33 E., Kern County, Hydrologic Unit 18030001, on right bank 500 ft downstream from Isabella Dam, and 3 mi upstream from point where canal crosses Erskine Creek.

PERIOD OF RECORD.--January 1910 to September 1914, October 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as Kern River Power Co.'s Canal at or near Kernville 1910-14. Published as "at Tillie Creek" 1925-51.

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft, from topographic map. Prior to Apr. 29, 1952, at site 4 mi upstream at different datum.

REMARKS.--Records excellent. Canal diverts from right bank of Kern River 5.5 mi upstream from Isabella Dam, and above South Fork Kern River. When capacity of Isabella Reservoir is above 110,000 acre-ft, the diversion is at the dam. Canal is used to supply Borel powerplant of Southern California Edison Co., 6 mi downstream from station, at which point water is returned to the Kern River.

COOPERATION.--Sixteen discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--62 years, 381 ft³/s, 276,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 634 ft³/s Mar. 13, 14, 1952; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	559	547	568	581	548	579	570	589	586	598	578
2	579	560	563	567	579	556	579	579	588	588	604	586
3	578	562	571	579	579	560	577	587	586	584	607	586
4	578	560	569	579	579	567	577	588	589	586	565	584
5	577	560	570	578	581	570	579	595	588	595	591	584
6	577	559	571	577	574	570	577	593	588	605	593	582
7	576	559	570	575	575	568	575	593	589	596	591	584
8	575	561	565	577	570	570	575	588	586	600	589	581
9	575	556	563	577	579	570	575	586	586	596	588	581
10	576	556	570	577	579	568	577	589	581	596	588	581
11	575	562	572	577	577	572	575	591	582	596	586	581
12	576	561	570	577	574	577	577	591	584	596	588	581
13	575	562	570	579	570	575	577	588	584	589	588	581
14	575	561	571	577	575	575	575	584	588	596	588	581
15	575	561	570	577	575	575	575	582	586	596	588	581
16	575	561	570	577	574	574	579	582	581	596	588	581
17	575	562	570	579	574	568	581	584	579	593	586	579
18	576	562	570	577	575	562	579	584	574	595	584	581
19	575	560	570	577	574	562	577	586	574	596	581	577
20	554	561	570	577	574	570	579	586	575	596	586	576
21	560	560	570	579	574	562	580	586	574	596	586	574
22	563	560	567	572	575	565	579	586	575	596	586	577
23	559	561	563	565	574	568	578	586	575	595	581	577
24	558	559	568	570	574	567	580	586	569	596	581	575
25	560	561	568	575	574	574	581	586	562	595	579	574
26	558	560	568	581	565	577	577	577	460	596	581	577
27	559	560	568	577	555	579	574	582	445	596	582	577
28	559	561	568	581	560	577	193	577	437	598	582	577
29	560	555	568	568	---	577	556	579	438	598	581	577
30	560	535	567	570	---	577	564	581	518	600	577	581
31	560	---	567	575	---	579	---	578	---	598	575	---
TOTAL	17656	16777	17604	17841	16069	17659	16906	18130	16830	18445	18168	17392
MEAN	570	559	568	576	574	570	564	585	561	595	586	580
MAX	579	562	572	581	581	579	581	595	589	605	607	586
MIN	554	535	547	565	555	548	193	570	437	584	565	574
AC-FT	35020	33280	34920	35390	31870	35030	33530	35960	33380	36590	36040	34500
CAL YR 1982	TOTAL	206708	MEAN	566	MAX	605	MIN	297	AC-FT	410000		
WTR YR 1983	TOTAL	209477	MEAN	574	MAX	607	MIN	193	AC-FT	415500		

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CA

LOCATION.--Lat 35°44'22", long 118°10'33", unsurveyed, T.25 S., R.35 E., Kern County, Hydrologic Unit 18030002, on left bank 0.8 mi north of State Highway 178, 1.6 mi upstream from Canebrake Creek, and 5 mi northeast of Onyx.

DRAINAGE AREA.--530 mi².

PERIOD OF RECORD.--September 1911 to August 1914, January 1919 to September 1942, October 1947 to current year. Yearly estimate for water year 1927 (incomplete) and monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1151: 1948(M). WSP 1445: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,900 ft, from topographic map. Sept. 12, 1911, to Aug. 31, 1914, nonrecording gage and Jan. 23, 1919, to Apr. 17, 1936, water-stage recorder, at site 140 ft upstream at datum 2.88 ft lower. Apr. 18, 1936, to September 1942, and October 1947 to Feb. 8, 1967, at datum 6.88 ft higher. Feb. 9, 1967, to May 31, 1972, at datum 2.00 ft higher.

REMARKS.--Records good. Lowell and Thomas ditches divert above station for irrigation of 160 acres below station; combined capacity, 7 ft³/s.

AVERAGE DISCHARGE.--59 years (water years 1912-13, 1920-25, 1927, 1930-42, 1947-83), 127 ft³/s, 92,010 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft³/s Dec. 6, 1966, gage height, 18.9 ft from floodmarks, present datum, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of maximum flow; no flow for several days in 1929, 1934, 1960-61.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 30	2400	208	4.56	Apr. 3	0415	852	6.22
Nov. 30	0745	675	5.92	May 10	0715	1,760	7.32
Dec. 22	2115	935	6.35	May 23	unknown	*4,170	9.08
Jan. 22	2245	536	5.71	Aug. 9	0145	350	5.13
Mar. 1	0815	1,210	6.73	Aug. 19	1915	388	5.25
Mar. 14	0115	1,250	6.77				

Minimum daily, 43 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	137	148	91	145	952	691	937	2670	612	174	109
2	61	106	87	87	142	906	745	879	2270	602	171	105
3	58	90	76	90	145	762	794	956	2030	622	160	102
4	56	78	75	89	129	646	710	1110	1870	613	149	98
5	54	74	77	91	129	581	659	1160	1730	623	142	96
6	53	71	81	91	143	580	609	1150	1700	593	136	93
7	52	71	84	94	187	600	574	1230	1680	522	135	94
8	51	70	77	95	256	621	566	1400	1660	452	166	94
9	51	70	89	94	212	636	589	1540	1650	412	279	93
10	51	68	90	94	195	656	618	1620	1610	352	275	90
11	50	61	87	93	191	658	600	1550	1570	337	235	89
12	48	63	87	92	190	633	587	1550	1500	342	190	88
13	46	65	88	91	320	762	556	1430	1370	347	169	87
14	45	69	81	90	274	1020	526	1350	1300	328	162	83
15	46	71	78	92	250	769	513	1500	1240	314	178	80
16	46	74	82	96	238	670	533	1840	1210	302	214	79
17	46	77	79	94	240	664	570	1950	1170	291	228	78
18	45	79	78	90	265	600	621	2080	1130	280	257	77
19	44	139	76	102	242	538	593	2270	1080	272	317	76
20	43	78	78	86	232	506	650	2590	1020	262	304	74
21	44	77	79	83	232	534	656	2930	961	251	233	73
22	44	78	314	182	233	514	688	3390	917	241	197	75
23	44	77	437	270	248	538	795	4010	877	234	174	78
24	44	74	191	290	248	586	863	3800	833	225	159	77
25	47	70	137	256	246	526	855	3550	794	215	147	77
26	73	63	132	192	331	496	909	3500	759	209	138	80
27	115	59	117	235	680	494	922	3610	723	205	131	84
28	108	65	107	203	582	517	937	3410	692	199	126	85
29	87	79	104	206	---	524	952	3310	682	190	119	88
30	104	362	89	176	---	582	995	3100	642	182	114	108
31	161	---	94	157	---	663	---	2980	---	179	111	---
TOTAL	1882	2615	3499	4092	6925	19734	20876	67682	39340	10808	5690	2610
MEAN	60.7	87.2	113	132	247	637	696	2183	1311	349	184	87.0
MAX	161	362	437	290	680	1020	995	4010	2670	623	317	109
MIN	43	59	75	83	129	494	513	879	642	179	111	73
AC-FT	3730	5190	6940	8120	13740	39140	41410	134200	78030	21440	11290	5180

CAL YR 1982 TOTAL 74367 MEAN 204 MAX 1740 MIN 28 AC-FT 147500
WTR YR 1983 TOTAL 185753 MEAN 509 MAX 4010 MIN 43 AC-FT 368400

NOTE.--Gage height for annual maximum based on outside highwater mark.

11190500 ISABELLA LAKE NEAR LAKE ISABELLA, CA

LOCATION.--Lat 35°38'46", long 118°28'41", in SE 1/4 SW 1/4 sec.19, T.26 S., R.33 E., Kern County, Hydrologic Unit 18030001, in main control tower near left abutment of main dam on Kern River, 1.5 mi north of town of Lake Isabella, and 2.8 mi upstream from Erskine Creek.

DRAINAGE AREA.--2,074 mi².

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1968, published as Isabella Reservoir near Isabella. October 1968 to September 1970 published as "Isabella Reservoir."

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with sidehill spillway and auxiliary earthfill dam completed in 1954. Regulation began Apr. 15, 1954. Usable capacity, 567,891 acre-ft between elevations 2,470.0 ft, invert of main outlet and 2,605.5 ft, spillway crest. Dead storage 184 acre-ft. Surcharge flood control storage, 272,528 acre-ft between ungated spillway crest and elevation 2,627.0 ft, maximum design spillway flood pool. Records, including extremes, represent total contents at 2400 hours. Water is released to Kern River through tunnel in left abutment of main dam and to Borel Canal (station 11187500) through concrete conduit in auxiliary dam.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 630,825 acre-ft July 6, 1983, elevation, 2,610.84 ft; minimum since reservoir first filled, 34,504 acre-ft Dec. 14, 16, 1977, elevation, 2,524.35 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 630,825 acre-ft July 6, elevation, 2,610.84 ft; minimum, 244,904 acre-ft Dec. 20, elevation, 2,571.56 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

2,500	6,154	2,540	74,802
2,505	9,345	2,550	114,845
2,510	13,612	2,570	233,425
2,515	19,161	2,590	403,846
2,520	26,226	2,620	746,024
2,530	45,919		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	374716	311602	267794	261325	291832	367906	469046	380833	497033	627576	519516	486767
2	373779	309645	267168	261170	292491	378286	470615	377346	505666	627696	522044	484322
3	372564	307525	266306	260938	292821	386715	472606	373498	512404	628539	524245	481778
4	370975	305413	265056	260628	292904	393119	473762	370231	517543	629623	525128	478817
5	369485	303309	263498	260396	293317	397837	473236	367069	522704	630705	522925	475654
6	367441	301212	261170	260319	295052	402193	471978	364476	528001	630825	520833	472186
7	365495	298956	258777	260242	300040	406475	470196	361985	533990	629261	519297	468732
8	363736	296793	256243	260087	304401	410879	467896	360237	539787	626256	518857	465601
9	361892	294721	253875	260087	307441	414811	465184	358677	545724	622658	518309	462688
10	360053	292327	251825	260164	309475	418466	462065	358219	551582	617995	518857	459888
11	358219	290189	249934	260551	310750	421637	458958	357577	559289	612995	519077	456992
12	356297	287652	247900	261015	312285	424124	455342	356480	565785	608252	518309	453901
13	354379	285370	247074	261556	316568	428718	451432	355566	570713	604114	517653	450715
14	352377	282858	246399	262099	319755	435859	446926	353743	575889	600108	516557	447642
15	350472	280517	245876	262332	322093	439600	441934	352377	581783	595179	516338	444580
16	348663	278186	245577	262177	324352	441934	437069	352923	587240	589220	516338	441527
17	346587	275707	245278	262254	326270	444478	432734	353652	593893	583405	515790	438487
18	344508	273717	245203	262177	328282	446722	428119	354653	600343	576810	515024	435455
19	342456	272924	244979	262177	330388	448154	423529	356023	606002	570827	516776	432432
20	340132	271655	244904	262177	331972	449381	419356	359318	610384	564644	518089	429119
21	337548	270313	245054	261944	333561	450920	414614	364569	613709	558606	517653	425821
22	334710	268895	249934	264120	335064	452665	409898	372190	616923	553279	516338	422831
23	331621	267794	256703	268344	336570	454929	406377	381685	620027	547638	514042	419158
24	328721	266697	258546	272210	337548	458026	402873	392351	622178	541688	511098	416092
25	325659	265445	259624	275707	339061	459888	399479	404039	623734	535546	507726	412646
26	323482	264042	260551	277705	342725	461029	396101	416290	625174	529992	504799	409114
27	321485	262487	261170	281402	350291	462065	392831	429520	626496	525460	501879	405696
28	318891	261170	261480	284397	357027	463416	389670	444172	627335	522044	498645	402096
29	315966	260164	261633	287000	---	464249	386619	458854	628177	519956	495101	399092
30	314337	267246	261711	289125	---	465289	383958	471873	628177	518967	492101	396391
31	313395	---	261556	290764	---	467478	---	485702	---	518528	489430	---
MAX	374716	311602	267794	290764	357027	467478	473762	485702	628177	630825	525128	486767
MIN	313395	260164	244904	260087	291832	367906	383958	352377	497033	518528	489430	396391
a	2580.11	2574.48	2573.75	2577.41	2585.04	2596.31	2587.93	2598.04	2610.62	2601.08	2598.39	2589.23
b	-62070	-46149	-5690	+29208	+66263	+110451	-83520	+101744	+142475	-109649	-29098	-93039
c	4087	1773	1053	1097	1059	2132	3210	5903	9237	10642	7515	7333

CAL YR 1982 b +93286

WTR YR 1983 b +20926

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11191000 KERN RIVER BELOW ISABELLA DAM, CA

LOCATION.--Lat 35°38'21", long 118°29'02", in SW 1/4 NW 1/4 sec.30, T.26 S., R.33 E., Kern County, Hydrologic Unit 18030003, on right bank 200 ft downstream from highway bridge, 0.6 mi downstream from Isabella Dam, and 1.6 mi southwest of town of Lake Isabella.

DRAINAGE AREA.--2,074 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1945 to current year. Prior to October 1952, published as "below Isabella damsite."

REVISED RECORDS.--WSP 1515: 1956. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,435.07 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Mar. 12, 1952, water-stage recorder at site 0.6 mi upstream at different datum. Mar. 12, 1952, to July 26, 1953, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated by Isabella Lake (station 11190500) beginning Apr. 15, 1954. Borel Canal (station 11187500) diverts above station. Diversion for irrigation of 3,500 acres between head of Isabella Lake and upstream stations. An additional 6,500 acres in the lakebed can be irrigated when the lake is low.

AVERAGE DISCHARGE (adjusted for diversion to Borel Canal since 1945 and for change in contents in and evaporation from Isabella Lake since 1954).--38 years, 990 ft³/s, 717,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s Nov. 19, 1950, gage height, 28.6 ft from floodmarks, present site and datum, from rating curve extended above 6,500 ft³/s on basis of slope-area measurement of maximum flow; minimum, 2.1 ft³/s, regulated, Nov. 27, 1951. Maximum discharge since construction of Isabella Dam in 1954, 7,300 ft³/s May 3, 1969, gage height, 17.67 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,890 ft³/s June 26, gage height, 17.07 ft; minimum daily, 1.4 ft³/s Jan. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	900	1400	771	417	349	9.1	2180	4660	5880	6540	2070	2090
2	901	1370	938	417	420	8.4	2270	4720	6000	6430	944	1930
3	883	1330	1060	417	469	7.8	2260	4910	6010	6350	1090	1880
4	927	1210	1180	406	576	88	2240	4950	6020	6220	1310	2050
5	1000	1270	1250	411	569	382	2570	5100	6010	6390	2560	2100
6	1050	1210	1460	278	579	434	2910	5040	6050	6580	2810	2190
7	1040	1210	1600	342	121	434	3020	4910	6230	6560	2660	2170
8	990	1220	1630	307	35	481	3110	4960	6290	6380	2570	2090
9	940	1240	1470	270	170	615	3360	5120	6440	6390	2660	1930
10	917	1260	1350	257	409	782	3550	5120	6410	6390	2720	1810
11	946	1280	1290	93	623	1130	3610	5110	6430	6400	2540	1820
12	964	1280	1180	1.5	532	1130	3630	5110	6430	6400	2360	1850
13	979	1290	840	1.4	335	1130	3730	5100	6440	6260	2070	1890
14	961	1290	562	1.4	216	1230	3970	5100	6440	6100	2030	1860
15	896	1270	455	97	285	1710	4180	5110	6410	6070	2130	1890
16	840	1230	306	323	285	1870	4320	5120	6400	6100	2200	1880
17	856	1230	306	340	328	1880	4310	5110	6430	6100	2390	1790
18	931	1200	273	366	390	1890	4340	5170	6460	6050	2620	1750
19	993	1110	227	366	392	1890	4450	5340	6480	5840	2220	1780
20	1050	1030	173	366	369	1880	4550	5420	6510	5580	1860	1820
21	1170	961	129	451	403	1860	4650	5430	6650	5380	1940	1820
22	1300	903	166	532	431	1880	4760	5440	6620	5390	2130	1820
23	1400	776	254	352	487	1860	4620	5420	6630	5400	2280	1790
24	1390	682	301	233	642	1890	4620	5420	6630	5400	2610	1750
25	1410	802	337	227	778	1880	4650	5500	6630	5400	2600	1800
26	1410	813	337	222	572	1880	4640	5640	6770	5270	2520	1880
27	1420	829	361	88	198	1880	4650	5610	6770	4770	2370	1900
28	1480	892	417	6.3	142	1940	4960	5630	6730	4280	2340	1880
29	1520	952	420	6.5	---	2070	4710	5680	6790	3620	2520	1740
30	1430	864	420	6.1	---	2070	4680	5710	6680	2870	2360	1690
31	1380	---	420	107	---	2030	---	5850	---	2410	2150	---
TOTAL	34274	33404	21883	7708.2	11105	40221.3	115500	162510	192670	175320	69634	56640
MEAN	1106	1113	706	249	397	1297	3850	5242	6422	5655	2246	1888
MAX	1520	1400	1630	532	778	2070	4960	5850	6790	6580	2810	2190
MIN	840	682	129	1.4	35	7.8	2180	4660	5880	2410	944	1690
AC-FT	67980	66260	43400	15290	22030	79780	229100	322300	382200	347700	138100	112300
MEAN a	732	927	1198	1317	2183	3698	3064	7577	9534	4640	2481	1027
AC-FT a	45010	55160	73660	80980	121200	227400	182300	465900	567300	285300	152600	61110

CAL YR 1982 TOTAL 335163.0 MEAN 918 MAX 2330 MIN 3.2 AC-FT 664800 MEAN a 1688 AC-FT a 1222000
WTR YR 1983 TOTAL 920869.5 MEAN 2523 MAX 6790 MIN 1.4 AC-FT 1827000 MEAN a 3202 AC-FT a 2318000

a Adjusted for change in contents and evaporation from Lake Isabella and diversion to Borel Canal.

BUENA VISTA LAKE BASIN

11191000 KERN RIVER BELOW ISABELLA DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-66, 1971 to current year.

CHEMICAL ANALYSES: Water years 1956-66.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.5°C Aug. 24, 1981; minimum recorded, 4.0°C Jan. 4, 1972, Feb. 1, 1973, Jan. 30, 31, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 20.0°C Sept. 24-26, 28-30; minimum recorded, 5.5°C Jan. 13, 14.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	15.5	14.5	10.0	9.5	7.0	6.5	7.0	6.5	8.5	7.5
2	17.0	16.0	15.0	14.5	10.0	9.5	6.5	6.5	7.0	6.5	9.5	8.0
3	17.0	16.0	15.0	15.0	9.5	9.0	6.5	6.0	7.0	6.5	10.0	8.0
4	17.0	16.0	15.0	14.5	9.0	8.5	6.5	6.0	6.5	6.5	12.0	7.5
5	17.0	16.0	14.5	14.0	9.0	8.5	6.5	6.0	6.5	6.5	7.5	7.5
6	17.0	16.0	14.0	12.5	8.5	8.5	8.0	6.0	6.5	6.5	8.0	7.0
7	17.0	15.5	14.0	13.5	8.5	7.5	6.0	6.0	8.5	6.0	8.0	7.0
8	17.0	16.5	13.5	13.0	8.5	8.5	6.5	6.0	7.0	6.0	8.0	7.5
9	17.5	14.5	14.0	12.5	8.5	8.5	6.5	6.0	6.5	6.0	8.5	8.0
10	17.0	15.5	13.5	13.0	8.5	8.5	6.5	6.0	6.5	6.0	8.5	8.0
11	17.0	16.0	13.5	13.0	8.5	8.5	9.5	6.0	6.5	6.0	8.5	8.0
12	16.5	16.0	13.0	12.5	8.5	8.0	8.0	6.0	6.5	6.0	8.5	8.0
13	16.5	15.5	13.0	12.0	8.0	8.0	7.5	5.5	6.5	6.0	9.0	8.5
14	16.5	16.0	12.5	12.0	8.5	8.0	7.5	5.5	6.5	6.0	9.0	8.5
15	16.5	16.0	12.5	11.5	8.5	8.0	8.5	6.0	7.0	6.5	9.0	8.5
16	16.5	16.0	12.0	11.0	8.5	8.0	7.0	6.5	6.5	6.5	9.5	9.0
17	16.5	15.5	12.0	11.0	8.0	7.5	7.0	6.0	7.0	6.5	9.5	9.0
18	16.5	15.5	11.5	11.0	8.0	8.0	7.0	6.5	7.0	6.5	9.0	8.5
19	16.5	16.0	11.5	11.0	8.0	8.0	7.0	6.5	7.0	6.5	9.0	9.0
20	16.5	16.0	11.5	10.5	8.0	7.5	6.5	6.5	7.0	6.5	9.0	9.0
21	16.5	16.0	11.5	11.0	8.0	7.5	6.5	6.5	7.0	7.0	9.5	9.0
22	16.5	16.0	11.0	11.0	8.0	7.0	7.0	6.5	7.5	7.0	9.0	9.0
23	16.5	16.0	11.0	10.0	7.5	7.0	7.0	6.5	7.5	7.0	9.0	9.0
24	16.5	16.0	11.0	10.0	7.5	7.5	7.0	6.5	7.0	7.0	9.0	8.5
25	16.5	16.0	10.5	10.0	7.5	7.0	7.0	6.5	7.0	7.0	9.0	8.5
26	16.5	16.0	10.5	8.0	7.5	6.5	7.0	6.5	7.5	7.0	9.0	8.5
27	16.0	15.5	11.0	9.5	7.0	6.5	8.0	6.5	7.5	7.0	9.0	8.5
28	16.0	15.0	10.0	9.5	7.0	6.5	8.0	6.0	8.0	7.5	9.0	8.5
29	16.0	15.5	10.5	10.0	7.0	7.0	9.0	6.5	---	---	9.0	8.5
30	15.5	15.0	10.0	10.0	7.0	6.5	9.0	6.0	---	---	9.0	8.5
31	15.5	15.0	---	---	7.0	6.5	9.0	6.0	---	---	9.0	9.0
MONTH	17.5	14.5	15.5	8.0	10.0	6.5	9.5	5.5	8.5	6.0	12.0	7.0

11191000 KERN RIVER BELOW ISABELLA DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	9.0	11.5	10.5	14.5	13.5	16.0	15.0	16.5	15.5	18.0	17.0
2	9.5	9.0	12.0	10.0	14.0	13.5	15.5	15.0	16.0	15.5	18.5	17.0
3	9.5	9.5	12.0	11.5	14.5	13.5	16.5	15.0	16.5	15.5	18.5	17.0
4	9.5	9.5	12.0	11.5	15.0	13.5	17.5	15.0	16.5	15.5	18.5	17.5
5	10.0	9.5	12.0	11.0	14.5	13.5	18.5	15.5	17.5	16.0	18.5	17.0
6	10.0	10.0	12.0	11.0	14.0	13.0	17.5	16.5	17.5	15.5	18.5	17.5
7	10.0	10.0	12.5	12.0	14.0	13.5	17.5	16.0	17.5	16.0	18.5	17.5
8	10.0	9.5	12.5	12.5	14.0	12.5	17.0	15.5	17.0	16.5	18.5	17.5
9	10.0	9.5	12.5	12.5	14.5	13.0	16.5	15.5	17.0	16.5	18.5	17.0
10	9.5	9.5	13.0	12.5	14.5	13.5	17.5	16.0	17.0	16.5	19.0	17.5
11	9.5	9.5	13.0	12.5	14.0	13.0	18.5	17.0	17.0	16.5	18.5	17.0
12	9.5	9.5	13.0	12.5	15.0	13.5	17.5	16.5	17.0	16.0	18.5	18.0
13	11.0	9.5	12.5	12.0	15.5	12.0	18.0	16.5	17.0	16.0	18.5	18.0
14	10.0	9.5	13.0	12.0	14.5	14.0	17.0	16.5	17.0	16.5	19.0	18.0
15	10.5	10.0	13.0	12.5	14.5	14.0	16.5	15.5	17.5	16.0	19.0	18.0
16	13.0	10.5	13.0	11.5	15.5	14.0	16.5	15.5	17.0	16.5	19.0	18.0
17	13.0	9.0	13.5	12.5	15.5	14.5	16.0	15.5	17.0	16.5	19.0	18.0
18	13.5	10.0	13.5	13.0	14.5	14.0	17.0	15.5	17.5	16.5	19.5	18.0
19	13.0	9.5	13.5	12.5	15.5	14.0	16.0	15.5	18.0	16.5	19.0	18.0
20	12.5	10.5	13.5	13.0	16.0	14.0	16.5	15.5	17.5	16.5	19.5	18.5
21	11.5	10.0	14.0	12.5	16.0	15.5	16.5	15.5	17.5	17.0	19.0	18.5
22	11.0	9.5	14.0	12.0	17.0	15.5	16.0	15.0	18.0	17.0	19.5	18.5
23	11.5	10.0	14.5	13.0	17.0	16.0	16.0	15.5	18.0	17.0	19.5	18.5
24	12.5	10.5	14.0	13.0	16.5	15.5	16.5	15.5	18.0	17.0	20.0	18.5
25	12.5	8.5	14.5	13.0	17.5	15.5	16.5	15.5	18.0	17.0	20.0	18.5
26	11.5	10.0	14.5	13.0	17.5	15.5	17.0	15.5	18.0	17.0	20.0	18.5
27	11.5	11.5	14.0	13.0	15.5	14.5	17.0	15.5	18.0	17.0	19.5	18.5
28	12.0	11.5	13.5	13.0	17.0	14.5	17.0	15.5	18.0	17.0	20.0	18.5
29	12.0	11.0	14.0	12.5	17.0	14.5	16.5	15.5	18.0	17.0	20.0	19.0
30	12.5	11.0	14.0	13.0	16.0	14.5	17.0	15.5	18.0	17.0	20.0	19.5
31	---	---	13.5	12.0	---	---	17.0	15.5	18.0	17.5	---	---
MONTH	13.5	8.5	14.5	10.0	17.5	12.0	18.5	15.0	18.0	15.5	20.0	17.0

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA

LOCATION.--Lat 35°31'15", long 118°40'34", in NE 1/4 SE 1/4 sec.6, T.28 S., R.31 E., Kern County, Hydrologic Unit 18030003, on left bank 1.0 mi southwest of Democrat Springs, and 2.1 mi upstream from Cow Creek.

DRAINAGE AREA.--2,258 mi².

PERIOD OF RECORD.--July 1950 to current year. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder for conduit diversion. Datum of gage is 1,837.7 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. Kern River No. 1 conduit diverts up to about 420 ft³/s from left bank of Kern River 0.4 mi upstream from station in sec.13, T.28 S., R.30 E., for power development; water is returned to river 10 mi below station. Flow regulated by Isabella Lake 22 mi upstream beginning in 1954 (station 11190500). Many diversions above station for irrigation. See schematic diagram of Kern River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 10 discharge measurements for river and gage-height record and 10 discharge measurements and two observations of no flow for conduit furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--River only, 33 years, 672 ft³/s, 486,900 acre-ft/yr.
Combined river and diversion, 33 years, 1,007 ft³/s, 729,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 40,000 ft³/s Nov. 19, 1950, gage height, 30.7 ft, from rating curve extended above 8,700 ft³/s on basis of computation of maximum flow over dam (basic data for computation furnished by Southern California Edison Co.); minimum daily, 0.7 ft³/s Nov. 17-19, 1951. Maximum discharge since construction of Isabella Dam in 1954, 10,100 ft³/s Dec. 6, 1966, gage height, 18.55 ft; no flow May 26-28, 1977.

Combined flow: Maximum discharge, 40,000 ft³/s Nov. 19, 1950; minimum daily, 123 ft³/s Sept. 22, 1951. Maximum discharge since construction of Isabella Dam in 1954, 10,100 ft³/s Dec. 6, 1966; minimum daily, 10 ft³/s Dec. 17, 1968.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 6,790 ft³/s June 19, gage height, 17.02 ft; minimum daily, 208 ft³/s Jan. 15.
Combined flow: Maximum discharge, 7,190 ft³/s June 19; minimum daily, 601 ft³/s Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	1580	1070	607	587	1910	3180	5050	6060	6530	2560	2230
2	1060	1570	1070	605	692	1650	3300	5040	6170	6390	1030	2210
3	1030	1490	1220	604	700	1310	3270	5210	6170	6360	1160	2060
4	1100	1460	1340	600	837	1210	3240	5230	6180	6200	1240	2300
5	1120	1460	1430	601	847	1370	3430	5370	6160	6300	2260	2350
6	1190	1370	1610	485	1090	1400	3880	5350	6170	6530	3060	2460
7	1180	1370	1790	597	1220	1380	4030	5180	6370	6540	2870	2460
8	1150	1370	1820	511	660	1350	4110	5190	6390	6340	2800	2390
9	1110	1410	1720	477	602	1460	4360	5350	6550	6350	2860	2210
10	1060	1420	1560	455	783	1520	4550	5360	6530	6350	2960	2010
11	1090	1450	1480	386	1060	1940	4650	5340	6500	6360	2790	2010
12	1110	1450	1410	216	1010	1910	4660	5340	6530	6360	2620	2030
13	1130	1460	1110	213	953	1970	4730	5340	6540	6320	2260	2130
14	1120	1460	756	210	823	2100	4880	5330	6510	6110	2150	2080
15	1070	1450	717	208	718	2530	5050	5320	6450	6060	2290	2090
16	995	1400	494	488	693	2710	5170	5330	6460	6080	2370	2150
17	998	1390	489	510	685	2740	5140	5340	6440	6090	2550	1990
18	1070	1380	478	549	784	2840	5120	5540	6460	6070	2810	1970
19	1130	1300	416	573	800	2770	5190	5550	6470	5900	2600	1980
20	1160	1200	393	556	727	2750	5280	5660	6490	5680	1980	2020
21	1270	1130	320	564	754	2830	5390	5680	6610	5410	2030	2020
22	1430	1070	377	791	781	2860	5170	5740	6600	5450	2260	2010
23	1580	1010	681	911	831	3000	5080	5720	6590	5450	2370	2010
24	1560	817	549	575	935	3360	4960	5710	6570	5450	2790	1960
25	1570	965	562	545	1130	3110	5010	5770	6590	5450	2800	1970
26	1610	978	549	498	1260	3000	4980	5960	6580	5410	2750	2110
27	1600	982	544	675	810	2960	4950	5940	6570	4960	2570	2140
28	1640	1030	618	444	1040	2980	4890	5940	6540	4580	2470	2130
29	1700	1120	617	399	---	3120	4990	5940	6570	4070	2700	2020
30	1650	1410	615	340	---	3120	5040	5960	6570	3300	2610	1960
31	1560	---	609	318	---	3130	---	6100	---	2620	2330	---
TOTAL	39103	38952	28414	15511	23812	72290	137680	170880	193390	177070	74900	63460
MEAN	1261	1298	917	500	850	2332	4589	5512	6446	5712	2416	2115
MAX	1700	1580	1820	911	1260	3360	5390	6100	6610	6540	3060	2460
MIN	995	817	320	208	587	1210	3180	5040	6060	2620	1030	1960
AC-FT	77560	77260	56360	30770	47230	143400	273100	338900	383600	351200	148600	125900
CAL YR 1982	TOTAL	405207.5	MEAN	1110	MAX	2560	MIN	1.8	AC-FT	803700		
WTR YR 1983	TOTAL	1035462	MEAN	2837	MAX	6610	MIN	208	AC-FT	2054000		

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER
NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1450	1970	1470	1000	987	1910	3180	5460	6470	6930	2950	2620
2	1450	1960	1470	1000	1090	1650	3300	5450	6580	6790	1420	2600
3	1420	1880	1620	1000	1100	1310	3270	5620	6580	6760	1550	2450
4	1490	1850	1740	997	1240	1210	3240	5640	6590	6600	1630	2690
5	1510	1850	1830	998	1250	1370	3430	5780	6570	6700	2650	2740
6	1580	1760	2010	879	1490	1400	3880	5760	6580	6930	3450	2850
7	1570	1760	2190	997	1610	1380	4030	5590	6780	6940	3260	2850
8	1540	1760	2220	909	1050	1350	4110	5600	6800	6740	3190	2780
9	1500	1800	2120	875	997	1460	4360	5760	6960	6750	3250	2600
10	1450	1810	1960	853	1160	1520	4550	5770	6940	6750	3350	2400
11	1480	1840	1880	782	1400	1940	4650	5750	6910	6760	3180	2400
12	1500	1840	1810	608	1350	1910	4660	5750	6930	6760	3010	2420
13	1520	1850	1510	605	1300	1970	4730	5750	6940	6720	2650	2520
14	1510	1850	1150	603	1020	2100	4880	5740	6910	6510	2540	2470
15	1460	1840	1120	601	1070	2530	5050	5730	6850	6460	2680	2480
16	1380	1790	892	888	1040	2710	5170	5740	6860	6480	2760	2540
17	1390	1780	887	909	1040	2740	5140	5750	6840	6490	2940	2370
18	1460	1770	876	947	1140	2840	5120	5950	6860	6470	3200	2350
19	1520	1690	813	971	1150	2770	5190	5960	6870	6300	2990	2360
20	1550	1590	790	954	1080	2750	5280	6070	6890	6080	2370	2400
21	1660	1520	716	961	1110	2830	5390	6090	7010	5810	2420	2400
22	1820	1460	774	1190	1130	2860	5570	6150	7000	5850	2650	2390
23	1970	1400	1080	1310	1180	3000	5490	6130	6990	5850	2760	2390
24	1950	1210	945	973	1280	3360	5370	6120	6970	5850	3180	2340
25	1960	1360	958	942	1470	3110	5420	6180	6990	5840	3190	2350
26	2000	1370	945	895	1600	3000	5390	6370	6980	5800	3140	2490
27	1990	1380	941	1070	1150	2960	5360	6350	6970	5350	2960	2520
28	2030	1420	1020	839	1130	2980	5300	6350	6940	4970	2860	2510
29	2090	1510	1010	796	---	3120	5400	6350	6970	4460	3090	2400
30	2040	1800	1010	737	---	3120	5450	6360	6970	3690	3000	2340
31	1950	---	1010	716	---	3130	---	6510	---	3010	2720	---
TOTAL	51190	50670	40767	27805	33614	72290	141360	183580	205500	189400	86990	75020
MEAN	1651	1689	1315	897	1200	2332	4712	5922	6850	6110	2806	2501
MAX	2090	1970	2220	1310	1610	3360	5570	6510	7010	6940	3450	2850
MIN	1380	1210	716	601	987	1210	3180	5450	6470	3010	1420	2340
AC-FT	101500	100500	80860	55150	66670	143400	280400	364100	407600	375700	172500	148800
CAL YR 1982	TOTAL	550198	MEAN	1507	MAX	2970	MIN	327	AC-FT	1091000		
WTR YR 1983	TOTAL	1158186	MEAN	3173	MAX	7010	MIN	601	AC-FT	2297000		

11196400 CALIENTE CREEK ABOVE TEHACHAPI CREEK, NEAR CALIENTE, CA

LOCATION.--Lat 35°18'41", long 118°34'10", in SE 1/4 SW 1/4 sec.17, T.30 S., R.32 E., Kern County, Hydrologic Unit 18030003, on right bank 0.5 mi upstream from Harper Canyon, 1.0 mi upstream from Oiler Canyon, and 3.6 mi northeast of Caliente.

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--October 1961 to March 5, 1983 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,617.27 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Small diversion above station for stock and domestic use. Station destroyed by flood of Mar. 1, 1983.

AVERAGE DISCHARGE.--21 years (water years 1962-82), 3.95 ft³/s, 2,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s Mar. 1, 1983, gage height, 10.72 ft from flood-marks, from rating curve extended above 3,060 ft³/s on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR PERIOD.--Peak discharges above base of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 29	Unknown	Unknown	Unknown
Feb. 6	Unknown	Unknown	Unknown
Mar. 1	Unknown	*15,500	10.72

Minimum daily, 0.58 ft³/s Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1982 TO MARCH 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	1.5	21	3.6	37	3500						
2	.72	1.4	8.7	3.5	34	1700						
3	.68	1.2	5.5	3.4	41	1000						
4	.73	1.2	4.5	3.3	25	730						
5	.75	1.4	3.9	3.1	45	450						
6	.68	1.3	3.5	3.0	52	---						
7	.82	1.3	3.2	2.9	36	---						
8	.87	1.3	2.9	2.9	39	---						
9	.72	1.6	2.5	3.0	23	---						
10	.63	1.8	2.4	2.9	18	---						
11	.58	1.6	2.3	2.9	16	---						
12	.69	1.5	2.2	2.9	14	---						
13	.65	1.4	2.2	3.0	16	---						
14	.66	1.4	2.2	3.2	14	---						
15	.66	1.5	2.1	3.3	15	---						
16	.67	1.4	2.1	3.3	15	---						
17	.77	1.4	2.1	3.2	14	---						
18	.88	1.4	2.0	3.1	12	---						
19	.88	2.3	2.0	5.4	9.5	---						
20	.87	1.8	2.0	4.4	9.7	---						
21	.91	1.7	2.0	3.8	8.9	---						
22	.88	1.6	2.3	10	8.1	---						
23	.73	1.6	6.2	15	7.6	---						
24	.85	1.6	6.7	12	8.8	---						
25	.97	1.6	6.1	10	9.6	---						
26	1.9	1.6	5.4	9.5	27	---						
27	1.6	1.6	4.8	78	39	---						
28	1.4	1.6	4.4	54	45	---						
29	1.3	2.2	4.0	100	---	---						
30	1.7	19	4.0	40	---	---						
31	2.0	---	3.8	30	---	---						
TOTAL	28.92	63.8	129.0	428.6	639.2	---						
MEAN	.93	2.13	4.16	13.8	22.8	---						
MAX	2.0	19	21	100	52	---						
MIN	.58	1.2	2.0	2.9	7.6	---						
AC-FT	57	127	256	850	1270	---						

CAL YR 1982 TOTAL 1728.65 MEAN 4.74 MAX 93 MIN 0.11 AC-FT 3430

NOTE.--No gage-height record Jan. 11 to Mar. 5.

11196420 TEHACHAPI CREEK NEAR TEHACHAPI, CA

LOCATION.--Lat 35°10'26", long 118°28'43", in NE 1/4 SW 1/4 sec.6, T.32 S., R.33 E., Kern County, Hydrologic Unit 18030003, on right bank 1.3 mi downstream from Brite Creek, and 3.2 mi northwest of Tehachapi.

DRAINAGE AREA.--53.2 mi².

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

REVISED RECORDS.--WDR CA-72-2: 1967.

GAGE.--Water-stage recorder and steel-weir in concrete channel. Datum of gage is 3,534.48 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1964, at site 0.2 mi upstream at different datum.

REMARKS.--Records good except those for Mar. 1, which are fair.

AVERAGE DISCHARGE.--21 years, 1.15 ft³/s, 833 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s Mar. 1, 1983, gage height, 4.51 ft in gage well, 6.50 ft from floodmarks, from slope-area measurement of maximum flow; no flow for parts of most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0830	35	0.87	Apr. 12	1900	24	0.68
Jan. 27	0715	141	1.34	Apr. 21	0300	11	0.61
Feb. 8	0330	47	0.93	May 1	1145	18	0.67
Mar. 1	1015	*5,560	4.51	Aug. 19	0600	149	1.37
Mar. 24	0230	501	2.25				

Minimum daily, 0.02 ft³/s Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.04	.43	.33	3.5	2030	19	11	3.9	2.6	1.0	1.2
2	.07	.04	.41	.33	3.6	586	18	7.2	3.7	2.8	1.0	1.2
3	.05	.04	.34	.33	6.4	177	17	6.8	3.7	2.8	.57	1.2
4	.04	.04	.33	.33	1.2	101	17	6.9	3.8	2.4	.39	1.3
5	.04	.04	.33	.33	9.8	63	17	6.9	3.4	1.9	.38	1.3
6	.04	.04	.31	.33	19	58	18	9.0	3.4	1.9	.41	1.3
7	.04	.04	.29	.33	6.6	57	17	7.1	3.1	2.1	.50	1.2
8	.03	.04	.23	.33	10	38	16	7.3	2.8	2.0	.19	1.2
9	.03	.15	.25	.33	3.4	42	15	7.6	2.5	2.0	.26	1.2
10	.04	.04	.24	.33	2.3	42	15	7.8	2.5	2.2	.29	1.2
11	.04	.04	.24	.33	1.5	35	17	7.7	2.7	2.2	.19	1.2
12	.04	.04	.25	.33	1.5	35	21	8.0	2.5	1.6	.15	1.1
13	.04	.04	.30	.33	2.7	30	22	8.0	2.2	1.4	.14	1.0
14	.04	.04	.30	.33	1.3	41	21	7.8	2.0	1.5	.16	.93
15	.04	.04	.25	.33	2.2	34	21	7.8	1.9	1.7	.23	.88
16	.04	.04	.24	.33	2.2	32	19	8.3	1.8	1.7	1.0	.86
17	.04	.04	.27	.33	1.9	37	16	8.5	1.9	1.4	.07	.81
18	.04	.04	.29	.33	1.7	68	15	8.6	2.0	1.6	.02	.75
19	.04	.04	.30	.49	1.2	40	11	8.5	2.3	1.7	8.3	.72
20	.04	.04	.33	.33	1.5	32	9.2	8.0	2.3	1.4	1.9	.70
21	.04	.04	.32	.33	1.3	68	8.8	8.1	2.5	1.3	1.8	.69
22	.04	.04	.44	.91	1.0	77	8.7	7.6	2.7	1.2	1.8	.75
23	.04	.04	.76	2.7	.73	72	8.3	6.6	2.7	1.2	1.7	.81
24	.04	.04	.40	.73	.94	210	8.3	5.5	2.7	1.2	1.6	.89
25	.04	.04	.33	.44	1.1	119	7.7	4.9	2.6	1.2	1.5	.86
26	.06	.04	.33	.38	6.4	67	7.2	4.6	2.6	1.5	1.4	.85
27	.04	.04	.33	35	8.8	51	6.9	4.8	2.5	1.6	1.2	.93
28	.04	.04	.33	2.5	8.6	37	7.5	4.6	2.6	1.4	1.2	1.1
29	.04	.04	.33	39	---	37	7.9	4.3	2.9	1.2	1.2	1.2
30	.04	5.8	.33	2.8	---	32	8.7	4.2	2.9	1.1	1.3	1.2
31	.04	---	.33	1.7	---	22	---	4.1	---	1.1	1.1	---
TOTAL	1.31	7.07	10.16	93.25	112.37	4370	421.2	218.1	81.1	52.9	32.95	30.53
MEAN	.042	.24	.33	3.01	4.01	141	14.0	7.04	2.70	1.71	1.06	1.02
MAX	.07	5.8	.76	.39	.19	2030	22	11	3.9	2.8	8.3	1.3
MIN	.03	.04	.23	.33	.73	22	6.9	4.1	1.8	1.1	.02	.69
AC-FT	2.6	14	20	185	223	8670	835	433	161	105	65	61
CAL YR 1982	TOTAL	366.13	MEAN	1.00	MAX	41	MIN	.01	AC-FT	726		
WTR YR 1983	TOTAL	5430.94	MEAN	14.9	MAX	2030	MIN	.02	AC-FT	10770		

TULARE LAKE BASIN

11197000 TULARE LAKE IN KINGS COUNTY, CA

LOCATION.--Lat 36°02'36", long 119°38'34", in SE 1/4 NE 1/4 sec. 1, T.22 S., R.21 E., Kings County, Hydrologic Unit 18030012, at El Rico Ranch, 6.0 mi southwest of Corcoran, and 14.2 mi southeast of Stratford.

PERIOD OF RECORD.--March 1906 to September 1920 (incomplete), February 1937 to September 1961 (elevations only), January 1969 to September 1979, October 1980 to September 1982.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929. March 1906 to September 1920, nonrecording gages at various sites at different datums. February 1937 to September 1958, water-stage recorder or nonrecording gage at various sites.

REMARKS.--Tulare Lake receives water from Kings, Kaweah, and Tule Rivers during high-water periods and occasionally from Kern River, Deer Creek and several small intermittent streams. Its natural boundary has been greatly altered by construction of levees and other reclamation work. Elevation at lowest point of lakebed is now about 175 ft lower than previously determined because of variable subsidence.

COOPERATION.--Records of contents furnished by J. G. Boswell Co. Area-capacity curves furnished by J. B. Summers, civil engineer, Corcoran, based on surveys in 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 196.8 ft June 27, 28, 1941; lake dry or practically dry for parts of 1906, 1914-16, 1919, 1937, 1946, 1950-53, 1955-56, 1958, 1969, 1971, 1978; lake dry for entire years 1920-22, 1924-36, 1947-49, 1954, 1957, 1959-61, 1972-77, 1979, 1981. Lake elevation of June 27, 28, 1941, was highest known since about 1890.

EXTREMES OUTSIDE PERIOD OF RECORD.--Historical accounts indicate that Tulare Lake under natural conditions reached an elevation of 216 ft NGVD in 1862 and 1868. This lake elevation was the highest since at least the early 1800's.

EXTREMES FOR CURRENT YEAR.--No data are available for the current water year.

11197250 AVENAL CREEK NEAR AVENAL, CA

LOCATION.--Lat 35°51'15", long 120°07'34", in SW 1/4 NW 1/4 sec.10, T.24 S., R.17 E., Kings County, Hydrologic Unit 18030011, on right bank 550 ft downstream from road ford, 0.4 mi downstream from unnamed tributary, and 10 mi south of Avenal.

DRAINAGE AREA.--57.1 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 825 ft, from topographic map.

REMARKS.--Records good except those for periods of no communication, which are poor. Minor diversions for stock above station.

AVERAGE DISCHARGE.--22 years, 3.85 ft³/s, 2,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s Feb. 24, 1969, gage height, 7.89 ft, from rating curve extended above 510 ft³/s on basis of slope-area measurements at gage heights 5.72 ft and 7.54 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 22	1730	816	4.46	Mar. 13	unknown	unknown	unknown
Jan. 27	0330	866	4.56	Mar. 23	2330	181	3.22
Feb. 8	0100	740	4.34	Apr. 28	1400	31	2.60
Mar. 1	0300	*1,780	6.30				

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.71	.01	9.5	476	21	16	6.6	3.3	1.1	1.2
2		0	.13	.01	8.0	188	22	14	6.7	3.3	1.0	1.2
3		0	.04	.01	7.0	117	21	14	6.5	3.3	1.0	1.0
4		0	0	.01	6.3	71	21	13	6.9	3.1	1.0	.98
5		0	0	.01	5.5	56	22	13	6.4	2.7	1.0	.96
6		0	0	0	29	44	22	13	6.0	2.6	1.1	.90
7		0	0	0	72	38	21	12	5.7	2.7	1.1	.93
8		0	0	0	173	36	20	12	5.6	2.9	1.1	1.0
9		0	0	0	39	31	19	11	5.6	2.9	1.1	1.1
10		0	0	0	22	28	19	11	5.1	2.9	1.1	1.0
11		0	0	0	16	27	18	11	5.0	2.5	1.2	.95
12		0	0	0	156	22	17	11	5.1	1.9	1.1	.96
13		0	0	0	127	48	16	10	4.8	1.7	1.0	.94
14		0	0	0	38	41	14	10	4.5	1.6	1.2	.93
15		0	0	0	22	34	13	9.4	4.9	1.5	1.3	.92
16		0	0	0	15	33	13	9.2	5.0	1.7	1.1	.89
17		0	0	.02	9.5	36	12	8.6	4.4	1.8	1.1	.83
18		0	0	0	7.7	47	15	8.3	4.2	1.7	1.1	.76
19		0	0	.04	7.4	40	15	8.3	4.4	1.7	2.3	.77
20		0	0	.02	6.6	36	17	8.0	4.3	1.7	1.3	.78
21		0	0	.02	5.9	39	16	7.6	4.1	1.8	1.2	.80
22		0	187	185	5.6	36	14	7.3	3.8	1.7	1.2	.84
23		0	33	73	5.2	35	13	7.0	3.6	1.6	1.2	.92
24		0	2.2	130	4.9	70	16	6.9	3.5	1.5	1.2	.99
25		0	.52	34	5.4	40	15	6.9	3.5	1.6	1.2	.79
26		0	.22	11	7.0	33	13	6.6	3.4	1.6	1.2	.75
27		0	.09	353	60	31	13	6.2	3.5	1.4	1.1	.80
28		0	.05	51	25	30	22	5.9	3.7	1.3	.96	.96
29		0	.02	32	---	28	18	6.1	3.7	1.3	.99	1.0
30		5.5	.01	17	---	25	17	6.1	3.4	1.2	1.1	2.8
31		---	.01	11	---	23	---	6.3	---	1.2	1.4	---
TOTAL	0	5.5	224.00	897.15	895.5	1839	515	295.7	143.9	63.7	36.05	29.65
MEAN	0	.18	7.23	28.9	32.0	59.3	17.2	9.54	4.80	2.05	1.16	.99
MAX	0	5.5	187	353	173	476	22	16	6.9	3.3	2.3	2.8
MIN	0	0	0	0	4.9	22	12	5.9	3.4	1.2	.96	.75
AC-FT	0	11	444	1780	1780	3650	1020	587	285	126	72	59

CAL YR 1982 TOTAL 1039.07 MEAN 2.85 MAX 200 MIN 0 AC-FT 2060
WTR YR 1983 TOTAL 4945.15 MEAN 13.5 MAX 476 MIN 0 AC-FT 9810

NOTE.--No communication Feb. 1-5, Feb. 18-26, Mar. 7-23, Mar. 25 to Apr. 12.

TULARE LAKE BASIN

11197800 POSO CREEK NEAR OILDALE, CA

LOCATION.--Lat 35°30'49", long 118°54'17", in SW 1/4 SW 1/4 sec.6, T.28 S., R.29 E., Kern County, Hydrologic Unit 18030012, on downstream side of highway bridge opposite mouth of Hillvale Canyon, 10 mi northeast of Oildale, and 12 mi northeast of Bakersfield.

DRAINAGE AREA.--230 mi².

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

REVISED RECORDS.--WSP 1735: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 700 ft, from topographic map.

REMARKS.--Records fair. Oilfield waste comprises most of low flow.

AVERAGE DISCHARGE.--24 years, 38.7 ft³/s, 28,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,700 ft³/s Feb. 25, 1969, gage height, 12.85 ft, from rating curve extended above 1,240 ft³/s on basis of contracted-opening measurement at gage height 11.57 ft; no flow for many days in 1975-82.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 4, 1958, reached a stage of 8.6 ft from floodmarks, discharge, 2,750 ft³/s, furnished by Kern County Land Co.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 20	0530	91	7.87	Mar. 1	1730	1,810	11.70
Dec. 1	0145	840	10.07	Mar. 14	0845	1,430	10.92
Dec. 23	1730	887	10.15	Mar. 24	1130	1,710	11.22
Jan. 23	1030	1,920	11.44	May 2	0300	422	8.47
Feb. 7	0945	*3,350	12.56	Aug. 19	1430	213	7.57

Minimum daily, 4.4 ft³/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	43	516	82	259	997	725	373	185	84	28	28
2	8.7	29	208	77	215	1030	677	380	184	83	27	28
3	9.5	23	127	73	189	870	627	329	181	87	23	26
4	8.2	18	106	70	161	977	572	311	176	83	22	24
5	7.5	15	95	68	145	706	520	296	170	75	20	22
6	8.0	15	88	66	173	577	472	306	161	73	20	21
7	8.0	15	84	65	2000	552	434	299	154	71	20	19
8	7.4	15	79	63	1190	455	406	273	149	69	19	17
9	7.7	17	73	63	784	365	385	264	145	67	19	18
10	6.9	19	72	61	552	321	369	254	141	63	26	18
11	5.7	18	73	58	444	303	373	243	139	58	27	15
12	5.6	18	69	56	380	279	416	229	144	55	22	13
13	4.9	17	67	54	566	258	409	223	135	53	17	13
14	5.3	16	65	53	515	946	404	223	126	52	15	8.4
15	5.2	16	61	51	401	543	374	215	119	51	21	9.0
16	5.7	15	56	48	348	415	338	211	118	51	25	9.6
17	5.9	15	53	49	312	469	306	208	112	52	47	7.9
18	6.2	17	50	49	295	915	298	203	110	51	44	6.2
19	7.8	37	48	63	307	839	284	200	108	49	109	6.3
20	6.7	78	46	77	273	663	274	200	107	48	103	6.4
21	6.6	54	44	65	253	770	312	199	104	47	69	5.9
22	6.2	44	60	69	241	840	293	203	101	44	58	4.4
23	6.8	40	517	716	230	1100	269	206	99	40	53	6.3
24	7.7	37	392	284	225	1420	271	207	97	38	48	7.6
25	8.0	33	210	239	284	1350	262	209	95	36	44	8.8
26	12	31	153	159	550	1100	244	210	92	35	39	8.9
27	22	28	128	318	706	937	230	204	90	36	36	9.8
28	24	27	113	957	773	903	226	198	88	36	34	14
29	20	43	103	464	---	808	233	195	86	34	31	16
30	21	211	97	392	---	743	292	190	85	32	31	35
31	32	---	89	305	---	754	---	187	---	29	29	---
TOTAL	307.2	1004	3942	5214	12771	23205	11295	7448	3801	1682	1126	432.5
MEAN	9.91	33.5	127	168	456	749	376	240	127	54.3	36.3	14.4
MAX	32	211	517	957	2000	1420	725	380	185	87	109	35
MIN	4.9	15	44	48	145	258	226	187	85	29	15	4.4
AC-FT	609	1990	7820	10340	25330	46030	22400	14770	7540	3340	2230	858

CAL YR 1982	TOTAL	26691.71	MEAN	73.1	MAX	1620	MIN	0	AC-FT	52940
WTR YR 1983	TOTAL	72227.7	MEAN	198	MAX	2000	MIN	4.4	AC-FT	143300

11199500 WHITE RIVER NEAR DUCOR, CA

LOCATION.--Lat 35°48'36", long 118°55'03", in NW 1/4 SE 1/4 sec.26, T.24 S., R.28 E., Tulare County, Hydrologic Unit 18030012, on left bank 0.6 mi upstream from Tyler Gulch, and 9.0 mi southeast of Ducor.

DRAINAGE AREA.--90.6 mi².

PERIOD OF RECORD.--October 1942 to September 1953, February 1971 to current year. Monthly discharge only for October 1942 to September 1944, published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 715 ft, from topographic map. October 1942 to September 1946, at site 3,800 ft downstream and October 1946 to September 1953, at site 4,300 ft downstream, and October 1971 to November 1978, at site 4,000 ft downstream, all at different datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--23 years (water years 1943-53, 1972-83), 11.2 ft³/s, 8,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s, estimated by Bureau of Reclamation, Mar. 9, 1943; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	1130	31	1.82	Mar. 1	1000	284	3.02
Nov. 30	1300	209	2.67	Mar. 18	0015	357	3.41
Dec. 23	0030	233	2.80	Apr. 12	0300	117	2.02
Jan. 23	0045	*757	5.18	May 1	0530	113	2.00
Feb. 7	0215	516	4.15	Aug. 18	2345	135	2.13

Minimum daily, 1.0 ft³/s Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	6.4	92	14	64	175	126	87	49	19	7.4	6.2
2	1.7	4.2	31	14	53	144	120	69	47	19	6.9	6.9
3	1.9	3.1	20	13	47	140	113	64	47	20	6.5	6.7
4	1.6	2.5	18	13	43	153	107	62	44	19	6.3	6.5
5	1.5	2.2	15	12	40	131	100	58	43	17	6.2	5.8
6	1.5	2.1	14	12	89	143	89	64	42	16	6.0	5.3
7	1.6	2.0	13	12	324	141	82	59	41	16	5.8	4.8
8	1.5	2.0	12	12	235	125	75	56	40	16	6.4	4.8
9	1.5	2.6	11	12	169	116	72	55	39	15	6.2	4.8
10	1.4	3.6	11	11	141	110	71	55	38	15	7.9	5.0
11	1.3	3.2	11	11	122	111	72	54	38	14	6.4	4.9
12	1.2	3.1	11	11	108	102	104	54	35	13	5.4	4.4
13	1.0	3.3	11	10	151	128	77	53	33	12	4.8	4.0
14	1.1	3.2	10	10	116	169	70	52	31	12	5.3	4.0
15	1.1	3.3	9.9	9.8	102	126	68	51	29	11	7.4	3.7
16	1.1	3.2	9.4	9.9	84	118	65	51	28	11	6.6	3.5
17	1.2	2.8	9.2	10	74	171	63	50	27	11	9.5	3.1
18	1.4	2.5	9.0	9.8	78	249	63	49	26	11	9.9	3.1
19	1.5	14	9.0	17	72	189	62	49	26	11	30	3.2
20	1.5	8.8	9.0	14	67	161	63	50	24	11	15	3.4
21	1.5	5.7	9.1	12	62	223	74	50	23	11	11	3.6
22	1.5	4.7	35	66	58	197	62	52	22	11	10	3.7
23	1.5	4.4	152	234	56	231	60	53	22	10	9.9	4.5
24	1.4	4.0	50	88	54	234	61	54	22	9.3	9.2	5.3
25	1.6	3.6	31	75	68	221	58	54	21	9.1	8.7	5.4
26	4.5	3.5	26	53	107	184	56	53	20	9.4	8.2	5.7
27	8.7	3.4	22	284	151	167	54	52	20	9.2	7.8	6.4
28	3.5	3.4	19	203	143	165	54	52	20	8.8	7.1	6.9
29	2.4	11	18	157	---	149	55	51	20	8.4	6.7	9.0
30	3.4	84	17	120	---	141	71	51	19	8.2	6.5	16
31	12	---	16	84	---	134	---	51	---	7.9	6.3	---
TOTAL	70.6	205.8	730.6	1613.5	2878	4948	2267	1715	936	391.3	257.3	160.6
MEAN	2.28	6.86	23.6	52.0	103	160	75.6	55.3	31.2	12.6	8.30	5.35
MAX	12	84	152	284	324	249	126	87	49	20	30	16
MIN	1.0	2.0	9.0	9.8	40	102	54	49	19	7.9	4.8	3.1
AC-FT	140	408	1450	3200	5710	9810	4500	3400	1860	776	510	319

CAL YR 1982	TOTAL	5368.18	MEAN	14.7	MAX	171	MIN	0	AC-FT	10650
WTR YR 1983	TOTAL	16173.7	MEAN	44.3	MAX	324	MIN	1.0	AC-FT	32080

TULARE LAKE BASIN

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CA

LOCATION.--Lat 35°56'30", long 118°49'19", in SE 1/4 NE 1/4 sec.10, T.23 S., R.29 E., Tulare County, Hydrologic Unit 18030005, on left bank 1.0 mi upstream from Pothole Creek, 6.3 mi northeast of Fountain Springs, and 12 mi east of Terra Bella.

DRAINAGE AREA.--83.3 mi².

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 980 ft, from topographic map.

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

AVERAGE DISCHARGE.--15 years, 39.8 ft³/s, 28,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft³/s Feb. 24, 1969, gage height, 9.85 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurements at gage heights 8.83 ft in gage well, 9.18 ft from floodmarks, and 12.54 ft from floodmarks; no flow Aug. 14-22, 1968 and for several months in 1972, 1976-77.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 6, 1966, reached a stage of 12.54 ft, from floodmarks, discharge, 5,330 ft³/s.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	0545	244	4.45	Feb. 27	1130	786	6.14
Nov. 30	0945	1,400	7.29	Mar. 13	2215	856	6.29
Dec. 23	0200	1,050	6.66	Mar. 24	0300	999	6.51
Jan. 22	2315	1,870	7.99	Apr. 30	0315	306	4.75
Feb. 7	0400	*2,290	8.56	Aug. 19	0300	100	3.70

Minimum daily, 7.9 ft³/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	27	206	63	170	483	407	264	166	79	32	24
2	12	22	103	60	154	386	393	230	161	79	31	25
3	11	19	75	59	143	370	366	214	156	79	29	24
4	11	17	71	56	131	397	340	212	151	74	31	23
5	10	17	62	55	131	342	312	202	146	67	30	20
6	10	16	61	55	366	384	289	226	143	67	29	20
7	10	16	59	54	1440	355	277	200	139	66	28	19
8	10	15	53	54	886	319	265	194	139	66	29	20
9	10	16	49	53	544	299	257	192	136	64	29	20
10	10	17	49	50	405	285	253	187	136	61	36	20
11	10	16	46	48	328	278	263	178	136	58	31	19
12	10	16	45	46	289	259	280	170	131	57	27	17
13	9.9	16	45	45	522	400	251	169	124	54	26	16
14	9.4	15	42	44	344	467	242	167	121	51	27	16
15	9.1	15	39	42	294	341	232	164	118	51	30	16
16	8.3	15	36	42	264	339	224	164	118	50	28	16
17	7.9	14	35	42	242	425	219	160	115	48	39	17
18	8.9	15	33	41	261	555	221	158	113	48	37	15
19	9.1	101	32	68	243	462	211	160	112	48	67	15
20	9.1	40	32	51	217	408	221	161	106	48	48	15
21	9.4	29	32	46	200	608	246	163	105	47	40	16
22	9.5	25	303	321	189	567	214	166	103	45	38	16
23	9.5	23	503	510	182	673	205	170	100	42	35	16
24	9.5	22	179	278	184	775	217	172	98	42	32	17
25	9.5	21	126	218	212	641	204	176	93	39	30	18
26	41	20	106	167	378	558	195	177	89	40	28	18
27	31	19	93	609	569	508	187	175	87	40	29	18
28	20	19	83	382	482	520	186	175	86	39	27	19
29	17	58	79	295	---	453	197	171	86	37	25	29
30	33	456	74	228	---	440	249	171	83	37	25	43
31	55	---	68	191	---	433	---	169	---	35	23	---
TOTAL	443.1	1137	2819	4273	9770	13730	7623	5657	3597	1658	996	587
MEAN	14.3	37.9	90.9	138	349	443	254	182	120	53.5	32.1	19.6
MAX	55	456	503	609	1440	775	407	264	166	79	67	43
MIN	7.9	14	32	41	131	259	186	158	83	35	23	15
AC-FT	879	2260	5590	8480	19380	27230	15120	11220	7130	3290	1980	1160

CAL YR 1982	TOTAL	18744.9	MEAN	51.4	MAX	654	MIN	4.1	AC-FT	37180
WTR YR 1983	TOTAL	52290.1	MEAN	143	MAX	1440	MIN	7.9	AC-FT	103700

11201200 DEER CREEK DIVERSION NEAR TERRA BELLA, CA

LOCATION.--Lat 35°59'27", long 118°59'06", in NE 1/4 NE 1/4 sec.30, T.22 S., R.28 E., Tulare County, Hydrologic Unit 18030012, on right bank 1,000 ft downstream from diversion structure, 3.8 mi northeast of Terra Bella.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 510 ft, from topographic map.

REMARKS.--Records fair. Diversion receives water from Deer Creek 1,000 ft upstream. Water is used for ground-water recharge.

AVERAGE DISCHARGE.--13 years, 2.08 ft³/s, 1,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 16 ft³/s Sept. 30, 1983; no flow for several months in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3		0	0	0	11	7.7	.36	0	9.9	.85	6.3
2	2.2		0	0	0	10	7.9	.25	0	11	.88	7.2
3	2.7		0	0	4.7	9.0	7.7	.21	0	11	.69	6.9
4	2.5		0	4.8	8.1	7.6	6.6	.19	0	8.8	.63	6.8
5	2.5		0	8.7	7.7	3.8	4.9	.15	0	9.0	1.2	5.8
6	2.5		0	8.6	11	2.6	3.1	.21	5.6	8.6	.81	4.5
7	1.2		0	8.4	8.2	2.7	1.8	.14	7.4	8.8	.30	5.5
8	1.4		0	8.4	8.0	3.0	.28	.08	7.9	8.4	3.8	6.9
9	1.9		0	8.3	7.0	3.0	.07	0	8.9	8.1	5.6	6.8
10	1.6		0	8.1	5.5	3.4	0	0	9.9	7.5	5.5	6.8
11	1.4		0	8.0	4.6	4.9	0	.02	11	6.8	3.2	6.5
12	1.3		0	7.7	4.0	3.8	.09	0	12	6.4	5.7	5.5
13	1.3		0	7.6	4.9	1.4	0	0	12	6.3	7.0	6.0
14	1.3		0	7.5	2.9	6.5	0	0	12	5.5	7.1	7.3
15	1.1		2.2	7.4	2.5	3.8	0	0	12	5.5	9.9	7.4
16	.84		5.9	7.3	1.7	6.4	0	0	13	5.6	9.5	7.0
17	0		5.6	7.3	.81	5.8	0	0	13	5.1	10	7.1
18	0		5.2	7.4	.52	7.4	0	0	13	5.0	10	6.7
19	.89		5.1	9.6	.01	6.6	0	0	13	4.9	15	6.5
20	1.3		4.9	8.5	.10	7.9	0	0	13	4.7	15	6.7
21	1.5		4.9	5.6	.04	7.9	.47	0	13	5.3	13	6.9
22	1.7		7.6	4.2	.02	7.6	.19	0	14	3.6	12	7.4
23	1.6		5.5	2.0	.02	7.4	.05	0	13	4.4	11	7.4
24	2.0		.06	.25	0	7.2	.03	0	14	4.5	11	7.6
25	1.6		0	.21	.10	6.6	0	0	14	3.6	10	8.0
26	0		0	1.3	2.5	8.6	0	0	14	3.7	9.0	8.2
27	0		0	8.5	3.2	9.2	0	0	11	3.8	8.6	8.2
28	0		0	6.1	7.0	8.5	0	0	7.0	3.6	7.7	8.5
29	0		0	3.6	---	9.0	0	0	9.0	3.8	7.6	11
30	0		0	1.8	---	8.6	.14	0	10	3.7	7.5	16
31	0		0	.01	---	8.5	---	0	---	2.6	6.5	---
TOTAL	38.63	0	46.96	167.17	95.12	199.7	41.02	1.61	282.7	189.5	216.56	219.4
MEAN	1.25	0	1.51	5.39	3.40	6.44	1.37	.052	9.42	6.11	6.99	7.31
MAX	2.7	0	7.6	9.6	11	11	7.9	.36	14	11	15	16
MIN	0	0	0	0	0	1.4	0	0	0	2.6	.30	4.5
AC-FT	77	0	93	332	189	396	81	3.2	561	376	430	435
CAL YR 1982	TOTAL	1641.18	MEAN	4.50	MAX	15	MIN	0	AC-FT	3260		
WTR YR 1983	TOTAL	1498.37	MEAN	4.11	MAX	16	MIN	0	AC-FT	2970		

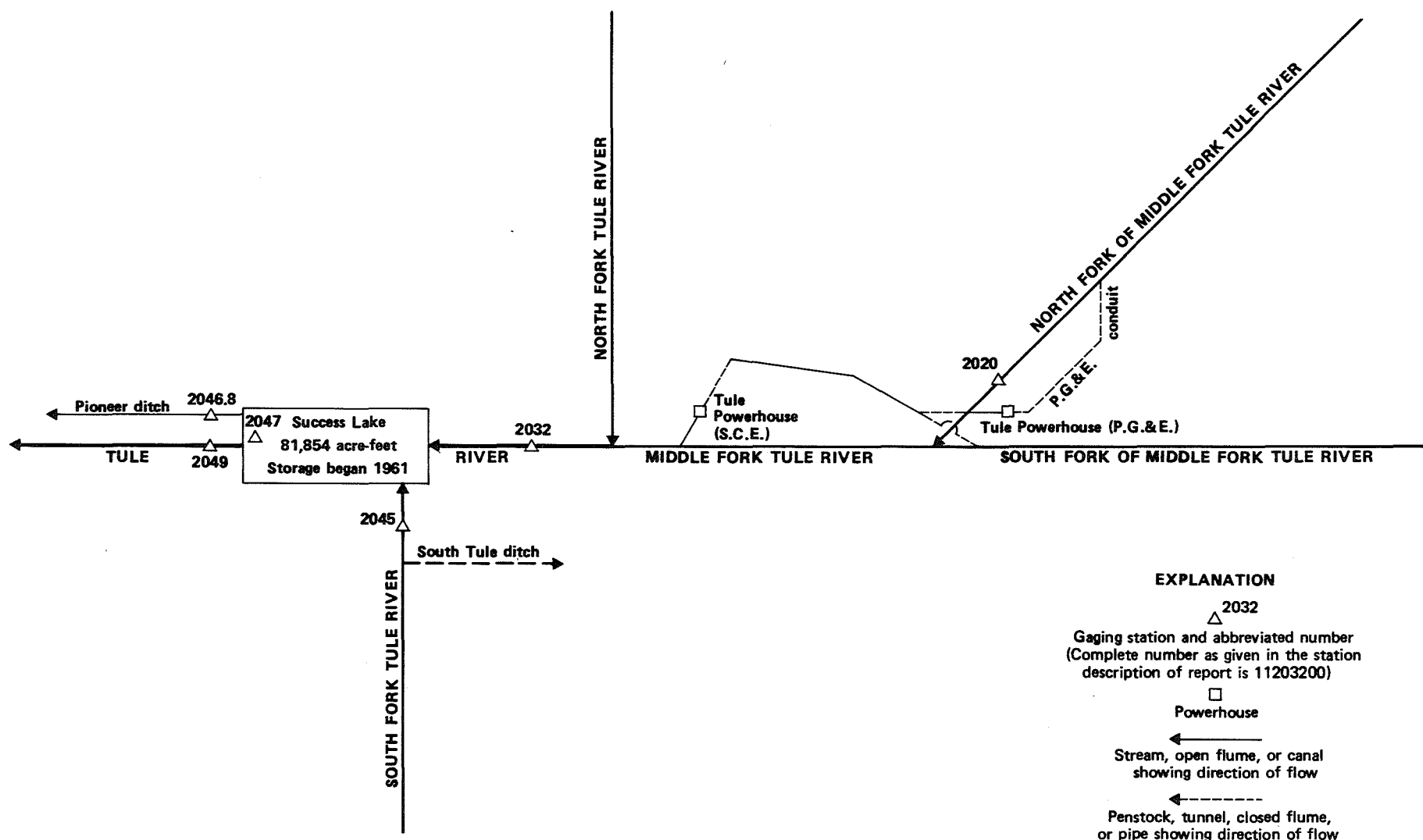


FIGURE 5. — Schematic diagram showing diversions and storage in Tule River basin.

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CA

LOCATION.--Lat 36°10'29", long 118°41'41", in T.20 S., R.30 E., unsurveyed, Tulare County, Hydrologic Unit 18030006, on right bank 1.2 mi upstream from mouth, 2.2 mi downstream from Hossack Creek, and 7.4 mi northeast of Springville.

DRAINAGE AREA.--39.3 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A. January 1909 to December 1912 at site 2 mi upstream, records not equivalent. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960. Prior to October 1982, combined flow consisted of river and Tule River conduit.

REVISED RECORDS.--WSP 1445: 1951.

GAGE.--Water-stage recorder. Concrete control on river since Aug. 6, 1958. Altitude of gage is 2,920 ft, from topographic map.

REMARKS.--See schematic diagram of Tule River basin. For records of combined discharge of river and powerplant, see following page.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--River only: 44 years, 28.3 ft³/s, 20,500 acre-ft/yr.
Combined river and diversion: 44 years, 60.6 ft³/s, 43,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 16,900 ft³/s Dec. 6, 1966, gage height, 13.83 ft, from floodmarks, from rating curve extended above 1,820 ft³/s on basis of critical-depth determinations at gage heights 9.67 ft and 12.47 ft; no flow Sept. 10, 11, 1955.

Combined flow: Maximum discharge, 16,900 ft³/s Dec. 6, 1966; minimum daily, 6.7 ft³/s Aug. 15, 1977.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 920 ft³/s Dec. 22, gage height, 6.02 ft; minimum daily, 3.0 ft³/s Oct. 17.

Combined flow: Maximum discharge, 920 ft³/s Dec. 22; minimum daily, 21 ft³/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	23	103	22	61	203	142	116	397	223	32	9.9
2	5.4	11	50	19	53	173	134	107	339	223	29	9.8
3	4.8	4.8	33	15	47	162	128	104	320	214	26	9.7
4	4.7	5.2	29	12	41	155	117	112	293	218	23	9.5
5	5.2	5.0	24	12	39	142	108	109	291	230	20	9.4
6	4.1	4.7	22	12	56	128	99	106	320	219	16	9.1
7	4.6	4.5	19	12	172	124	92	103	346	193	16	8.9
8	5.4	4.4	15	13	162	115	88	116	357	171	23	8.8
9	5.5	6.2	13	13	123	114	87	119	362	157	20	8.8
10	6.7	4.5	12	12	103	119	87	124	374	142	17	8.8
11	6.0	4.1	10	12	90	120	85	112	369	137	12	8.7
12	4.2	4.1	10	12	87	114	81	108	328	135	11	8.5
13	6.1	4.1	10	14	177	212	75	113	309	135	11	8.5
14	3.8	3.9	9.4	14	137	290	71	111	318	131	11	8.4
15	4.3	3.8	31	11	117	202	68	120	326	125	11	8.3
16	4.0	3.7	59	13	104	184	70	132	341	118	11	8.3
17	3.0	3.7	57	12	97	182	77	141	360	108	11	8.3
18	4.1	12	55	11	105	173	83	162	367	98	11	8.2
19	3.8	116	54	18	95	154	79	190	346	86	11	8.1
20	3.4	16	54	11	88	141	86	244	320	80	11	8.1
21	3.6	7.7	58	10	84	148	107	289	304	75	11	8.6
22	3.3	6.4	447	149	83	140	95	344	293	72	11	9.7
23	3.8	5.7	364	191	84	134	100	387	289	67	11	8.0
24	3.4	5.2	186	200	84	150	111	433	280	62	10	7.9
25	3.9	4.8	146	162	100	131	102	454	270	57	9.9	8.1
26	143	4.5	126	120	145	119	96	467	267	53	11	8.1
27	18	4.3	93	134	252	115	93	498	261	49	10	9.0
28	4.9	4.8	46	106	208	121	102	517	253	46	10	12
29	5.1	15	40	101	---	113	109	507	251	43	10	15
30	91	336	32	83	---	117	122	483	237	40	9.9	16
31	62	---	26	71	---	141	---	461	---	36	9.8	---
TOTAL	436.7	639.1	2233.4	1597	2994	4636	2894	7389	9488	3743	446.6	278.5
MEAN	14.1	21.3	72.0	51.5	107	150	96.5	238	316	121	14.4	9.28
MAX	143	336	447	200	252	290	142	517	397	230	32	16
MIN	3.0	3.7	9.4	10	39	113	68	103	237	36	9.8	7.9
AC-FT	866	1270	4430	3170	5940	9200	5740	14660	18820	7420	886	552
CAL YR 1982	TOTAL	19153.4	MEAN	52.5	MAX	1520	MIN	3.0	AC-FT	37990		
WTR YR 1983	TOTAL	36775.3	MEAN	101	MAX	517	MIN	3.0	AC-FT	72940		

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS AND ELECTRIC CO. TULE RIVER POWERHOUSE NEAR SPRINGVILLE, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	92	172	89	129	269	187	183	466	290	98	50
2	35	76	119	85	122	241	202	175	407	290	95	50
3	31	65	100	81	115	230	196	173	388	281	93	49
4	33	56	97	79	109	223	185	181	361	285	89	49
5	32	56	92	80	107	210	176	177	359	297	84	47
6	31	49	90	80	124	197	167	174	388	286	83	45
7	28	46	87	80	241	192	160	171	410	260	83	46
8	30	46	82	81	230	183	156	184	424	238	90	45
9	28	43	78	81	191	181	155	187	429	223	86	44
10	29	47	76	80	171	187	155	192	441	209	84	43
11	26	43	76	80	158	189	153	180	436	204	78	43
12	26	42	77	80	156	182	148	176	395	201	75	42
13	27	40	77	82	245	280	143	181	377	201	72	42
14	27	40	72	81	205	358	139	179	386	197	73	41
15	27	38	59	80	178	270	136	188	394	191	74	42
16	26	37	59	81	173	252	138	200	409	184	69	41
17	25	36	57	80	165	250	145	209	426	173	73	40
18	25	53	55	78	173	241	151	230	435	164	70	40
19	25	176	54	86	163	222	147	258	414	152	72	39
20	25	79	54	78	156	210	154	312	387	146	69	40
21	26	55	58	73	152	216	175	357	370	140	67	39
22	25	57	447	218	151	208	164	412	361	137	66	21
23	24	53	364	259	153	202	168	455	357	132	63	32
24	25	52	186	268	152	218	177	502	348	128	61	39
25	33	47	146	230	168	199	170	522	338	123	58	37
26	189	47	126	188	213	187	164	535	335	119	58	40
27	86	45	102	202	320	183	161	566	329	115	54	43
28	58	48	114	174	274	189	170	586	321	112	54	37
29	52	74	108	143	---	181	176	576	319	109	53	55
30	154	379	100	151	---	176	191	552	305	106	50	58
31	129	---	94	139	---	175	---	529	---	102	46	---
TOTAL	1373	2017	3478	3667	4894	6701	4909	9502	11515	5795	2240	1279
MEAN	44.3	67.2	112	118	175	216	164	307	384	187	72.3	42.6
MAX	189	379	447	268	320	358	202	586	466	297	98	58
MIN	24	36	54	73	107	175	136	171	305	102	46	21
AC-FT	2720	4000	6900	7270	9710	13290	9740	18850	22840	11490	4440	2540
CAL YR 1982	TOTAL	35995	MEAN	98.6	MAX	1550	MIN	19	AC-FT	71400		
WTR YR 1983	TOTAL	57370	MEAN	157	MAX	586	MIN	21	AC-FT	113800		

11203200 TULE RIVER NEAR SPRINGVILLE, CA

LOCATION.--Lat 36°06'02", long 118°52'07", in NE 1/4 SW 1/4 sec.17, T.21 S., R.29 E., Tulare County, Hydrologic Unit 18030006, on left bank 10 ft downstream from highway bridge, 3.5 mi southwest of Springville, and 4.1 mi upstream from Success Dam.

DRAINAGE AREA.--247 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft, from topographic map. Prior to Mar. 20, 1968, at site 1.9 mi upstream at different datum.

REMARKS.--Records good. Many small diversions above station for irrigation. Power is developed on Middle Fork and tributaries. Diversion to Tule River diversion ditch starts 400 ft upstream most of which is returned to the river 0.5 mi downstream. Records since Mar. 20, 1968, include flow diverted to Tule River diversion ditch.

AVERAGE DISCHARGE.--26 years, 166 ft³/s, 120,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s Dec. 6, 1966, gage height, 17.18 ft in gage well, 19.7 ft from floodmarks, site and datum then in use, from rating curve extended above 7,400 ft³/s on basis of slope-area measurement of maximum flow; no flow many days in 1961 and Aug. 16, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1955 reached a stage of 13.7 ft previous site and datum, from floodmarks, discharge, 21,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	1300	1,330	6.91	Feb. 7	0700	3,920	8.82
Nov. 19	0400	3,370	8.35	Feb. 27	1000	2,390	8.00
Nov. 30	1000	7,850	10.09	Mar. 13	2345	2,740	8.22
Dec. 22	2030	10,200	10.69	Apr. 21	0445	1,520	7.23
Jan. 22	2315	*11,300	10.90	May 28	0045	1,670	7.41

Minimum daily, 42 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	265	1240	333	733	1650	986	868	1190	604	186	101
2	75	195	694	314	643	1310	980	808	1070	599	176	100
3	70	161	499	299	579	1250	946	753	1020	582	173	98
4	65	139	454	286	535	1290	888	789	963	569	166	94
5	61	129	400	270	517	1140	834	761	957	578	161	90
6	59	118	374	264	865	1020	778	761	1010	561	155	88
7	57	114	357	261	2590	1030	726	698	1060	520	151	83
8	56	107	323	261	1770	932	679	739	1110	483	158	83
9	56	108	295	260	1180	893	654	748	1100	451	172	82
10	53	113	280	256	1010	887	647	762	1090	417	170	82
11	51	106	264	247	905	877	650	694	1060	399	155	78
12	52	99	256	244	855	842	679	651	1000	387	144	74
13	48	96	250	240	1420	1180	604	663	960	377	138	72
14	49	95	239	237	1070	1610	577	654	930	365	136	72
15	47	90	217	234	943	1130	554	668	951	353	148	71
16	47	89	207	233	866	1080	554	718	971	339	143	71
17	47	86	199	238	810	1270	572	742	1000	323	155	71
18	46	113	193	228	845	1540	611	807	983	304	139	68
19	44	1110	188	363	795	1270	586	872	951	287	155	66
20	42	331	183	265	712	1080	605	983	908	277	158	62
21	43	228	182	237	660	1430	1020	1070	866	263	148	62
22	43	188	3470	2010	621	1240	756	1180	825	256	145	67
23	43	170	2910	2320	605	1180	707	1290	794	245	140	70
24	43	155	1080	1930	596	1470	785	1380	773	237	133	72
25	52	144	774	1290	666	1290	719	1410	742	227	125	72
26	532	135	635	965	1120	1110	664	1420	721	222	120	71
27	305	128	537	2630	1740	1050	633	1480	701	217	114	72
28	180	129	473	1320	1520	1070	675	1520	680	212	108	76
29	139	352	430	1270	---	998	701	1460	659	206	105	93
30	338	3090	397	973	---	982	899	1400	634	200	103	157
31	491	---	361	843	---	1010	---	1340	---	193	102	---
TOTAL	3315	8383	18361	21121	27171	36111	21669	30089	27679	11253	4482	2418
MEAN	107	279	592	681	970	1165	722	971	923	363	145	80.6
MAX	532	3090	3470	2630	2590	1650	1020	1520	1190	604	186	157
MIN	42	86	182	228	517	842	554	651	634	193	102	62
AC-FT	6580	16630	36420	41890	53890	71630	42980	59680	54900	22320	8890	4800
CAL YR 1982	TOTAL	115414	MEAN	316	MAX	6380	MIN	19	AC-FT	228900		
WTR YR 1983	TOTAL	212052	MEAN	581	MAX	3470	MIN	42	AC-FT	420600		

TULARE LAKE BASIN

11203200 TULE RIVER NEAR SPRINGVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1969 to current year.

CHEMICAL ANALYSES: Water years 1964-66.

WATER TEMPERATURES: Water years 1966-67, 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to September 1967, October 1968 to current year.

INSTRUMENTATION.--Temperature recorder October 1965 to September 1967, and since October 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 35.5°C July 1, 1972; minimum recorded, 2.5°C Jan. 5-8, 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.0°C Aug. 8, 16, 17; minimum recorded, 4.5°C Dec. 25, 31.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	15.5	12.5	11.5	7.5	7.0	6.0	5.0	8.5	7.0	9.5	9.0
2	16.0	15.5	13.0	11.5	7.5	6.5	6.0	5.0	8.5	7.5	10.0	8.5
3	16.0	15.5	12.0	10.5	8.0	6.0	6.0	5.0	8.5	7.5	10.5	9.0
4	16.0	15.5	12.0	10.5	8.0	6.5	6.0	5.5	8.5	7.0	10.0	8.5
5	16.0	15.5	11.5	10.5	8.5	6.5	7.0	5.5	8.0	7.0	11.0	7.5
6	16.0	15.5	11.5	10.0	8.5	7.5	8.0	6.5	8.0	7.5	10.5	8.5
7	15.5	15.5	11.0	10.0	8.5	7.5	7.5	7.0	9.5	8.5	12.5	9.5
8	15.5	15.0	11.5	10.5	7.5	6.0	7.0	6.5	9.0	7.5	12.0	9.5
9	15.0	14.5	11.0	9.5	7.5	5.5	7.0	6.0	9.5	7.5	13.0	9.5
10	15.0	14.5	10.0	9.0	9.0	7.0	7.0	6.0	10.0	7.5	13.0	10.5
11	15.0	14.5	9.5	8.0	8.5	7.0	7.5	5.5	10.0	8.5	13.0	11.0
12	15.0	14.5	9.0	8.0	8.5	7.0	7.5	6.0	10.0	9.5	12.0	10.0
13	17.0	14.5	9.0	7.5	8.5	8.0	7.5	6.0	10.0	10.0	12.0	10.5
14	16.5	13.5	9.5	8.5	8.5	7.0	7.5	6.0	10.0	9.5	11.5	9.0
15	16.5	13.5	9.0	7.5	7.0	6.0	8.5	6.5	9.5	9.0	9.5	7.0
16	16.5	13.5	9.5	8.5	7.0	5.5	9.0	8.0	10.0	9.5	10.5	7.0
17	16.0	13.5	9.5	8.5	7.5	6.0	8.5	7.5	10.0	9.5	10.5	8.5
18	16.0	13.5	9.5	9.0	8.0	6.5	8.5	6.5	10.0	10.0	9.5	8.0
19	17.0	14.0	10.0	9.5	8.5	7.5	8.5	7.5	10.0	9.5	10.5	8.0
20	16.5	14.0	10.5	9.5	8.5	7.0	7.5	6.0	9.5	9.0	9.5	7.5
21	16.0	14.0	10.5	9.5	8.5	8.0	7.0	5.5	10.0	9.5	9.5	8.5
22	17.0	14.5	10.0	8.5	9.5	8.5	8.5	7.0	10.0	9.5	9.0	7.0
23	17.5	15.0	9.5	8.0	9.0	6.0	9.5	7.0	10.5	9.5	9.0	7.0
24	17.0	15.5	9.5	8.5	6.0	5.0	9.5	8.0	10.5	9.5	9.0	8.0
25	17.5	15.5	10.0	9.0	6.0	4.5	9.0	6.5	9.5	9.0	9.0	7.5
26	16.5	12.5	9.0	7.5	7.0	5.0	10.0	9.0	9.5	9.0	10.0	7.0
27	12.0	10.5	9.5	7.5	7.0	5.5	10.0	7.5	10.0	9.0	11.0	8.5
28	12.0	10.0	11.0	9.5	7.5	6.0	8.5	6.5	10.0	8.0	10.5	9.5
29	12.5	10.5	11.0	10.5	8.0	7.0	9.0	7.5	---	---	12.0	8.0
30	13.0	12.5	10.5	7.5	7.5	6.5	8.5	7.0	---	---	13.5	8.5
31	13.0	12.0	---	---	6.5	4.5	9.0	7.0	---	---	13.0	10.0
MONTH	17.5	10.0	13.0	7.5	9.5	4.5	10.0	5.0	10.5	7.0	13.5	7.0

11203200 TULE RIVER NEAR SPRINGVILLE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	9.5	10.5	9.0	---	---	16.0	13.5	22.5	19.0	22.5	20.0
2	12.0	10.0	11.5	9.0	---	---	15.5	13.5	22.5	19.0	22.5	20.0
3	10.5	9.0	14.0	9.5	---	---	17.0	13.5	22.5	19.0	22.5	20.0
4	10.0	7.0	13.0	10.0	---	---	18.0	14.5	22.5	19.5	22.5	19.5
5	10.5	8.0	11.0	9.0	---	---	18.5	15.5	22.5	19.0	23.0	19.5
6	11.0	7.0	11.0	9.0	---	---	18.0	15.5	22.0	19.5	23.0	19.5
7	11.0	8.0	13.5	8.5	---	---	17.0	15.0	22.5	20.0	22.5	19.5
8	12.0	8.0	12.5	11.0	---	---	16.5	14.0	24.0	20.5	22.5	19.5
9	12.0	9.0	11.0	9.5	---	---	16.5	14.0	22.5	20.0	22.0	19.5
10	11.0	9.0	11.5	9.0	---	---	17.0	13.0	23.5	19.5	21.5	18.5
11	10.0	8.0	12.0	7.5	---	---	18.5	14.5	23.5	20.5	22.0	18.5
12	8.0	7.0	13.0	9.0	---	---	19.5	16.0	23.0	20.0	22.5	19.0
13	9.5	6.5	14.0	10.5	---	---	20.0	16.5	23.5	20.0	23.0	19.5
14	11.0	7.0	14.0	10.0	---	---	20.0	16.5	22.0	20.5	23.5	20.0
15	12.0	8.0	15.0	11.0	---	---	19.5	16.5	22.5	20.0	23.5	20.5
16	13.5	9.5	14.0	11.0	---	---	19.0	15.5	24.0	20.5	23.0	20.0
17	12.5	10.5	14.5	11.0	---	---	18.0	15.0	24.0	21.0	23.0	20.0
18	11.5	10.0	14.5	11.0	---	---	16.5	15.0	23.5	21.0	22.5	19.5
19	13.0	9.0	15.5	11.5	---	---	18.0	14.0	21.5	20.0	22.0	19.0
20	13.0	10.5	15.5	11.5	---	---	18.5	15.0	21.0	19.5	22.0	19.0
21	11.0	10.0	15.5	11.5	---	---	19.0	15.5	20.5	19.5	22.0	19.5
22	11.0	10.0	15.5	12.0	---	---	19.5	16.5	20.0	17.5	22.5	19.5
23	12.0	9.0	15.5	13.0	---	---	20.0	16.5	20.5	17.5	22.0	20.5
24	13.0	10.5	15.5	11.5	---	---	20.0	17.0	21.0	17.5	21.5	19.5
25	11.0	9.5	15.5	11.5	---	---	19.5	16.5	21.0	18.0	20.5	18.0
26	11.5	8.5	16.0	11.5	---	---	19.5	16.5	21.0	18.0	19.0	17.5
27	12.0	9.5	16.0	11.5	---	---	20.0	16.5	21.5	18.5	20.0	17.0
28	13.5	10.5	15.5	11.5	---	---	20.5	17.0	21.5	18.5	18.5	17.5
29	13.5	11.0	15.5	11.0	---	---	21.0	17.5	21.5	18.5	17.5	16.0
30	11.5	9.5	15.0	11.0	16.0	13.5	21.0	18.5	21.0	18.5	16.0	15.0
31	---	---	---	---	---	---	21.5	19.0	22.0	18.5	---	---
MONTH	13.5	6.5	16.0	7.5	---	---	21.5	13.0	24.0	17.5	23.5	15.0

TULARE LAKE BASIN

11204500 SOUTH FORK TULE RIVER NEAR SUCCESS, CA

LOCATION.--Lat 36°02'33", long 118°51'24", in NW 1/4 SW 1/4 sec.4, T.22 S., R.29 E., Tulare County, Hydrologic Unit 18030006, on left bank 0.5 mi upstream from Crew Creek, 4 mi southeast of Success, and 5 mi upstream from mouth.

DRAINAGE AREA.--109 mi².

PERIOD OF RECORD.--June 1930 to December 1954, January 1956 to current year. Monthly and yearly discharge only for some periods, published in WSP 1735.

REVISED RECORDS.--WSP 1315-A: 1931-32(M). WSP 1445: 1952-53(P), drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 770 ft, from topographic map. Prior to June 26, 1951, at site 0.4 mi downstream at different datum.

REMARKS.--Records good. Diversions for irrigation of about 640 acres above station.

AVERAGE DISCHARGE.--51 years, 46.3 ft³/s, 33,540 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s Dec. 6, 1966, gage height, 12.50 ft in gage well, 13.3 ft from floodmarks, from rating curve extended above 4,300 ft³/s on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	1345	209	3.52	Feb. 27	1445	1,630	5.98
Nov. 19	0430	777	4.94	Mar. 13	2230	1,590	5.94
Nov. 30	0945	3,140	7.30	Mar. 22	2230	1,970	6.32
Dec. 23	0100	2,100	6.44	Apr. 21	0245	1,210	5.53
Jan. 22	2315	*4,390	8.14	Apr. 30	0145	519	4.51
Feb. 7	0715	3,660	7.67	May 26	2345	456	4.38

Minimum daily, 9.8 ft³/s Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	37	322	103	272	964	554	469	347	143	48	27
2	15	29	169	98	244	712	532	413	322	140	46	27
3	13	26	133	94	221	680	482	392	307	139	45	27
4	13	24	124	91	200	751	436	390	288	132	45	27
5	12	22	109	87	203	645	397	365	278	128	45	27
6	12	20	104	84	550	566	369	368	277	125	43	27
7	11	20	100	83	2400	558	346	337	277	122	42	27
8	11	20	90	82	1600	473	329	334	277	118	42	27
9	11	20	84	80	897	430	321	325	276	114	44	27
10	10	23	83	78	626	408	314	316	274	108	49	27
11	10	21	79	75	487	397	317	296	269	102	42	27
12	10	20	77	74	431	368	343	286	254	97	38	27
13	10	20	76	72	950	618	300	286	243	92	36	27
14	9.9	19	71	71	560	712	285	275	235	88	37	27
15	9.9	19	66	69	456	471	278	276	230	86	42	27
16	9.8	19	62	71	401	472	273	283	229	83	38	27
17	9.9	18	59	71	364	595	272	283	226	81	39	26
18	10	24	57	68	390	838	278	286	225	79	40	26
19	10	237	55	103	345	780	266	298	219	77	59	24
20	10	73	54	79	313	654	285	316	208	75	48	23
21	10	50	54	73	290	973	605	336	197	73	44	23
22	10	42	767	770	275	1000	356	360	189	70	44	24
23	9.9	37	836	923	268	1050	331	382	182	68	42	25
24	10	33	300	517	266	1250	350	398	176	66	39	27
25	11	31	212	375	295	1040	319	407	170	64	37	27
26	85	29	172	289	598	867	299	409	164	64	35	26
27	48	28	151	1140	1160	745	288	418	160	62	33	24
28	26	28	139	668	1040	709	297	414	155	60	31	24
29	21	116	129	502	---	616	317	396	151	57	29	27
30	56	912	119	369	---	593	458	387	148	53	27	51
31	74	---	109	310	---	589	---	375	---	50	27	---
TOTAL	585.4	2017	4962	7569	16102	21524	10597	10876	6953	2816	1256	808
MEAN	18.9	67.2	160	244	575	694	353	351	232	90.8	40.5	26.9
MAX	85	912	836	1140	2400	1250	605	469	347	143	59	50
MIN	9.8	18	54	68	200	368	266	275	148	50	27	23
AC-FT	1160	4000	9840	15010	31940	42690	21020	21570	13790	5590	2490	1600

CAL YR 1982	TOTAL	32722.2	MEAN	89.6	MAX	2030	MIN	3.7	AC-FT	64900
WTR YR 1983	TOTAL	86065.4	MEAN	236	MAX	2400	MIN	9.8	AC-FT	170700

11204680 PIONEER DITCH BELOW SUCCESS DAM, CA

LOCATION.--Lat 36°03'34", long 118°55'22", in SW 1/4 NW 1/4 sec.35, T.21 S., R.28 E., Tulare County, Hydrologic Unit 18030006, on left bank 0.1 mi downstream from Success Dam, and 5.5 mi east of Porterville.

PERIOD OF RECORD.--April 1959 to current year. Prior to October 1960, monthly diversions only, published with Tule River near Porterville.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 549.00 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Feb. 1, 1961, at site 0.5 mi downstream at different datum.

REMARKS.--Records excellent. Ditch receives water from Success Lake (station 11204700).

AVERAGE DISCHARGE.--24 years, 6.89 ft³/s, 4,990 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 29 ft³/s Apr. 15, 1961; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.7	.20	1.3	0	0	1.0	1.8	13	11	8.9	17
2	1.8	1.6	2.0	1.3	0	0	1.1	.70	11	11	12	17
3	1.2	1.6	5.1	1.4	0	0	1.1	0	8.8	11	16	13
4	.80	1.6	5.1	1.4	0	0	1.1	1.5	7.0	14	18	8.9
5	1.5	1.6	1.7	1.5	0	0	1.1	2.4	7.6	14	15	10
6	5.8	1.6	.60	1.6	0	0	1.2	5.1	10	15	11	13
7	7.4	1.6	.60	1.4	0	0	1.2	6.5	11	13	8.4	14
8	4.5	1.6	1.3	1.3	0	0	.70	6.5	9.5	9.9	9.9	16
9	2.7	1.4	1.9	1.3	0	0	0	2.0	5.2	8.4	14	16
10	2.7	1.0	1.9	1.3	0	0	0	0	7.7	8.0	16	15
11	4.5	1.0	1.9	1.3	0	0	1.5	0	12	10	16	13
12	6.0	1.0	1.8	1.2	0	0	2.2	1.8	13	16	13	12
13	10	1.0	1.0	1.2	0	0	5.2	3.8	13	18	11	13
14	11	1.0	.50	1.2	0	0	5.4	4.1	13	17	10	13
15	11	1.0	.50	1.2	0	0	3.0	4.1	11	14	13	15
16	9.0	1.0	.50	1.2	0	0	3.4	5.1	11	14	15	16
17	8.0	1.1	.80	1.7	0	0	4.1	9.6	13	14	18	16
18	11	1.1	1.0	2.0	.70	.10	4.1	13	14	14	20	13
19	10	1.1	.70	2.0	1.2	.20	4.1	13	16	13	19	13
20	8.8	3.1	.70	2.0	1.2	.70	3.4	11	17	16	14	14
21	11	4.8	.70	1.8	1.2	1.1	3.0	11	15	18	11	14
22	13	5.1	.80	1.3	1.2	.90	2.2	11	14	16	12	13
23	8.3	5.1	.90	1.1	.30	.90	1.7	13	13	11	12	10
24	5.0	5.1	1.0	1.1	0	.90	1.7	17	14	9.1	16	8.2
25	4.2	5.1	1.0	1.2	0	.90	1.8	18	17	9.9	18	6.5
26	2.8	5.0	1.0	1.2	0	1.0	1.8	17	18	11	14	9.1
27	1.7	4.9	1.1	.60	0	1.1	1.8	12	16	15	8.4	10
28	1.7	4.8	1.1	0	0	1.1	2.5	9.6	10	16	6.9	8.0
29	1.7	4.7	1.2	0	---	1.1	3.0	11	8.3	14	10	8.6
30	1.7	1.8	1.2	0	---	1.1	2.2	12	8.7	9.6	13	6.8
31	1.7	---	1.2	0	---	1.1	---	14	---	7.3	15	---
TOTAL	172.30	74.1	41.00	37.10	5.80	12.20	66.60	237.60	357.8	398.2	414.5	372.1
MEAN	5.56	2.47	1.32	1.20	.21	.39	2.22	7.66	11.9	12.8	13.4	12.4
MAX	13	5.1	5.1	2.0	1.2	1.1	5.4	18	18	18	20	17
MIN	.80	1.0	.20	0	0	0	0	0	5.2	7.3	6.9	6.5
AC-FT	342	147	81	74	12	24	132	471	710	790	822	738
CAL YR 1982	TOTAL	2225.60	MEAN	6.10	MAX	19	MIN	0	AC-FT	4410		
WTR YR 1983	TOTAL	2189.30	MEAN	6.00	MAX	20	MIN	0	AC-FT	4340		

11204700 SUCCESS LAKE NEAR SUCCESS, CA

LOCATION.--Lat 36°03'40", long 118°55'18", in SE 1/4 NW 1/4 sec.35, T.21 S., R.28 E., Tulare County, Hydrologic Unit 18030006, in control tower near right abutment of Success Dam on Tule River, 5 mi east of Porterville.

DRAINAGE AREA.--391 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam and dike. Storage began November 1961. Usable capacity, 81,734 acre-ft between elevations 559.0 ft, invert of outlet structure and 652.5 ft, spillway crest. Surcharge flood control storage, 120,413 acre-ft between ungated spillway crest and elevation 686.8 ft, maximum spillway design flood pool. Dead storage, 557 acre-ft. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 101,300 acre-ft Dec. 7, 1966, elevation, 658.63 ft; minimum since reservoir first filled, 3,406 acre-ft Oct. 17, 1972, elevation, 579.52 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 82,167 acre-ft June 18, elevation, 652.45 ft; minimum, 9,301 acre-ft Nov. 17, elevation, 593.41 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

575	2,975	620	29,183
580	4,241	640	56,084
585	5,813	660	102,684
590	7,747	690	217,100
600	12,902		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27234	16466	18894	36039	56521	60328	59364	62629	80889	81920	81281	48071
2	26929	16402	19840	36352	56241	59548	59309	63309	81012	81871	80403	47004
3	26617	16160	20213	36630	55822	59015	59107	63977	81133	81821	79388	45944
4	26269	15795	20459	36873	55251	58759	58796	64771	81231	81723	78338	44932
5	25894	15353	20599	37106	54720	57998	58487	65433	81330	81698	77230	43968
6	25448	14879	20682	37069	55892	57229	58215	66100	81551	81747	76113	43035
7	24960	14388	20591	36825	62474	56821	58179	66590	81846	81747	74987	42078
8	24778	13889	20344	36509	64691	56416	58360	67145	82043	81723	73853	41099
9	24002	13440	20042	36195	63977	56153	58143	67705	82093	81747	72780	40178
10	23513	13000	19695	35848	63094	55892	57926	68248	82118	81772	71698	39273
11	23014	12421	19328	35325	61573	55597	57693	68500	82043	81772	70567	38347
12	22512	11705	18925	34738	60609	55131	57621	68562	81723	81846	69388	37413
13	22000	10931	18529	33952	61745	55822	57478	68625	81575	81920	68206	36448
14	21495	10132	18107	33144	61098	57765	57336	68668	81625	81945	67042	35467
15	20990	9561	17639	32339	60197	58251	57175	68625	81969	81969	65959	34517
16	20492	9384	17149	31570	59438	58614	56998	68521	82118	81920	64871	33586
17	20001	9301	16617	30814	58669	59789	56839	68331	82142	81846	63800	32673
18	19503	9452	16075	30059	58487	62070	56821	68164	82167	81772	62648	31756
19	18980	11688	15504	29661	58251	63309	56680	68080	82043	81747	61649	30867
20	18444	12074	14926	28987	57801	63859	57016	68331	81994	81797	60609	30007
21	17902	12167	14513	28233	57229	64851	58832	68794	81969	81895	59585	29131
22	17378	12173	21124	31920	56609	64174	59125	69728	81871	81920	58596	28314
23	16863	11917	28021	37499	56031	63036	59309	71087	81895	81969	57693	27403
24	16359	11546	30345	41486	55441	62803	59659	72757	81969	81994	56803	26627
25	15886	11150	31767	43912	55045	62243	59807	74237	81969	81994	55822	25875
26	16352	10678	32818	45262	56276	61383	59937	75582	81895	81969	54771	25053
27	16445	10173	33654	51986	59107	60497	60067	76879	81895	81945	53671	24349
28	16210	9720	34344	54041	60123	60049	60328	78101	81969	81871	52542	23874
29	15914	9851	34855	55822	---	59714	60665	79197	82019	81821	51403	23612
30	15977	16174	35278	56434	---	59438	61706	80039	82019	81747	50254	23594
31	16459	---	35681	56609	---	59345	---	80645	---	81649	49144	---
MAX	27234	16466	35681	56609	64691	64851	61706	80645	82167	81994	81281	48071
MIN	15886	9301	14513	28233	54720	55131	56680	62629	80889	81649	49144	23594
a	605.37	604.97	625.86	640.30	642.24	641.82	643.08	651.83	652.39	652.24	635.78	614.21
b	-11072	-285	+19507	+20928	+3514	-778	+2361	+18939	+1374	-370	-32505	-25550
c	286	61	57	89	157	270	418	950	1489	1715	1293	674
CAL YR 1982	b	+22478										
WTR YR 1983	b	-3927										

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11204900 TULE RIVER BELOW SUCCESS DAM, CA

LOCATION.--Lat 36°03'23", long 118°55'22", in NW 1/4 SW 1/4 sec.35, T.21 S., R.28 E., Tulare County, Hydrologic Unit 18030012, on right bank 1,000 ft downstream from Success Dam, and 5 mi east of Porterville.

DRAINAGE AREA.--393 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1960, published as "at Worth Bridge, near Porterville."

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 536.00 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to October 1960, at site 0.5 mi downstream at different datum.

REMARKS.--Records good. Flow regulated by Success Lake beginning Nov. 23, 1961 (station 11204700). Discharge records during periods of high flow include flow over spillway that bypasses the gaging station. Pioneer ditch (station 11204680) diverts above station for irrigation.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion).--30 years, 210 ft³/s, 152,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s Dec. 23, 1955, gage height, 21.65 ft site and datum then in use, from rating curve extended above 1,400 ft³/s on basis of studies of upstream peaks; no flow at times in 1954-57, 1959-61. Maximum discharge since construction of Success Dam in 1961, 9,050 ft³/s Dec. 6, 1966 (includes flow through spillway); no flow at times in 1962, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1950, reached a stage of 26 ft from floodmarks, site and datum then in use, discharge, 32,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,020 ft³/s Mar. 23, gage height, 9.29 ft; minimum daily, 88 ft³/s Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	294	241	248	1060	2660	1620	912	1510	816	395	647
2	227	246	369	248	1060	2530	1620	911	1370	801	630	643
3	227	303	412	248	1060	2330	1620	837	1300	791	701	639
4	236	350	426	248	1060	2260	1550	811	1250	791	701	618
5	250	374	432	248	1060	2260	1450	811	1210	733	728	593
6	270	379	429	385	1060	2020	1340	816	1210	687	747	569
7	290	382	505	502	1230	1910	1150	816	1210	656	743	573
8	295	382	527	527	2020	1700	1010	816	1280	581	743	581
9	293	374	531	524	2450	1540	1180	822	1370	527	738	554
10	293	366	531	527	2100	1510	1180	822	1400	509	738	546
11	292	432	531	606	2190	1510	1180	906	1420	477	738	554
12	293	496	531	643	1810	1510	1150	968	1420	422	747	562
13	293	517	535	733	1780	1510	1070	979	1260	402	752	573
14	302	520	531	747	1980	1510	1010	979	1150	402	747	577
15	306	399	527	728	1870	1520	1000	1010	1020	402	724	562
16	304	199	524	719	1680	1520	1000	1120	1150	402	705	546
17	303	154	531	719	1570	1530	1000	1150	1210	402	705	539
18	306	88	535	715	1350	1540	1000	1160	1250	392	719	531
19	314	119	539	710	1280	1550	1000	1190	1250	331	710	513
20	323	232	539	710	1280	1550	811	1190	1140	276	696	498
21	322	242	463	705	1280	2090	772	1190	1070	256	692	513
22	315	235	345	647	1250	2690	1010	1130	1050	258	656	520
23	314	341	240	635	1220	2910	1010	1040	968	258	610	498
24	312	384	246	599	1220	2880	1010	979	923	258	589	474
25	308	380	248	593	1220	2710	1020	1130	923	258	622	460
26	307	401	252	597	1220	2470	966	1230	923	258	656	495
27	306	409	254	752	1440	2310	928	1340	853	258	683	423
28	310	404	272	1050	2090	2090	910	1390	816	258	687	328
29	306	402	288	956	---	1860	904	1400	816	258	683	262
30	300	320	288	1060	---	1780	906	1460	816	258	678	219
31	301	---	263	1060	---	1720	---	1510	---	258	661	---
TOTAL	9047	10124	12885	19389	41890	61480	33377	32825	34538	13636	21324	15610
MEAN	292	337	416	625	1496	1983	1113	1059	1151	440	688	520
MAX	323	520	539	1060	2450	2910	1620	1510	1510	816	752	647
MIN	227	88	240	248	1060	1510	772	811	816	256	395	219
AC-FT	17940	20080	25560	38460	83090	121900	66200	65110	68510	27050	42300	30960

CAL YR 1982 TOTAL 130303 MEAN 357 MAX 853 MIN 26 AC-FT 258500 MEAN a 404 AC-FT a 292500
WTR YR 1983 TOTAL 306125 MEAN 839 MAX 2910 MIN 88 AC-FT 607200 MEAN a 850 AC-FT a 615400

a Adjusted for change in contents in and evaporation from Success Lake and for diversion to Pioneer Ditch.

11204900 TULE RIVER BELOW SUCCESS DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-69, 1971 to current year.

CHEMICAL ANALYSES: Water years 1962-69, 1971-79.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

EXTREMES PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 34.0°C July 15, Sept. 9, 1977; minimum recorded, 3.0°C Jan. 3, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 25.5°C Sept. 22-24, 26, 27; minimum recorded, 6.0°C Dec. 31.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.0	21.0	17.5	17.0	11.0	10.0	7.5	6.5	9.0	8.5	11.0	9.5
2	21.5	20.5	19.0	17.0	10.0	9.0	7.5	6.5	9.0	8.0	11.0	10.0
3	23.5	19.5	17.5	16.5	10.0	9.0	7.5	6.5	9.0	8.0	11.0	10.0
4	22.0	20.0	17.0	16.5	9.5	8.5	7.5	6.5	9.0	8.0	11.0	10.0
5	22.0	19.5	17.0	16.5	9.5	8.5	7.5	6.5	9.0	8.0	11.0	9.5
6	21.5	20.0	17.0	16.0	10.0	8.5	7.5	7.0	9.0	8.0	11.5	9.0
7	21.5	20.5	16.5	16.0	10.0	8.5	7.5	7.0	8.5	8.0	11.0	10.0
8	21.5	20.0	16.5	15.5	9.5	9.0	7.5	7.5	9.0	8.5	11.0	9.5
9	21.0	20.0	16.0	14.5	9.5	8.5	7.5	7.0	9.0	9.0	11.5	10.0
10	21.0	19.5	16.0	14.5	9.5	8.5	7.5	7.0	9.0	8.5	11.0	9.0
11	20.5	19.5	15.0	14.5	9.5	8.0	7.5	7.0	9.0	8.5	11.5	10.0
12	21.0	19.5	15.0	14.0	9.5	8.5	7.5	7.0	10.0	8.5	11.5	9.5
13	21.0	20.0	14.5	14.0	9.5	8.5	7.5	7.0	9.5	9.0	11.5	10.5
14	20.5	20.5	14.5	13.5	9.5	9.0	7.5	7.0	9.5	8.5	11.5	11.0
15	20.5	20.0	14.0	13.0	9.5	8.5	7.5	7.0	10.0	8.0	11.5	11.0
16	20.5	19.5	13.5	13.5	9.5	8.5	9.5	7.0	9.5	8.0	11.5	9.0
17	20.5	19.5	13.5	12.5	9.0	8.5	7.5	7.0	9.5	8.5	11.5	10.0
18	20.5	19.5	13.5	13.0	9.0	8.0	8.0	7.0	9.5	8.5	11.5	9.5
19	20.5	19.5	13.0	12.0	9.0	8.0	8.0	6.5	9.5	8.5	12.0	9.5
20	20.0	19.5	12.5	11.5	9.0	8.5	8.0	7.0	9.5	9.0	11.0	10.5
21	20.0	20.0	12.5	11.5	9.0	8.5	8.0	6.5	9.5	9.0	11.5	11.0
22	20.0	19.5	12.0	11.0	9.0	8.0	8.5	7.0	10.0	9.0	11.5	10.5
23	20.0	19.5	12.0	10.5	9.0	9.0	8.5	7.5	9.5	9.5	11.0	10.0
24	20.5	19.5	12.0	10.5	9.0	7.5	8.5	7.5	10.0	9.5	12.0	9.5
25	20.5	19.5	11.5	11.0	8.5	7.0	8.5	8.0	10.0	9.5	11.0	9.5
26	20.0	20.0	11.5	10.5	8.5	7.0	8.5	7.5	10.0	9.5	11.0	9.5
27	19.5	19.0	13.0	10.5	8.0	6.5	8.5	8.0	10.5	9.5	10.5	9.5
28	19.0	17.0	12.0	10.5	8.0	6.5	8.5	8.0	10.5	9.5	11.0	9.5
29	20.0	15.5	12.5	11.0	8.0	7.0	9.0	7.5	---	---	11.5	9.5
30	19.5	15.5	11.5	10.5	8.0	7.0	9.0	8.5	---	---	10.5	9.0
31	19.0	15.5	---	---	8.0	6.0	9.5	8.5	---	---	11.0	9.0
MONTH	23.5	15.5	19.0	10.5	11.0	6.0	9.5	6.5	10.5	8.0	12.0	9.0

11204900 TULE RIVER BELOW SUCCESS DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	9.0	---	---	16.0	12.0	18.5	15.5	18.5	17.0	22.5	22.0
2	11.5	8.5	---	---	16.5	13.0	18.0	15.0	18.5	17.5	23.0	22.0
3	11.5	9.0	---	---	16.0	13.5	18.5	16.0	18.5	18.0	23.0	22.5
4	11.5	9.0	---	---	16.0	13.0	19.0	16.5	18.5	17.5	23.0	23.0
5	11.5	8.0	---	---	16.0	14.0	18.0	15.5	18.5	16.0	23.5	22.5
6	---	---	---	---	16.0	13.0	18.0	16.0	19.0	17.5	23.5	22.5
7	---	---	---	---	16.5	13.0	18.0	17.5	19.0	16.5	24.0	22.0
8	---	---	---	---	16.5	12.5	18.0	15.0	19.0	17.5	24.0	22.5
9	---	---	---	---	16.0	13.5	18.0	15.5	19.5	16.5	25.0	21.0
10	---	---	---	---	16.0	13.0	18.0	15.0	19.5	16.5	24.0	22.0
11	---	---	---	---	17.0	13.0	18.0	17.0	19.5	16.0	24.0	24.0
12	---	---	---	---	17.0	13.0	17.5	17.5	19.5	16.0	24.5	24.0
13	---	---	---	---	17.0	13.0	18.0	16.5	20.0	17.0	24.5	24.0
14	---	---	---	---	17.0	13.5	18.0	17.5	19.5	16.0	24.5	24.5
15	---	---	---	---	18.0	14.0	18.0	16.5	20.5	19.0	24.5	24.5
16	---	---	---	---	18.0	13.0	18.5	16.5	19.5	19.0	25.0	24.5
17	---	---	---	---	16.5	13.5	18.0	16.0	19.5	19.0	25.0	24.5
18	---	---	13.0	12.5	18.0	13.5	18.0	16.0	20.0	19.5	25.0	24.5
19	---	---	13.5	12.5	18.0	13.5	18.0	15.5	20.0	19.5	25.0	24.5
20	---	---	13.5	12.5	18.0	14.5	18.0	15.0	20.0	19.5	25.0	24.5
21	---	---	13.5	12.0	17.0	13.5	18.5	15.5	20.5	19.5	25.0	24.0
22	---	---	13.5	11.5	18.0	13.5	18.5	17.0	20.5	20.0	25.5	23.5
23	---	---	13.5	12.0	17.0	14.5	18.0	16.0	20.5	20.0	25.5	23.5
24	---	---	14.0	12.0	18.0	14.5	18.0	17.0	21.0	20.5	25.5	23.5
25	---	---	14.0	11.5	18.0	15.5	18.0	16.5	21.0	20.5	25.0	24.0
26	---	---	14.0	12.5	18.0	14.5	18.5	16.5	21.0	21.0	25.5	24.0
27	---	---	14.5	12.0	18.0	14.0	18.5	16.5	21.5	21.0	25.5	23.5
28	---	---	14.5	12.5	17.5	14.5	18.5	16.0	21.5	21.5	25.0	24.0
29	---	---	15.5	14.0	18.5	14.0	18.0	16.5	22.0	21.5	24.5	23.5
30	---	---	16.0	12.0	17.5	14.5	18.5	16.5	22.0	21.5	24.5	22.0
31	---	---	16.0	13.0	---	---	18.5	16.5	22.5	22.0	---	---
MONTH	---	---	16.0	11.5	18.5	12.0	19.0	15.0	22.5	16.0	25.5	21.0

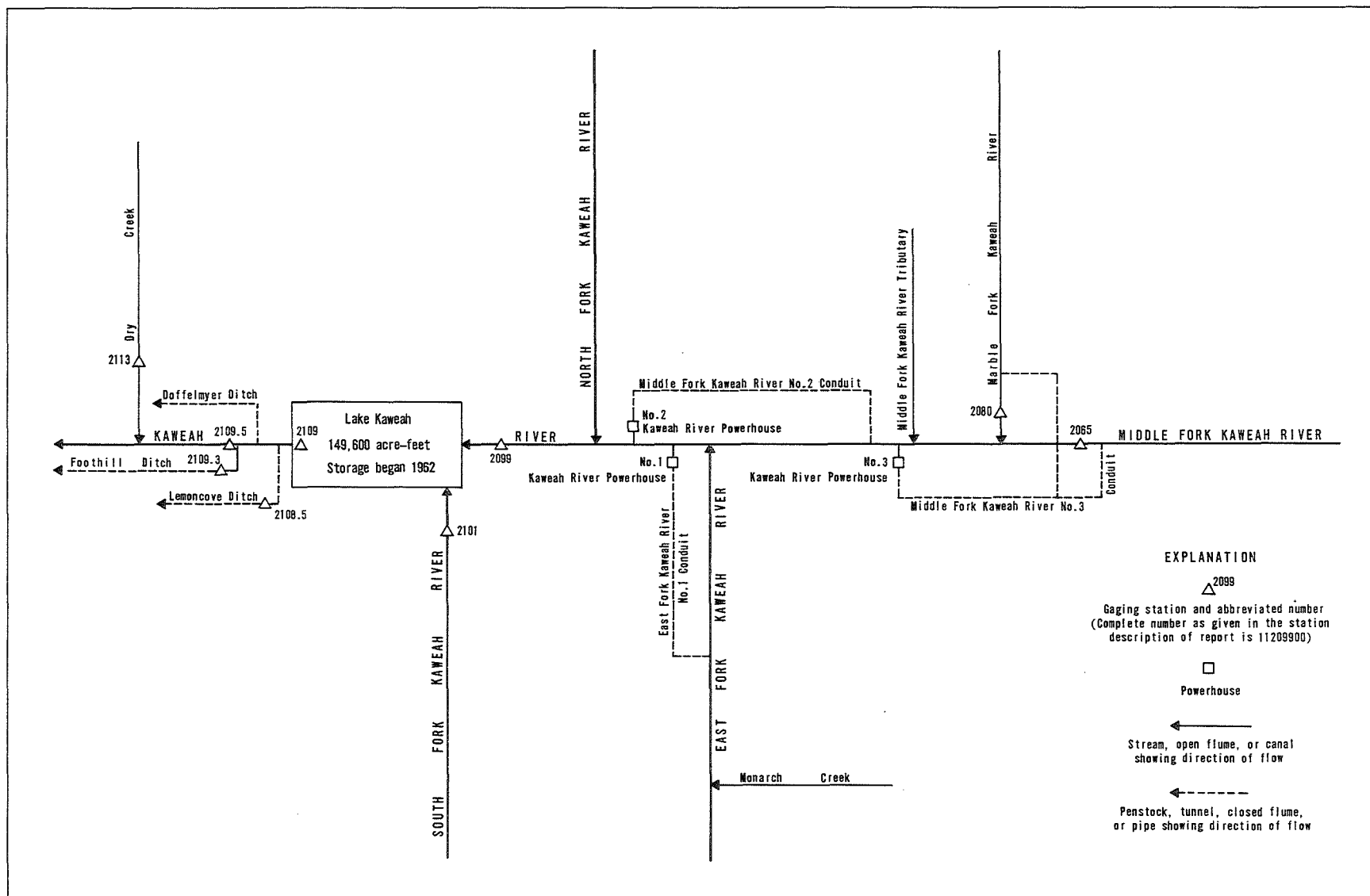


FIGURE 6. — Schematic diagram showing diversions and storage in Kaweah River basin.

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA

LOCATION.--Lat 36°30'48", long 118°47'27", unsurveyed, T.16 S., R.29 E., Tulare County, Hydrologic Unit 18030007, Sequoia National Park, on right bank 0.5 mi southeast of Potwisha Camp, and 0.7 mi upstream from confluence with Marble Fork Kaweah River.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--July 1949 to current year. Monthly discharge only for water years 1956-57, published in WSP 1735. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder and concrete control on river; water-stage recorder and concrete-lined channel for conduit diversion. Altitude of gage is 2,100 ft, from topographic map. Prior to October 1955, at datum 0.70 ft higher.

REMARKS.--Records good. Middle Fork No. 3 conduit diverts from left bank of Middle Fork Kaweah River, 0.1 mi upstream from station. Flow from this conduit joins with that of Marble Fork Kaweah River No. 3 conduit, and the combined flow passes through Kaweah River No. 3 powerhouse of Southern California Edison Co. Water is returned to Kaweah River 2.7 mi downstream from confluence of Marble and Middle Forks. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 12 discharge measurements for river and gage-height record and 12 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--River only: 34 years, 146 ft³/s, 105,800 acre-ft/yr.
Combined river and diversion: 34 years, 187 ft³/s, 135,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 46,800 ft³/s Dec. 23, 1955, gage height, 29.0 ft from floodmarks, datum then in use, by slope-area measurement of maximum flow; minimum daily, 0.1 ft³/s Nov. 12-15, 1949.
Combined flow, maximum discharge, 46,800 ft³/s Dec. 23, 1955; minimum daily, 7.7 ft³/s Oct. 4, 1977.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 2,290 ft³/s Oct. 26, gage height, 8.91 ft; minimum daily, 10 ft³/s Oct. 18.
Combined flow, maximum discharge, 2,350 ft³/s Oct. 26; minimum daily, 50 ft³/s Oct. 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	276	325	144	224	624	372	404	1340	1090	556	151
2	107	214	232	135	206	521	379	354	1140	1090	538	149
3	86	178	224	129	191	479	361	350	1060	1150	499	136
4	68	161	206	127	178	426	331	365	1000	1290	456	120
5	56	121	191	128	173	380	309	341	1150	1400	430	112
6	47	107	179	128	225	352	289	321	1270	1260	442	113
7	41	96	161	129	463	368	275	323	1320	1070	480	107
8	36	85	141	131	471	348	269	364	1310	943	568	100
9	30	76	132	128	350	347	269	393	1340	858	534	94
10	21	80	126	124	308	355	270	415	1410	770	560	80
11	15	79	122	124	281	355	268	365	1390	819	407	74
12	12	74	120	123	307	335	254	354	1280	880	329	73
13	16	69	117	122	511	627	241	388	1200	928	308	71
14	18	64	103	119	348	640	231	411	1300	878	342	68
15	14	59	96	116	317	469	226	456	1350	819	422	68
16	11	55	93	128	300	437	232	500	1450	744	434	66
17	11	51	86	120	289	461	247	540	1530	682	629	64
18	10	226	82	117	315	454	262	601	1500	612	484	60
19	11	372	79	148	284	409	250	688	1360	492	386	51
20	11	158	79	117	271	384	278	826	1300	529	318	42
21	11	122	96	111	266	406	271	941	1270	560	274	36
22	11	124	1170	433	264	384	263	1150	1290	593	221	51
23	11	113	633	381	267	370	275	1320	1240	575	193	49
24	16	98	370	581	261	417	308	1480	1200	564	172	41
25	169	88	302	396	297	378	285	1540	1220	545	161	34
26	965	81	261	315	381	354	270	1560	1240	506	152	27
27	298	75	226	364	618	343	267	1650	1190	510	144	26
28	185	86	200	307	469	339	305	1760	1180	544	140	22
29	150	153	186	313	---	329	311	1720	1190	561	130	52
30	904	819	167	275	---	350	361	1650	1120	558	132	66
31	415	---	154	248	---	373	---	1600	---	549	142	---
TOTAL	3883	4360	6659	6261	8835	12814	8529	25130	38140	24369	10983	2203
MEAN	125	145	215	202	316	413	284	811	1271	786	354	73.4
MAX	965	819	1170	581	618	640	379	1760	1530	1400	629	151
MIN	10	51	79	111	173	329	226	321	1000	492	130	22
AC-FT	7700	8650	13210	12420	17520	25420	16920	49850	75650	48340	21780	4370

CAL YR 1982 TOTAL 100271.4 MEAN 275 MAX 3650 MIN 9.4 AC-FT 198900
WTR YR 1983 TOTAL 152166 MEAN 417 MAX 1760 MIN 10 AC-FT 301800

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAWEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	341	378	200	280	681	430	464	1370	1130	596	195
2	166	270	290	191	261	578	437	413	1170	1130	579	193
3	146	227	285	185	246	536	419	410	1100	1190	540	180
4	118	200	267	183	233	483	389	425	1040	1330	497	165
5	108	184	252	183	228	437	367	401	1190	1440	471	157
6	99	170	240	184	280	409	347	381	1320	1300	483	158
7	93	159	223	185	519	425	333	383	1360	1110	521	152
8	88	148	202	187	527	405	327	424	1340	983	609	145
9	83	139	193	184	405	404	327	453	1380	897	574	141
10	77	138	187	180	361	413	328	475	1460	808	600	129
11	73	134	183	180	337	413	326	425	1430	857	447	124
12	71	129	181	180	363	393	312	414	1320	918	369	125
13	66	124	178	179	568	686	299	392	1240	967	348	125
14	64	119	164	176	404	699	289	411	1350	918	382	124
15	62	114	157	173	373	527	284	456	1400	861	462	124
16	57	109	154	185	356	495	290	500	1500	786	474	122
17	56	105	147	177	345	519	305	540	1580	724	669	121
18	53	281	143	174	371	512	321	601	1550	653	524	117
19	52	424	140	206	340	467	309	688	1410	533	426	111
20	51	213	140	174	327	442	337	830	1360	570	358	105
21	50	177	157	168	322	464	330	977	1330	601	315	101
22	50	179	1220	491	320	442	322	1190	1350	634	262	116
23	50	167	687	439	323	428	334	1350	1300	616	234	114
24	61	152	426	638	317	475	367	1500	1260	605	213	105
25	232	142	357	450	353	436	344	1560	1270	585	202	98
26	1020	135	317	369	438	412	329	1600	1290	546	194	90
27	364	129	282	418	675	401	326	1680	1240	550	187	91
28	250	140	256	360	526	397	364	1790	1230	584	183	87
29	215	207	242	367	---	387	370	1750	1230	601	173	117
30	960	864	223	328	---	408	421	1680	1160	598	175	129
31	484	---	210	302	---	431	---	1640	---	589	185	---
TOTAL	5493	6020	8481	7996	10398	14605	10283	26203	39530	25614	12252	3861
MEAN	177	201	274	258	371	471	343	845	1318	826	395	129
MAX	1020	864	1220	638	675	699	437	1790	1580	1440	669	195
MIN	50	105	140	168	228	387	284	381	1040	533	173	87
AC-FT	10900	11940	16820	15860	20620	28970	20400	51970	78410	50810	24300	7660
CAL YR 1982	TOTAL	120719	MEAN	331	MAX	3670	MIN	32	AC-FT	239400		
WTR YR 1983	TOTAL	170736	MEAN	468	MAX	1790	MIN	50	AC-FT	338700		

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA

LOCATION.--Lat 36°31'08", long 118°48'03", in NE 1/4 SW 1/4 sec.23, T.16 S., R.29 E., Tulare County, Hydrologic Unit 18030007, Sequoia National Park, on left bank 0.1 mi north of Potwisha Camp, 0.3 mi upstream from confluence with Middle Fork Kaweah River, and 7.9 mi northeast of Three Rivers.

DRAINAGE AREA.--51.4 mi²..

PERIOD OF RECORD.--March 1950 to current year. Monthly discharge only for March 1950, published in WSP 1315-A. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

GAGE.--Water-stage recorder on river; water-stage recorder and concrete control for conduit diversion. Altitude of gage is 2,150 ft, from topographic map.

REMARKS.--Records good. Marble Fork Kaweah River No. 3 conduit diverts from left bank of Marble Fork 0.3 mi above station. Water is returned to Kaweah River 2.7 mi downstream from confluence of Marble and Middle Forks. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see following page.

COOPERATION.--Gage-height record and 12 discharge measurements for river and gage-height record and 12 discharge measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--River only: 33 years, 81.4 ft³/s, 58,970 acre-ft/yr.
Combined river and diversion: 33 years, 106 ft³/s, 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,500 ft³/s Dec. 23, 1955, gage height, 13.4 ft from rating curve extended above 1,100 ft³/s on basis of slope-area measurement of maximum flow; no flow Sept. 5-15, Oct. 24-28, 1953, Oct. 26-31, 1957.
Combined flow, maximum discharge, 12,500 ft³/s Dec. 23, 1955; minimum daily, 0.82 ft³/s Oct. 4, 5, 1977.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,590 ft³/s Oct. 26, gage height, 7.61 ft; minimum daily, 1.2 ft³/s Oct. 13.
Combined flow, maximum discharge, 1,610 ft³/s Oct. 26; minimum daily, 23 ft³/s Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	144	148	67	76	180	155	136	818	669	252	40
2	31	121	105	64	73	166	160	127	692	678	245	38
3	20	113	96	60	70	156	154	130	657	713	209	23
4	12	95	95	59	67	145	138	146	612	770	184	14
5	6.7	65	86	58	65	135	131	140	652	815	169	9.6
6	2.8	58	81	58	68	132	122	131	758	745	170	12
7	2.0	52	75	59	141	135	115	133	802	622	188	8.4
8	2.0	45	69	60	148	135	108	157	803	535	220	6.0
9	1.9	42	66	60	123	141	114	171	832	481	202	3.2
10	1.7	40	64	58	105	147	116	185	888	424	219	2.0
11	1.7	35	61	56	93	151	110	160	859	478	142	2.0
12	3.0	36	60	57	102	147	101	159	785	517	107	2.0
13	1.2	34	60	57	193	282	92	179	742	544	103	1.9
14	1.3	34	55	57	138	325	87	186	810	497	124	2.1
15	1.4	32	53	55	126	204	85	208	840	456	149	2.1
16	1.4	29	51	58	120	179	93	239	910	403	145	2.1
17	1.4	27	48	55	118	174	113	267	950	365	384	2.1
18	1.5	84	46	53	127	168	119	308	925	312	241	2.3
19	1.6	199	45	57	114	157	112	365	839	215	128	2.4
20	1.7	98	45	50	106	149	122	469	810	251	100	2.0
21	1.4	63	48	47	106	150	115	526	789	282	96	1.8
22	1.5	59	559	106	108	143	112	625	801	309	68	9.3
23	1.6	55	313	123	113	137	124	723	776	294	56	5.4
24	1.8	48	170	194	108	143	135	819	758	286	47	2.0
25	90	42	128	150	107	136	127	877	767	276	43	1.9
26	603	38	108	126	128	131	119	924	780	247	39	1.9
27	163	35	96	125	171	129	118	993	733	250	35	1.9
28	100	37	89	110	151	130	131	1060	720	265	33	1.9
29	84	53	83	110	---	126	137	1040	721	261	26	7.1
30	474	361	76	93	---	137	140	1020	678	251	28	27
31	220	---	71	82	---	154	---	970	---	244	31	---
TOTAL	1875.6	2174	3150	2424	3165	4924	3605	13573	23507	13455	4183	237.4
MEAN	60.5	72.5	102	78.2	113	159	120	438	784	434	135	7.91
MAX	603	361	559	194	193	325	160	1060	950	815	384	40
MIN	1.2	27	45	47	65	126	85	127	612	215	26	1.8
AC-FT	3720	4310	6250	4810	6280	9770	7150	26920	46630	26690	8300	471
CAL YR 1982	TOTAL	57819.8	MEAN	158	MAX	2180	MIN	1.2	AC-FT	114700		
WTR YR 1983	TOTAL	76273.0	MEAN	209	MAX	1060	MIN	1.2	AC-FT	151300		

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA.--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. 3 CONDUIT AT POTWISHA CAMP, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	172	182	101	112	213	194	177	872	723	302	90
2	70	132	136	98	109	199	199	167	751	732	295	87
3	59	113	123	94	106	189	193	171	717	767	259	72
4	50	99	122	91	103	179	177	187	671	824	233	64
5	44	97	113	91	101	169	171	182	709	870	218	62
6	39	88	109	91	105	166	161	173	815	801	219	64
7	37	83	103	92	178	169	156	174	859	678	237	59
8	36	76	97	93	186	169	149	198	860	589	270	56
9	34	74	93	93	160	176	155	213	889	534	252	53
10	32	74	91	91	143	183	157	227	946	477	270	48
11	31	71	89	90	132	187	151	202	916	533	191	46
12	30	72	88	92	140	184	142	201	842	573	156	45
13	29	70	88	92	231	320	132	191	798	600	151	44
14	28	70	83	92	175	366	127	187	866	553	173	44
15	27	68	80	90	163	245	126	208	897	511	198	43
16	26	65	78	93	157	220	133	239	966	457	194	42
17	26	63	76	90	154	214	153	267	1010	417	436	41
18	26	121	73	88	162	206	159	308	982	363	291	38
19	25	230	72	92	149	195	152	365	895	265	177	35
20	24	129	73	85	142	187	163	469	866	301	148	34
21	23	94	76	82	142	188	156	557	844	332	145	33
22	24	91	592	141	144	181	153	669	856	359	118	47
23	25	87	349	157	150	174	165	764	830	344	106	44
24	25	81	208	228	145	180	176	858	810	336	97	38
25	114	76	166	185	144	173	168	917	821	326	93	35
26	622	72	146	161	164	168	160	966	833	296	88	32
27	185	69	134	160	205	166	159	1040	786	300	84	31
28	124	72	124	144	184	167	172	1100	773	316	82	31
29	110	89	117	144	---	163	178	1090	773	312	73	37
30	501	389	111	127	---	175	181	1070	732	302	74	58
31	247	---	105	117	---	192	---	1020	---	294	81	---
TOTAL	2753	3087	4097	3485	4186	6063	4818	14557	25185	15085	5711	1453
MEAN	88.8	103	132	112	150	196	161	470	840	487	184	48.4
MAX	622	389	592	228	231	366	199	1100	1010	870	436	90
MIN	23	63	72	82	101	163	126	167	671	265	73	31
AC-FT	5460	6120	8130	6910	8300	12030	9560	28870	49950	29920	11330	2880
CAL YR 1982	TOTAL	69097	MEAN	189	MAX	2220	MIN	12	AC-FT	137100		
WTR YR 1983	TOTAL	90480	MEAN	248	MAX	1100	MIN	23	AC-FT	179500		

11209900 KAWEAH RIVER AT THREE RIVERS, CA

LOCATION.--Lat 36°26'38", long 118°54'09", in SW 1/4 SW 1/4 sec.13, T.17 S., R.28 E., Tulare County, Hydrologic Unit 18030007, on right bank opposite schoolhouse in Three Rivers, 0.2 mi downstream from North Fork Kaweah River.

DRAINAGE AREA.--418 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 809.62 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions to 200 acres above station. Power is developed on the Middle and East Fork Kaweah River.

AVERAGE DISCHARGE.--25 years, 576 ft³/s, 417,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft³/s Dec. 5, 1966, gage height, 16.69 ft in gage well, 19.0 ft from floodmarks, from rating curve extended above 13,000 ft³/s on basis of slope-area measurements at gage heights 13.68 ft and 16.69 ft; minimum daily, 14 ft³/s Sept. 29, Oct. 4, 5, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 17.9 ft from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0915	7,580	8.90	Mar. 1	1115	5,100	8.04
Nov. 19	0100	6,710	8.61	Mar. 13	2100	6,710	8.61
Nov. 30	0915	10,900	9.83	May 28	2215	7,180	8.77
Dec. 22	1900	*14,300	10.60	June 17	2245	6,070	8.39
Jan. 22	2215	8,160	9.08	Aug. 17	0315	2,890	7.08
Feb. 8	0315	5,130	8.05				

Minimum daily, 144 ft³/s Oct. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	963	1890	758	1260	3650	1810	1700	5020	3560	1340	473
2	401	760	1140	721	1160	2960	1820	1470	4270	3560	1310	471
3	341	641	981	693	1080	2600	1730	1410	4010	3690	1220	427
4	298	571	948	676	1010	2350	1570	1510	3780	3980	1120	389
5	271	520	867	666	973	2090	1480	1430	4050	4300	1070	368
6	247	475	823	665	1040	1890	1380	1360	4530	3950	1060	364
7	230	440	767	661	2720	1990	1300	1340	4770	3340	1120	345
8	223	410	696	657	2980	1790	1260	1490	4800	2890	1310	331
9	211	404	658	652	1870	1730	1260	1580	4860	2610	1290	316
10	200	420	629	636	1580	1730	1260	1670	5080	2310	1350	295
11	193	392	609	630	1420	1750	1260	1450	5010	2440	1050	279
12	185	391	601	628	1440	1640	1200	1430	4600	2580	868	270
13	175	373	601	622	2650	2790	1150	1460	4330	2680	803	262
14	170	364	563	614	1770	3340	1100	1420	4620	2540	870	259
15	163	349	542	600	1560	2240	1070	1560	4760	2370	993	257
16	160	336	527	627	1440	2100	1070	1730	5040	2150	920	251
17	157	324	509	613	1370	2300	1140	1840	5290	1960	1700	246
18	153	673	492	589	1580	2430	1200	2050	5230	1780	1270	239
19	150	2440	479	781	1420	2080	1140	2350	4800	1410	978	226
20	147	803	480	623	1310	1930	1220	2920	4550	1480	865	215
21	146	614	495	588	1250	2140	1250	3420	4410	1530	783	208
22	144	566	7140	2770	1230	1980	1170	4100	4410	1610	682	243
23	144	564	3940	2570	1240	1910	1200	4630	4220	1550	622	250
24	149	497	1880	3090	1200	2380	1380	5110	4090	1500	570	234
25	396	461	1420	2060	1350	2120	1270	5360	4120	1450	538	218
26	2890	434	1220	1530	2050	1950	1180	5530	4150	1360	509	204
27	1010	413	1080	2870	2820	1830	1150	5870	3990	1350	483	205
28	672	433	979	1870	2290	1850	1290	6250	3880	1390	466	203
29	560	740	927	2170	---	1720	1360	6210	3890	1410	436	253
30	2600	4500	865	1610	---	1760	1630	5990	3660	1390	427	378
31	1510	---	809	1390	---	1860	---	5810	---	1340	447	---
TOTAL	14753	21271	35557	35630	45063	66880	39300	91450	134220	71460	28470	8679
MEAN	476	709	1147	1149	1609	2157	1310	2950	4474	2305	918	289
MAX	2890	4500	7140	3090	2980	3650	1820	6250	5290	4300	1700	473
MIN	144	324	479	588	973	1640	1070	1340	3660	1340	427	203
AC-FT	29260	42190	70530	70670	89380	132700	77950	181400	266200	141700	56470	17210

CAL YR 1982	TOTAL	390679	MEAN	1070	MAX	15400	MIN	92	AC-FT	774900
WTR YR 1983	TOTAL	592733	MEAN	1624	MAX	7140	MIN	144	AC-FT	1176000

TULARE LAKE BASIN

11209900 KAWEAH RIVER AT THREE RIVERS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-66, 1968 to current year.

CHEMICAL ANALYSES: Water years 1964-66, 1977.

WATER TEMPERATURES: Water years 1966, 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to December 1966, January 1968 to current year.

INSTRUMENTATION.--Temperature recorder October 1965 to December 1966, and since January 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 30.0°C July 14, 15, 1972, July 15, 18, 1977; minimum recorded, 0.5°C Jan. 7, 1971, Dec. 12, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.0°C Sept. 14, 15; minimum recorded, 4.0°C Dec. 25, 31, Jan. 1, 21.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	10.0	11.5	9.5	6.5	5.5	6.0	4.0	8.5	6.5	10.5	10.0
2	15.5	11.0	11.5	10.0	6.5	5.0	5.5	4.5	7.5	6.5	10.5	9.5
3	16.0	12.0	11.5	9.0	7.0	5.5	6.5	5.0	8.5	7.0	11.0	9.5
4	16.0	12.5	11.0	8.5	7.5	6.0	6.5	5.0	9.0	7.0	11.0	9.5
5	16.0	12.5	10.5	8.0	8.0	7.0	8.0	5.5	7.5	6.5	11.0	8.0
6	16.0	12.0	10.5	7.5	7.5	7.0	8.5	6.5	8.0	7.5	11.5	9.5
7	14.5	12.5	10.0	7.5	7.5	6.5	7.5	7.0	9.5	8.5	12.5	10.0
8	15.5	12.0	10.5	9.0	6.5	5.0	8.0	6.5	10.0	8.5	13.0	10.5
9	15.5	11.5	9.0	7.5	7.0	4.5	7.5	6.5	10.5	8.0	13.0	10.5
10	15.5	12.0	8.0	6.5	8.5	6.5	7.5	6.0	10.5	8.5	13.0	10.5
11	16.0	12.0	7.5	5.0	8.5	6.5	8.0	6.0	10.5	8.5	13.0	11.5
12	16.0	12.0	7.5	4.5	8.5	6.5	8.5	6.0	10.5	9.5	12.0	10.5
13	15.5	12.0	7.5	5.0	8.5	7.0	8.5	6.5	10.5	8.5	11.5	10.0
14	16.0	12.0	7.5	5.5	8.0	6.0	8.0	6.0	9.5	7.0	10.5	9.0
15	15.5	12.5	7.5	5.0	7.0	5.5	9.0	6.5	10.5	8.0	10.0	7.0
16	16.0	12.0	7.5	6.5	8.0	6.0	9.0	8.0	11.5	9.0	10.0	7.5
17	16.0	12.5	8.0	6.0	7.5	5.5	8.5	7.0	11.0	8.5	10.0	8.0
18	15.5	12.0	9.0	7.0	7.5	5.5	8.5	6.5	10.5	8.5	8.5	7.5
19	16.0	12.5	9.5	8.0	7.5	5.5	8.5	6.5	9.5	7.0	10.0	8.0
20	16.0	12.5	9.0	7.5	7.5	6.0	6.5	5.0	10.5	8.0	9.5	8.0
21	15.5	12.5	8.5	7.0	8.0	7.5	6.0	4.0	11.0	8.0	9.5	8.0
22	16.0	13.5	7.5	7.0	9.5	8.0	8.5	6.0	11.0	8.5	8.5	7.0
23	16.0	13.5	8.5	7.0	8.5	6.0	9.0	7.5	11.0	9.5	8.5	6.5
24	15.5	14.0	9.0	7.0	6.0	4.5	9.5	8.0	10.5	9.5	8.5	7.0
25	16.0	14.5	8.5	7.0	5.5	4.0	9.0	7.0	10.0	9.0	8.5	6.5
26	14.5	10.0	7.5	5.5	7.0	5.0	9.0	8.0	11.0	9.0	9.5	7.0
27	10.5	8.5	8.0	6.0	7.0	5.5	9.5	7.5	10.0	9.5	11.0	8.5
28	10.5	8.5	9.5	7.5	7.5	6.0	9.0	6.5	10.5	9.0	10.0	9.5
29	11.5	9.0	9.5	9.0	8.0	7.0	9.0	8.0	---	---	11.5	8.5
30	11.5	11.0	9.5	6.5	7.0	5.5	9.0	7.0	---	---	13.0	9.0
31	11.0	9.5	---	---	6.0	4.0	8.5	6.5	---	---	13.5	10.0
MONTH	16.0	8.5	11.5	4.5	9.5	4.0	9.5	4.0	11.5	6.5	13.5	6.5

11209900 KAWEAH RIVER AT THREE RIVERS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	9.0	10.0	8.5	11.0	9.0	15.5	11.5	19.5	16.0	21.0	17.5
2	11.5	10.0	11.0	8.0	11.5	9.0	14.5	11.5	20.0	16.0	22.0	18.0
3	10.0	7.5	13.5	9.0	12.5	9.0	16.5	11.0	20.0	16.5	21.5	18.0
4	9.5	6.0	12.5	9.5	14.0	9.5	17.0	12.0	20.0	17.0	22.0	17.5
5	9.5	7.5	10.5	9.0	15.0	10.5	17.5	12.5	20.0	17.0	22.5	18.0
6	9.5	6.5	10.5	9.0	14.5	10.5	17.0	12.5	19.5	17.0	22.5	18.0
7	10.5	7.0	13.0	8.5	14.5	10.5	16.0	12.0	20.0	18.0	21.5	17.5
8	11.5	7.5	12.5	10.5	14.5	10.0	15.5	11.0	20.0	18.5	22.0	17.5
9	11.5	8.5	10.5	9.5	15.0	10.0	14.5	11.5	18.5	17.0	21.0	17.5
10	10.5	8.5	10.0	8.5	15.0	10.5	15.5	11.5	20.5	17.0	21.0	16.5
11	8.5	7.5	11.0	7.0	12.0	10.0	17.0	12.5	20.5	17.5	21.5	16.5
12	7.5	6.5	12.0	9.0	13.5	9.5	17.5	13.0	20.5	17.5	22.0	17.5
13	8.5	6.0	13.5	10.0	14.5	10.0	17.5	13.5	21.0	17.5	22.5	17.5
14	10.5	6.5	13.5	9.5	14.5	10.5	17.0	13.0	19.5	18.5	23.0	18.5
15	11.5	7.5	14.0	10.5	14.5	10.5	16.5	13.5	20.0	18.0	23.0	18.5
16	13.0	9.0	13.0	10.0	15.0	10.5	16.0	13.0	22.0	18.5	22.5	18.5
17	12.0	9.5	13.5	10.0	15.5	10.5	16.0	13.0	21.0	17.5	22.5	18.5
18	10.5	9.5	13.5	10.0	15.0	10.5	15.5	12.5	20.0	18.0	22.5	18.0
19	12.5	8.5	14.5	10.5	14.5	10.0	16.5	12.5	19.0	17.0	21.5	17.5
20	12.0	10.0	14.0	10.0	14.5	10.5	16.0	13.0	20.0	17.0	21.5	17.5
21	10.5	9.5	14.5	10.0	15.0	10.5	17.0	13.5	18.0	16.5	21.0	18.0
22	11.5	9.5	15.0	10.0	15.5	11.0	17.0	14.0	19.5	16.0	22.5	18.0
23	11.5	9.5	14.5	9.5	15.5	11.0	17.5	14.5	19.5	16.0	21.0	19.5
24	12.0	10.5	14.5	9.5	15.5	11.0	17.5	14.5	20.0	16.0	21.0	17.5
25	10.5	9.0	14.5	9.5	15.5	11.5	17.0	14.5	20.0	16.0	20.0	16.5
26	11.0	8.5	14.5	9.5	15.5	11.5	17.0	14.5	20.0	16.0	18.5	16.5
27	12.0	9.0	14.5	9.5	14.5	11.5	18.0	14.5	20.0	16.0	19.0	16.0
28	13.5	10.5	13.5	9.5	15.5	11.0	18.5	15.0	20.5	16.0	18.0	16.0
29	12.0	10.5	14.0	9.0	15.5	11.0	19.0	15.5	20.5	16.0	16.5	15.5
30	11.0	9.0	14.0	9.5	15.0	11.5	19.0	16.5	19.5	16.0	16.0	14.5
31	---	---	13.5	9.5	---	---	19.5	16.5	21.0	17.0	---	---
MONTH	13.5	6.0	15.0	7.0	15.5	9.0	19.5	11.0	22.0	16.0	23.0	14.5

TULARE LAKE BASIN

11210100 SOUTH FORK KAWEAH RIVER AT THREE RIVERS, CA

LOCATION.--Lat 36°25'00", long 118°54'48", in SW 1/4 SE 1/4 sec.26, T.17 S., R.28 E., Tulare County, Hydrologic Unit 18030007, on right bank 200 ft upstream from unnamed tributary, 0.5 mi upstream from mouth, and 1.8 mi southwest of Three Rivers.

DRAINAGE AREA.--86.7 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 807.22 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several small diversions above station for irrigation.

AVERAGE DISCHARGE.--25 years, 76.8 ft³/s, 55,640 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s Dec. 6, 1966, gage height, 9.30 ft in gage well, 10.4 ft from floodmarks, from rating curve extended above 2,600 ft³/s on basis of slope-area measurement of maximum flow; no flow at times in 1960-62.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 23, 1955, reached a stage of 9.5 ft from floodmarks, discharge, 10,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 30	1230	937	4.27	Mar. 1	0930	1,750	5.00
Nov. 19	0245	730	4.00	Mar. 16	2200	903	4.23
Nov. 30	0900	2,000	5.15	May 28	2300	1,020	4.36
Dec. 22	1930	*3,900	6.01	June 17	2345	1,030	4.38
Jan. 22	2200	3,440	5.83	July 4	2215	1,010	4.35
Feb. 8	0145	1,620	4.91				

Minimum daily, 13 ft³/s Sept. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	138	317	101	261	1020	337	294	704	611	125	29
2	36	99	176	95	233	802	327	246	549	640	119	28
3	32	80	145	90	207	770	307	230	520	623	110	27
4	28	70	136	87	186	605	282	238	469	691	100	26
5	27	63	126	85	174	487	261	231	514	728	91	24
6	25	58	122	83	252	421	240	219	601	645	86	23
7	22	54	116	81	669	416	224	209	652	524	88	22
8	23	51	102	80	747	358	210	225	676	444	128	21
9	21	51	92	78	431	332	202	232	676	401	141	21
10	19	51	87	76	358	319	201	236	718	364	122	20
11	19	48	82	73	310	301	205	211	718	389	93	19
12	18	47	80	72	300	276	205	202	622	406	75	18
13	18	44	80	70	496	409	188	202	601	419	68	17
14	17	43	75	69	341	449	178	195	655	390	68	16
15	17	40	71	68	295	333	171	210	681	370	75	16
16	16	40	67	69	267	370	166	238	742	335	72	14
17	16	38	65	68	246	434	169	245	802	296	72	14
18	16	56	62	66	297	479	184	267	819	257	70	13
19	16	277	60	119	251	412	170	304	745	215	70	13
20	15	99	60	79	218	368	178	365	695	214	70	13
21	16	72	63	71	200	454	219	422	672	215	60	13
22	15	63	1280	808	187	394	182	496	691	217	55	15
23	15	59	729	625	183	366	178	575	686	202	50	17
24	16	54	319	729	179	491	204	626	661	186	45	16
25	27	49	231	438	231	431	187	667	657	172	41	15
26	296	47	188	311	412	391	176	712	671	161	38	16
27	124	45	162	906	663	370	169	779	671	155	35	17
28	76	47	144	460	537	399	186	847	658	152	32	17
29	61	115	132	560	---	359	194	862	660	147	31	26
30	393	759	120	367	---	353	268	841	627	140	29	37
31	248	---	110	304	---	354	---	841	---	137	29	---
TOTAL	1729	2757	5599	7188	9131	13723	6368	12467	19813	10846	2288	583
MEAN	55.8	91.9	181	232	326	443	212	402	660	350	73.8	19.4
MAX	393	759	1280	906	747	1020	337	862	819	728	141	37
MIN	15	38	60	66	174	276	166	195	469	137	29	13
AC-FT	3430	5470	11110	14260	18110	27220	12630	24730	39300	21510	4540	1160
CAL YR 1982	TOTAL	50869.5	MEAN	139	MAX	1990	MIN	3.1	AC-FT	100900		
WTR YR 1983	TOTAL	92492	MEAN	253	MAX	1280	MIN	13	AC-FT	183500		

11210850 LEMONCOVE DITCH BELOW TERMINUS DAM, CA

LOCATION.--Lat 36°24'55", long 119°00'22", in SW 1/4 SW 1/4 sec.25, T.17 S., R.27 E., Tulare County, Hydrologic Unit 18030007, on left bank 250 ft downstream from outlet tunnel of Terminus Dam, and 2.4 mi northeast of Lemoncove.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 546.3 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records excellent. Ditch receives water from Lake Kaweah (station 11210900) which is used for irrigation. At times up to 3 ft³/s is diverted 200 ft upstream into Doffelmyer ditch for irrigation.

AVERAGE DISCHARGE.--21 years, 4.85 ft³/s, 3,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8.8 ft³/s May 5, 1970; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	2.6	1.1	.90			0	1.0	6.1	6.1	6.7	7.0
2	4.3	2.5	1.1	.90			0	1.0	6.1	6.1	6.7	7.0
3	4.3	2.5	1.1	1.0			0	1.0	6.1	6.1	6.7	7.0
4	4.3	2.5	1.1	1.0			0	1.0	6.1	6.1	6.9	7.0
5	4.3	2.5	1.1	1.0			0	1.0	6.1	6.1	7.0	7.0
6	4.3	2.5	1.0	1.0			0	.90	6.1	6.1	7.0	7.0
7	4.3	2.5	1.0	1.2			0	.90	6.1	6.1	7.0	7.0
8	4.2	2.5	1.0	1.2			0	.90	6.1	6.3	7.0	7.0
9	4.1	2.5	1.0	1.2			.50	.90	6.1	6.3	7.0	7.6
10	4.1	2.5	1.1	1.2			1.1	.80	6.1	6.1	7.0	8.0
11	4.6	2.5	1.1	1.2			1.1	.70	6.1	6.1	7.0	8.0
12	5.2	2.5	1.0	1.2			1.1	.80	6.1	6.1	7.0	8.0
13	5.7	2.5	1.0	1.2			1.1	.80	6.1	6.1	7.0	8.0
14	6.0	2.5	1.0	1.2			1.1	.80	6.1	6.1	7.0	8.0
15	6.0	2.5	1.0	1.1			1.1	.80	6.1	6.1	7.0	8.0
16	6.0	2.5	1.0	1.1			1.1	1.4	6.1	6.1	7.0	8.0
17	6.0	2.5	1.0	1.1			1.1	2.9	6.1	6.1	7.0	8.0
18	6.4	2.5	1.0	1.1			1.1	4.2	6.1	6.1	7.0	8.0
19	7.0	2.5	1.0	1.2			1.1	5.9	6.1	6.1	7.0	8.0
20	7.5	2.5	1.0	1.3			1.2	5.9	6.1	6.6	7.0	8.0
21	7.9	2.5	1.0	1.4			1.2	5.9	6.1	7.0	7.0	8.0
22	8.1	2.5	1.0	1.6			1.2	5.9	6.1	6.9	7.0	8.0
23	7.4	2.5	1.0	1.6			1.3	5.9	6.1	6.7	7.0	7.9
24	7.0	1.0	.90	.70			1.3	5.9	6.1	6.7	7.0	7.9
25	7.0	1.0	.90	0			1.3	5.9	6.1	6.7	7.0	7.9
26	4.6	1.0	.90	0			1.3	5.9	6.1	6.7	7.0	7.4
27	2.9	1.0	.90	0			1.2	6.0	6.1	6.7	7.0	7.0
28	2.9	1.0	.90	0			1.1	6.0	6.1	6.7	7.0	7.0
29	2.8	1.0	.90	0			1.1	5.4	6.1	6.7	7.0	7.0
30	2.8	1.1	.90	0			1.1	6.0	6.1	6.7	7.0	6.4
31	2.8	---	.90	0			---	6.0	---	6.7	7.0	---
TOTAL	159.1	64.7	30.9	27.6	0	0	24.8	98.4	183.0	197.1	216.0	226.1
MEAN	5.13	2.16	1.00	.89	0	0	.83	3.17	6.10	6.36	6.97	7.54
MAX	8.1	2.6	1.1	1.6	0	0	1.3	6.0	6.1	7.0	7.0	8.0
MIN	2.8	1.0	.90	0	0	0	0	.70	6.1	6.1	6.7	6.4
AC-FT	316	128	61	55	0	0	49	195	363	391	428	448
CAL YR 1982	TOTAL	1498.90	MEAN	4.11	MAX	8.2	MIN	.70	AC-FT	2970		
WTR YR 1983	TOTAL	1227.70	MEAN	3.36	MAX	8.1	MIN	0	AC-FT	2440		

11210900 LAKE KAWEAH NEAR LEMONCOVE, CA

LOCATION.--Lat 36°24'53", long 119°00'07", in SE 1/4 SW 1/4 sec.25, T.17 S., R.27 E., Tulare County, Hydrologic Unit 18030007, in control tower near left abutment of Terminus Dam on Kaweah River, 2.1 mi northeast of Lemoncove.

DRAINAGE AREA.--560 mi².

PERIOD OF RECORD.--October 1961 to current year. Fragmentary prior to March 1962.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 22, 1962, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam and earthfill auxiliary dam, completed in February 1962. Usable capacity, 142,931 acre-ft between elevations 520.0 ft invert of outlet structure, and 694.0 ft spillway crest. Dead storage, 33 acre-ft. Spillway design flood pool elevation, 745.1 ft, capacity, 256,167 acre-ft. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 160,200 acre-ft July 3, 4, 1967, elevation, 699.39 ft storage increased by a temporary sandbag dam in the ungated spillway; minimum since reservoir first filled, 7,559 acre-ft Oct. 20, 1970, elevation, 568.38 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 146,117 acre-ft June 26, elevation, 695.64 ft; minimum, 9,175 acre-ft Oct. 24, elevation, 577.37 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

520	33	580	10,112
525	170	600	19,970
530	436	620	35,541
535	832	640	57,212
540	1,347	660	84,644
550	2,703	680	117,289
560	4,509	700	154,644
570	6,903	720	196,552

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29660	26985	28025	65892	68522	80095	70090	19220	79232	144133	138197	77910
2	28329	27094	29660	65402	66451	82741	69994	18575	82101	143577	137388	75884
3	26923	26552	30674	64558	65071	84072	69775	17970	84538	143174	136281	73983
4	25371	25806	31503	63368	64177	84433	69324	17584	86446	143366	134711	72037
5	23746	25007	32076	61714	63420	83967	68929	17009	88835	144075	133001	70076
6	22068	24140	32470	59894	63420	82949	68414	16388	92181	144095	131373	68170
7	20362	23210	32753	57866	68671	82235	67698	15780	95904	142926	129957	66278
8	19288	22332	32850	55732	74054	80918	66758	15514	99697	141780	128931	64335
9	18569	21585	32868	53629	74945	79436	65640	15395	103475	141075	127745	62396
10	17865	20889	32859	51455	74959	77896	64531	15446	107570	140050	126473	60425
11	17176	20039	32832	49183	74520	76341	63381	14840	111515	139860	124522	58426
12	16497	19196	32832	46882	74152	74534	61739	14040	114567	141170	122244	56451
13	15764	18327	32823	44549	76313	75328	59452	13297	117061	142524	119879	54465
14	15011	17430	32655	42378	76012	77809	56904	12450	120038	142505	117640	52506
15	14219	16513	32382	40221	74788	77232	54106	11871	123210	142142	115663	50587
16	13413	15586	32076	38152	73378	76614	51257	11633	126836	141665	113494	48664
17	12586	14636	31737	36046	72009	76599	48507	11704	131005	140904	112804	46805
18	11720	14088	31366	33934	72051	77131	45984	12074	135121	140182	111498	44988
19	10914	18338	30853	32815	71954	76556	43287	12476	138310	139217	109568	43203
20	10142	19032	30269	32033	71537	75556	40817	13585	140961	139066	107502	41429
21	9762	18869	29760	31832	70998	75342	38572	15912	143155	139501	105288	39710
22	9562	18297	45560	38308	70433	74520	36009	19763	144806	140107	102912	38210
23	9358	17635	54994	45409	69980	73505	33501	24545	145576	140524	100480	36842
24	9175	16798	59076	53308	69433	74477	31478	29876	145865	140790	98026	35494
25	9445	15891	61804	58426	69379	74732	29100	35401	146020	140961	95473	34115
26	14865	14966	63824	61817	71136	73828	26514	40960	146117	141113	92920	32797
27	16606	14146	65335	70062	74407	72636	24075	47236	145962	140961	90369	31512
28	17430	13464	66318	70695	75456	72051	22102	54476	145731	140600	87821	30236
29	18121	13835	66665	72692	---	71399	20496	61739	145402	140107	85187	29133
30	22785	23924	66598	72065	---	70791	19763	68495	144806	139539	82547	28685
31	25896	---	66291	70543	---	70364	---	74788	---	138858	80109	---
MAX	29660	27094	66665	72692	76313	84433	70090	74788	146117	144133	138197	77910
MIN	9175	13464	28025	31832	63420	70364	19763	11633	79232	138858	80109	28685
a	608.57	605.89	647.08	650.22	653.73	650.09	599.67	653.26	694.96	691.84	656.95	612.13
b	-5067	-1972	+42367	+4252	+4913	-5092	-50601	+55025	+70018	-5948	-58749	-51424
c	216	85	90	88	139	209	276	330	1102	1477	1322	790

CAL YR 1982 b +50558

WTR YR 1983 b -2278

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11210930 FOOTHILL DITCH BELOW TERMINUS DAM, CA

LOCATION.--Lat 36°24'48", long 119°00'47", in NW 1/4 NW 1/4 sec.35, T.17 S., R.27 E., Tulare County, Hydrologic Unit 18030012, on left bank 0.7 mi downstream from Terminus Dam, and 2.1 mi northeast of Lemoncove.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 492.8 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Ditch receives water from Lake Kaweah (station 11210900) which is used for irrigation.

AVERAGE DISCHARGE.--22 years, 17.2 ft³/s, 12,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50 ft³/s Apr. 7, 1979; no flow many days in 1975, 1978-83.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11						0	5.8	13	16	15	15
2	11						0	7.1	13	15	15	15
3	11						0	8.2	13	13	15	15
4	11						0	8.2	13	13	15	15
5	12						0	8.2	13	13	15	15
6	12						0	8.4	13	17	15	15
7	12						0	8.4	12	16	14	15
8	12						0	8.4	12	15	14	15
9	12						0	8.4	14	15	15	15
10	12						0	8.4	15	15	15	15
11	12						0	8.2	14	14	15	15
12	12						0	8.2	14	14	15	15
13	12						0	11	14	14	15	15
14	13						0	13	14	15	15	15
15	14						0	13	14	15	15	15
16	14						0	13	14	15	15	15
17	14						0	13	14	15	15	15
18	15						0	13	15	15	15	15
19	14						0	13	14	15	15	15
20	14						0	13	14	15	15	15
21	13						0	13	14	14	15	14
22	13						0	13	14	14	15	14
23	13						0	13	14	15	15	14
24	13						0	13	15	15	15	14
25	13						0	14	15	15	15	14
26	5.5						0	14	15	15	15	14
27	0						3.4	13	14	15	15	14
28	0						6.2	13	13	15	15	14
29	0						6.2	13	15	13	15	14
30	0						6.2	13	16	15	15	14
31	0						---	13	---	15	15	---
TOTAL	320.5	0	0	0	0	0	22.0	342.9	417	456	463	440
MEAN	10.3	0	0	0	0	0	.73	11.1	13.9	14.7	14.9	14.7
MAX	15	0	0	0	0	0	6.2	14	16	17	15	15
MIN	0	0	0	0	0	0	0	5.8	12	13	14	14
AC-FT	636	0	0	0	0	0	44	680	827	904	918	873
CAL YR 1982	TOTAL	2748.0	MEAN	7.53	MAX	20	MIN	0	AC-FT	5450		
WTR YR 1983	TOTAL	2461.4	MEAN	6.74	MAX	17	MIN	0	AC-FT	4880		

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CA

LOCATION.--Lat 36°24'51", long 119°00'42", in SE 1/4 SE 1/4 sec.26, T.17 S., R.27 E., Tulare County, Hydrologic Unit 18030012, on left bank 0.6 mi downstream from Terminus Dam, and 2.2 mi northeast of Lemoncove.

DRAINAGE AREA.--561 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-71-2: 1963.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 495.90 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Lake Kaweah (station 11210900). Lemoncove ditch (station 11210850) diverts water from Lake Kaweah for irrigation. Foothill ditch (station 11210930) diverts water from the gage pool for irrigation. Doffelmyer ditch diverts up to 3 ft³/s above station for irrigation. At times some of this water is returned to the river above the station.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion).--22 years, 718 ft³/s 520,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,610 ft³/s June 3, 1969, gage height, 8.77 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,550 ft³/s June 29, gage height, 8.11 ft; minimum daily, 18 ft³/s Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1220	596	363	1150	2690	2510	2450	2410	3040	4260	1880	1700
2	1180	880	630	1150	2580	2540	2350	2210	3010	4260	1900	1600
3	1150	1040	703	1280	2160	3000	2320	2080	3010	4260	1970	1500
4	1160	1090	747	1440	1800	3010	2250	2090	3030	4260	2080	1480
5	1170	1050	775	1660	1670	3010	2110	2090	3030	4290	2080	1460
6	1170	1030	797	1750	1650	3000	2060	2040	3030	4300	2030	1420
7	1170	1020	825	1840	1120	3000	2060	1980	3060	4240	2000	1390
8	853	979	830	1880	1370	2990	2100	1980	3110	3760	2020	1400
9	618	916	806	1880	2090	2990	2190	1990	3150	3260	2110	1390
10	596	888	797	1880	2160	2990	2200	2000	3240	3110	2200	1370
11	568	932	769	1910	2150	2990	2220	2100	3280	2840	2210	1370
12	561	930	746	1940	2150	2990	2380	2180	3280	2280	2170	1340
13	576	920	746	1940	2220	2880	2620	2170	3280	2330	2130	1340
14	587	924	782	1860	2430	2620	2700	2180	3320	2840	2120	1310
15	603	928	806	1830	2600	2990	2770	2180	3370	2850	2140	1300
16	608	924	806	1830	2580	3000	2800	2180	3340	2690	2150	1290
17	611	922	801	1830	2450	3000	2810	2120	3480	2630	2120	1250
18	626	912	801	1840	2080	3010	2810	2180	3500	2400	2110	1230
19	588	756	860	1620	1920	3010	2790	2430	3480	2160	2110	1200
20	560	641	895	1200	1910	3000	2790	2640	3470	1810	2080	1180
21	368	835	900	850	1910	2990	2800	2490	3580	1560	2040	1170
22	246	977	353	439	1870	3000	2790	2390	3880	1570	2030	1080
23	249	1030	109	19	1810	3000	2800	2460	4170	1590	1980	1020
24	246	1040	260	18	1820	2740	2680	2630	4290	1600	1930	1000
25	220	1040	363	106	1810	2660	2800	2740	4370	1600	1950	1000
26	205	1020	470	282	1810	3000	2790	2930	4440	1500	1910	952
27	320	954	566	534	2070	2990	2660	3000	4440	1630	1880	926
28	380	912	701	2360	2530	2740	2600	2940	4380	1770	1880	931
29	299	504	973	2160	---	2600	2490	2980	4440	1880	1880	915
30	352	202	1110	2530	---	2600	2420	2970	4370	1900	1880	723
31	400	---	1150	2650	---	2600	---	3010	---	1880	1790	---
TOTAL	19460	26792	22240	45658	57410	89450	75610	73770	106870	83310	62760	37237
MEAN	628	893	717	1473	2050	2885	2520	2380	3562	2687	2025	1241
MAX	1220	1090	1150	2650	2690	3010	2810	3010	4440	4300	2210	1700
MIN	205	202	109	18	1120	2510	2060	1980	3010	1500	1790	723
AC-FT	38600	53140	44110	90560	113900	177400	150000	146300	212000	165200	124500	73860
MEAN a	564	863	1409	1544	2142	2806	1677	3294	4778	2635	1113	413
AC-FT a	34680	51350	86640	94940	119000	172500	99790	202500	284300	162000	68440	24580

CAL YR 1982 TOTAL 427269 MEAN 1171 MAX 3510 MIN 48 AC-FT 847500 MEAN a 1260 AC-FT a 912200
WTR YR 1983 TOTAL 700567 MEAN 1919 MAX 4440 MIN 18 AC-FT 1390000 MEAN a 1935 AC-FT a 1401000

a Adjusted for change in contents and evaporation in Lake Kaweah and for diversions to Lemoncove and Foothill ditches.

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

CHEMICAL ANALYSES: Water years 1962-79.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1970 to current year.

INSTRUMENTATION.--Temperature recorder since November 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 29.5°C Sept. 1, 2, 4, 1976; minimum recorded, 5.0°C Jan. 9, 10, 1971.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.5°C Sept. 26; minimum recorded 6.5°C Dec. 18, 26-29, Jan. 3-5, Feb. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	16.5	13.0	12.0	10.5	7.5	7.0	7.0	9.0	8.0	10.5	10.5
2	17.5	17.0	12.5	12.0	9.0	8.0	7.5	7.0	9.0	8.5	10.5	10.5
3	17.0	16.5	12.5	12.0	8.5	7.5	7.0	6.5	8.5	8.0	11.0	10.5
4	17.5	17.0	12.5	12.0	8.5	7.5	7.0	6.5	8.5	7.5	10.5	10.5
5	17.5	17.5	13.0	12.0	8.0	7.5	7.0	6.5	8.5	8.0	11.0	10.5
6	17.5	17.5	12.5	12.0	8.0	7.5	7.0	7.0	9.0	8.0	10.5	10.5
7	18.0	17.5	12.5	12.0	9.0	7.0	7.0	7.0	9.0	7.5	11.0	10.5
8	18.0	17.5	12.5	12.0	8.5	8.0	7.5	7.0	9.0	8.0	11.0	10.5
9	18.0	17.0	12.5	12.0	9.5	7.5	7.5	7.0	9.0	6.5	11.0	11.0
10	18.0	17.0	12.5	11.5	8.5	7.5	7.5	7.0	9.0	8.5	11.0	11.0
11	18.0	17.0	12.0	11.0	9.0	7.5	7.5	7.0	9.0	8.5	11.0	11.0
12	18.0	17.0	12.0	11.0	8.5	8.0	7.5	7.0	9.0	9.0	11.0	10.5
13	18.0	17.0	11.5	11.0	8.5	7.5	7.5	7.5	9.5	9.0	11.5	11.0
14	18.0	17.0	11.5	10.5	8.5	7.0	7.5	7.5	9.5	9.0	11.5	11.0
15	18.0	17.0	11.0	10.5	9.0	8.0	7.5	7.5	9.5	9.0	11.5	11.0
16	18.0	17.0	11.0	10.5	10.0	7.5	7.5	7.5	9.5	9.0	11.5	11.0
17	18.0	17.0	11.0	10.5	8.5	7.5	8.0	7.0	10.0	8.0	11.0	10.5
18	18.0	17.0	11.0	10.5	8.5	6.5	8.0	7.0	10.5	9.5	11.0	10.5
19	18.0	17.0	11.0	10.0	8.5	8.0	8.5	7.5	10.0	9.5	11.0	10.5
20	18.0	17.0	10.5	10.0	8.5	8.0	8.5	7.0	10.0	9.5	10.5	10.5
21	18.0	17.0	10.5	10.0	9.0	8.0	8.0	7.0	10.0	9.5	10.5	10.5
22	18.0	17.0	10.0	10.0	10.5	8.5	9.5	8.0	10.0	9.5	10.5	10.5
23	18.0	17.0	10.5	9.5	10.5	8.0	11.5	9.0	10.0	9.5	10.5	10.0
24	17.5	17.0	10.0	9.5	8.5	7.0	12.0	10.5	10.0	9.5	10.5	10.0
25	18.0	17.0	10.0	9.5	8.0	7.0	11.0	7.0	10.5	9.5	10.5	9.5
26	17.5	14.5	10.0	9.5	7.5	6.5	8.5	8.0	10.5	10.0	10.0	9.5
27	14.5	13.0	10.0	9.5	7.0	6.5	9.5	8.0	10.5	10.0	10.0	9.5
28	14.0	13.0	10.0	7.5	7.0	6.5	9.0	7.0	10.5	10.5	10.5	10.0
29	14.0	13.0	10.0	9.5	7.0	6.5	9.0	8.5	---	---	10.5	10.5
30	13.0	13.0	11.0	10.0	7.0	7.0	9.0	8.5	---	---	10.5	10.5
31	13.0	12.0	---	---	7.5	7.0	9.0	7.0	---	---	11.0	10.5
MONTH	18.0	12.0	13.0	7.5	10.5	6.5	12.0	6.5	10.5	6.5	11.5	9.5

TULARE LAKE BASIN

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	11.0	14.0	13.0	12.5	12.0	14.5	13.5	16.0	15.5	20.0	19.5
2	11.5	11.0	13.5	12.5	12.0	11.5	14.0	13.0	16.0	15.5	20.0	19.5
3	11.5	11.0	13.5	12.5	12.0	11.5	14.0	12.5	16.0	15.5	20.0	20.0
4	11.5	11.0	13.5	12.5	12.0	12.0	14.0	13.5	16.5	15.5	20.5	20.0
5	11.0	10.5	13.0	12.5	12.0	11.5	14.5	13.0	16.0	16.0	20.5	20.0
6	11.0	10.0	13.0	12.0	12.5	12.0	15.0	14.5	16.0	16.0	20.5	20.0
7	11.0	11.0	13.0	12.0	12.5	12.0	14.5	12.5	16.0	16.0	20.5	20.0
8	11.0	11.0	13.0	13.0	12.5	12.5	14.5	13.5	16.5	16.0	20.5	20.0
9	11.0	11.0	13.5	13.0	13.0	12.0	15.0	13.5	16.5	16.0	21.0	20.5
10	11.5	11.0	13.5	12.5	12.5	11.5	14.5	14.0	17.0	16.0	21.0	20.5
11	11.5	11.5	13.5	12.0	13.0	12.0	15.0	11.0	16.5	16.5	21.0	20.5
12	11.5	11.5	13.5	12.0	13.0	11.5	15.0	13.0	17.0	16.5	21.0	20.5
13	11.5	11.0	14.0	12.5	13.0	12.0	15.0	13.5	17.0	16.5	21.0	20.5
14	11.5	11.0	14.0	13.0	13.0	12.0	15.0	14.5	17.5	16.5	21.5	21.0
15	11.5	11.0	14.5	13.5	13.0	12.5	14.5	14.5	17.0	17.0	21.5	21.0
16	12.0	11.5	14.5	14.0	13.0	11.5	15.0	14.5	17.5	17.0	21.5	21.0
17	12.0	12.0	15.0	13.5	13.0	13.0	15.0	14.5	17.5	17.0	22.0	21.5
18	12.5	12.0	15.0	14.0	13.0	13.0	15.0	14.5	17.5	17.0	22.0	21.5
19	13.0	12.5	15.0	13.5	13.0	12.5	15.0	14.5	18.0	17.5	22.0	22.0
20	13.0	12.5	15.0	14.0	13.0	12.5	15.0	15.0	18.5	17.5	22.5	22.0
21	13.0	12.5	15.0	13.5	13.0	12.0	15.0	14.5	18.5	18.0	23.0	22.0
22	13.0	12.5	15.0	13.5	14.5	12.5	15.5	15.0	19.0	18.0	22.5	22.5
23	13.0	12.5	14.0	13.0	15.0	14.5	15.5	15.0	18.5	18.5	22.5	22.5
24	13.0	13.0	14.0	13.0	15.5	15.0	15.5	15.0	19.5	18.5	23.0	22.5
25	13.5	13.0	13.5	12.5	16.0	15.0	15.5	15.0	19.0	19.0	23.0	22.5
26	13.5	13.0	13.5	12.5	16.0	15.0	15.5	15.0	19.5	19.0	23.5	22.5
27	13.5	13.0	13.0	12.5	15.5	14.5	15.5	15.0	19.5	19.0	23.0	22.5
28	14.0	13.0	13.0	12.5	15.5	15.0	15.5	15.0	19.5	19.0	22.5	22.5
29	14.0	13.5	13.5	12.0	15.5	14.5	15.5	15.0	19.5	19.5	23.0	22.5
30	14.5	13.0	12.5	11.5	15.0	14.0	15.5	15.5	20.0	19.5	22.5	21.0
31	---	---	12.5	12.0	---	---	15.5	15.5	20.0	19.5	---	---
MONTH	14.5	10.0	15.0	11.5	16.0	11.5	15.5	11.0	20.0	15.5	23.5	19.5

11211300 DRY CREEK NEAR LEMONCOVE, CA

LOCATION.--Lat 36°26'51", long 119°01'38", in NE 1/4 SE 1/4 sec.15, T.17 S., R.27 E., Tulare County, Hydrologic Unit 18030012, on right bank 0.5 mi downstream from Bequette Canyon, 2.9 mi upstream from mouth, and 4.4 mi north of Lemoncove.

DRAINAGE AREA.--75.6 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 570 ft, from topographic map. Prior to Mar. 8, 1969, 1.6 mi downstream at different datum.

REMARKS.--Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--24 years, 26.4 ft³/s, 19,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s Dec. 6, 1966, gage height, 7.30 ft in gage well, 8.94 ft from floodmarks, site and datum then in use; no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a discharge of 6,070 ft³/s from slope-area measurement. Flood of 1867 is believed to have exceeded that of December 1955, from information by local residents.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 30	2015	125	2.76	Feb. 7	1000	1,580	5.40
Nov. 19	0215	1,630	5.46	Mar. 1	1300	1,510	5.32
Nov. 30	1045	1,970	5.89	Mar. 13	2130	1,430	5.24
Dec. 22	1815	*3,870	8.26	Mar. 24	2030	779	4.39
Jan. 22	2245	2,670	6.77				

Minimum daily, 2.0 ft³/s Sept. 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	21	425	97	273	925	257	151	52	21	6.5	4.4
2	3.6	15	225	91	225	739	241	133	53	21	6.0	4.4
3	3.0	12	144	82	191	581	228	120	52	22	5.6	4.4
4	3.0	9.8	114	68	168	465	216	116	50	20	5.5	4.3
5	2.8	8.7	90	64	152	380	207	113	47	19	5.4	4.1
6	2.8	8.1	76	58	216	324	193	116	45	18	5.2	3.9
7	2.8	7.6	68	54	883	356	180	108	43	18	5.2	3.6
8	2.8	7.6	58	50	802	287	171	104	40	18	5.2	3.4
9	3.0	8.3	48	47	461	259	164	101	40	18	5.2	3.2
10	2.8	15	43	42	376	239	163	99	39	18	5.6	3.1
11	2.5	17	39	39	318	235	170	95	39	17	5.9	3.1
12	2.5	13	37	36	307	213	168	92	40	16	5.7	2.9
13	2.4	11	36	33	518	461	156	90	38	15	5.7	2.8
14	2.3	10	34	31	322	473	151	88	35	13	5.7	2.7
15	2.3	9.8	32	29	273	313	141	82	32	12	5.7	2.5
16	2.3	9.3	30	29	242	317	133	76	32	12	5.5	2.4
17	2.4	9.1	29	31	219	446	128	74	30	11	5.5	2.2
18	2.5	50	28	28	287	598	145	72	29	11	5.5	2.1
19	2.7	494	27	144	254	430	133	70	29	11	5.5	2.1
20	2.9	58	27	63	212	357	124	68	28	11	5.2	2.0
21	3.0	32	28	49	194	483	144	66	27	11	5.4	2.0
22	5.1	24	1710	776	182	405	123	64	26	11	5.5	2.0
23	6.6	22	705	746	173	398	118	63	25	10	5.5	2.4
24	7.8	19	363	727	164	662	149	61	24	9.6	5.2	2.8
25	11	17	252	630	187	534	126	60	24	9.1	5.2	3.0
26	58	15	204	439	416	448	117	58	22	8.7	5.2	3.2
27	25	14	173	1530	448	382	111	56	20	8.4	5.2	3.4
28	12	14	151	766	395	375	122	53	21	8.1	5.0	3.6
29	8.6	67	135	947	---	321	123	51	21	7.6	5.0	4.3
30	45	885	121	515	---	294	159	50	21	7.2	4.8	18
31	53	---	107	355	---	278	---	51	---	6.8	4.6	---
TOTAL	290.7	1903.3	5559	8596	8858	12978	4761	2601	1024	419.5	167.9	108.3
MEAN	9.38	63.4	179	277	316	419	159	83.9	34.1	13.5	5.42	3.61
MAX	58	885	1710	1530	883	925	257	151	53	22	6.5	18
MIN	2.3	7.6	27	28	152	213	111	50	20	6.8	4.6	2.0
AC-FT	577	3780	11030	17050	17570	25740	9440	5160	2030	832	333	215
CAL YR 1982	TOTAL	22667.16	MEAN	62.1	MAX	1920	MIN	.17	AC-FT	44960		
WTR YR 1983	TOTAL	47266.7	MEAN	129	MAX	1710	MIN	2.0	AC-FT	93750		

TULARE LAKE BASIN

11211790 COTTONWOOD CREEK NEAR ELDERWOOD, CA

LOCATION.--Lat 36°31'47", long 119°07'33", in SE 1/4 SE 1/4 sec.15, T.16 S., R.26 E., Tulare County, Hydrologic Unit 18030012, on left bank 25 ft upstream from State Highway 65 bridge, 4.0 mi north of Elderwood, and 8.0 mi north of Woodlake.

DRAINAGE AREA.--60.4 mi².

PERIOD OF RECORD.--February 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 575 ft, from topographic map.

REMARKS.--Records good except those for July to September, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--12 years, 17.6 ft³/s, 12,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft³/s Jan. 22, 1983, gage height, 7.22 ft, maximum gage height, 7.65 ft Feb. 20, 1980 (backwater from debris); no flow for several months in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 24, 1969, reached a stage of 10.4 ft from floodmarks.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	0030	801	4.64	Jan. 27	0700	1,610	6.15
Nov. 30	0930	1,300	5.59	Feb. 8	0315	1,150	5.29
Dec. 22	1900	1,920	6.65	Mar. 1	0715	894	4.74
Jan. 22	2200	*2,310	7.22	Mar. 18	0545	1,230	5.45

Minimum daily, 2.1 ft³/s Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	8.6	199	35	189	460	165	76	34	17	9.0	6.4
2	3.2	7.6	110	34	170	387	157	71	34	17	8.7	6.5
3	3.0	7.1	67	32	153	321	149	68	34	17	8.5	6.4
4	2.7	6.8	49	31	139	248	142	67	32	16	8.3	6.2
5	2.6	6.7	40	31	129	207	137	67	31	16	8.1	5.9
6	2.7	6.6	35	29	186	186	128	67	29	16	8.0	5.6
7	2.7	6.6	32	27	543	198	122	64	29	16	8.0	5.3
8	3.2	6.5	29	27	488	165	116	63	27	16	7.9	5.0
9	3.1	6.8	27	26	249	151	110	61	29	16	8.1	4.7
10	2.7	7.9	25	26	204	140	109	61	25	16	8.4	4.5
11	2.5	7.7	24	25	176	136	109	58	27	16	8.9	4.4
12	2.4	7.1	23	24	188	125	108	56	26	16	8.7	4.3
13	2.4	6.9	22	23	295	285	101	56	26	15	8.7	4.1
14	2.4	6.6	21	23	183	224	97	56	24	15	8.6	3.9
15	2.3	6.6	20	23	167	161	93	53	23	14	8.5	3.7
16	2.1	6.6	19	24	148	195	87	52	22	14	8.1	3.5
17	2.2	6.6	18	24	139	258	85	51	22	14	8.0	3.3
18	2.6	24	18	23	200	554	95	49	21	14	8.0	3.1
19	2.9	158	18	74	200	305	87	47	21	13	8.0	3.1
20	3.1	24	17	40	158	259	83	46	20	13	8.0	3.0
21	3.3	18	18	34	133	335	82	44	19	13	8.0	2.9
22	3.3	15	737	474	119	281	79	42	19	13	7.9	3.0
23	3.3	14	263	354	111	269	78	41	17	12	7.8	3.3
24	3.6	13	116	450	107	470	85	40	18	12	7.7	3.8
25	5.9	12	82	233	117	329	76	38	17	11	7.7	4.6
26	13	11	66	154	212	272	74	38	17	11	7.7	5.5
27	9.8	11	56	943	209	241	72	35	16	11	7.6	7.6
28	7.1	12	49	372	180	231	76	35	17	10	7.3	14
29	6.6	35	44	580	---	204	75	34	17	10	7.2	21
30	14	390	41	292	---	188	79	34	17	9.6	7.1	28
31	16	---	37	215	---	178	---	33	---	9.3	6.9	---
TOTAL	140.1	856.3	2322	4702	5492	7963	3056	1603	710	428.9	249.4	186.6
MEAN	4.52	28.5	74.9	152	196	257	102	51.7	23.7	13.8	8.05	6.22
MAX	16	390	737	943	543	554	165	76	34	17	9.0	28
MIN	2.1	6.5	17	23	107	125	72	33	16	9.3	6.9	2.9
AC-FT	278	1700	4610	9330	10890	15790	6060	3180	1410	851	495	370
CAL YR 1982	TOTAL	8937.85	MEAN	24.5	MAX	737	MIN	0	AC-FT	17730		
WTR YR 1983	TOTAL	27709.3	MEAN	75.9	MAX	943	MIN	2.1	AC-FT	54960		

11212000 SAND CREEK NEAR ORANGE COVE, CA

LOCATION.--Lat 36°37'36", long 119°14'48", in SW 1/4 NW 1/4 sec.15, T.15 S., R.25 E., Tulare County, Hydrologic Unit 18030012, on right bank 3.8 mi east of Orange Cove.

DRAINAGE AREA.--31.6 mi².

PERIOD OF RECORD.--October 1944 to September 1954, annual maximum, water years 1956, 1967, 1969, February 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 490 ft, from topographic map.

REMARKS.--Records good. Flood control dam 2.9 mi upstream was completed in October 1980. Capacity, 1,200 acre-feet at maximum design release of 700 ft³/s.

AVERAGE DISCHARGE.--22 years (water years 1945-54, 1972-83), 4.49 ft³/s, 3,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s Feb. 10, 1978, gage height, 5.78 ft, in gage well, 6.38 ft from floodmarks, from rating curve extended above 160 ft³/s on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1969, reached a stage of 8.35 ft from floodmarks, discharge, 2,900 ft³/s. Maximum discharge since 1944, 3,520 ft³/s Jan. 25, 1969, gage height, 8.75 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 436 ft³/s Jan. 22, gage height, 4.80 ft; minimum daily, 0.36 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	4.7	60	12	67	195	61	27	11	5.5	5.2	8.8
2	.40	3.9	39	12	59	153	58	24	11	5.6	5.2	8.7
3	.46	3.4	23	12	54	124	55	23	11	5.6	5.3	8.3
4	.52	3.0	18	11	49	104	53	24	10	5.3	5.5	7.7
5	.60	2.7	15	11	47	82	51	23	9.8	5.0	5.7	6.8
6	.69	2.6	14	10	91	73	47	24	9.4	4.8	6.2	6.6
7	.78	2.7	12	10	208	82	45	22	8.9	4.8	6.6	6.6
8	.97	2.6	12	9.7	215	68	43	21	8.5	5.0	7.5	6.7
9	.96	3.1	11	9.6	98	64	41	20	8.2	5.1	5.9	7.0
10	.88	4.8	10	9.4	76	61	41	20	8.3	4.9	5.6	5.8
11	.80	4.0	9.2	9.1	64	60	41	19	8.0	4.7	5.2	5.2
12	.77	3.5	9.0	8.9	72	56	40	18	9.8	4.4	5.1	4.7
13	.71	3.3	8.8	8.5	119	142	38	18	9.1	4.2	5.1	4.3
14	.65	3.1	8.5	8.3	70	103	36	18	8.6	4.2	5.7	4.1
15	.64	3.0	7.6	8.2	61	71	34	17	8.0	4.2	8.7	4.1
16	.66	3.0	7.3	8.7	55	92	33	16	7.6	4.4	7.7	4.0
17	.76	2.9	7.2	8.6	51	121	32	16	6.8	4.5	7.2	3.9
18	.94	5.3	7.6	8.8	69	247	38	15	6.8	4.7	7.1	3.7
19	1.0	4.2	7.4	34	57	125	34	15	6.9	4.8	8.6	3.6
20	1.0	8.9	7.5	15	49	97	32	14	6.6	5.0	8.3	3.7
21	1.1	6.1	8.0	12	46	121	31	13	6.4	5.0	6.6	3.7
22	1.1	5.1	178	129	44	101	30	13	6.2	4.8	7.4	4.7
23	1.0	4.7	83	198	43	101	29	12	5.9	4.6	7.4	5.5
24	1.3	4.3	33	208	41	182	34	12	5.9	4.8	7.3	6.0
25	2.5	4.1	25	173	51	122	28	12	5.7	5.0	6.9	5.6
26	6.6	3.9	21	73	83	97	27	11	5.5	5.1	7.1	5.4
27	4.3	3.7	19	336	64	88	26	11	5.3	5.1	7.5	6.0
28	3.2	4.2	16	223	59	82	28	11	5.5	5.0	7.5	5.8
29	2.8	29	15	234	---	73	27	10	5.7	4.9	8.0	8.0
30	8.1	169	14	112	---	68	30	10	5.7	5.0	8.8	9.5
31	8.7	---	13	81	---	65	---	10	---	5.1	9.4	---
TOTAL	55.25	346.6	719.1	2003.8	2062	3220	1143	519	232.1	151.1	211.3	174.5
MEAN	1.78	11.6	23.2	64.6	73.6	104	38.1	16.7	7.74	4.87	6.82	5.82
MAX	8.7	169	178	336	215	247	61	27	11	5.6	9.4	9.5
MIN	.36	2.6	7.2	8.2	41	56	26	10	5.3	4.2	5.1	3.6
AC-FT	110	687	1430	3970	4090	6390	2270	1030	460	300	419	346

CAL YR 1982 TOTAL 3269.72 MEAN 8.96 MAX 271 MIN 0 AC-FT 6490
WTR YR 1983 TOTAL 10837.75 MEAN 29.7 MAX 336 MIN .36 AC-FT 21500

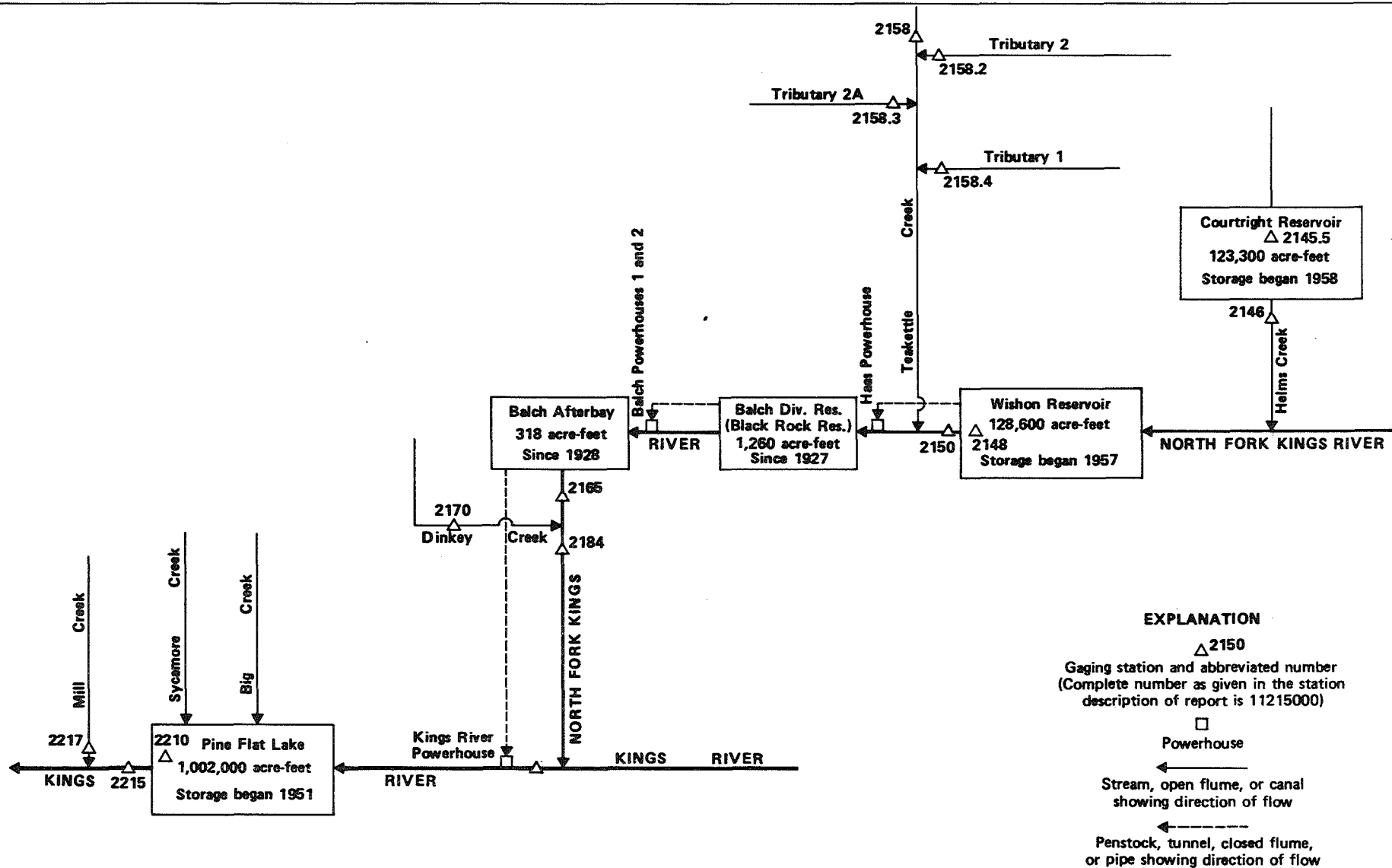


FIGURE 7. — Schematic diagram showing diversions and storage in Kings River basin.

11214550 COURTRIGHT RESERVOIR NEAR NELSON MOUNTAIN, CA

LOCATION.--Lat 37°04'45", long 119°58'07", in NW 1/4 NW 1/4 sec.7, T.10 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, at left end of dam on Helms Creek 2.5 mi upstream from mouth, 4.6 mi east of Nelson Mountain, and 9.7 mi west of Blackcap Mountain.

DRAINAGE AREA.--39.7 mi².

PERIOD OF RECORD.--October 1958 to September 1982 (monthend elevation and contents only), October 1982 to September 1983.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--Reservoir is formed by rockfill dam completed in 1958. Usable capacity, 123,300 acre-ft between elevations 7,902 ft, invert of tunnel and 8,184 ft, elevation of spillway. Dead storage negligible. See schematic diagram of Kings River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Energy Regulatory Commission Project. Records not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,220 acre-ft Sept. 26, 1982, elevation, 8,184.57 ft; no contents in 1961-62, 1968, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 123,302 acre-ft July 18, 20, elevation, 8,184.01 ft; minimum, 18,959 acre-ft May 15, elevation, 8,077.62 ft.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117853	111383	110681	113149	115838	117189	81042	40928	43217	98489	123139	121000
2	117885	111536	110681	113180	115854	116434	79541	39904	44650	100138	123009	121000
3	117916	111689	110803	113226	115901	115697	78001	38479	45962	101806	122879	121000
4	117948	111796	110864	113288	115916	115306	76483	36848	47128	103466	122716	121000
5	119013	111919	110925	113319	115916	114667	74965	35409	49872	112102	122553	121000
6	117221	112026	110971	113350	115916	113860	73443	33943	50229	113798	122391	121000
7	115729	112102	111032	113396	115932	113102	71852	32164	52050	115041	122326	120967
8	114217	112210	111093	113427	115963	112302	70230	30791	53817	116088	122229	120967
9	112548	112410	111078	113458	115995	111566	68632	29490	55672	116921	122115	120935
10	111108	112548	111154	113458	116026	110803	67433	28228	57787	117790	122131	120903
11	109574	112610	111200	113489	116057	110043	66121	26926	60023	118774	121775	120903
12	107978	112687	111245	113442	116104	109241	64983	25626	61891	119603	121710	120871
13	107246	112763	111306	113597	116136	108744	63952	22018	63703	120597	121661	120838
14	107261	112825	111337	113628	116167	107619	62900	20510	65667	121339	121775	120838
15	107261	112887	111398	113659	116874	106029	60731	18959	67745	122067	121807	120806
16	107112	112948	111444	113813	117016	104661	59270	19148	70076	122651	121807	120774
17	107127	113025	111474	113829	117095	103176	57777	19408	72447	123156	122022	120774
18	107112	113535	111490	114046	117347	101734	56152	19979	75530	123302	122034	120742
19	107112	113876	111505	114108	117395	100209	54488	20686	76659	123286	122034	120710
20	107246	114062	111704	114139	117410	98769	52301	21241	78631	123302	122067	120678
21	107246	114218	111781	114217	117410	97358	50887	21843	80519	123123	122099	120646
22	107276	113876	112548	114621	117426	95866	48818	22647	82552	122830	121969	120710
23	107380	113953	112948	114683	117426	94485	47263	23449	84446	122521	121840	120710
24	107514	113535	113010	114979	117473	93011	45862	27251	86398	122148	121807	120613
25	107663	112379	113072	115010	117489	91498	44625	29098	88213	122018	121807	120581
26	109468	111276	113149	115135	117505	89951	43865	31056	90174	122196	121613	120581
27	109710	110195	112948	115463	117521	88434	43400	33134	92125	122391	121193	120549
28	109891	109937	113010	115603	117948	87038	43058	35261	94417	122684	121193	120549
29	110058	110164	113056	115744	---	85544	42314	37443	95317	122911	121161	120549
30	110818	110575	113087	115775	---	84045	41680	39563	97011	123139	121193	120646
31	111154	---	113118	115807	---	82564	---	41548	---	123237	121161	---
MAX	119013	114218	113149	115807	117948	117189	81042	41548	97011	123302	123139	121000
MIN	107112	109937	110681	113149	115838	82564	41680	18959	43217	98489	121161	120549
a	8176.31	8175.93	8177.59	8179.32	8180.68	8155.58	8114.41	8114.24	8166.60	8183.97	8182.69	8182.37
b	-6646	-579	+2543	+2689	+2141	-35384	-40884	-132	+55463	+26226	-2076	-515
CAL YR 1982	b	+77918										
WTR YR 1983	b	+2846										

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CA

LOCATION.--Lat 37°04'35", long 118°58'04", in SW 1/4 NW 1/4 sec.7, T.10 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 500 ft downstream from Courtright Dam, 2.5 mi upstream from North Fork Kings River, and 17 mi southeast of town of Huntington Lake.

DRAINAGE AREA.--39.7 mi².

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

REVISED RECORDS.--WSP 1715: 1959. WSP 2130: 1959.

GAGE.--Water-stage recorder and broad-crested weir with trapezoidal notch. Altitude of gage is 7,836 ft, from photogrammetry survey.

REMARKS.--Flow regulated since October 1958 by Courtright Reservoir (station 11214550) 500 ft upstream. No diversion above station. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (adjusted for storage).--25 years, 82.8 ft³/s, 59,990 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,340 ft³/s Aug. 29, 1969, gage height, 5.81 ft; maximum gage height, 7.70 ft Aug. 23, 1978; no flow on several days in 1970.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 815 ft³/s on several days in March; minimum daily, 8.3 ft³/s on many days in September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	19	19	20	21	420	813	410	10	10	134	8.5
2	24	19	19	20	21	420	813	610	10	10	166	8.5
3	24	19	19	20	21	420	813	810	10	10	165	8.5
4	49	19	19	20	21	420	813	810	10	10	165	8.5
5	252	19	19	20	21	420	813	810	10	10	165	8.5
6	802	19	19	20	21	420	813	810	10	10	165	8.5
7	802	19	19	20	21	419	813	810	10	10	165	8.3
8	802	19	19	20	21	419	813	810	10	10	165	8.3
9	802	19	19	20	21	419	813	810	10	10	165	8.3
10	802	20	19	20	21	418	812	810	10	10	165	8.3
11	802	20	19	20	21	418	812	810	10	10	10	8.3
12	802	20	19	20	21	418	812	810	11	10	10	8.3
13	491	19	19	20	21	417	812	810	11	10	10	8.3
14	18	19	19	20	21	616	812	810	11	10	10	8.3
15	18	19	19	20	21	815	812	810	11	10	10	8.3
16	18	19	19	20	21	815	812	410	11	10	10	8.3
17	18	19	19	20	21	815	812	10	11	10	10	8.3
18	18	19	19	20	21	815	612	10	11	22	10	8.3
19	18	19	19	20	21	815	412	10	11	241	9.9	8.3
20	19	20	19	20	21	815	412	10	11	241	9.7	8.3
21	19	20	19	20	21	815	412	10	12	254	9.5	8.3
22	19	20	20	20	21	815	412	10	12	319	9.3	8.3
23	19	20	20	20	21	814	412	10	12	319	9.1	8.3
24	19	238	20	20	21	814	411	10	12	319	9.1	8.3
25	19	599	20	20	21	814	411	10	10	191	8.9	8.3
26	19	599	20	21	21	814	411	10	10	23	8.9	8.3
27	19	599	20	21	21	814	411	10	10	14	8.9	8.3
28	19	244	20	21	221	814	411	10	10	11	8.7	8.3
29	19	19	20	21	---	814	411	10	10	11	8.7	8.3
30	19	19	20	21	---	814	411	10	10	11	8.7	8.3
31	19	---	20	21	---	814	---	10	---	11	8.7	---
TOTAL	6814	2761	599	626	788	19910	19362	12110	317	2157	1818.1	250.2
MEAN	220	92.0	19.3	20.2	28.1	642	645	391	10.6	69.6	58.6	8.34
MAX	802	599	20	21	221	815	813	810	12	319	166	8.5
MIN	18	19	19	20	21	417	411	10	10	10	8.7	8.3
AC-FT	13520	5480	1190	1240	1560	39490	38400	24020	629	4280	3610	496

CAL YR 1982 TOTAL 17201.5 MEAN 47.1 MAX 802 MIN 2.2 AC-FT 34120
WTR YR 1983 TOTAL 67512.3 MEAN 185 MAX 815 MIN 8.3 AC-FT 133900

NOTE.--No gage height record Feb. 13 to June 13.

11214800 WISHON RESERVOIR NEAR CLIFF CAMP, CA

LOCATION.--Lat 37°00'19", long 118°58'07", in NW 1/4 NW 1/4 sec.6, T.11 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right end of dam on North Fork Kings River 1.2 mi north of Cliff Camp and 20 mi southeast of Big Creek.

DRAINAGE AREA.--177 mi².

PERIOD OF RECORD.--December 1957 to September 1982 (monthend elevation and contents only), October 1982 to September 1983.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--Reservoir is formed by rockfill dam completed in 1957. Capacity, 128,600 acre-ft between elevations 6,317 ft, bottom of slide gates and 6,550 ft, operating crest of spillway gates. Dead storage negligible. Water is diverted to Haas powerhouse for power. See schematic diagram of Kings River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Energy Regulatory Commission Project. Records not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 129,700 acre-ft July 29, 1958, elevation, 6,551.1 ft; no contents in 1960.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 129,077 acre-ft July 22, elevation, 6,550.46 ft; minimum, 12,707 acre-ft Mar. 11, elevation, 6,387.53 ft.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88814	115317	115848	98232	55783	17637	17945	23720	70838	121421	127413	105904
2	89498	115278	115674	98125	54379	17162	18434	23760	71560	121987	127626	104556
3	89888	115133	115481	95856	52810	16713	18883	24230	72038	122265	127687	103289
4	90601	114960	115810	94375	51426	16083	19197	25064	71226	122614	127453	101720
5	91413	114460	116275	92885	49971	15490	19455	25766	71163	123471	127138	100214
6	93395	114123	116236	91413	49023	14903	19670	26257	72278	123952	126712	98933
7	95287	113750	115994	90279	49068	14388	19848	27124	73836	123232	126641	97408
8	97175	113320	115887	88944	47401	13789	20079	27930	75076	122454	126966	95767
9	99023	113090	115384	87779	45762	13524	20378	28885	76062	121699	127118	94242
10	100793	112699	115317	86655	43360	13042	20674	29804	77768	121292	127433	92674
11	102576	112242	115268	85170	41698	12707	20918	30504	79744	121411	127220	91255
12	104464	111567	115259	83738	40001	12959	21103	31279	80684	121669	126945	89602
13	105553	111084	114950	82298	38372	13217	21269	32032	81770	122913	126675	88046
14	105728	110592	114517	80901	36745	13300	21426	32874	84076	125126	124764	86432
15	105886	109884	113138	79089	35998	13780	21612	34075	86655	126196	124072	84898
16	106043	108729	112109	78048	34594	14232	21913	35099	89949	126327	123862	83316
17	106173	107914	111103	76692	33117	14557	22263	35324	93483	126074	122424	81762
18	106321	107960	109498	75304	31695	14831	22590	35664	96497	126631	122076	80160
19	106451	108213	108400	74047	30247	15218	22894	36608	98708	127057	121510	78626
20	106472	109009	107298	72262	28858	15499	23263	38256	100875	127586	120747	77012
21	106711	109395	106591	70902	27422	15731	23554	40534	102814	128350	119641	75426
22	106869	109658	107000	69562	26091	15914	23947	43567	105100	129077	118686	74168
23	107065	109620	107204	68156	24707	16083	24397	46885	107391	128667	117716	73071
24	107512	109592	106034	66940	23318	16266	24763	50347	109460	128167	116401	72846
25	109047	111757	104694	65518	21913	16413	24921	52703	111387	127565	115027	72111
26	111976	113272	103399	64103	20519	16519	24529	55109	113415	127108	113664	71314
27	112175	114767	103372	62853	19202	16648	24174	57974	115191	127311	112652	70490
28	112137	115626	101120	61414	17997	16759	23942	61004	117091	127647	111359	69108
29	112594	115722	100259	60053	---	16884	23263	64073	118971	127942	109856	68000
30	114604	115926	100675	58568	---	17125	23424	66839	120985	127718	108437	66362
31	115066	---	99663	57180	---	17529	---	69342	---	127372	107056	---
MAX	115066	115926	116275	98232	55783	17637	24921	69342	120985	129077	127687	105904
MIN	88814	107914	99663	57180	17997	12707	17945	23720	70838	121292	107056	66362
a	6536.37	6537.26	6519.84	6467.75	6399.23	6398.23	6410.41	6483.99	6542.42	6548.79	6527.91	6480.15
b	+26866	+860	-16263	-42483	-39183	-468	+5895	+45918	+51643	+6387	-20316	-40694

CAL YR 1982 b +84563

WTR YR 1983 b -21838

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

TULARE LAKE BASIN

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CA

LOCATION.--Lat 36°59'38", long 118°58'49", in NE 1/4 NW 1/4 sec.12, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank at Cliff Camp bridge, 1 mi northwest of Cliff Camp, 1.2 mi downstream from Wishon Dam, and 2 mi downstream from Woodchuck Creek.

DRAINAGE AREA.--181 mi².

PERIOD OF RECORD.--August 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1715: 1951, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,143.95 ft National Geodetic Vertical Datum of 1929 (levels by San Joaquin Light and Power Corp.). Prior to Nov. 24, 1922, at site 1 mi upstream at different datum.

REMARKS.--Flow regulated since Dec. 5, 1957, by Wishon Reservoir (station 11214800), 1.2 mi upstream, and since Oct. 17, 1958, by Courtright Reservoir (station 11214550). Water diverted for power from Wishon Reservoir by tunnel to Haas powerhouse since Dec. 10, 1958. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (adjusted for storage and diversion).--62 years, 379 ft³/s, 274,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (prior to regulation by Wishon Reservoir).--Maximum discharge, 14,000 ft³/s Dec. 11, 1937, gage height, 18.0 ft, from floodmarks, from rating curve extended above 4,200 ft³/s on basis of velocity-area studies; minimum, 0.6 ft³/s Dec. 30, 1930.
1957 to current year.--Maximum discharge, 5,110 ft³/s Sept. 5, 1978, gage height, 11.96 ft; minimum daily, 0.8 ft³/s Dec. 14, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,530 ft³/s July 1, gage height, 9.32 ft; minimum daily, 9.5 ft³/s Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	22	30	20	17	50	33	29	1300	1670	22	20
2	13	19	25	20	17	33	35	28	1210	1870	21	20
3	11	18	26	19	17	28	29	37	1320	2100	21	20
4	10	17	27	20	16	24	25	36	1790	2170	21	20
5	9.8	17	26	20	16	23	21	29	1780	2190	21	20
6	9.5	16	25	21	16	24	20	29	1470	2120	21	19
7	9.7	16	23	22	18	26	19	38	1320	2080	21	19
8	9.9	16	22	22	24	30	21	46	1330	1660	21	19
9	9.9	17	22	22	20	32	26	49	1760	1340	21	19
10	9.8	18	22	22	19	30	24	40	1770	1020	22	19
11	9.9	18	22	22	19	38	19	36	1780	970	21	19
12	10	125	23	22	23	25	17	40	1780	1060	20	19
13	10	19	22	21	47	64	17	41	1510	575	23	19
14	10	18	21	20	25	45	18	48	1150	24	23	18
15	10	18	21	20	23	29	20	56	1160	367	23	18
16	10	18	21	23	23	25	28	59	1160	634	24	18
17	10	18	21	21	23	22	27	60	1180	631	23	18
18	10	40	20	20	22	20	26	63	1190	257	23	18
19	10	57	20	21	20	19	28	74	1190	24	23	17
20	10	28	22	19	20	18	32	78	1200	24	23	17
21	10	23	22	18	21	18	26	86	1210	23	22	18
22	10	31	177	21	24	17	34	88	1210	201	22	17
23	11	27	65	26	22	17	30	153	1220	673	22	17
24	12	24	32	55	20	17	33	405	1230	662	22	17
25	60	22	27	28	20	16	31	1200	1230	531	21	17
26	131	21	25	24	20	16	30	1320	1240	139	21	17
27	26	21	24	23	25	16	35	1330	1240	23	21	17
28	20	23	23	20	23	17	46	1340	1150	23	21	17
29	18	24	22	19	---	18	45	1360	1090	23	21	18
30	87	58	21	18	---	24	37	1370	986	22	21	18
31	32	---	21	18	---	32	---	1380	---	22	21	---
TOTAL	623.5	809	920	687	600	813	832	10948	40156	25128	673	549
MEAN	20.1	27.0	29.7	22.2	21.4	26.2	27.7	353	1339	811	21.7	18.3
MAX	131	125	177	55	47	64	46	1380	1790	2190	24	20
MIN	9.5	16	20	18	16	16	17	28	986	22	20	17
AC-FT	1240	1600	1820	1360	1190	1610	1650	21720	79650	49840	1330	1090
CAL YR 1982	TOTAL	23284.3	MEAN	63.8	MAX	1030	MIN	6.5	AC-FT	46180		
WTR YR 1983	TOTAL	82738.5	MEAN	227	MAX	2190	MIN	9.5	AC-FT	164100		

11215800 TEAKETTLE CREEK AT SITE NO. 3, NEAR DINKEY CREEK, CA

LOCATION.--Lat 36°57'40", long 119°01'37", in SE 1/4 NE 1/4 sec.21, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 1.8 mi upstream from mouth, 2.9 mi northwest of Black Rock Reservoir, and 10.6 mi southeast of town of Dinkey Creek.

DRAINAGE AREA.--0.86 mi².

PERIOD OF RECORD.--October 1957 to September 1969, May 1977 to August 1983 (discontinued). Spring and summer flows only 1982 and 1983 water years. Published as "near Patterson Mountain", October 1957 to September 1969.

GAGE.--Water-stage recorder, 90° sharp-crested V-notch weir, and sharp-crested Cipolletti weir. Datum of gage is 6,705.4 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to Oct. 1, 1961, at datum 4.00 ft lower.

REMARKS.--Records good. No diversion or regulation above station. This station is operated in connection with studies to develop and test methods of managing forest and other lands for improved water yield. See schematic diagram of Kings River basin.

AVERAGE DISCHARGE.--16 years (water years 1958-69, 1978-81), 1.66 ft³/s, 1,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 99.0 ft³/s Feb. 1, 1963, gage height, 3.81 ft; minimum daily, 0.03 ft³/s Sept. 25-28, 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO AUGUST 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							2.7	2.4	16	14	3.1	
2							2.7	2.4	15	13	3.0	
3							2.6	2.6	15	13	2.9	
4							2.5	2.7	15	13	2.8	
5							2.4	2.6	16	12	2.7	
6							2.3	2.5	17	11	2.6	
7							2.3	2.6	18	10	2.6	
8							2.3	2.9	19	9.5	2.6	
9							2.4	3.1	20	8.8	2.6	
10							2.4	3.1	21	8.2	2.6	
11							2.3	3.0	20	7.9	2.4	
12							2.2	3.1	18	7.6	2.3	
13							2.1	3.1	19	7.3	2.2	
14							2.1	3.4	20	6.8	2.3	
15							2.2	3.9	20	6.5	2.2	
16							2.4	4.3	21	6.0	2.1	
17							2.4	4.6	22	5.7	2.1	
18							2.3	5.1	22	5.4	2.4	
19							2.4	6.0	21	5.1	2.2	
20							2.5	7.0	20	4.8	2.1	
21							2.3	8.2	20	4.6	2.0	
22							2.5	9.5	20	4.5	2.0	
23							2.5	10	20	4.3	1.9	
24							2.4	12	19	4.1	1.8	
25							2.3	13	19	3.9	1.8	
26							2.3	14	18	3.8	1.7	
27							2.4	15	17	3.7	1.6	
28							2.5	17	16	3.5	1.5	
29							2.6	18	16	3.4	1.5	
30							2.5	18	15	3.3	1.5	
31							---	18	---	3.2	1.5	
TOTAL	---	---	---	---	---	---	71.8	223.1	555	217.9	68.6	---
MEAN	---	---	---	---	---	---	2.39	7.20	18.5	7.03	2.21	---
MAX	---	---	---	---	---	---	2.7	18	22	14	3.1	---
MIN	---	---	---	---	---	---	2.1	2.4	15	3.2	1.5	---
AC-FT	---	---	---	---	---	---	142	443	1100	432	136	---

11215820 TEAKETTLE CREEK TRIBUTARY NO. 2 NEAR DINKEY CREEK, CA

LOCATION.--Lat 36°57'32", long 119°02'00", in SE 1/4 NW 1/4 sec.21, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank 0.8 mi upstream from junction with Teakettle Creek, 2.8 mi north of Black Rock Reservoir, and 10.5 mi southeast of town of Dinkey Creek.

DRAINAGE AREA.--0.85 mi²/s.

PERIOD OF RECORD.--October 1957 to September 1969, May 1977 to August 1983 (discontinued). Spring and summer flows only 1982 and 1983 water years. Published as "near Patterson Mountain" October 1957 to September 1969.

GAGE.--Water-stage recorder, sharp-crested 90° V-notch weir, and sharp-crested Cipolletti weir. Datum of gage is 6,905.4 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to Oct. 1, 1961, at datum 2.00 ft lower.

REMARKS.--Records good. No regulation or diversion above station. This station is operated in connection with studies to develop and test methods of managing forest and other lands for improved water yields. See schematic diagram of Kings River basin.

AVERAGE DISCHARGE.--16 years (water years 1958-69, 1978-81), 1.40 ft³/s, 1,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70.2 ft³/s Dec. 6, 1966, gage height, 3.62 ft; minimum daily, 0.04 ft³/s Sept. 6-13, 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO AUGUST 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							1.7	1.5	14	18	3.7	
2							1.7	1.5	13	17	3.5	
3							1.7	1.7	13	17	3.4	
4							1.6	1.8	12	18	3.2	
5							1.5	1.7	13	18	3.1	
6							1.5	1.6	15	17	2.9	
7							1.5	1.7	17	15	2.8	
8							1.5	1.9	17	14	2.8	
9							1.6	2.1	18	13	2.8	
10							1.5	2.0	20	12	2.8	
11							1.5	2.0	19	12	2.6	
12							1.4	2.1	17	11	2.4	
13							1.4	2.1	17	11	2.4	
14							1.4	2.2	19	10	2.4	
15							1.4	2.6	20	9.6	2.3	
16							1.6	2.9	21	8.8	2.2	
17							1.6	3.2	23	8.1	2.2	
18							1.5	3.5	23	7.5	2.3	
19							1.5	4.2	21	7.1	2.2	
20							1.6	5.0	21	6.6	2.1	
21							1.5	5.9	20	6.3	2.0	
22							1.6	7.0	21	6.0	2.0	
23							1.7	7.6	21	5.6	2.0	
24							1.6	8.5	21	5.3	2.0	
25							1.5	9.4	21	5.1	1.9	
26							1.5	10	21	4.8	1.9	
27							1.5	11	20	4.6	1.8	
28							1.6	13	19	4.4	1.8	
29							1.6	14	19	4.2	1.8	
30							1.6	15	18	4.0	1.7	
31							---	15	---	3.8	1.7	
TOTAL	---	---	---	---	---	---	46.4	163.7	554	304.8	74.7	---
MEAN	---	---	---	---	---	---	1.55	5.28	18.5	9.83	2.41	---
MAX	---	---	---	---	---	---	1.7	15	23	18	3.7	---
MIN	---	---	---	---	---	---	1.4	1.5	12	3.8	1.7	---
AC-FT	---	---	---	---	---	---	92	325	1100	605	148	---

11215830 TEAKETTLE CREEK TRIBUTARY NO. 2A NEAR DINKEY CREEK, CA

LOCATION.--Lat 36°57'22", long 119°01'57", in NE 1/4 SW 1/4 sec.21, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 0.1 mi upstream from confluence with Teakettle Creek Tributary No. 2, 2.6 mi northwest of Black Rock Reservoir, and 10.7 mi southeast of town of Dinkey Creek.

DRAINAGE AREA.--0.27 mi².

PERIOD OF RECORD.--October 1957 to September 1969, May 1977 to August 1983 (discontinued). Spring and summer flows only 1982 and 1983 water years. Published as "near Patterson Mountain" October 1957 to September 1969.

GAGE.--Water-stage recorder and 90° sharp-crested V-notch weir. Datum of gage is 6,924 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to Oct. 1, 1961, at datum 4.00 ft lower.

REMARKS.--Records good. No regulation or diversion above station. This station is operated in connection with studies to develop and test methods of managing forest and other lands for improved water yield. See schematic diagram of Kings River basin.

AVERAGE DISCHARGE.--16 years (water years 1958-69, 1978-81), 0.49 ft³/s, 355 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60.3 ft³/s Dec. 6, 1966, gage height, 3.61 ft; no flow on several days during September 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO AUGUST 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.96	.83	6.9	4.5	.90	
2							.99	.83	6.0	4.3	.87	
3							.95	.93	6.0	4.1	.84	
4							.87	.94	6.0	4.0	.82	
5							.84	.89	6.5	3.9	.78	
6							.82	.86	7.4	3.6	.76	
7							.80	.90	8.0	3.2	.74	
8							.85	1.0	8.0	2.9	.75	
9							.87	1.1	8.3	2.7	.76	
10							.85	1.1	8.9	2.5	.77	
11							.80	1.0	7.9	2.3	.69	
12							.78	1.1	6.9	2.2	.65	
13							.76	1.1	7.0	2.1	.63	
14							.77	1.2	7.6	2.0	.67	
15							.79	1.4	7.9	1.9	.64	
16							.88	1.6	8.4	1.8	.61	
17							.88	1.7	8.8	1.7	.60	
18							.84	1.8	8.5	1.6	.63	
19							.85	2.1	7.6	1.5	.63	
20							.87	2.4	7.3	1.5	.60	
21							.83	2.7	6.9	1.4	.58	
22							.89	3.1	6.9	1.3	.55	
23							.89	3.4	6.8	1.3	.54	
24							.85	3.8	6.5	1.2	.52	
25							.82	4.5	6.3	1.2	.52	
26							.83	5.2	6.0	1.1	.49	
27							.87	6.2	5.6	1.1	.47	
28							.91	7.3	5.3	1.0	.47	
29							.91	7.9	5.0	1.0	.47	
30							.88	7.8	4.8	.98	.49	
31							---	8.1	---	.94	.46	
TOTAL	---	---	---	---	---	---	25.70	84.78	210.0	66.82	19.90	---
MEAN	---	---	---	---	---	---	.86	2.73	7.00	2.16	.64	---
MAX	---	---	---	---	---	---	.99	8.1	8.9	4.5	.90	---
MIN	---	---	---	---	---	---	.76	.83	4.8	.94	.46	---
AC-FT	---	---	---	---	---	---	51	168	417	133	39	---

TULARE LAKE BASIN

11215840 TEAKETTLE CREEK TRIBUTARY NO. 1 NEAR DINKEY CREEK, CA

LOCATION.--Lat 36°56'59", long 119°01'07", in NW 1/4 NW 1/4 sec.27, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 2.1 mi northeast of Black Rock Reservoir, and 11.5 mi southeast of town of Dinkey Creek.

DRAINAGE AREA.--0.77 mi².

PERIOD OF RECORD.--October 1957 to September 1969, May 1977 to August 1983 (discontinued). Spring and summer flows only 1982 and 1983 water years. Published as "near Patterson Mountain", October 1957 to September 1969.

GAGE.--Water-stage recorder, 90° sharp-crested V-notch weir, and sharp-crested Cipolletti weir. Datum of gage is 6,407.7 ft National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to August 1959, at datum 4.00 ft lower.

REMARKS.--Records good. No regulation or diversion above station. This station is operated in connection with studies to develop and test methods of managing forest and other lands for improved water yield. See schematic diagram of Kings River basin.

AVERAGE DISCHARGE.--16 years (water years 1958-69, 1978-81), 1.55 ft³/s, 1,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 142 ft³/s Dec. 6, 1966, gage height, 4.49 ft; minimum daily, 0.05 ft³/s Sept. 5-29, Oct. 13, 1977.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO AUGUST 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							2.9	2.7	17	10	2.5	
2							2.9	2.7	15	9.9	2.5	
3							2.9	2.9	15	9.4	2.4	
4							2.7	3.0	15	9.1	2.3	
5							2.7	2.9	16	8.7	2.2	
6							2.6	2.8	18	8.2	2.2	
7							2.6	2.9	19	7.6	2.1	
8							2.6	3.1	19	7.0	2.1	
9							2.7	3.3	19	6.5	2.2	
10							2.6	3.2	20	6.1	2.2	
11							2.6	3.3	19	5.8	2.0	
12							2.5	3.4	17	5.5	1.9	
13							2.4	3.4	17	5.2	1.9	
14							2.4	3.7	18	5.0	2.0	
15							2.4	4.3	18	4.7	1.9	
16							2.6	4.6	19	4.5	1.8	
17							2.6	5.0	19	4.3	1.8	
18							2.6	5.5	19	4.1	1.9	
19							2.6	6.3	17	3.9	1.9	
20							2.7	7.4	17	3.7	1.8	
21							2.7	8.4	16	3.6	1.8	
22							2.7	9.9	16	3.5	1.7	
23							2.7	11	15	3.4	1.7	
24							2.7	12	15	3.2	1.6	
25							2.7	13	14	3.2	1.5	
26							2.6	14	13	3.1	1.5	
27							2.7	16	13	3.0	1.4	
28							2.9	18	12	2.9	1.4	
29							2.9	19	11	2.8	1.4	
30							2.9	19	11	2.7	1.4	
31							---	19	---	2.6	1.4	
TOTAL	---	---	---	---	---	---	80.1	235.7	489	163.2	58.4	---
MEAN	---	---	---	---	---	---	2.67	7.60	16.3	5.26	1.88	---
MAX	---	---	---	---	---	---	2.9	19	20	10	2.5	---
MIN	---	---	---	---	---	---	2.4	2.7	11	2.6	1.4	---
AC-FT	---	---	---	---	---	---	159	468	970	324	116	---

11216500 NORTH FORK KINGS RIVER ABOVE DINKEY CREEK, AT BALCH CAMP, CA

LOCATION.--Lat 36°54'12", long 119°07'14", in SE 1/4 NE 1/4 sec.10, T.12 S., R.26 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 12 ft downstream from bridge at Balch Camp, 300 ft upstream from Dinkey Creek, and 9.3 mi east of Trimmer.

DRAINAGE AREA.--250 mi².

PERIOD OF RECORD.--October 1919 to September 1930 (published as "above Dinkey Creek"), March 1960 to current year. Records for water year 1920 incomplete, yearly estimate and monthly discharge only for some months, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Apr. 15, 1966. Altitude of gage is 1,240 ft, from river-profile map. October 1919 to Sept. 30, 1930, and Mar. 24, 1960, to Apr. 14, 1966, at site 100 ft downstream at different datum.

REMARKS.--Flow regulated by Courtright Reservoir (station 11214550) and Wishon Reservoir (station 11214800), Black Rock Reservoir, capacity, 1,260 acre-ft, Balch Afterbay, capacity, 318 acre-ft, and Haas and Balch powerplants. Diversion from Balch Afterbay to Kings River powerhouse began Mar. 1, 1962. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (prior to storage and diversion).--11 years (water years 1920-30), 387 ft³/s, 280,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (prior to regulation by Wishon and Courtright Reservoirs): Maximum discharge, 6,080 ft³/s June 4, 1922, gage height, 12.18 ft site and datum then in use; minimum, 4 ft³/s Aug. 29 to Sept. 1, 1924.

1960 to current year: Maximum discharge, 14,000 ft³/s Feb. 1, 1963, gage height, 13.24 ft site and datum then in use, backwater from Dinkey Creek, from rating curve extended above 890 ft³/s; minimum daily, 0.30 ft³/s Nov. 3, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,410 ft³/s July 8, gage height, 5.22 ft; minimum daily, 9.8 ft³/s Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	20	63	16	151	172	254	123	1750	2190	111	15
2	16	18	33	15	133	209	245	34	1600	2640	16	15
3	15	16	31	15	118	198	246	94	1520	2860	16	15
4	15	15	25	14	112	247	189	235	2100	3050	16	15
5	16	18	22	14	108	219	177	38	2460	3150	16	15
6	16	15	21	14	144	211	154	200	2610	2950	16	15
7	16	16	20	14	243	220	145	80	2160	2820	16	15
8	16	16	17	13	280	233	145	253	1760	2040	17	16
9	16	16	14	11	298	234	166	308	1970	1630	16	17
10	16	15	12	11	190	209	152	284	2360	1190	16	16
11	15	16	11	22	184	106	131	237	2900	1260	16	15
12	15	16	11	74	299	88	137	276	2150	1370	15	15
13	18	16	11	250	269	230	128	272	2170	1110	15	15
14	17	16	10	69	212	351	121	301	2030	433	16	16
15	14	16	10	64	193	269	116	351	2140	568	16	15
16	15	16	10	84	183	274	143	380	2220	845	15	16
17	15	16	10	78	206	294	170	401	2290	802	15	16
18	15	45	10	119	185	285	174	414	2260	496	15	16
19	17	78	9.8	124	162	196	160	525	1840	280	15	16
20	23	16	10	74	152	137	204	639	1900	263	15	16
21	19	15	11	62	145	237	168	732	1870	252	15	16
22	18	15	233	167	152	195	162	843	2060	296	15	16
23	16	15	224	287	142	211	194	900	2100	739	15	16
24	16	16	69	408	129	209	211	1150	2080	743	15	16
25	18	16	76	302	152	191	180	2290	2000	684	15	17
26	429	15	30	208	200	188	174	2460	2020	385	15	16
27	23	15	23	256	142	184	174	2630	2190	114	15	16
28	19	16	20	210	143	212	253	2780	1690	14	15	16
29	18	17	18	202	---	212	272	2820	1680	16	15	17
30	28	109	17	202	---	239	253	2440	1380	95	15	16
31	24	---	17	169	---	271	---	2570	---	162	15	---
TOTAL	951	665	1098.8	3568	5027	6731	5398	27060	61260	35447	574	472
MEAN	30.7	22.2	35.4	115	180	217	180	873	2042	1143	18.5	15.7
MAX	429	109	233	408	299	351	272	2820	2900	3150	111	17
MIN	14	15	9.8	11	108	88	116	34	1380	14	15	15
AC-FT	1890	1320	2180	7080	9970	13350	10710	53670	121500	70310	1140	936
CAL YR 1982	TOTAL	65880.6	MEAN	180	MAX	1420	MIN	9.8	AC-FT	130700		
WTR YR 1983	TOTAL	148251.8	MEAN	406	MAX	3150	MIN	9.8	AC-FT	294100		

TULARE LAKE BASIN

11217000 DINKEY CREEK AT DINKEY MEADOW, NEAR SHAVER LAKE, CA

LOCATION.--Lat 37°02'50", long 119°08'52", in SW 1/4 NW 1/4 sec.21, T.10 S., R.26 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 0.5 mi downstream from Dinkey Meadow, 2.0 mi south of Dinkey Creek Post Office, and 14.4 mi southeast of town of Shaver Lake.

DRAINAGE AREA.--50.7 mi².

PERIOD OF RECORD.--September 1910 to September 1915 (fragmentary records), published as "near Ockenden"; October 1921 to September 1935, published as "at Dinkey Meadow"; July 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft, from topographic map. September 1910 to September 1915, at site 1 mi upstream at different datum. October 1921 to September 1935, at present site at same datum.

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

AVERAGE DISCHARGE.--20 years (water years 1922-35, 1978-83), 104 ft³/s, 87,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s Apr. 11, 1982, gage height, 12.07 ft; minimum recorded, 0.2 ft³/s Aug. 24-30, 1931, Sept. 7-9, 1934.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0545	*5,810	9.84	Mar. 1	0430	537	4.70
Nov. 18	2315	698	5.18	Mar. 13	1715	1,190	6.19
Dec. 22	1715	3,000	8.00	May 29	1930	2,540	7.62
Jan. 24	0845	533	4.69	June 17	1930	2,140	7.24

Minimum daily, 13 ft³/s Sept. 17, 18, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	228	139	109	102	421	257	210	1170	844	133	30
2	80	167	124	108	100	286	272	213	1010	856	128	28
3	65	141	119	101	97	230	234	283	1060	862	126	27
4	54	126	121	98	95	201	191	313	1010	935	116	26
5	47	112	117	103	95	191	170	253	1120	972	108	24
6	43	105	113	107	98	194	152	235	1300	877	105	24
7	41	99	100	113	157	213	150	267	1370	737	97	24
8	40	85	98	120	189	232	166	358	1310	636	92	23
9	36	82	97	122	140	267	192	416	1380	572	89	20
10	31	89	100	124	128	239	189	374	1450	537	97	21
11	30	98	103	119	126	305	164	305	1450	561	94	21
12	29	94	106	122	150	243	150	352	1210	575	79	17
13	27	94	107	122	311	576	137	380	1180	578	57	17
14	27	96	88	122	185	481	136	406	1280	537	63	18
15	25	92	87	123	168	298	144	520	1330	496	72	19
16	24	88	87	129	169	250	190	582	1440	438	82	18
17	23	87	88	120	172	224	208	625	1480	385	100	13
18	23	204	85	117	176	196	196	697	1400	346	82	13
19	23	237	89	117	162	175	202	840	1230	316	73	14
20	21	136	105	103	167	166	238	961	1130	292	70	14
21	21	113	104	103	171	161	198	1160	1110	271	63	13
22	23	137	947	188	182	149	217	1340	1150	262	52	21
23	33	129	397	179	185	141	246	1380	1180	249	46	22
24	84	117	225	311	176	141	234	1510	1120	236	41	16
25	411	103	176	173	169	135	211	1610	1060	224	36	15
26	1570	98	158	144	169	129	211	1670	1020	199	34	16
27	299	94	144	133	207	130	210	1730	970	179	31	23
28	189	103	130	132	189	139	262	1800	967	175	30	21
29	151	107	122	130	---	142	258	1810	907	178	29	27
30	848	192	115	125	---	191	230	1680	874	176	29	58
31	378	---	111	114	---	247	---	1540	---	156	34	---
TOTAL	4789	3653	4702	4031	4435	7093	6015	25820	35668	14657	2288	643
MEAN	154	122	152	130	158	229	200	833	1189	473	73.8	21.4
MAX	1570	237	947	311	311	576	272	1810	1480	972	133	58
MIN	21	82	85	98	95	129	136	210	874	156	29	13
AC-FT	9500	7250	9330	8000	8800	14070	11930	51210	70750	29070	4540	1280

CAL YR 1982	TOTAL	93431.1	MEAN	256	MAX	6310	MIN	3.1	AC-FT	185300
WTR YR 1983	TOTAL	113794	MEAN	312	MAX	1810	MIN	13	AC-FT	225700

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CA

LOCATION.--Lat 36°52'47", long 119°07'40", in NE 1/4 NW 1/4 sec.22, T.12 S., R.26 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank 1.1 mi upstream from mouth, 1.7 mi south of Balch Camp, 2.1 mi downstream from Dinkey Creek, and 9 mi east of Trimmer.

DRAINAGE AREA.--387 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 1,035 ft, from river-profile map.

REMARKS.--Flow regulated by Courtright Reservoir (station 11214550), Wishon Reservoir (station 11214800), Black Rock Reservoir, capacity, 1,260 acre-ft, Balch Afterbay, capacity, 318 acre-ft, and Haas and Balch powerplants. Diversion from Balch Afterbay to Kings River powerhouse began Mar. 1, 1962. See schematic diagram of Kings River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s Feb. 1, 1963, gage height, 19.20 ft, from rating curve extended above 10,100 ft³/s; minimum daily, 6.4 ft³/s Oct. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,300 ft³/s Dec. 22, gage height, 13.25 ft; minimum daily, 58 ft³/s Sept. 20, 21.

REVISIONS.--The maximum discharges for the water years 1980 and 1982 have been revised to 14,600 ft³/s Jan. 14, 1980, gage height, 14.77 ft, and 21,400 ft³/s Apr. 11, 1982, gage height, 17.33 ft, superseding figures published in reports for 1980 and 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	462	550	295	500	1880	920	763	4280	3690	335	97
2	177	348	375	286	462	1430	948	574	3870	3850	246	91
3	147	295	330	276	429	1120	874	675	3970	4020	231	86
4	124	264	338	272	397	952	714	938	4300	4170	216	84
5	114	238	308	272	386	822	649	620	4450	4290	202	80
6	106	218	297	274	468	767	577	800	4580	4040	187	77
7	100	206	276	274	1380	852	553	642	4560	3740	180	74
8	99	194	258	280	1640	800	553	906	4490	3230	192	74
9	93	192	246	278	897	839	616	1060	4930	2750	180	73
10	89	206	238	272	710	852	653	1050	5080	2300	187	70
11	85	200	236	278	630	861	598	852	5020	2250	169	67
12	84	206	238	319	656	710	526	938	4660	2360	148	65
13	83	199	242	536	1420	1640	497	990	4420	2060	138	65
14	79	200	222	306	835	1770	478	1000	4220	1310	137	65
15	74	195	216	295	699	1120	484	1250	4300	1320	154	64
16	74	188	209	333	642	990	536	1410	4480	1650	135	63
17	73	188	207	312	616	1050	634	1520	4560	1530	272	61
18	71	612	200	417	710	1060	656	1670	4490	1100	184	61
19	71	952	197	397	609	874	602	1980	4200	771	174	59
20	74	350	218	293	567	726	734	2320	4030	722	166	58
21	73	278	242	276	543	848	623	2670	3930	675	172	58
22	71	288	4320	1250	536	775	605	3100	3990	722	142	68
23	74	301	1940	1060	560	718	706	3240	4020	1260	128	70
24	118	260	779	1600	530	835	817	3610	3940	1240	118	69
25	634	242	605	915	563	750	660	4580	3830	1140	110	66
26	2550	227	487	672	742	683	627	4810	3770	718	103	63
27	567	213	429	1180	962	664	620	4990	3840	426	99	66
28	377	223	386	750	796	767	839	5160	3550	319	94	68
29	304	284	358	943	---	695	938	5200	3390	312	91	71
30	1390	1160	330	656	---	792	985	5060	3160	361	89	147
31	738	---	310	556	---	929	---	4920	---	397	100	---
TOTAL	8922	9389	15587	16123	19885	29571	20222	69298	126310	58723	5079	2180
MEAN	288	313	503	520	710	954	674	2235	4210	1894	164	72.7
MAX	2550	1160	4320	1600	1640	1880	985	5200	5080	4290	335	147
MIN	71	188	197	272	386	664	478	574	3160	312	89	58
AC-FT	17700	18620	30920	31980	39440	58650	40110	137500	250500	116500	10070	4320
CAL YR 1982	TOTAL	268128	MEAN	735	MAX	13900	MIN	44	AC-FT	531800		
WTR YR 1983	TOTAL	381289	MEAN	1045	MAX	5200	MIN	58	AC-FT	756300		

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA
(National stream-quality accounting network station)

LOCATION.--Lat 36°52'29", long 119°08'27", in SW 1/4 NE 1/4 sec.21, T.12 S., R.26 E., Fresno County, Hydrologic Unit 18030010, on right bank 0.8 mi downstream from North Fork, 2.4 mi southwest of Balch Camp, and 8.5 mi southeast of Trimmer.

DRAINAGE AREA.--1,342 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1951 to current year. Prior to January 1952 monthly discharge only, published in WSP 1735. Published as Kings River below North Fork, October 1951 to September 1965.

REVISED RECORDS.--WSP 1930: Drainage area. WRD CA-72-2: Adjusted data for 1971.

GAGE.--Water-stage recorder. Datum of gage is 942.42 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Courtright and Wishon Reservoirs (stations 11214550, 11214800). Records include flow diverted to Kings River powerplant since Mar. 1, 1962. This station measures inflow to Pine Flat Lake. See schematic diagram of Kings River basin.

COOPERATION.--Records of diversion to Kings River powerplant and contents for Courtright and Wishon Reservoirs furnished by Pacific Gas and Electric Co.

AVERAGE DISCHARGE (adjusted for change in contents in Wishon and Courtright Reservoirs).--32 years, 2,350 ft³/s, 1,703,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85,200 ft³/s Dec. 23, 1955, gage height, 23.08 ft, from rating curve extended above 22,000 ft³/s on basis of slope-area measurement of maximum flow; minimum daily, 86 ft³/s Oct. 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 19, 1950, reached a stage of 21.6 ft from floodmarks, discharge, 74,200 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 20,800 ft³/s May 29; minimum daily, 628 ft³/s Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2170	3340	3870	2580	3240	8090	4570	4490	17600	15000	6740	2690		
2	1870	2860	3130	2480	3090	6990	4640	4020	15500	15500	6690	2800		
3	1600	2550	2610	2360	2950	5640	4520	4110	15200	16400	6400	2720		
4	1420	2380	2470	2310	2800	5010	4090	4810	15200	16600	6000	2530		
5	1400	2200	2270	2260	2730	4510	3860	4430	15800	17500	5750	2390		
6	1280	2110	2290	2220	2920	4450	3620	4550	17200	17100	5600	2410		
7	1090	1970	2350	2210	5630	4370	3500	4390	17600	15300	5950	2380		
8	1110	1900	2160	2200	6500	4330	3410	5110	17000	13000	7320	2340		
9	970	1680	2110	2210	4600	4330	3540	5520	17900	11800	7730	2280		
10	913	1680	1980	2220	3950	4460	3600	5690	19000	10100	8200	2090		
11	865	1960	1730	2260	3620	4610	3510	5100	20000	10400	7580	1980		
12	832	1790	1580	2290	3660	4250	3330	5190	18500	11000	6340	1930		
13	877	1700	1780	2260	5680	6330	3210	5250	16800	11200	5380	1910		
14	761	1630	2070	2340	4270	6920	3130	5190	17000	10700	4860	1870		
15	806	1620	2160	2300	3850	5320	3140	5860	17700	10300	5480	1890		
16	768	1870	2140	2400	3650	4940	3190	6540	18400	9920	5360	1890		
17	780	1740	2060	2370	3560	5150	3450	6880	19300	9090	6240	1910		
18	785	2300	2090	2180	3850	5290	3630	7410	19600	8120	6530	1880		
19	842	4090	1970	2700	3590	4730	3520	8140	18000	6390	6190	1820		
20	638	2190	1940	2370	3430	4340	3750	9550	17000	6190	5210	1790		
21	628	1780	1950	2300	3360	4600	3690	11100	16700	6410	4580	1700		
22	692	1880	12800	5050	3300	4330	3640	13200	17000	7000	3860	2140		
23	708	2020	7620	4940	3400	4160	3910	14600	17200	7700	3390	1960		
24	766	1620	4420	6510	3320	4710	4190	16000	16700	7480	3060	1300		
25	2380	1380	3770	4790	3390	4440	3960	17900	16300	7290	2820	1350		
26	7650	1390	3430	3900	4010	4170	3890	18700	16400	6620	2680	1390		
27	3690	1330	3080	5400	4860	4050	3800	19600	16200	6380	2550	1300		
28	2820	1470	2910	4250	4540	4170	4350	20500	15400	6490	2490	1460		
29	2160	1800	2890	4890	---	3990	4540	20800	15400	6750	2320	1600		
30	5970	5890	2780	3950	---	4210	4790	20000	14500	6910	2390	1840		
31	4680	---	2690	3480	---	4580	---	19700	---	6670	2520	---		
TOTAL	53921	64120	93100	95980	107750	151470	113970	304330	512100	317310	158210	59540		
MEAN	1739	2137	3003	3096	3488	4886	3799	9817	17070	10240	5104	1985		
MAX	7650	5890	12800	6510	6500	8090	4790	20800	20000	17500	8200	2800		
MIN	628	1330	1580	2180	2730	3990	3130	4020	14500	6190	2320	1300		
AC-FT	107000	127200	184700	190400	213700	300400	226100	603600	1016000	629400	313800	118100		
MEAN a	2069	2142	2780	2449	3181	4302	3212	10550	18870	10770	4739	1292		
AC-FT a	127200	127500	170900	150600	176700	264500	191100	648700	1123000	662200	291400	76880		
CAL YR 1982	TOTAL	1564044	MEAN	4285	MAX	34500	MIN	628	AC-FT	3102000	MEAN a	4509	AC-FT a	3264000
WTR YR 1983	TOTAL	2031801	MEAN	5567	MAX	20800	MIN	628	AC-FT	4030000	MEAN a	5540	AC-FT a	4011000

a Adjusted for change in contents in Wishon and Courtright Reservoirs.

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956 to current year.

CHEMICAL ANALYSES: Water years 1956-66, 1968-70, 1973 to current year.

BIOLOGICAL DATA: Water years 1978-81.

WATER TEMPERATURES: Water years 1967 to current year.

SEDIMENT RECORDS: Water years 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1966 to current year.

INSTRUMENTATION.--Temperature recorder since October 1966.

REMARKS.--Quality of water samples are obtained at the gaging station upstream from the powerplant. Temperature recorder located 1 mi downstream from gaging station. Temperature subject to fluctuation because of powerplant operation upstream. Temperature sensor inundated by Pine Flat Lake from Oct. 1-16, Oct. 30 to Nov. 22, Mar. 14 to Apr. 9, and from June 11 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 26.5°C Sept. 2, 1977; minimum recorded, 0.0°C on several days in 1966 and 1967.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum observed, 16.0°C Oct. 18; minimum recorded, 2.0°C May 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
23...	1000	1640	43	7.2	7.5	735	.70	11.6	100	K29	43
FEB											
09...	1500	3430	66	7.4	9.0	740	4.1	11.2	100	K15	K13
MAR											
18...	1515	4160	56	7.5	8.5	730	2.8	11.0	98	<1	K30
MAY											
11...	1200	4030	37	6.8	9.0	740	1.0	11.5	102	K31	39
JUL											
20...	1330	5350	26	6.3	15.0	740	1.3	9.8	100	K1	K2
SEP											
20...	1500	951	37	6.1	20.0	740	.90	8.6	97	K5	K21

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV											
23...	14	0	4.4	.60	2.5	27	.3	.90	22	<5.0	.90
FEB											
09...	22	0	7.0	1.1	3.5	24	.3	1.2	28	5.2	.90
MAR											
18...	22	0	6.8	1.2	3.6	25	.3	1.1	27	4.3	.90
MAY											
11...	14	0	4.4	.68	2.5	27	.3	.90	19	2.4	.80
JUL											
20...	11	3	3.7	.31	1.2	19	.2	.60	8	1.6	.40
SEP											
20...	12	0	4.0	.50	2.2	27	.3	.70	13	2.6	1.0

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV											
23...	<.10	12	35	--	.05	<.10	<.06	.90	.01	.01	<.01
FEB											
09...	<.10	18	52	54	.07	<.10	<.06	.80	.04	.02	.01
MAR											
18...	.20	18	36	52	.05	<.10	.09	.40	.03	.01	.02
MAY											
11...	<.10	13	39	36	.05	<.10	.09	.80	.02	.02	.02
JUL											
20...	.20	5.6	16	19	.02	.11	.08	.50	.03	.04	.02
SEP											
20...	<.10	8.0	24	27	.03	<.10	.12	.30	<.01	<.01	<.01

See footnotes at end of table.

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 23...	1000	70	<1	14	<.5	<1	<1	<3	<1	81	2
FEB 09...	1500	90	1	18	<.5	<1	<1	<3	2	34	1
MAY 11...	1200	40	<1	11	<.5	<1	<1	<3	<1	33	<1
SEP 20...	1500	50	<1	10	<.5	<1	<1	<3	--	53	6

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 23...	8	5	.1	<10	<1	<1	<1	31	<6	9
FEB 09...	10	3	.2	<10	2	<1	<1	45	<6	4
MAY 11...	6	4	<.1	<10	<1	1	1	34	<6	10
SEP 20...	<4	5	.2	<10	--	<1	<1	26	<6	43

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1							---	---	6.0	4.5	8.0	7.0
2							---	---	5.0	4.5	8.0	7.0
3							---	---	6.0	5.0	9.0	7.0
4							---	---	5.5	4.5	7.5	7.0
5							---	---	5.0	4.5	7.5	6.0
6							---	---	5.5	5.0	8.0	6.5
7							5.5	5.0	7.0	5.5	9.0	7.5
8							6.0	5.0	7.5	6.5	9.0	7.5
9							5.5	5.0	7.0	6.0	9.5	7.5
10							5.5	5.0	7.5	5.5	9.0	7.5
11							6.0	5.0	7.5	6.0	9.5	8.0
12							6.0	4.5	7.5	6.5	9.0	7.5
13							6.5	5.0	7.5	6.5	9.0	7.5
14							6.0	5.0	7.0	5.5	---	---
15							6.5	5.0	7.5	6.0	---	---
16							6.0	5.5	8.0	6.5	---	---
17							6.0	5.0	7.0	6.0	---	---
18							7.0	5.0	7.5	6.0	---	---
19							5.5	4.5	6.5	5.0	---	---
20							4.0	3.5	7.5	5.5	---	---
21							4.0	3.5	7.5	5.5	---	---
22							7.0	4.0	7.5	6.0	---	---
23							6.5	5.5	7.5	6.5	---	---
24							7.0	6.0	7.5	6.0	---	---
25							6.5	5.0	6.5	6.0	---	---
26							6.0	5.5	7.0	6.0	---	---
27							7.0	5.5	7.0	6.5	---	---
28							6.0	4.5	7.5	6.0	---	---
29							6.5	5.5	---	---	---	---
30							6.0	5.0	---	---	---	---
31							6.0	4.5	---	---	---	---
MONTH							7.0	3.5	8.0	4.5	9.5	6.0

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	5.5	4.5	7.5	4.5						
2	---	---	6.5	4.0	8.0	4.0						
3	---	---	7.5	5.0	8.5	4.0						
4	---	---	7.0	5.0	9.5	5.0						
5	---	---	5.0	4.0	10.0	5.0						
6	---	---	5.5	3.5	9.5	6.0						
7	---	---	6.5	4.0	10.0	6.0						
8	---	---	6.5	4.5	10.0	5.5						
9	---	---	6.0	4.0	10.0	5.0						
10	7.5	6.5	5.5	3.5	10.5	6.0						
11	6.5	5.5	5.0	2.0	---	---						
12	5.5	5.0	5.5	3.5	---	---						
13	6.5	4.5	6.0	3.5	---	---						
14	7.0	4.5	6.0	3.5	---	---						
15	7.5	5.0	7.5	4.0	---	---						
16	8.5	5.5	6.5	3.5	---	---						
17	7.5	6.5	6.5	3.5	---	---						
18	6.5	6.0	7.0	3.5	---	---						
19	7.5	5.5	7.5	3.0	---	---						
20	7.5	6.5	7.5	4.0	---	---						
21	6.5	6.0	8.0	4.0	---	---						
22	7.5	6.0	8.5	3.5	---	---						
23	7.0	6.0	9.0	3.0	---	---						
24	6.5	6.0	9.5	3.5	---	---						
25	7.0	5.5	9.0	3.0	---	---						
26	6.5	5.5	9.5	4.5	---	---						
27	6.5	5.0	9.0	3.5	---	---						
28	8.0	5.5	9.0	4.5	---	---						
29	6.5	6.0	9.0	4.5	---	---						
30	6.0	5.0	9.5	4.5	---	---						
31	---	---	8.5	4.5	---	---						
MONTH	8.5	4.5	9.5	2.0	10.5	4.0						

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT
WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI. MENT, SUS- PENDED (MG/L)	SEDI. MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
23...	1000	1640	7.5	2	8.9	--
FEB						
09...	1500	3430	9.0	27	250	31
MAR						
18...	1515	4160	8.5	17	191	75
MAY						
11...	1215	4030	9.0	13	141	37
25...	1250	15200	--	591	24300	20
JUN						
02...	1435	13700	10.5	362	13400	15
15...	1250	15500	11.5	260	10900	19
JUL						
08...	1205	11900	12.0	99	3180	24
20...	1250	5350	15.0	18	260	39
SEP						
01...	1040	1930	17.5	5	26	43
20...	1500	951	20.0	2	5.1	--

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CA--Continued

 PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT
 WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	SED. SUSP. SIEVE DIAM. % FINER THAN	SED. SUSP. SIEVE DIAM. % FINER THAN	SED. SUSP. SIEVE DIAM. % FINER THAN	SED. SUSP. SIEVE DIAM. % FINER THAN	SED. SUSP. SIEVE DIAM. % FINER THAN	SED. SUSP. SIEVE DIAM. % FINER THAN
DATE	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM
NOV						
23...	--	--	--	--	--	--
FEB						
09...	--	--	--	--	--	--
MAR						
18...	--	--	--	--	--	--
MAY						
11...	--	--	--	--	--	--
25...	31	50	81	99	100	--
JUN						
02...	22	43	72	93	100	--
15...	26	43	82	96	98	100
JUL						
08...	--	--	--	--	--	--
20...	--	--	--	--	--	--
SEP						
01...	--	--	--	--	--	--
20...	--	--	--	--	--	--

11221000 PINE FLAT LAKE NEAR PIEDRA, CA

LOCATION.--Lat 36°49'58", long 119°19'29", in SE 1/4 NE 1/4 sec.2, T.13 S., R.24 E., Fresno County, Hydrologic Unit 18030010, near center of Pine Flat Dam on Kings River, 1.9 mi upstream from Mill Creek, 3.5 mi northeast of Piedra, and 16 mi northeast of Sanger.

DRAINAGE AREA.--1,545 mi².

PERIOD OF RECORD.--October 1951 to current year. Prior to October 1970, published as "Pine Flat Reservoir."

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 8, 1952, nonrecording mercury gage on dam at same datum.

REMARKS.--Reservoir is formed by gravity-type concrete dam; regulation of discharge from reservoir began Dec. 4, 1951. Total capacity, 1,001,055 acre-ft between elevations 565.5 ft, bottom of lower tier of river outlets, and 951.5 ft, gross pool elevation. No dead storage. Reservoir is used for flood control and conservation storage. Water is released down Kings River for diversion by the Kings River Water Association. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Kings River basin.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,009,000 acre-ft July 15, 1967, June 8, 9, 1974, elevation, 952.76 ft; minimum since gross pool elevation first obtained, 66,339 acre-ft Sept. 12, 1977, elevation, 691.29 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 992,262 acre-ft Aug. 10, elevation, 950.02 ft; minimum, 431,801 acre-ft May 20, elevation, 833.29 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

690	64,528	820	383,196
700	74,248	840	457,481
710	95,542	860	538,559
720	113,424	880	673,065
740	154,021	920	823,775
760	201,186	950	992,146
780	255,055	960	1,052,445
800	315,716		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	744810	741603	698623	640827	645972	678536	764718	549130	609830	921100	979986	921156
2	745260	745060	696155	636626	645228	689165	763089	542325	620330	927915	980927	917364
3	745060	747370	692486	632255	644022	695575	760651	535690	630191	936533	981516	913468
4	744408	748577	688444	628038	642401	700222	756800	530019	640134	945774	981104	909132
5	743607	748728	683887	623699	640595	702990	752456	523671	651558	955764	980456	904640
6	742404	748728	679299	619331	640273	704545	746867	517237	664879	963662	979928	900777
7	740853	748476	674918	615024	653331	706833	740803	509982	678488	968210	980456	897313
8	739453	747621	669983	610641	666578	707517	734466	503759	690560	968968	984107	893747
9	738055	745964	665068	606276	669651	707810	727813	498183	703670	967158	988476	890354
10	736608	744609	659891	602599	670599	708053	721293	492600	718535	962208	992262	887359
11	735015	743356	654220	600540	670410	708639	714558	485005	735662	958489	991908	885143
12	732974	741753	648156	599691	670647	708101	707077	476756	749936	956750	988121	883538
13	730540	739503	642631	598620	677249	716815	698526	468698	760296	956460	983047	882212
14	727813	737157	637640	595323	682298	724499	689020	460243	770992	957329	977929	880776
15	725093	734566	632945	591902	677774	727517	678823	453064	782804	959535	976109	879397
16	722377	732229	628038	588757	676677	730490	668468	447209	795548	961742	975289	879287
17	719568	729647	623106	585576	675061	734915	658623	441317	809722	963254	976696	879231
18	716815	732328	618059	582625	674870	741153	649413	436262	824305	963895	978223	879122
19	714263	736110	612943	580646	673540	744258	639671	432668	835609	962033	978458	878681
20	711326	732675	607939	577532	671689	746064	630420	431801	844737	961045	976873	878460
21	708199	728210	603539	574165	669273	749130	620875	434029	852513	961451	973999	877964
22	704886	723956	646947	585223	666767	750741	611318	439794	861203	963488	970253	878129
23	701824	718929	659797	591591	664314	752052	603136	448400	870272	967158	965759	878185
24	699204	713087	661300	604750	661582	757711	596347	459970	878240	970370	960580	877028
25	700222	706737	660971	608524	659656	760855	588447	475527	885475	973354	955070	875708
26	712647	700465	659703	609695	661065	762733	580340	492802	892912	974819	950444	874388
27	716618	694078	657638	627535	663041	763802	572028	511791	900217	975758	945372	871643
28	718732	688587	654921	632164	664597	765125	565337	532872	906099	976520	940429	869341
29	719568	684318	651883	642308	---	764972	559333	554819	911947	977694	935502	866987
30	729101	697751	648435	645042	---	764667	554691	574865	915895	978752	930421	864638
31	736908	---	644672	646018	---	764921	---	594523	---	979163	925412	---
MAX	745260	748728	698623	646018	678298	765125	764718	594523	915895	979163	992262	921156
MIN	699204	684318	603539	574165	640273	678536	554691	431801	609830	921100	925412	864638
a	903.12	895.15	883.95	884.24	888.21	908.68	863.79	872.91	936.82	947.80	938.50	927.59
b	-6749	-39157	-53079	+1346	+18579	+100324	-210230	+39832	+321372	+63268	-53751	-60774
c	1639	499	350	326	373	664	1051	1634	2841	4274	4020	3517

CAL YR 1982 b +194193

WTR YR 1983 b +120981

- a Elevation, in feet NGVD, at end of month.
- b Change in contents, in acre-feet.
- c Evaporation, in acre-feet.

11221500 KINGS RIVER BELOW PINE FLAT DAM, CA

LOCATION.--Lat 36°49'50", long 119°20'07", in SW 1/4 NW 1/4 sec.2, T.13 S., R.24 E., Fresno County, Hydrologic Unit 18030012, on right bank 0.6 mi downstream from Pine Flat Dam, and 2.9 mi northeast of Piedra.

DRAINAGE AREA.--1,545 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Monthly and yearly discharges only and adjusted flow for some periods published in WSP 1735.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder and concrete control since Sept. 1, 1956. Datum of gage is 556.97 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1956, at site 0.2 mi downstream at datum 3.48 ft lower.

REMARKS.--Records good. Flow regulated by Pine Flat Lake (station 11221000) 0.6 mi upstream and Wishon and Courtright Reservoirs (stations 11214550 and 11214800). See schematic diagram of Kings River basin.

AVERAGE DISCHARGE (adjusted for change in contents and evaporation).--30 years, 2,441 ft³/s, 1,769,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft³/s June 3, 4, 8, 9, 1969, gage height, 10.73 ft; minimum daily, 1.1 ft³/s Feb. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,700 ft³/s June 21, gage height, 10.60 ft; minimum daily, 873 ft³/s Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1610	935	4420	4500	3920	3740	5130	7660	10400	12800	6030	5030		
2	1590	1110	4500	4520	3980	3840	5840	7720	10400	12500	5890	4920		
3	1640	1240	4500	4520	4000	4160	6170	7720	10300	12400	5840	4840		
4	1660	1660	4500	4500	4000	4210	6340	7740	10300	12400	5770	4860		
5	1670	2000	4500	4500	4000	4210	6490	7770	10400	13000	5660	4880		
6	1750	2000	4500	4520	3860	4330	6740	7960	10700	13600	5480	4510		
7	1780	2000	4500	4500	2650	4330	6840	8150	11100	13300	5320	4270		
8	1690	2250	4500	4500	2720	4620	6970	8230	11400	13000	5090	4290		
9	1570	2500	4510	4520	4140	4740	7100	8310	11600	13000	4920	4130		
10	1490	2510	4520	4120	4360	4800	7230	8500	11900	12700	5260	3760		
11	1550	2500	4500	3370	4480	4840	7280	8900	11900	12500	6220	3270		
12	1740	2590	4500	2720	4400	5050	7380	9250	12000	12200	6740	2900		
13	1920	2770	4520	2860	3920	4100	7850	9340	12000	11600	6990	2730		
14	2020	2770	4510	3960	4560	4100	8200	9340	12100	10300	7020	2780		
15	2020	2860	4500	4020	4760	4560	8500	9370	12400	9250	6070	2750		
16	2030	3010	4500	4020	4820	4520	8590	9400	12700	8760	5540	2040		
17	2030	3000	4500	3980	4860	3960	8650	9730	13000	8280	5300	2080		
18	2070	3000	4510	4000	4760	3460	8650	9890	13000	7850	5480	2070		
19	2030	3210	4500	4000	4790	4000	8590	10000	13000	7300	5820	2070		
20	2050	3880	4500	4000	4880	4230	8760	10200	13000	6510	5820	2070		
21	2120	3900	4520	4020	4900	4140	8750	10300	13000	6000	5820	2060		
22	2180	4120	2000	3020	4940	4310	8530	10400	13300	5820	5770	2070		
23	2180	4510	3620	3260	4940	4310	8310	10500	13300	5700	5780	2070		
24	2140	4500	4480	2930	4960	3460	8140	10400	13200	5640	5740	2060		
25	2090	4500	4500	3980	4880	3920	8100	10500	13200	5660	5680	2040		
26	1810	4510	4500	4020	4580	4100	8140	10500	13200	5680	5240	2190		
27	1660	4510	4500	1590	4620	4290	8110	10500	13100	5770	5210	2780		
28	1700	4510	4500	3400	4640	4420	7880	10400	12900	5890	5100	2850		
29	1630	4500	4520	2230	---	4740	7820	10500	12900	5980	5050	3060		
30	1270	3260	4500	3660	---	4940	7720	10500	12900	6070	5050	3490		
31	873	---	4520	3800	---	4940	---	10400	---	6150	5050	---		
TOTAL	55563	90615	136150	117540	122320	133370	228800	290080	364600	287610	175750	94920		
MEAN	1792	3020	4392	3792	4369	4302	7627	9357	12150	9278	5669	3164		
MAX	2180	4510	4520	4520	4960	5050	8760	10500	13300	13600	7020	5030		
MIN	873	935	2000	1590	2650	3460	5130	7660	10300	5640	4920	2040		
AC-FT	110200	179700	270100	233100	242600	264500	453800	575400	723200	570500	348600	188300		
MEAN a	2038	2375	3310	3171	4043	5361	3523	10780	19400	10910	4496	1510		
AC-FT a	125300	141300	203500	195000	224500	329600	209600	662800	1154000	670800	276500	89850		
CAL YR 1982	TOTAL	1518461	MEAN	4160	MAX	12100	MIN	26	AC-FT	3012000	MEAN a	4682	AC-FT a	3390000
WTR YR 1983	TOTAL	2097318	MEAN	5746	MAX	13600	MIN	873	AC-FT	4160000	MEAN a	5916	AC-FT a	4283000

a Adjusted for change in contents in Wishon and Courtright Reservoirs, Pine Flat Lake, and evaporation from Pine Flat Lake.

11221500 KINGS RIVER BELOW PINE FLAT DAM, CA-Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-66, 1970 to current year.

CHEMICAL ANALYSES: Water years 1956-66.

WATER TEMPERATURES: Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1969 to current year.

INSTRUMENTATION.--Temperature recorder since October 1969.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 25.0°C Sept. 21, 1976; minimum recorded, 6.5°C on several days in January 1982.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 22.0°C Sept. 22; minimum recorded, 8.0°C Feb. 13-15, 19.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	12.0	13.5	13.0	12.0	11.5	9.5	9.0	8.5	8.5	9.0	8.5
2	12.5	12.0	13.5	12.5	11.5	11.5	9.5	9.0	8.5	8.5	8.5	8.5
3	12.5	12.0	13.5	12.5	11.5	11.5	9.5	9.0	8.5	8.5	8.5	8.5
4	12.5	12.0	13.0	12.5	11.5	11.5	9.5	9.0	8.5	8.5	9.0	8.5
5	12.5	12.5	13.0	12.5	11.5	11.5	9.5	9.0	8.5	8.5	9.0	8.5
6	13.0	12.5	13.0	12.5	11.5	11.0	9.5	9.0	8.5	8.5	9.0	8.5
7	13.0	13.0	13.0	12.5	11.5	11.0	9.5	9.0	9.0	8.5	9.0	8.5
8	13.0	13.0	12.5	12.0	11.0	11.0	9.5	9.0	8.5	8.5	9.0	8.5
9	13.0	13.0	12.5	12.0	11.0	11.0	9.5	9.0	8.5	8.5	9.0	8.5
10	13.0	13.0	12.5	12.0	11.5	11.0	9.5	9.0	8.5	8.5	9.0	8.5
11	13.0	13.0	12.5	12.0	11.5	11.0	9.5	9.0	8.5	8.5	9.0	9.0
12	13.0	13.0	12.5	12.0	12.0	11.0	9.5	9.0	9.0	8.5	9.0	8.5
13	13.0	13.0	12.5	12.0	11.0	11.0	9.0	9.0	8.5	8.0	9.0	9.0
14	13.0	13.0	12.5	12.0	11.0	11.0	9.0	9.0	8.5	8.0	9.0	8.5
15	13.0	12.5	12.5	12.0	11.5	11.0	9.5	9.0	8.5	8.0	9.0	8.5
16	13.0	12.0	12.5	12.0	11.0	11.0	9.5	9.0	8.5	8.5	9.0	8.5
17	13.0	12.5	12.5	12.0	11.0	11.0	9.0	9.0	9.0	8.5	9.0	8.5
18	13.0	12.5	12.5	12.5	11.5	11.0	9.5	9.0	8.5	8.5	9.0	8.5
19	13.0	12.5	12.5	12.0	11.0	11.0	9.5	9.0	8.5	8.0	9.0	8.5
20	13.0	12.5	12.5	12.0	11.5	11.0	9.0	8.5	9.0	8.5	9.0	8.5
21	13.5	12.5	12.5	12.0	11.5	11.0	9.0	9.0	9.0	8.5	9.0	8.5
22	13.5	13.0	12.5	12.0	12.0	11.0	9.5	9.0	9.0	8.5	8.5	8.5
23	13.5	12.5	12.5	12.0	11.0	10.0	9.5	9.0	8.5	8.5	9.0	8.5
24	13.5	13.0	12.0	12.0	10.5	10.0	9.5	8.5	8.5	8.5	8.5	8.5
25	14.0	13.5	12.0	12.0	10.0	9.5	9.0	8.5	8.5	8.5	9.0	8.5
26	13.5	13.0	12.5	12.0	10.0	9.5	9.0	8.5	8.5	8.5	8.5	8.5
27	13.5	12.5	12.0	12.0	10.0	9.5	9.5	8.5	9.0	8.5	9.0	8.5
28	13.5	12.5	12.5	12.0	9.5	9.5	8.5	8.5	8.5	8.5	9.0	8.5
29	13.5	13.0	12.5	12.0	9.5	9.5	9.5	8.5	---	---	9.0	8.5
30	13.5	13.0	12.5	12.0	9.5	9.5	8.5	8.5	---	---	9.0	8.5
31	13.5	13.0	---	---	9.5	9.5	8.5	8.5	---	---	9.0	8.5
MONTH	14.0	12.0	13.5	12.0	12.0	9.5	9.5	8.5	9.0	8.0	9.0	8.5

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	8.5	10.0	9.5	11.0	11.0	14.0	13.0	17.5	16.5	17.5	16.0
2	9.0	8.5	10.0	9.5	11.5	11.0	13.5	13.0	18.0	16.5	18.0	17.0
3	8.5	8.5	10.0	10.0	11.5	11.0	14.5	13.0	17.5	16.0	19.0	17.0
4	9.0	8.5	10.0	9.5	11.5	11.0	15.5	14.0	17.5	16.0	19.5	17.5
5	9.0	8.5	10.0	10.0	11.5	11.0	15.5	14.0	17.5	16.0	19.0	18.0
6	9.0	8.5	10.5	10.0	11.5	11.0	15.0	13.5	18.0	16.5	19.0	18.0
7	9.0	8.5	10.5	10.0	11.5	11.0	14.0	13.5	18.0	16.5	19.5	18.0
8	9.0	9.0	10.5	10.0	11.5	11.0	14.0	13.5	18.0	17.0	19.0	16.5
9	9.0	9.0	10.5	10.0	11.5	11.0	14.5	13.5	17.5	16.5	18.0	16.5
10	9.0	9.0	10.5	10.0	11.5	11.0	15.0	14.0	19.0	16.5	18.5	17.0
11	9.0	8.5	10.5	10.0	11.5	11.0	15.0	14.0	18.0	17.0	19.0	17.5
12	9.0	8.5	10.5	10.5	11.5	11.0	16.0	14.5	19.0	17.0	20.0	18.5
13	9.0	9.0	10.5	10.5	11.5	11.0	16.0	14.5	18.0	17.5	20.5	18.5
14	9.0	9.0	11.0	10.5	11.5	11.0	17.0	15.0	18.5	18.0	20.5	18.5
15	9.0	9.0	11.0	10.5	11.5	11.0	16.0	14.5	18.0	17.0	20.5	18.5
16	9.0	9.0	11.0	10.5	11.5	11.0	16.5	14.5	19.0	16.5	21.5	19.0
17	9.5	9.0	11.0	10.5	11.5	11.0	15.0	14.5	19.5	16.5	21.5	19.0
18	9.5	9.0	11.0	11.0	11.5	11.0	16.5	14.5	18.5	16.5	21.5	19.5
19	9.5	9.0	11.5	11.0	11.5	11.0	15.5	14.5	17.5	17.0	21.5	17.5
20	9.5	9.0	11.5	11.0	11.5	11.0	15.5	15.0	17.5	16.5	21.0	19.0
21	9.5	9.0	11.5	11.0	15.0	11.0	17.0	15.0	17.0	16.5	21.0	18.5
22	9.5	9.0	11.5	11.5	11.5	11.5	17.0	15.5	17.5	16.5	22.0	18.0
23	9.5	9.5	11.5	11.5	15.0	11.5	17.0	15.5	18.0	16.5	18.5	17.5
24	9.5	9.5	11.5	11.5	15.5	14.0	17.0	15.0	18.5	17.0	20.5	18.0
25	9.5	9.5	12.0	11.5	15.5	14.0	16.0	15.0	18.0	16.5	20.5	19.0
26	9.5	9.5	12.0	11.5	15.5	13.0	17.0	15.5	18.5	16.5	19.5	18.0
27	9.5	9.5	11.5	11.5	14.0	13.0	17.0	15.5	18.5	17.0	19.5	17.5
28	10.0	9.5	11.5	11.5	14.5	13.0	17.0	16.0	19.0	17.0	19.0	17.5
29	10.0	9.5	11.5	11.0	15.0	13.0	17.0	16.0	18.5	17.5	19.5	17.0
30	10.0	9.5	11.5	11.0	14.0	13.0	17.5	16.0	19.0	17.5	19.0	18.0
31	---	---	11.5	11.0	---	---	17.5	16.5	19.0	17.0	---	---
MONTH	10.0	8.5	12.0	9.5	15.5	11.0	17.5	13.0	19.5	16.0	22.0	16.0

11221700 MILL CREEK NEAR PIEDRA, CA

LOCATION.--Lat 36°49'07", long 119°20'27", in NE 1/4 NE 1/4 sec.10, T.13 S., R.24 E., Fresno County, Hydrologic Unit 18030008, on left bank 150 ft upstream from road bridge, 0.7 mi upstream from mouth, and 2.3 mi east of Piedra.

DRAINAGE AREA.--127 mi².

PERIOD OF RECORD.--October 1957 to current year. November 1938 to September 1957 in reports of Kings River Water Association.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 550 ft, from topographic map. Prior to July 14, 1958, at site 150 ft upstream at same datum.

REMARKS.--Records good. Some small diversions above station for irrigation. See schematic diagram of Kings River basin.

AVERAGE DISCHARGE.--26 years (water year 1958-83), 48.5 ft³/s, 35,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s Dec. 6, 1966, gage height, 9.53 ft in gage well, 10.2 ft from floodmarks; maximum gage height, 9.65 ft in gage well, Jan. 19, 1969 (backwater from debris); no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	0100	2,160	5.17	Mar. 1	0745	2,140	5.16
Nov. 30	1030	4,470	6.41	Mar. 13	Unknown	2,800	5.58
Dec. 22	1945	*9,920	8.20	Mar. 24	1345	1,580	4.77
Jan. 22	2115	6,590	7.21	Apr. 24	1030	259	3.40
Feb. 13	0345	1,220	4.51				

Minimum daily, 3.9 ft³/s Sept. 16-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	36	541	110	461	1360	404	211	77	31	12	7.2
2	6.1	25	254	103	390	1210	378	198	80	30	11	7.5
3	5.5	20	151	98	336	955	355	177	79	31	10	7.4
4	4.9	17	121	95	294	724	333	164	75	30	10	7.8
5	4.8	16	105	92	272	589	331	160	70	27	10	7.7
6	4.7	15	94	89	428	506	301	187	66	25	11	7.4
7	4.8	14	86	85	1630	581	276	176	63	23	11	7.2
8	5.0	14	79	82	1710	458	259	159	59	23	9.3	7.7
9	5.1	15	71	80	776	412	247	149	57	24	8.3	8.4
10	5.0	26	65	78	582	381	244	148	55	23	8.9	9.0
11	4.8	30	59	75	474	397	253	143	54	22	9.2	7.3
12	4.6	22	56	72	470	342	248	139	58	19	8.4	5.5
13	4.4	19	54	69	906	1070	230	135	53	18	7.9	5.0
14	4.3	19	52	67	527	902	220	135	50	16	7.9	4.6
15	4.2	17	49	66	452	561	207	130	46	15	9.1	4.2
16	4.2	16	46	68	400	615	200	127	45	15	9.8	3.9
17	4.2	16	44	76	359	945	188	125	43	15	8.4	3.9
18	4.4	109	42	71	457	1160	221	120	41	16	8.0	3.9
19	4.6	658	41	245	421	772	209	117	41	15	9.0	3.9
20	4.7	102	40	125	338	618	192	115	40	16	12	3.9
21	5.0	66	42	104	304	770	186	110	38	16	15	4.2
22	5.0	52	3560	1600	283	633	175	106	37	15	13	4.6
23	5.0	49	1180	1230	268	615	168	102	36	14	11	4.6
24	6.0	42	396	1620	253	1220	221	96	34	14	10	5.5
25	16	36	256	697	273	852	194	93	33	14	9.3	5.9
26	53	32	205	460	652	710	174	91	32	13	8.6	7.0
27	45	31	175	2920	542	607	163	87	31	13	8.6	7.5
28	22	34	153	1040	530	595	178	82	31	13	8.1	8.6
29	17	170	139	1680	---	510	184	79	31	12	7.8	14
30	33	1570	128	776	---	461	230	77	32	13	7.3	28
31	78	---	118	574	---	436	---	77	---	12	6.8	---
TOTAL	382.1	3288	8402	14547	14788	21967	7169	4015	1487	583	296.7	213.3
MEAN	12.3	110	271	469	528	709	239	130	49.6	18.8	9.57	7.11
MAX	78	1570	3560	2920	1710	1360	404	211	80	31	15	28
MIN	4.2	14	40	66	253	342	163	77	31	12	6.8	3.9
AC-FT	758	6520	16670	28850	29330	43570	14220	7960	2950	1160	589	423
CAL YR 1982	TOTAL	35278.23	MEAN	96.7	MAX	3560	MIN	0	AC-FT	69970		
WTR YR 1983	TOTAL	77138.1	MEAN	211	MAX	3560	MIN	3.9	AC-FT	153000		

TULARE LAKE BASIN

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CA

LOCATION.--Lat 36°12'53", long 120°28'11", in NW 1/4 SE 1/4 sec.5, T.20 S., R.14 E., Fresno County, Hydrologic Unit 18030012, on right bank 50 ft downstream from highway bridge, 1.1 mi upstream from Nunez Canyon, 3.0 mi downstream from White Creek, and 8.1 mi northwest of Coalinga.

DRAINAGE AREA.--95.8 mi².

PERIOD OF RECORD.--May 1945 to current year. Prior to October 1949 monthly discharge only, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1950. WSP 1735: 1952(M), 1956(M). WSP 1930: Drainage area. WDR CA-72-2: 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 1,067.2 ft National Geodetic Vertical Datum of 1929. Prior to Aug. 2, 1959, at site 100 ft downstream at same datum.

REMARKS.--Records fair except those for December through March, which are poor. Minor diversion for irrigation and stock ponds.

AVERAGE DISCHARGE.--38 years, 6.08 ft³/s, 4,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1950).--Maximum discharge, 4,360 ft³/s Feb. 24, 1969, gage height, 10.34 ft in gage well, 11.30 ft from floodmarks, from rating curve extended above 800 ft³/s on basis of slope-area measurement at gage height 10.34 ft, maximum gage height, 10.65 ft in gage well, 11.95 ft from floodmarks, Jan. 16, 1978; no flow for several months in most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1115	80	2.40	Mar. 2	unknown	*3,680	8.75
Dec. 22	1730	3,310	8.19	Mar. 23	unknown	unknown	unknown
Jan. 22	2015	1,780	5.24	Apr. 20	0415	87	2.13
Feb. 8	0115	1,120	4.26	Apr. 28	1215	197	2.56

Minimum, no flow for many days.

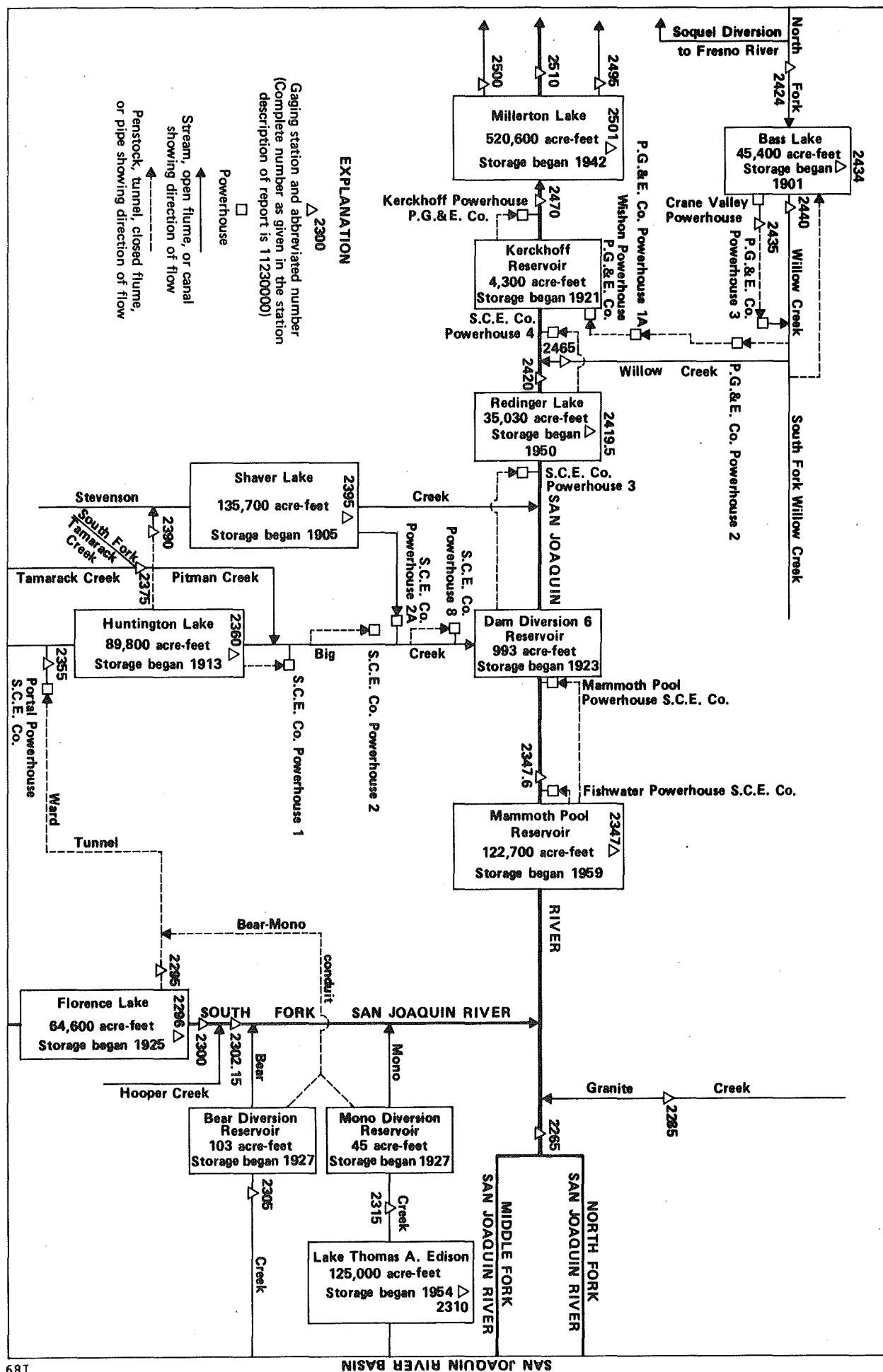
DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	30	3.9	77	1260	64	62	27	9.0	3.4	3.4
2		0	11	3.9	61	1950	61	53	28	8.7	3.1	3.7
3		0	4.5	3.6	52	480	58	49	27	8.8	3.1	3.9
4		0	3.1	3.6	47	320	54	48	27	7.8	2.9	3.7
5		0	2.6	3.4	43	210	50	49	26	7.4	2.9	3.2
6		0	2.3	3.4	90	148	46	52	23	7.3	2.7	2.8
7		0	2.1	3.3	181	90	42	48	22	6.9	2.4	2.3
8		0	2.0	3.3	301	55	39	45	20	6.9	1.8	2.2
9		0	2.1	3.3	176	49	37	44	20	7.8	2.0	2.2
10		0	1.9	3.0	148	46	35	43	19	6.7	2.1	2.2
11		0	1.7	2.8	132	47	36	43	17	6.1	2.0	2.3
12		0	1.6	2.7	119	44	49	44	18	5.4	1.9	2.1
13		0	1.5	2.1	197	60	46	43	17	5.3	2.0	1.9
14		0	1.4	2.1	146	87	46	42	15	5.2	2.2	1.7
15		0	1.3	2.0	110	72	44	41	15	5.2	2.4	1.5
16		0	1.2	2.5	94	63	42	40	14	5.3	2.4	1.5
17		0	1.1	1.9	77	78	40	39	14	5.3	2.5	1.4
18		0	1.0	4.0	82	103	54	38	13	5.3	2.4	1.3
19		1.7	1.0	34	77	67	65	38	13	5.3	3.3	1.2
20		1.3	1.0	14	72	52	80	36	13	5.3	3.8	1.1
21		.99	1.2	12	67	68	75	34	12	4.9	3.8	1.1
22		.97	491	280	62	54	59	33	12	4.3	3.5	1.2
23		1.2	483	205	59	150	49	33	11	4.2	3.7	1.2
24		1.1	14	390	58	145	51	35	11	4.1	3.7	1.4
25		1.0	8.7	201	158	107	45	33	9.9	4.4	3.5	1.5
26		1.0	6.9	176	332	97	41	32	9.5	4.5	3.7	1.5
27		1.0	5.8	767	291	93	40	31	9.8	4.3	3.5	1.7
28		1.1	5.2	276	371	91	100	29	10	4.0	3.4	2.1
29		3.0	4.9	212	---	81	68	28	9.8	3.9	3.5	4.0
30		56	4.7	164	---	74	79	28	9.6	3.7	3.4	6.8
31		---	4.4	105	---	68	---	27	---	3.6	3.4	---
TOTAL	0	70.36	1104.2	2890.8	3680	6309	1595	1240	492.6	176.9	90.4	68.1
MEAN	0	2.35	35.6	93.3	131	204	53.2	40.0	16.4	5.71	2.92	2.27
MAX	0	56	491	767	371	1950	100	62	28	9.0	3.8	6.8
MIN	0	0	1.0	1.9	43	44	35	27	9.5	3.6	1.8	1.1
AC-FT	0	140	2190	5730	7300	12510	3160	2460	977	351	179	135

CAL YR 1982 TOTAL 2417.43 MEAN 6.62 MAX 491 MIN 0 AC-FT 4790
WTR YR 1983 TOTAL 17717.36 MEAN 48.5 MAX 1950 MIN 0 AC-FT 35140

NOTE.--Maximum gage height determined from floodmarks.

FIGURE 8. — Schematic diagram showing diversions and storage in San Joaquin River basin.



SAN JOAQUIN RIVER BASIN

11226500 SAN JOAQUIN RIVER AT MILLER CROSSING, CA

LOCATION.--Lat 37°30'38", long 119°11'47", in SE 1/4 NE 1/4 sec.11, T.5 S., R.25 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank at Miller Crossing, 2.4 mi downstream from North Fork San Joaquin River, 4.6 mi east of Clover Meadow Ranger Station, and 23 mi northeast of town of Bass Lake.

DRAINAGE AREA.--249 mi².

PERIOD OF RECORD.--October 1921 to September 1928, October 1951 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as Middle Fork San Joaquin River at Miller Bridge.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,570 ft, from topographic map. Prior to Mar. 24, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and four discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--39 years, 626 ft³/s, 453,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,600 ft³/s Dec. 23, 1955, gage height 21.28 ft, from rating curve extended above 5,200 ft³/s on basis of contracted-opening measurement of maximum flow; minimum, 19 ft³/s Nov. 17, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0500	6,300	17.37	July 5	2130	7,220	17.87
May 29	2145	7,400	17.96	July 26	2045	2,660	14.83
June 17	2215	*7,810	18.16				

Minimum daily, 186 ft³/s Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	600	841	492	280	299	615	517	511	4460	4640	2280	1110
2	527	703	471	271	283	528	593	523	3600	5000	2190	1010
3	473	607	434	265	273	502	544	648	3660	5090	2070	822
4	420	569	418	288	261	504	442	776	3450	5410	1870	665
5	372	534	401	303	257	438	385	603	4110	5870	1740	619
6	341	514	395	306	261	439	354	549	4750	5910	1690	621
7	323	492	363	328	306	463	342	628	4650	5080	1790	596
8	305	449	333	346	402	476	370	829	4290	3910	2050	592
9	278	420	350	334	357	499	443	975	4610	3380	1950	553
10	259	444	355	326	353	515	449	965	5340	2950	1860	499
11	246	443	337	326	337	642	386	750	6200	3250	1550	467
12	235	426	334	325	406	538	345	821	5010	3580	1370	460
13	227	404	340	327	534	978	323	893	4350	3930	1300	453
14	220	389	307	323	388	698	307	1060	4780	4080	1510	456
15	216	372	309	315	353	515	312	1290	5290	4020	1670	465
16	209	354	294	350	341	463	365	1430	5750	3460	1520	450
17	203	339	287	332	340	447	451	1480	6250	2810	1310	452
18	195	439	277	331	358	426	439	1600	6310	2540	1360	428
19	192	604	272	343	322	380	440	2020	5500	2280	1660	373
20	189	549	313	317	332	357	553	2350	4950	2140	1310	334
21	186	462	347	296	329	353	547	2920	4830	2240	1100	320
22	383	502	516	318	341	327	657	3540	5220	2400	973	431
23	582	470	521	345	382	311	683	4080	5530	2350	858	443
24	842	421	532	488	365	314	571	4630	5260	2270	749	380
25	2200	391	497	411	369	312	503	5150	5150	2170	679	332
26	3080	375	445	383	369	292	488	5440	5200	2020	628	310
27	1130	356	392	389	398	297	487	5790	5040	2070	588	309
28	813	376	348	380	397	348	576	5960	4790	2200	564	283
29	698	431	331	374	---	318	560	6080	4740	2320	548	314
30	1440	476	307	348	---	391	598	5740	4620	2280	584	424
31	1080	---	293	320	---	534	---	5530	---	2270	1100	---
TOTAL	18464	14152	11611	10388	9713	14220	14030	75561	147690	103920	42421	14971
MEAN	596	472	375	335	347	459	468	2437	4923	3352	1368	499
MAX	3080	841	532	488	534	978	683	6080	6310	5910	2280	1110
MIN	186	339	272	265	257	292	307	511	3450	2020	548	283
AC-FT	36620	28070	23030	20600	19270	28210	27830	149900	292900	206100	84140	29690
CAL YR 1982	TOTAL	436104	MEAN	1195	MAX	8140	MIN	168	AC-FT	865000		
WTR YR 1983	TOTAL	477141	MEAN	1307	MAX	6310	MIN	186	AC-FT	946400		

11228500 GRANITE CREEK NEAR CATTLE MOUNTAIN, CA

LOCATION.--Lat 37°31'36", long 119°15'28", in NE 1/4 sec.5, T.5 S., R.25 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 0.7 mi downstream from confluence of East and West Forks of Granite Creek, 1.6 mi northwest of Cattle Mountain, and 21 mi northeast of town of Bass Lake.

DRAINAGE AREA.--47.8 mi².

PERIOD OF RECORD.--October 1921 to September 1928, May 1952 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1445: Drainage area. WDR CA-80-3: 1975.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft, from topographic map. Prior to May 14, 1922, nonrecording gage at same site at different datum.

REMARKS.--Records fair. Some regulation by manipulation of stoplogs in controls for fishwater purposes; no diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and one discharge measurement furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--7 years (water years 1922-28), 110 ft³/s, 79,640 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 8,610 ft³/s Apr. 11, 1982, gage height, 11.55 ft, from rating curve extended above 1,100 ft³/s; no flow at times in 1924, 1926.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 2,150 ft³/s Aug. 9, gage height, 8.87 ft; minimum daily, 8.7 ft Oct. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	160					---	66	1050	1220	489	129
2	33	126					---	68	929	1300	526	97
3	31	108					---	96	983	1260	466	70
4	24	103					---	134	975	1480	381	48
5	22	97					---	108	355	1550	351	45
6	18	97					---	92	1200	1460	355	46
7	17	90					---	113	1150	1180	387	40
8	17	69					---	158	1160	952	576	38
9	16	62					---	207	1230	793	754	36
10	14	63					---	200	1320	830	536	28
11	13	92					---	152	1490	1040	268	24
12	12	79					---	166	1190	1140	229	26
13	11	---					---	188	1100	1230	214	26
14	12	---					---	221	1240	1140	277	25
15	12	---					---	305	1300	1030	330	25
16	11	---					---	377	1360	826	256	24
17	10	---					---	412	1440	677	184	22
18	9.6	---					---	479	1370	623	227	20
19	8.7	---					---	606	1210	579	312	17
20	8.7	---					---	720	1170	558	179	15
21	8.7	---					---	899	1170	648	43	14
22	35	---					---	1010	1340	702	121	17
23	130	---					---	1120	1440	635	102	30
24	389	---					---	1190	1260	616	79	28
25	945	---					---	1300	1270	557	63	22
26	900	---					---	1360	1310	528	55	19
27	219	---					---	1390	1240	567	50	38
28	145	---					---	1410	1230	625	47	31
29	131	---					---	43	1420	1190	667	45
30	216	---					---	64	1330	1190	657	50
31	186	---					---	1250	---	511	224	---
TOTAL	3644.7	---					---	18547	35862	27581	8176	1143
MEAN	118	---					---	598	1195	890	264	38.1
MAX	945	---					---	1420	1490	1550	754	129
MIN	8.7	---					---	66	355	511	43	14
AC-FT	7230	---					---	36790	71130	54710	16220	2270

SAN JOAQUIN RIVER BASIN

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CA

LOCATION.--Lat 37°16'27", long 118°58'23", in NW 1/4 sec.1, T.8 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in gatehouse at entrance to tunnel.

PERIOD OF RECORD.--April 1925 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as Florence Lake tunnel at intake 1925-36 and as Ward tunnel at intake 1937-60.

REVISED RECORDS.--WSP 1515: 1931.

GAGE.--Water-stage recorder, concrete control, and Venturi meter. Datum of gage is 7,213.89 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Records good. Ward tunnel diverts from Florence Lake, a reservoir on South Fork San Joaquin River, to Huntington Lake via Portal powerhouse and further used in Big Creek powerplants. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record (no discharge measurements) and rating table for Venturi meter furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--58 years, 281 ft³/s, 203,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,990 ft³/s Apr. 30, 1926, no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	9.8	375	122	137	141	170	152	11	11	467	671
2	1200	731	592	116	125	172	200	4.0	11	11	430	617
3	1230	1010	737	114	120	208	200	4.1	10	11	381	511
4	1090	836	724	112	111	205	155	4.4	10	11	427	511
5	807	666	714	114	107	176	140	4.6	10	11	500	510
6	1120	621	708	116	106	170	125	4.8	10	11	523	509
7	1220	749	786	118	111	150	55	5.0	10	566	587	509
8	1040	929	813	122	132	145	4.0	5.1	10	980	627	509
9	900	907	760	121	158	150	4.0	5.2	10	363	625	508
10	896	579	717	120	153	160	4.0	5.4	10	12	525	507
11	893	408	679	118	143	160	4.0	5.5	10	414	518	505
12	887	406	629	118	138	165	4.0	5.7	10	1390	541	693
13	880	840	575	118	145	200	4.0	5.8	10	1540	459	824
14	561	895	514	117	147	215	5.0	6.1	11	976	340	881
15	383	885	442	116	145	180	5.0	6.2	11	746	480	940
16	381	890	222	117	135	170	5.0	6.4	11	694	543	933
17	379	880	140	118	127	155	5.0	6.7	11	803	587	927
18	379	830	119	116	129	150	5.0	7.0	11	804	587	920
19	133	494	112	117	121	140	5.0	7.1	11	614	525	914
20	9.2	701	118	109	131	130	5.0	7.4	11	567	541	910
21	9.2	856	124	108	130	125	5.0	7.5	11	689	607	958
22	14	806	130	117	126	125	250	7.7	11	709	664	1010
23	9.5	766	139	114	139	115	475	8.2	11	710	740	1020
24	9.5	814	222	150	133	120	400	8.3	11	709	800	1010
25	9.5	802	255	153	127	120	400	8.8	11	709	809	971
26	9.5	839	259	163	124	120	400	9.1	11	743	759	987
27	9.5	854	227	152	129	115	400	9.4	10	761	822	1020
28	9.5	838	187	155	134	115	385	9.8	11	761	862	995
29	9.5	668	164	165	---	110	370	10	11	698	992	984
30	9.6	446	144	162	---	125	360	10	11	475	1030	582
31	9.8	---	135	150	---	165	---	10	---	428	887	---
TOTAL	15697.3	21955.8	12462	3928	3653	4697	4549.0	357.3	318	17927	19185	23346
MEAN	506	732	402	127	131	152	152	11.5	10.6	578	619	778
MAX	1230	1010	813	165	158	215	475	152	11	1540	1030	1020
MIN	9.2	9.8	112	108	106	110	4.0	4.0	10	11	340	505
AC-FT	31140	43550	24720	7790	7270	9320	9020	709	631	35560	38050	46310
CAL YR 1982 TOTAL	159784.0		MEAN 438	MAX 1620	MIN 4.8	AC-FT 316900						
WTR YR 1983 TOTAL	128085.4		MEAN 351	MAX 1540	MIN 4.0	AC-FT 254100						

11229600 FLORENCE LAKE NEAR BIG CREEK, CA

LOCATION.--Lat 37°16'26", long 118°58'23", in NW 1/4 sec.1, T.8 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in gatehouse of Ward tunnel intake near dam on South Fork San Joaquin River, 16 mi northeast of town of Big Creek.

DRAINAGE AREA.--171 mi².

PERIOD OF RECORD.--November 1925 to current year. Prior to October 1931, published in WSP 721.

REVISED RECORDS.--WDR CA-78-3: 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Lake is formed by multiple-arch concrete dam; storage began April 1925. Usable capacity, 64,406 acre-ft between elevations 7,220.94 ft, throat of Venturi tube in Ward Tunnel intake and 7,327.50 ft, top of spillway drum gates, NGVD. Additional storage of 168 acre-ft is not available for diversion. Water is diverted through Ward tunnel to Huntington Lake via Portal powerhouse and used for further power development in Big Creek powerplants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 65,990 acre-ft July 3, 1932, elevation, 7,329.14 ft; minimum occurred during period of no record, Oct. 2-4, 1926, or Nov. 30 to Dec. 2, 1927.

NOTE.--Prior to 1960, maximum and minimum daily contents were published. Maximum and minimum daily contents (water years 1926-39) summarized in WSP 881.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 64,772 acre-ft Aug. 8, elevation, 7,327.88 ft; minimum, 975 acre-ft Mar. 29, elevation, 7,230.57 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

7,220.94	0	7,235	1,774	7,260	11,608	7,290	31,966
7,222	63	7,240	2,976	7,265	14,580	7,300	39,851
7,224	201	7,245	4,666	7,270	17,755	7,310	48,294
7,227	495	7,250	6,648	7,275	21,097	7,320	57,312
7,230	887	7,255	8,950	7,280	24,588	7,330	66,826

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61150	47988	15338	1000	1005	1003	1044	2007	58122	57081	64252	57108
2	59631	47250	14667	1000	996	1052	1073	2459	56923	57414	64667	57016
3	57917	45813	13669	1000	991	1068	1045	3102	56266	57489	64522	57034
4	56368	44672	12648	1000	978	1054	1019	3847	56045	57656	64301	56895
5	55326	43861	11580	1000	977	1039	1000	4443	56192	57843	64339	56701
6	53559	43163	10639	1000	978	1030	991	4975	56497	57694	64493	56534
7	51548	42197	9388	1000	991	1017	1137	5570	56534	56414	64618	56358
8	49883	40750	8112	1000	1014	1016	1438	6266	56395	55768	64772	56137
9	48442	39339	6873	1000	1022	1025	1762	7064	56571	56100	64532	55842
10	46999	38514	5733	1000	1017	1027	2095	7809	57025	56146	64310	55446
11	45548	38072	4601	1000	1009	1033	2384	8410	57210	56358	64031	55005
12	44097	37607	3532	1000	1000	1030	2639	9041	56886	55990	64156	54272
13	42546	36328	2586	1000	1009	1103	2905	9683	56701	55971	64089	53151
14	41650	34857	1842	1000	1011	1071	3172	10428	56914	57684	64310	51969
15	41113	33410	1226	1000	1006	1042	3453	11402	57071	59527	64464	50638
16	40562	31936	1037	1000	999	1031	3793	12442	57359	60734	64493	49310
17	40014	30473	1005	1000	994	1027	4185	13506	57508	61340	64580	48040
18	39445	29230	989	1000	991	1020	4544	14729	57414	61615	64676	46740
19	39299	28732	985	1000	1002	1006	4852	16382	57136	61891	64532	45395
20	39469	27684	986	1000	1000	999	5234	18279	57062	62195	64416	44012
21	39648	26313	992	1000	1002	996	5590	20662	57071	62614	64320	42513
22	39876	25138	994	1000	1005	994	5602	23570	57182	62948	64349	41204
23	40145	23914	1025	1000	1008	989	5092	26828	57247	63015	64214	39778
24	40529	22666	1096	1000	1002	991	4501	30495	57155	62957	63753	38264
25	41311	21379	1112	1000	997	994	3858	34615	57099	63072	63072	36763
26	42705	20013	1096	1000	999	992	3351	39055	57201	63187	62424	35193
27	43474	18543	1064	1011	1009	982	2864	43793	57118	63283	61587	33565
28	44063	17224	1027	1025	1011	982	2534	48941	57118	63436	60678	31936
29	44646	16179	1008	1025	---	975	2292	53979	57118	63628	59405	30375
30	46336	15647	999	1025	---	1013	2048	57266	57034	64243	58103	29468
31	47284	---	986	1014	---	1030	---	58299	---	64272	57284	---
MAX	61150	47988	15338	1025	1022	1103	5602	58299	58122	64272	64772	57108
MIN	39299	15647	985	1000	977	975	991	2007	56045	55768	57284	29468
a	7308.85	7266.71	7230.64	7230.82	7230.80	7230.92	7236.27	7321.06	7319.70	7327.36	7319.97	7286.69
b	-15235	-31637	-14661	+28	-3	+19	+1018	+56251	-1265	+7238	-6988	-27816

CAL YR 1982 b + 17

WTR YR 1983 b -33051

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11230215 SOUTH FORK SAN JOAQUIN RIVER BELOW HOOPER CREEK, NEAR FLORENCE LAKE, CA

LOCATION.--Lat 37°18'30", long 118°57'40", unsurveyed, Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 0.2 mi downstream from Hooper Creek, 3.2 mi downstream from spillway of Florence Lake Dam, and 17 mi northeast of town of Big Creek.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--October 1978 to current year. October 1946 to September 1978, operated as a low-flow station only, in files of the Geological Survey.

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Datum of gage is 6,949.41 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by Florence Lake (station 11229600), 3.2 mi upstream, and Hooper Creek diversion dam (capacity less than 2 acre-ft), 0.7 mi upstream. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 11 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (combined flow of South Fork San Joaquin River and Ward Tunnel at Intake).--5 years, 493 ft³/s, 357,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,950 ft³/s Sept. 26, 1982, gage height, 11.42 ft, from rating curve extended above 1,300 ft³/s on basis of spill flow at Florence Lake; minimum daily, 3.9 ft³/s Oct. 24, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,310 ft³/s July 5; minimum daily, 10 ft³/s Nov. 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	34	19	19	16	25	30	36	2400	2480	1230	42
2	24	27	18	19	16	22	38	44	2210	2660	1080	42
3	22	11	18	17	15	21	36	55	1950	2960	1340	60
4	20	14	19	16	15	20	30	56	1860	2990	1110	56
5	20	17	18	17	15	20	29	46	1970	3310	911	51
6	21	18	19	17	15	20	27	40	1920	3300	932	43
7	21	18	18	17	16	21	27	50	2140	2650	979	33
8	22	17	17	18	16	23	30	54	1980	1530	1350	24
9	21	14	17	18	16	26	35	56	2070	1330	1530	37
10	22	12	17	18	15	28	33	49	2340	1550	1650	45
11	22	11	17	18	15	27	26	41	2750	1470	1230	39
12	22	11	17	18	16	28	24	42	2630	1070	539	35
13	21	11	16	18	19	48	22	43	2290	895	352	30
14	22	10	15	17	18	49	20	48	2380	690	350	31
15	24	10	15	17	18	36	21	54	2580	614	424	30
16	26	10	15	18	19	34	27	53	2650	884	788	30
17	23	10	15	17	19	31	33	53	2950	936	643	30
18	23	14	14	17	20	28	29	60	2990	757	991	30
19	22	29	14	17	19	26	32	65	2720	488	1130	30
20	22	28	15	19	19	25	41	68	2540	458	811	30
21	22	47	15	18	20	25	43	74	2510	424	641	31
22	22	40	30	16	20	23	57	75	2570	528	177	32
23	22	23	41	17	22	22	49	72	2730	611	37	30
24	23	22	25	19	22	23	38	73	2640	597	42	30
25	25	20	22	18	23	22	37	73	2140	518	31	29
26	37	20	21	18	22	21	39	74	2590	586	45	29
27	29	19	21	18	21	21	40	76	2680	508	25	29
28	27	19	20	17	20	22	49	79	2510	559	25	29
29	26	19	19	17	---	22	52	85	2640	629	26	30
30	67	21	20	16	---	22	47	1210	2530	978	30	30
31	42	---	19	16	---	27	---	2190	---	1100	43	---
TOTAL	788	576	586	542	507	808	1041	5094	72860	40060	20492	1047
MEAN	25.4	19.2	18.9	17.5	18.1	26.1	34.7	164	2429	1292	661	34.9
MAX	67	47	41	19	23	49	57	2190	2990	3310	1650	60
MIN	20	10	14	16	15	20	20	36	1860	424	25	24
AC-FT	1560	1140	1160	1080	1010	1600	2060	10100	144500	79460	40650	2080
CAL YR 1982	TOTAL	62327	MEAN 171	MAX 5200	MIN 10	AC-FT 123600						
WTR YR 1983	TOTAL	144401	MEAN 396	MAX 3310	MIN 10	AC-FT 286400						

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CA

LOCATION.--Lat 37°20'18", long 118°58'23", in SW 1/4 sec.12, T.7 S., R.27 E., unsurveyed, Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 0.2 mi upstream from diversion dam, 1.7 mi upstream from mouth, 2.1 mi south of Lake Thomas A. Edison, and 2.4 mi northeast of Mono Hot Springs.

DRAINAGE AREA.--52.5 mi².

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermillion Valley."

REVISED RECORDS.--WSP 611: 1922(M). WSP 1345: 1931-35. WSP 1515: 1922-30. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,366.94 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and three discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--62 years, 93.5 ft³/s, 67,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,660 ft³/s Sept. 26, 1982, gage height, 8.35 ft, from rating curve extended above 570 ft³/s; minimum daily recorded, 1.2 ft³/s Sept. 29 to Oct. 5, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 440 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 28	1800	1,090	6.10	June 22	2300	1,100	6.11
June 10	2130	1,090	6.09	July 5	2200	*1,410	6.47
June 16	2200	1,260	6.30	Aug. 8	1845	1,120	6.13

Minimum daily, 28 ft³/s Apr. 7, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	83	48	44	47	51	38	40	582	775	454	203
2	104	78	61	44	46	51	45	40	447	872	452	210
3	89	70	48	43	45	54	42	54	397	948	451	175
4	77	65	45	44	43	51	36	67	380	971	401	144
5	68	61	45	49	41	50	32	54	476	1060	371	129
6	62	58	43	55	42	51	29	51	599	1040	371	131
7	57	53	42	56	49	51	28	61	610	821	444	132
8	52	46	43	60	61	51	29	80	549	646	714	124
9	48	43	42	61	66	51	33	93	587	554	608	112
10	44	47	40	53	53	52	34	84	762	457	668	98
11	41	46	40	54	47	52	30	67	862	532	489	90
12	39	47	43	58	44	52	29	73	712	604	354	87
13	38	45	42	58	61	52	29	67	658	658	317	87
14	36	43	44	56	58	52	30	88	756	664	376	87
15	36	41	37	50	51	52	28	124	828	676	481	88
16	35	38	35	49	51	52	30	133	940	587	492	87
17	34	38	35	51	50	52	37	140	1030	496	350	88
18	32	37	35	50	49	52	35	170	1000	428	396	85
19	32	45	35	46	54	51	36	216	883	335	476	76
20	32	61	36	47	52	50	41	269	828	320	360	69
21	31	51	39	48	53	48	38	351	828	351	297	64
22	41	48	42	43	50	47	44	425	862	397	235	98
23	44	48	49	49	51	46	48	443	897	424	193	90
24	59	45	65	57	51	45	41	519	821	397	163	78
25	111	44	97	61	51	47	41	591	828	368	142	68
26	138	42	89	57	51	46	42	664	835	377	129	63
27	96	38	67	51	51	44	38	735	815	405	121	63
28	84	38	54	61	52	45	40	799	815	449	116	59
29	78	40	49	56	---	44	46	796	835	485	110	61
30	83	38	49	56	---	47	45	793	788	467	112	70
31	83	---	45	50	---	48	---	725	---	424	168	---
TOTAL	1927	1477	1484	1617	1420	1537	1094	8812	22210	17988	10811	3016
MEAN	62.2	49.2	47.9	52.2	50.7	49.6	36.5	284	740	580	349	101
MAX	138	83	97	61	66	54	48	799	1030	1060	714	210
MIN	31	37	35	43	41	44	28	40	380	320	110	59
AC-FT	3820	2930	2940	3210	2820	3050	2170	17480	44050	35680	21440	5980

CAL YR 1982	TOTAL	64122	MEAN	176	MAX	2610	MIN	27	AC-FT	127200
WTR YR 1983	TOTAL	73393	MEAN	201	MAX	1060	MIN	28	AC-FT	145600

SAN JOAQUIN RIVER BASIN

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CA

LOCATION.--Lat 37°22'13", long 118°59'13", in sec.26, T.6 S., R.27 E., unsurveyed, Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in outlet works of dam on Mono Creek at lower end of Vermillion Valley, 18.1 mi northeast of town of Big Creek.

DRAINAGE AREA.--90.0 mi².

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Lake is formed by earthfill dam; dam completed and storage began on Oct. 12, 1954. Usable capacity, 125,035 acre-ft between elevations 7,508.9 ft, invert of outlet works and 7,642.50 ft, top of gates in service spillway, NGVD. Dead storage negligible. Water is released for diversion to Ward tunnel via Mono Creek diversion works. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 126,983 acre-ft Sept. 26, 1982, elevation, 7,643.55 ft; minimum since appreciable storage was attained, 5,080 acre-ft Mar. 27, 1969, elevation 7,553.09 ft.

NOTE.--Prior to 1960, maximum and minimum daily contents were published.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 125,072 acre-ft Dec. 2, elevation, 7,642.52 ft; minimum, 36,461 acre-ft May 19, 20, elevation, 7,586.79 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

7,508.9	0	7,535	513	7,560	9,521	7,610	68,616
7,515	18	7,540	928	7,570	18,137	7,620	85,006
7,520	64	7,545	1,833	7,580	28,515	7,630	102,367
7,525	156	7,550	3,567	7,590	40,454	7,640	120,424
7,530	297	7,555	6,147	7,600	53,769	7,644	127,820

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124813	124794	124961	114451	99539	93420	74645	47479	52071	100986	121160	124979
2	124572	124887	125072	113688	99010	93558	73689	46639	53127	102616	121307	124942
3	124220	124850	124979	112944	98834	93750	72673	45885	53924	104412	121399	124813
4	124017	124479	124609	112166	98518	93889	71725	45109	54573	106322	121270	124498
5	123906	124276	124424	111370	98220	94010	70721	44375	55537	108472	121160	124109
6	123758	124294	124220	110595	98079	94115	69797	43621	56823	110559	121178	123740
7	123611	124313	123924	110055	98255	94167	68758	42870	58078	112130	121178	123371
8	123444	124276	123740	109604	98325	93715	67803	42201	59215	113125	121252	122946
9	123241	124220	123555	109011	97728	93299	66868	41548	60509	113742	121215	122485
10	123186	124146	123352	108383	97079	92883	65941	40899	62084	114124	121233	122006
11	123112	124054	123186	107718	96450	92519	64974	40215	64164	114560	121123	121527
12	123038	123961	123001	107092	95978	92155	64012	39560	65802	115360	121325	121252
13	122928	123869	122743	106411	95332	91930	63106	38896	67241	116563	121399	121252
14	122835	123814	122595	105767	94706	91550	62084	38323	68758	117293	121619	121288
15	122743	123814	122392	105143	94045	91084	61160	37850	70609	117695	122337	121307
16	122651	123832	122208	104554	93351	90532	60259	37395	72641	117805	123278	121325
17	122540	123832	121454	103895	92952	89499	59361	36976	74937	117732	123592	121344
18	122429	124146	120663	103309	93004	88503	58486	36656	77311	117823	123112	121344
19	122374	124183	119947	102669	92987	87511	57602	36461	79395	117951	122688	121307
20	122429	124220	119288	101972	92969	86520	56780	36461	81213	118408	121895	121270
21	122503	124276	118738	101394	92935	85465	55851	36656	83062	119178	121399	121233
22	122669	124387	118628	101358	92900	84481	54968	37173	84989	119984	121472	121252
23	122872	124424	118353	101217	92883	83568	54150	37900	86998	120810	122061	121252
24	123168	124442	117768	100845	92848	82607	53309	38821	88829	121104	122503	121196
25	123666	124461	117622	100403	92883	81581	52444	40127	90636	121270	122872	121160
26	124220	124479	117531	100526	92900	80511	51588	41612	92467	121215	123352	121068
27	124535	124498	117311	100615	92987	79627	50722	43439	94271	121172	123648	121012
28	124813	124628	116800	100227	93091	78614	49945	45240	95978	121233	123961	120957
29	124905	124702	116216	100421	---	77607	49132	47051	97781	121325	124257	120902
30	124572	124757	115797	100526	---	76587	48281	48916	99451	121307	124572	120884
31	124646	---	115233	100086	---	75606	---	50763	---	121123	125035	---
MAX	124905	124887	125072	114451	99539	94167	74645	50763	99451	121325	125035	124979
MIN	122374	123814	115233	100086	92848	75606	48281	36461	52071	100986	121123	120884
a	7642.29	7642.35	7637.16	7628.71	7624.71	7614.36	7596.00	7597.83	7628.35	7640.38	7642.50	7640.25
b	-333	+111	-9524	-15147	-6995	-17485	-27325	+2482	+48688	+21672	+3912	-4151

CAL YR 1982 b +54385

WTR YR 1983 b - 4095

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CA

LOCATION.--Lat 37°21'40", long 118°59'26", in SW 1/4 sec.35, T.6 S., R.27 E., unsurveyed, Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank 0.6 mi upstream from diversion dam, 1 mi downstream from Lake Thomas A. Edison Dam, and 1.9 mi northeast of Mono Hot Springs.

DRAINAGE AREA.--92.5 mi².

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermillin Valley."

REVISED RECORDS.--WSP 1011: 1943. WSP 1515: 1956.

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft, from topographic map.

REMARKS.--Records good. Beginning Oct. 12, 1954, flow regulated by Lake Thomas A. Edison (station 11231000) 1 mi upstream. No diversion above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and five discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (adjusted for storage).--62 years, 162 ft³/s, 117,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft³/s Sept. 26, 1982, gage height 8.87 ft; minimum daily, 0.3 ft³/s Nov. 11, 12, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 966 ft³/s July 16, gage height, 7.39 ft; minimum daily, 12 ft³/s Oct. 23-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	113	122	419	448	100	575	529	534	585	664	311
2	332	114	127	428	204	44	570	529	534	585	618	300
3	355	193	175	428	204	20	570	524	534	591	623	326
4	265	314	175	424	204	20	570	519	534	591	710	361
5	200	187	175	420	220	20	570	524	534	591	618	369
6	199	107	175	404	220	20	580	519	534	596	564	373
7	197	107	175	315	30	130	588	509	534	629	591	369
8	197	134	178	267	173	274	653	509	534	682	755	373
9	191	152	175	344	369	271	653	509	534	726	659	390
10	141	154	175	353	368	274	637	509	539	749	668	386
11	135	152	175	372	371	274	641	504	539	772	690	382
12	133	154	175	373	350	318	684	504	544	635	427	238
13	133	151	175	373	350	274	702	499	539	424	427	125
14	133	107	170	373	376	278	711	499	539	673	407	126
15	133	85	182	372	373	274	789	499	544	934	195	126
16	132	85	183	373	373	442	741	499	544	959	17	127
17	131	85	403	375	212	574	724	499	549	928	414	127
18	130	86	408	376	87	574	715	499	549	715	732	128
19	77	85	408	374	89	569	741	499	554	565	818	128
20	28	85	408	376	95	569	783	499	554	470	915	128
21	28	86	408	370	88	564	777	509	559	289	660	128
22	24	86	300	183	86	564	777	514	559	300	242	129
23	12	86	247	208	86	564	708	514	559	314	22	130
24	12	86	366	344	90	564	650	519	564	529	41	130
25	12	86	178	257	90	564	600	519	570	608	41	130
26	12	86	150	14	88	564	550	524	570	687	41	130
27	12	86	192	217	88	564	539	529	575	682	41	131
28	41	86	318	239	88	564	539	534	575	687	41	130
29	130	93	341	15	---	559	534	539	580	710	42	132
30	533	113	258	15	---	559	534	539	580	749	44	132
31	128	---	324	428	---	575	---	539	---	743	109	---
TOTAL	4522	3544	7421	9829	5820	11524	19405	15959	16491	19698	12836	6495
MEAN	146	118	239	317	208	372	647	515	550	635	414	217
MAX	533	314	408	428	448	575	789	539	580	959	915	390
MIN	12	85	122	14	30	20	534	499	534	289	17	125
AC-FT	8970	7030	14720	19500	11540	22860	38490	31650	32710	39070	25460	12880
CAL YR 1982 TOTAL	91737.9			MEAN 251	MAX 2080	MIN 9.9	AC-FT 182000					
WTR YR 1983 TOTAL	133544.0			MEAN 366	MAX 959	MIN 12	AC-FT 264900					

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CA

LOCATION.--Lat 37°19'45", long 119°19'40", in SW 1/4 sec.10, T.7 S., R.24 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, in gatehouse of power tunnel intake near dam on San Joaquin River, 10 mi northwest of town of Big Creek.

DRAINAGE AREA.--995 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Reservoir is formed by an earthfill dam; storage began Oct. 8, 1959. Usable capacity, 119,940 acre-ft between elevations 3,100.00 ft, invert of power tunnel and 3,330.00 ft, crest of spillway, NGVD. Additional storage of 2,780 acre-ft is not available for release. Water is diverted through tunnel for power development; water is returned to river 8.5 mi downstream from dam. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 126,503 acre-ft June 2, 3, 1969, maximum elevation, 3,335.86 ft June 3, 1969; minimum contents since appreciable storage was attained, 2,956 acre-ft Feb. 6, 1982, elevation, 3,128.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 125,926 acre-ft June 11, elevation, 3,335.35 ft; minimum, 42,611 acre-ft Sept. 30, elevation 3,239.72 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

3,100	0	3,130	3,114	3,180	14,060	3,260	56,381
3,105	417	3,140	4,605	3,190	17,414	3,280	72,109
3,110	861	3,150	6,402	3,200	21,400	3,300	89,781
3,115	1,355	3,160	8,618	3,220	31,109	3,320	109,336
3,120	1,900	3,170	11,165	3,240	42,787	3,336	126,661

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70957	113390	112412	113866	97611	52893	65526	72630	124457	124334	122071	115814
2	70594	113950	112622	113285	94850	54657	66645	72185	124435	124683	121882	114775
3	69884	114310	112685	112675	91940	54994	67618	72302	124311	124683	121971	113085
4	69038	114267	112506	112066	88891	55363	67748	73449	124120	125067	121715	111584
5	68090	114046	112223	111542	85827	53772	67537	73820	124898	125496	121381	109481
6	67066	113718	112045	111145	84159	52759	67042	73854	125067	125304	121236	107304
7	65992	113570	111531	110675	82609	51992	66402	75113	124774	124401	121425	105217
8	64886	113001	111249	110290	81928	51712	65904	76998	124920	123615	122406	102899
9	64862	112380	110655	109855	80001	51726	65815	79711	125180	123099	122283	100631
10	63382	111898	110114	109377	77754	52393	65920	82618	125620	123144	122205	97698
11	61794	111364	109989	108914	75386	53756	65590	84131	125926	123278	121425	95059
12	59661	110811	109326	108441	73668	54434	65078	86000	124898	123289	120693	92457
13	57460	110176	108739	107959	74024	59646	64296	88070	124751	123435	120494	89688
14	55623	109502	107980	107458	72403	62852	63366	90788	125214	123133	120715	87014
15	56323	108791	107213	106918	70470	63945	62425	95068	125349	123312	121181	84357
16	56986	108041	106399	106633	68555	64551	61756	100374	125835	122753	120992	81624
17	57505	107213	105520	106217	66548	65614	61671	106176	125915	122540	120361	78994
18	58137	108832	104634	105833	65014	66467	61610	112748	125745	122238	120892	76268
19	58736	111114	103700	106714	63100	66629	61435	121292	125022	121826	121782	73482
20	59314	111605	103179	106156	61085	66605	62256	123244	124796	121448	121203	70305
21	59903	111563	103049	105560	59066	66605	62875	123840	124706	121514	120660	67504
22	60796	111751	109948	106491	57038	66394	64096	124255	125169	121759	119449	64559
23	62472	111877	113201	107020	56104	65920	65783	124525	125101	121770	117815	61841
24	65158	111573	114521	109927	54241	65558	66864	124864	124796	121882	116271	58931
25	72958	111114	115400	110821	52625	64958	67277	125169	124762	121704	114151	56133
26	87051	110613	116027	109855	51258	64136	67553	125383	124706	121537	112254	53288
27	91771	110000	115899	108873	50473	63358	67699	125598	124457	121693	112475	50473
28	94983	109554	115580	106877	49508	63147	68980	125598	124401	121926	112790	47539
29	97795	109678	115347	105116	---	62557	70280	125609	124277	122004	112706	44717
30	105914	111260	114955	102829	---	63460	72101	125507	124221	122004	112790	42611
31	110915	---	114468	100315	---	64798	---	125417	---	122071	114627	---
MAX	110915	114310	116027	113866	97611	66629	72101	125609	125926	125496	122406	115814
MIN	55623	107213	103049	100315	49508	51712	61435	72185	124120	121448	112254	42611
a	3321.52	3321.85	3324.90	3311.05	3250.28	3271.05	3279.99	3334.90	3333.84	3331.92	3325.05	3239.72
b	+37635	+345	+3208	-14153	-50807	+15290	+7303	+53316	-1196	-2150	-7444	-72016

CAL YR 1982 b +94579

WTR YR 1983 b -30669

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CA

LOCATION.--Lat 37°19'00", long 119°19'37", in NW 1/4 SW 1/4 sec.14, T.7 S., R.24 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 1,500 ft upstream from Shakeflat Creek, 4,900 ft downstream from Mammoth Pool Dam, and 10 mi northwest of town of Big Creek.

DRAINAGE AREA.--1,003 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 2,865.50 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by Mammoth Pool Reservoir (station 11234700) 4,900 ft upstream. Flow partly regulated by Florence Lake (station 11229600), Lake Thomas A. Edison (station 11231000) and diversions through Ward tunnel (station 11229500), and through Mono-Bear conduit to Ward tunnel. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and five discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s June 3, 1969, gage height, 18.38 ft; minimum daily, 0.3 ft³/s Oct. 14, Dec. 5, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,900 ft³/s June 18, gage height, 18.18 ft; minimum daily, 15 ft³/s Nov. 4, 5, 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	31	19	60	58	38	56	58	12700	10600	3170	29
2	32	31	17	60	58	34	57	58	10300	11000	2860	29
3	28	19	25	60	58	31	57	58	10400	11800	2680	29
4	28	15	59	59	58	27	57	58	9760	12200	2540	29
5	28	15	59	59	58	25	57	58	10400	13100	1770	28
6	28	16	59	59	58	39	57	58	12100	13400	1300	28
7	28	16	59	59	77	54	57	58	12600	12400	1420	28
8	28	16	59	59	73	54	57	58	11500	8440	2410	28
9	28	17	59	59	58	53	57	58	12100	6900	3830	28
10	28	18	59	59	58	54	57	57	13200	6020	3350	28
11	28	17	59	59	58	36	57	58	15500	6550	2550	28
12	27	17	59	59	60	21	57	58	13700	6440	1040	28
13	27	17	59	59	64	42	57	52	11500	6420	280	28
14	27	16	59	57	58	55	57	57	12100	6750	375	27
15	27	16	59	59	58	56	56	58	13200	6640	1120	27
16	27	16	59	59	58	56	56	58	14200	5960	981	27
17	28	16	58	59	58	56	56	58	15300	4880	331	27
18	28	27	58	59	58	56	56	59	15500	4100	492	27
19	28	21	58	59	58	57	56	116	14000	3220	1770	25
20	28	17	58	59	57	57	41	4600	12400	2060	1480	26
21	28	16	58	60	57	57	28	6870	11800	1890	611	27
22	28	17	106	75	57	57	57	8470	12400	2170	73	26
23	28	16	39	60	57	57	57	9520	13200	2550	42	26
24	28	16	22	81	57	57	57	10400	12700	2480	28	27
25	31	16	20	60	52	57	58	11400	12000	2430	28	27
26	31	15	19	60	54	57	58	12100	12200	1960	28	28
27	30	15	35	67	59	56	58	13000	12000	2070	29	26
28	31	17	60	59	50	56	58	13600	11200	2440	29	28
29	31	20	60	67	---	56	58	13800	11300	2890	29	28
30	32	36	60	59	---	56	58	13600	10800	3030	29	28
31	31	---	60	58	---	56	---	14300	---	2970	29	---
TOTAL	892	558	1599	1887	1644	1523	1665	132813	372060	185760	36704	825
MEAN	28.8	18.6	51.6	60.9	58.7	49.1	55.5	4284	12400	5992	1184	27.5
MAX	32	36	106	81	77	57	58	14300	15500	13400	3830	29
MIN	27	15	17	57	50	21	28	52	9760	1890	28	25
AC-FT	1770	1110	3170	3740	3260	3020	3300	263400	738000	368500	72800	1640
CAL YR 1982	TOTAL	444955.9	MEAN	1219	MAX	7770	MIN	8.1	AC-FT	882600		
WTR YR 1983	TOTAL	737930.0	MEAN	2022	MAX	15500	MIN	15	AC-FT	1464000		

11235500 WARD TUNNEL OUTLET AT HUNTINGTON LAKE, CA

LOCATION.--Lat 37°15'25", long 119°09'38", in SE 1/4 SW 1/4 sec.5, T.8 S., R.26 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, at tunnel outlet at east end of Huntington Lake, 0.9 mi east of Lakeshore Post Office, and 6 mi northeast of Big Creek.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1960, published as Ward tunnel at outlet.

GAGE.--Pressure-differential recorder to record discharge through penstock. November 1927 to May 23, 1956, water-stage recorder at datum 6,999.00 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.). May 24, 1956, to Sept. 30, 1968, no recorder, see REMARKS below.

REMARKS.--Daily discharge for period May 24, 1956, to Sept. 30, 1968, computed as the sum of Ward tunnel at intake, Mono-Bear conduit, Camp Creek conduit, and corrected for change in contents of Portal Forebay. Tunnel diverts from Florence Lake to Huntington Lake via Portal powerhouse, receives diversions from Bear and Mono Creeks at times from several other small tributaries of South Fork San Joaquin River. See record for station 11229500 Ward tunnel intake at Florence Lake.

COOPERATION.--Records collected by Southern California Edison Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--56 years, 488 ft³/s, 353,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,080 ft³/s June 21, 1935; no flow at times many years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	286	518	499	575	321	148	433	102	89	1010	1180
2	1790	838	809	592	446	162	174	356	95	80	969	1170
3	1690	1250	990	582	411	413	194	332	73	78	982	1060
4	1460	1250	970	583	400	239	183	376	109	71	986	1040
5	1050	915	944	580	399	223	204	356	112	79	1050	1030
6	1380	788	921	583	396	311	165	247	113	69	1070	1040
7	1460	867	981	553	205	186	43	0	139	579	1110	1030
8	1290	1070	1030	462	291	140	0	0	131	987	1140	1030
9	1120	1120	997	520	647	153	0	0	133	506	1150	1030
10	1090	855	957	566	614	187	0	0	159	106	1020	1030
11	1040	609	921	550	612	155	0	0	153	324	1100	993
12	1040	625	865	590	611	213	0	63	112	1400	1080	1030
13	1070	959	797	578	636	256	101	0	118	1600	1020	1010
14	710	1110	750	583	628	243	0	0	143	1080	915	1070
15	560	980	642	578	617	210	0	60	132	727	947	1150
16	585	966	392	571	629	192	0	0	158	716	996	1130
17	560	1030	615	574	478	151	0	102	152	835	1070	1140
18	563	989	603	577	307	142	0	0	162	819	1120	1130
19	364	676	592	573	234	155	0	91	132	872	1100	1120
20	22	867	581	567	326	148	0	20	98	1130	1090	1100
21	86	1010	582	569	236	131	0	71	141	1220	1150	1130
22	102	1000	599	484	227	149	215	78	106	1260	1140	1230
23	34	890	359	315	336	144	492	83	145	1250	956	1250
24	34	948	679	500	297	133	438	114	120	1270	991	1200
25	81	928	577	507	215	144	405	111	109	1250	993	1210
26	133	969	501	255	322	132	374	117	106	1280	916	1230
27	35	996	478	374	214	129	360	121	86	1310	1000	1200
28	38	964	555	554	331	127	321	170	93	1310	1040	1170
29	99	834	586	273	---	125	305	101	75	1250	1150	1160
30	81	655	456	179	---	130	298	144	66	1030	1190	832
31	40	---	474	509	---	187	---	142	---	990	1200	---
TOTAL	21297	27244	21721	15780	11640	5731	4420	3688	3573	25567	32651	33125
MEAN	687	908	701	509	416	185	147	119	119	825	1053	1104
MAX	1790	1250	1030	592	647	413	492	433	162	1600	1200	1250
MIN	22	286	359	179	205	125	0	0	66	69	915	832
AC-FT	42240	54040	43080	31300	23090	11370	8770	7320	7090	50710	64760	65700
CAL YR 1982	TOTAL	264972.00	MEAN	726	MAX	1790	MIN	0	AC-FT	525400		
WTR YR 1983	TOTAL	206437.00	MEAN	566	MAX	1790	MIN	0	AC-FT	409500		

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CA

LOCATION.--Lat 37°14'03", long 119°12'41", in SW 1/4 sec.14, T.8 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in gate tower of dam 1 on Big Creek, 2 mi northeast of town of Big Creek.

DRAINAGE AREA.--80.5 mi².

PERIOD OF RECORD.--April 1913 to current year. Prior to October 1926, monthly contents only, published in WSP 1315-A; 1926-31, published in WSP 721.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.). Prior to June 19, 1920, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by four dams; storage began Apr. 11, 1913. Dams were raised in 1914 and again in 1917. Usable capacity, 89,166 acre-ft between elevations 6,819.90 ft, invert of outlet tunnel No. 1 and 6,950.00 ft, spillway crest at dam 1, NGVD. Additional storage of 600 acre-ft is not available for release. Huntington-Shaver conduit (station 11239000) has diverted water from Huntington Lake to Shaver Lake since Apr. 21, 1928. Water is used for power development in Big Creek powerplants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co., in connection with a Federal Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 90,491 acre-ft May 31, 1926, elevation, 6,950.92 ft; minimum 2,103 acre-ft Nov. 6, 1937, elevation, 6,838.53 ft.

NOTE.--Prior to 1960, maximum and minimum daily contents were published. Maximum and minimum daily contents (water years 1913-39) were summarized in WSP 881.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,152 acre-ft Aug. 1, elevation, 6,949.99 ft; minimum, 17,194 acre-ft May 18, elevation 6,881.40 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

6,819.90	0	6,835	1,552	6,870	11,293	6,920	50,812
6,820	8	6,840	2,354	6,880	16,370	6,930	62,555
6,822	142	6,845	3,324	6,890	22,882	6,940	75,344
6,825	382	6,850	4,480	6,900	30,861	6,950	89,166
6,830	899	6,860	7,427	6,910	40,216	6,951	90,606

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86743	87381	88365	87908	87765	72078	44093	25165	33483	61186	89152	89080
2	86317	87665	88279	87979	87736	71063	43452	25073	33284	62913	89137	89123
3	86275	88208	88208	88036	87665	69887	42920	25050	32887	64658	89037	88952
4	86516	88508	88151	88122	87566	69181	42261	25118	32474	66600	88909	88880
5	86501	88279	87965	88165	87481	68311	41629	25165	32474	68694	88851	88794
6	87183	87908	87822	88222	87622	67560	41111	24859	32977	70351	88794	88708
7	88079	87693	87793	88208	87466	66587	40117	23930	33775	72600	88837	88565
8	88508	87879	87993	88036	87112	65282	39036	23051	34630	75066	88994	88422
9	88537	88194	88051	87965	86970	64024	37999	22163	35864	76105	89109	88294
10	88465	88279	88036	87936	86743	62802	36938	21418	37409	76038	89095	88237
11	88351	88208	88022	87922	86501	61638	35902	20589	39888	76572	89066	88065
12	88194	87651	87793	87951	86360	60556	34835	19999	41365	79123	89080	87936
13	88065	87523	87693	87965	86176	59674	33995	19253	44031	82014	89066	87750
14	87908	87637	87651	87993	85993	58762	32914	18513	46788	83693	89052	87722
15	87836	87580	87367	87993	85740	57726	32003	18063	48753	84601	89080	87850
16	87836	87608	86743	88079	85345	56699	30949	17565	50790	85191	89052	87922
17	87765	87608	86913	88108	84587	55856	29907	17445	52924	85838	89037	88036
18	87693	87993	87069	88194	83595	55157	28886	17194	54821	86331	89080	88022
19	88208	88051	87239	88237	82346	54404	27835	17397	56043	86700	89052	87908
20	88222	88122	87466	88237	81312	53657	26831	17633	56888	87154	88923	87765
21	88351	88222	87808	88279	80214	52868	25794	18312	57514	87481	88923	87679
22	88551	88065	88351	88322	78920	52197	25390	19460	58048	87637	88937	87779
23	88666	87722	87736	87750	77917	51374	25569	20799	58661	87736	88923	87908
24	88651	87951	88094	88079	76908	50623	25623	22530	59290	87979	89023	87979
25	88437	88122	88179	88151	75771	49833	25577	24692	59831	88151	88980	87979
26	88780	88122	88108	87537	74920	49006	25483	26670	60252	88265	88823	88094
27	88079	88065	87965	87367	73782	48698	25382	28163	60459	88394	88780	88122
28	87225	88065	87965	87608	72836	47370	25281	29898	60665	88623	88651	88251
29	88656	88108	88051	87608	---	46507	25135	31447	60665	89052	88651	88408
30	87410	88523	87979	87239	---	45835	25012	32572	60495	89123	88723	88580
31	87381	---	87822	87523	---	45240	---	33284	---	89109	88952	---
MAX	88780	88523	88365	88322	87765	72078	44093	33284	60665	89123	89152	89123
MIN	86275	87381	86743	87239	72836	45240	25012	17194	32474	61186	88651	87679
a	6948.75	6949.55	6949.06	6948.85	6938.10	6914.88	6892.85	6902.73	6928.31	6949.96	6949.85	6949.59
b	+241	+1142	-701	-299	-14687	-27596	-20228	+8272	+27211	+28614	-157	-372

CAL YR 1982 b +12571

WTR YR 1983 b +1440

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CA

LOCATION.--Lat 37°11'54", long 119°12'48", in NW 1/4 NW 1/4 sec.35, T.8 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 250 ft upstream from Huntington-Shaver conduit tunnel, 0.8 mi downstream from confluence of Tamarack Creek and South Fork Tamarack Creek, 1.4 mi upstream from mouth, and 1.9 mi east of the town of Big Creek.

DRAINAGE AREA.--22.9 mi².

PERIOD OF RECORD.--October 1927 to current year. Records for water year 1928 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WSP 931: 1940. WSP 1315-A: 1944. WSP 1395: 1928-29, 1938. WSP 1515: 1929.

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Altitude of gage is 7,005 ft, from Southern California Edison Co. contour map. Prior to Sept. 29, 1940, at site 10 ft downstream at same datum.

REMARKS.--Records fair. No diversion above station; practically all flow is diverted below station to Huntington-Shaver conduit. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and one discharge measurement furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--56 years, 42.2 ft³/s, 30,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,670 ft³/s Dec. 23, 1955, gage height, 11.20 ft, from rating curve extended above 1,100 ft³/s on basis of slope-area measurement at gage height 10.77 ft; no flow Oct. 15-18, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0415	1,070	8.05	June 10	1900	1,180	8.27
Oct. 30	0815	547	6.76	June 17	1900	1,260	8.42
May 29	2000	*1,270	8.44				

Minimum daily, 3.9 ft³/s Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	80	33	33	26	25	46	47	580	390	37	11
2	19	62	41	34	27	25	52	46	511	390	34	10
3	16	53	39	34	27	26	52	57	526	376	32	9.3
4	14	47	34	33	26	23	44	73	552	397	29	8.8
5	13	41	32	31	27	23	40	63	656	388	27	8.5
6	12	38	30	29	29	24	36	57	740	344	25	7.9
7	11	35	30	29	47	25	34	62	720	282	25	7.6
8	11	33	30	32	48	26	35	78	688	236	25	7.4
9	10	30	29	32	30	29	39	99	758	203	27	7.3
10	9.7	30	29	30	25	32	40	101	808	185	27	7.0
11	9.4	38	28	29	25	35	37	80	809	188	23	6.6
12	9.1	39	28	30	26	36	34	90	676	186	20	6.3
13	8.8	36	27	31	30	55	33	106	671	178	18	6.0
14	8.5	34	27	30	27	67	31	116	727	163	20	5.8
15	8.2	34	27	30	26	52	32	141	752	150	22	5.5
16	7.9	34	27	31	25	48	36	166	816	131	19	5.1
17	7.9	33	26	31	24	44	44	191	847	117	20	4.8
18	7.6	31	27	29	24	40	41	225	797	106	27	4.5
19	7.4	36	27	30	25	38	40	283	685	96	25	4.2
20	7.3	37	27	33	24	37	47	358	642	87	23	4.2
21	7.3	34	27	30	24	36	44	422	631	81	23	3.9
22	7.6	34	28	25	24	35	45	519	646	79	19	6.1
23	11	34	33	28	24	35	57	577	647	74	17	6.4
24	17	32	34	27	25	34	51	619	600	69	15	6.2
25	84	31	35	28	24	32	46	681	570	64	14	5.6
26	362	30	35	26	24	31	46	725	540	59	13	5.0
27	87	30	35	25	24	30	44	773	502	56	12	6.4
28	62	29	35	28	23	29	48	817	487	52	11	6.1
29	53	30	47	27	---	29	51	837	443	49	10	8.4
30	267	27	32	26	---	34	50	801	413	46	10	20
31	123	---	32	25	---	43	---	752	---	41	14	---
TOTAL	1300.7	1112	971	916	760	1078	1275	9962	19440	5263	663	211.9
MEAN	42.0	37.1	31.3	29.5	27.1	34.8	42.5	321	648	170	21.4	7.06
MAX	362	80	47	34	48	67	57	837	847	397	37	20
MIN	7.3	27	26	25	23	23	31	46	413	41	10	3.9
AC-FT	2580	2210	1930	1820	1510	2140	2530	19760	38560	10440	1320	420

CAL YR 1982	TOTAL	31048.1	MEAN	85.1	MAX	1210	MIN	1.2	AC-FT	61580
WTR YR 1983	TOTAL	42952.6	MEAN	118	MAX	847	MIN	3.9	AC-FT	85200

11239000 HUNTINGTON-SHAVER CONDUIT OUTLET NEAR SHAVER LAKE, CA

LOCATION.--Lat 37°09'18", long 119°13'53", in NW 1/4 NW 1/4 sec.15, T.9 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank at tunnel outlet, 2.3 mi northeast of Shaver Lake, and 3.5 mi south of town of Big Creek.

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1315-A. Prior to October 1960, published as Huntington-Shaver conduit at outlet.

REVISED RECORDS.--WSP 931: 1940.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,680 ft, from topographic map.

REMARKS.--Records fair. Conduit diverts from Huntington Lake to Shaver Lake with additions from Pitman Creek and seepage en route. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and two discharge measurements furnished by Southern California Edison Co. in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--55 years, 229 ft³/s, 165,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,780 ft³/s June 3, 4, 1938; no flow Oct. 19, 1978, July 1, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	116	133	59	60	312	72	59	1180	1090	634	653
2	1400	342	414	59	60	311	78	57	1170	758	631	652
3	1210	610	584	58	60	308	78	69	1170	718	633	623
4	849	681	585	58	59	304	70	88	1160	721	660	590
5	530	602	583	58	59	301	65	74	1150	671	674	589
6	530	540	536	58	58	301	62	63	1160	608	672	589
7	531	537	500	58	56	300	60	69	1340	590	671	589
8	569	535	499	59	58	299	59	88	1530	661	672	588
9	592	547	499	59	58	298	63	107	1540	731	675	588
10	591	393	499	59	58	299	64	109	1550	710	675	587
11	590	224	499	59	58	299	61	89	1550	714	671	586
12	589	451	499	60	208	298	57	98	1060	714	612	585
13	588	646	391	60	341	312	54	112	686	719	540	584
14	258	647	302	60	339	326	52	120	839	711	457	583
15	38	591	301	61	339	308	50	148	1290	698	499	583
16	38	550	255	61	338	299	54	175	1450	681	691	583
17	38	549	61	61	336	175	61	203	1500	668	692	583
18	38	484	60	60	335	70	58	239	1580	660	701	621
19	37	153	60	60	332	67	56	292	1590	712	698	653
20	37	389	61	59	330	66	62	365	1580	887	697	653
21	37	511	60	59	328	65	58	429	1490	1020	696	652
22	37	654	138	61	326	63	59	514	1430	1100	674	654
23	41	641	278	62	325	62	71	554	1440	1100	511	654
24	158	390	63	60	323	61	64	593	1440	1010	471	654
25	552	387	68	61	320	60	60	639	1440	979	552	632
26	533	501	66	61	318	58	59	896	1440	1020	537	613
27	125	577	65	60	315	57	58	1260	1440	1020	534	615
28	97	580	63	61	313	56	61	989	1440	943	590	582
29	86	408	63	60	---	55	64	983	1440	775	651	556
30	645	145	61	60	---	60	63	1110	1440	690	652	325
31	390	---	60	60	---	69	---	1170	---	666	655	---
TOTAL	13154	14381	8306	1851	6110	5919	1853	11761	40515	24745	19378	17999
MEAN	424	479	268	59.7	218	191	61.8	379	1351	798	625	600
MAX	1400	681	585	62	341	326	78	1260	1590	1100	701	654
MIN	37	116	60	58	56	55	50	57	686	590	457	325
AC-FT	26090	28520	16470	3670	12120	11740	3680	23330	80360	49080	38440	35700

CAL YR 1982	TOTAL	182100.4	MEAN	499	MAX	1490	MIN	2.7	AC-FT	361200
WTR YR 1983	TOTAL	165972.0	MEAN	455	MAX	1590	MIN	37	AC-FT	329200

SAN JOAQUIN RIVER BASIN

11239500 SHAVER LAKE NEAR BIG CREEK, CA

LOCATION.--Lat 37°08'40", long 119°18'08", in SE 1/4 sec.13, T.9 S., R.24 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, near center of dam on Stevenson Creek, 6 mi southwest of town of Big Creek.

DRAINAGE AREA.--29.1 mi².

PERIOD OF RECORD.--November 1909 to current year. Prior to January 1927, monthly contents only, published in WSP 1315-A, January 1927 to September 1931, published in WSP 721.

REVISED RECORDS.--WSP 1565: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.). Prior to Jan. 11, 1927, gage on rockfilled dam a short distance upstream at different datum.

REMARKS.--Storage began prior to 1905. Original lake formed by rockfilled dam, usable capacity, 5,500 acre-ft. Water diverted by Fresno Flume and Lumber Co.'s flumes Nos. 1 and 2 beginning prior to 1907 and discontinued July 7, 1920. Present lake formed by concrete-arch dam; dam completed Nov. 18, 1927. Usable capacity of present lake, 135,568 acre-ft between elevations 5,225 ft, trash-rack foundation and 5,370.13 ft, crest of spillway, NGVD. Additional storage of 92 acre-ft is not available for release. Water is received from Pitman Creek (since Feb. 22, 1928) and Huntington Lake (since Apr. 21, 1928) through Huntington-Shaver conduit and released for power development in Big Creek plants. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 135,897 acre-ft July 5, 1946, Aug. 4, 1978; maximum elevation, 5,370.28 ft Aug 4, 1978; minimum contents, 652 acre-ft Mar. 7, 1942, elevation 5,249.38 ft. NOTE.--Prior to 1960, maximum and minimum daily contents were published. Maximum and minimum daily contents (water years 1928-39) were summarized in WSP 881.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 135,853 acre-ft Aug. 21, 22, elevation, 5,370.26 ft; minimum, 55,797 acre-ft May 19, elevation, 5,326.51 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

5,225	0	5,250	700	5,280	9,189	5,330	60,942
5,230	42	5,255	1,254	5,290	15,598	5,340	76,741
5,235	97	5,260	2,070	5,300	24,004	5,350	94,568
5,240	191	5,265	3,206	5,310	34,455	5,360	114,220
5,245	379	5,270	4,748	5,320	46,797	5,371	137,476

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128941	134457	134109	123380	97392	95559	83955	65606	70328	125336	135634	135174
2	130653	134022	133878	122394	96435	95978	83287	64918	71858	125695	135612	135261
3	131965	134130	134043	121393	95425	96054	82553	64262	73408	125949	135590	135327
4	132612	134391	134478	120392	94474	95908	81786	63624	74925	126202	135590	135283
5	132526	134500	134652	119398	93926	95673	80976	63018	76424	126371	135656	135240
6	132418	134478	134783	118425	93246	95387	80165	62383	77971	126413	135700	135174
7	132310	134413	134739	117436	93152	95292	79313	61693	79926	126382	135722	135087
8	132310	134391	134718	116448	92831	95082	78494	61062	82309	126667	135765	135022
9	132375	134544	134696	115446	92587	94873	77701	60465	84733	126901	135787	134957
10	132397	134522	134652	114465	92270	94739	76977	59854	87127	127092	135809	135283
11	132440	133913	135066	113489	91953	94663	76207	59171	89622	127304	135809	135196
12	132461	133652	135044	112495	91804	94492	75557	58521	91078	127517	135722	135109
13	132526	133826	134848	111484	91972	95254	74529	57930	91469	127729	135722	135000
14	132095	133956	134413	110516	91730	95368	73671	57358	92270	127921	135612	134892
15	132138	134043	133935	109511	91432	95235	72804	56874	94039	128091	135605	134826
16	132202	134043	133413	108589	91488	95197	72364	56449	96149	128197	135415	134718
17	132246	134043	132504	107631	91767	94854	72136	56116	98426	128303	135524	134631
18	132332	135196	131771	106796	92233	94190	72152	55884	100836	128367	135656	134587
19	132332	134674	130845	105883	92475	93454	71568	55797	103365	128494	135744	134609
20	132332	134457	129989	104837	92699	92774	71004	55913	105666	128963	135809	134652
21	132375	134478	129391	103932	92363	92177	70698	56232	107730	129754	135853	134718
22	132440	134805	131728	103991	92419	91432	70505	57182	109652	130674	135853	134783
23	132547	135066	131814	103463	92699	90743	70040	57651	111524	131599	135568	134848
24	132957	134826	130824	103580	92982	89990	69659	58388	113408	132375	135305	135131
25	134370	134544	129925	102818	93416	89200	68944	59083	115262	133043	135218	135174
26	135393	134457	129048	102038	93813	88343	68187	60465	117086	133826	135087	135261
27	134609	134565	128154	101611	94847	87526	67419	62549	118922	134587	134913	135066
28	133652	134892	127198	100797	94266	86804	66981	63942	120726	135196	134848	135240
29	133108	134898	126223	100197	---	86033	66564	65375	122519	135480	134892	135349
30	134348	135044	125273	99292	---	85264	66255	67012	124303	135590	135044	135109
31	134805	---	124366	98368	---	84698	---	68721	---	135656	135109	---
MAX	135393	135196	135066	123380	97392	96054	83955	68721	124303	135656	135853	135349
MIN	128941	133652	124366	98368	91432	84698	66255	55797	70328	125336	134848	134587
a	5369.78	5369.89	5364.90	5351.99	5349.84	5344.62	5333.50	5335.08	5364.87	5370.17	5369.92	5369.92
b	+7564	+239	-10678	-25998	-4102	-9568	-18443	+2466	+55582	+11353	-547	0

CAL YR 1982 b +50398

WTR YR 1983 b +7868

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

11241950 REDINGER LAKE NEAR AUBERRY, CA

LOCATION.--Lat 37°08'42", long 119°26'58", in SW 1/4 sec.15, T.9 S., R.23 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on upstream face of dam No. 7 on San Joaquin River, 4.2 mi northeast of Auberry.

DRAINAGE AREA.--1,295 mi².

PERIOD OF RECORD.--November 1950 to current year. Prior to October 1965, monthend contents only, published in WSP 1930.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Lake is formed by a concrete dam; storage began Nov. 19, 1950. Usable contents, 26,119 acre-ft between elevations 1,320.00 ft, invert of tunnel and 1,403.00 ft, top of radial gates, NGVD. Additional storage of 8,914 acre-ft is not available for release. Water is used for power development in Big Creek powerhouse No. 4. See schematic diagram of San Joaquin River basin. Figures given herein represent usable contents.

COOPERATION.--Records furnished by Southern California Edison Co. in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 26,586 acre-ft Aug. 5, 1978, elevation, 1,404.00 ft; minimum since appreciable storage was attained, 5,985 acre-ft Nov. 22, 1981, elevation, 1,346.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,073 acre-ft Aug. 22, elevation, 1,402.90 ft; minimum, 6,302 acre-ft Oct. 14, elevation, 1,348.08 ft.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25534	21553	24992	24690	25823	25028	25114	25652	25055	25777	25865	25483
2	24866	22827	24681	24897	25460	24766	25287	25114	25759	25897	25749	25689
3	24511	23963	25037	24942	25360	24852	25611	25123	25856	25768	25897	25805
4	24313	24956	25246	24807	25534	25055	25865	25159	25694	25828	25809	25305
5	24122	24965	25173	24807	25383	24951	25456	25046	25962	25768	25786	25575
6	22031	24933	25101	24676	25314	24748	25282	25028	25809	25722	25883	25842
7	19760	25796	25123	24623	25328	25598	25447	25114	25791	25773	26059	25833
8	17723	24988	24596	24897	25259	25502	25470	25410	25874	25703	25893	25474
9	14225	24906	24614	25024	25259	25342	25538	25796	25828	25999	25893	24654
10	12254	24829	24694	25173	25584	25387	25611	25433	25717	25828	25740	24020
11	10704	24600	24793	25055	25205	25296	25699	24956	25722	26027	25666	23442
12	9266	24493	24852	25736	25675	25387	25552	25132	25159	25703	25625	22827
13	7928	24506	24852	25264	25078	25524	25424	25378	25883	25828	25920	22284
14	6302	24520	24793	25119	25406	25355	25296	25570	25930	25712	25786	21706
15	7710	24560	24933	25195	25105	25246	25087	25520	25948	25800	25925	21109
16	9089	24614	23627	25269	25182	25543	25269	25082	25874	25689	25870	20535
17	11063	25406	23724	24879	25374	25410	25237	25246	25773	25763	25731	19948
18	12896	25906	24003	24852	25666	25529	25447	25460	25410	25745	26013	19352
19	13490	25001	24551	24888	25374	25451	25694	25314	25712	25819	25842	18771
20	13700	24439	24609	25442	25296	25365	25888	25177	25749	25837	25768	18210
21	13892	24938	24354	24542	25865	25346	25410	25351	25856	25745	25828	17676
22	14041	24225	25429	25456	25492	25602	25460	24856	25934	25879	26073	17156
23	14196	24614	25602	24569	24327	25191	25694	25314	25934	25879	25749	16646
24	14399	24929	25323	25759	24866	25611	25314	25643	25888	25925	25611	16138
25	14718	24789	25033	25342	25209	25227	25369	25598	25657	25837	25598	15642
26	16376	24825	24988	24434	24929	25502	25584	25566	25902	25786	25588	15172
27	17821	24888	24852	25657	25182	25657	25766	25547	25717	25980	25511	14718
28	19625	24920	24856	25479	25529	25543	25529	25616	25930	25865	25511	14299
29	21804	25064	24807	25438	---	25087	25346	25584	25717	26013	25699	13945
30	23154	25570	24717	25429	---	24815	25369	25593	25671	25833	25726	13672
31	23874	---	24685	25680	---	25209	---	25570	---	25939	25611	---
MAX	25534	25906	25602	25759	25865	25657	25888	25796	25962	26027	26073	25842
MIN	6302	21553	23627	24434	24327	24748	25087	24856	25055	25689	25511	13672
a	1398.04	1401.81	1399.86	1402.05	1401.72	1401.02	1401.37	1401.81	1402.03	1402.61	1401.90	1372.35
b	-1660	+1696	-885	+995	-151	-320	+160	+201	+101	+268	-328	-11939

CAL YR 1982 b + 2556

WTR YR 1983 b -11862

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CA

LOCATION.--Lat 37°08'40", long 119°27'13", in SW 1/4 SW 1/4 sec.15, T.9 S., R.23 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 1,000 ft downstream from Redinger Lake Dam, 0.4 mi upstream from Willow Creek, and 4.2 mi northeast of Auberry.

DRAINAGE AREA.--1,295 mi².

PERIOD OF RECORD.--March 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,175.54 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by nine powerplants and six reservoirs with combined capacity of about 559,900 acre-ft. Conduit to powerhouse No. 4 diverts 1,000 ft above station. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and 11 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--32 years, 517 ft³/s, 374,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,200 ft³/s Dec. 23, 1955, gage height, 54.2 ft from floodmarks, from rating curve extended above 7,000 ft³/s on basis of computed flow over dam; no flow Sept. 25, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,000 ft³/s June 12, gage height, 25.20 ft; minimum daily, 0.25 ft³/s Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.8	19	5.0	430	4720	1040	1100	13800	10900	3310	8.9
2	13	8.4	3.6	5.0	594	3300	889	1340	11100	11000	3010	9.1
3	14	7.1	3.4	5.0	442	2020	771	1050	11500	11800	2690	9.1
4	15	6.8	3.4	5.0	335	1520	762	1030	10900	12000	2660	9.3
5	15	6.9	3.4	5.0	310	1180	1010	1020	11400	12800	2200	9.6
6	15	9.3	3.4	5.0	102	1050	896	1020	13100	13000	1570	9.8
7	15	9.6	3.8	5.0	2890	787	769	835	13100	11800	1310	9.8
8	15	9.6	3.1	5.0	2660	1070	833	758	11900	8530	2260	9.8
9	14	9.7	3.0	5.0	1160	1070	769	748	12400	6830	4110	9.8
10	16	10	3.0	5.3	789	958	769	1030	13400	6160	3690	9.8
11	16	10	3.0	5.4	1130	967	773	1040	14900	6490	3460	9.9
12	16	10	3.1	5.3	834	891	773	790	14000	6620	1650	11
13	17	10	3.3	5.2	2650	2370	769	750	11600	6400	350	10
14	17	9.0	3.5	4.9	927	1910	765	755	12100	6860	709	7.6
15	10	7.9	4.6	4.6	1040	1230	739	827	13100	6610	1140	6.5
16	1.5	7.8	4.6	4.7	641	1020	454	1040	13900	6230	1170	8.1
17	.58	7.8	4.6	4.6	446	1350	454	783	14800	5200	865	9.8
18	.27	142	4.6	4.7	646	1350	446	746	15100	4470	489	15
19	.25	396	4.6	3.6	780	1210	531	896	13500	3560	1780	19
20	.31	7.6	4.8	3.4	591	1290	773	3840	12500	2590	1780	21
21	.37	7.5	4.9	3.4	468	1340	849	7070	12200	2480	902	19
22	.42	7.5	6520	963	733	1110	446	8820	12700	2550	263	18
23	.47	5.7	1040	691	580	1360	614	10000	13300	3140	198	18
24	.71	4.8	5.3	729	135	1150	1170	10700	13000	2940	17	18
25	.89	6.9	5.0	105	360	2610	882	11900	12400	3100	9.3	18
26	3.4	6.9	5.0	703	1050	1470	751	12700	12200	2530	8.0	17
27	6.7	6.7	5.0	2050	1050	1020	742	13100	12400	2340	6.6	8.3
28	6.5	6.8	5.0	1030	1050	1330	1220	13600	11500	2450	8.9	4.2
29	5.3	6.9	5.0	1300	---	1340	1230	14400	11800	2780	8.9	7.1
30	2.3	1530	5.0	660	---	573	1770	14200	11300	3270	8.9	4.2
31	1.8	---	5.0	406	---	561	---	14700	---	2940	8.9	---
TOTAL	252.77	2285.0	7695.0	8737.1	24823	45127	24659	152588	380900	190370	41642.5	344.6
MEAN	8.15	76.2	248	282	887	1456	822	4922	12700	6141	1343	11.5
MAX	17	1530	6520	2050	2890	4720	1770	14700	15100	13000	4110	21
MIN	.25	4.8	3.0	3.4	102	561	446	746	10900	2340	6.6	4.2
AC-FT	501	4530	15260	17330	49240	89510	48910	302700	755500	377600	82600	684
CAL YR 1982	TOTAL	460813.57	MEAN	1263	MAX	10500	MIN	.25	AC-FT	914000		
WTR YR 1983	TOTAL	879423.97	MEAN	2409	MAX	15100	MIN	.25	AC-FT	1744000		

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CA

LOCATION.--Lat 37°23'52", long 119°33'55", in SW 1/4 NE 1/4 sec.21, T.6 S., R.22 E., Madera County, Hydrologic Unit 18040006, on right bank at road bridge 0.6 mi downstream from Soquel Campground, 3.0 mi upstream from Chilkoot Creek, and 4.7 mi southeast of Sugar Pine.

DRAINAGE AREA.--16.9 mi².

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,200 ft, from topographic map.

REMARKS.--Records good except those for Mar. 20 to May 16, which are poor. No storage above station.

AVERAGE DISCHARGE.--18 years, 27.4 ft³/s, 19,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s Jan. 13, 1980, gage height, 7.41 ft, from rating curve extended above 300 ft³/s on basis of a step-backwater survey; minimum daily, 0.29 ft³/s Sept. 11, Oct. 3-5, 12-17, 1977.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0400	271	4.32	Mar. 1	0315	294	4.38
Nov. 18	2200	323	4.45	Mar. 13	1615	336	4.48
Nov. 30	0430	180	4.08	Apr. 2	unknown	unknown	unknown
Dec. 22	1645	*671	5.05	Apr. 29	0700	162	4.03
Jan. 22	1730	232	4.23	May 29	2045	336	4.48
Feb. 13	0415	213	4.18	June 16	2000	282	4.35

Minimum daily, 7.7 ft³/s Oct. 14-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	33	52	41	53	231	158	139	268	166	48	16
2	10	28	40	40	53	185	163	123	223	166	45	14
3	9.6	25	37	39	45	134	139	113	193	165	43	13
4	9.2	21	37	39	43	113	118	125	194	174	42	13
5	9.1	20	34	39	44	100	93	118	211	175	39	12
6	8.8	19	32	39	47	96	81	109	231	170	37	12
7	8.8	18	30	39	125	106	91	117	239	155	37	11
8	8.8	18	30	40	117	101	106	133	241	143	35	11
9	8.7	19	28	39	80	105	115	139	233	132	33	11
10	8.4	29	28	38	68	117	113	120	237	126	33	11
11	8.4	22	27	37	67	131	99	103	239	127	30	10
12	8.0	20	27	37	86	118	72	107	216	128	26	9.7
13	8.0	19	27	37	130	226	68	112	209	127	25	9.6
14	7.7	19	26	37	74	174	69	108	219	122	26	10
15	7.7	18	26	36	69	133	70	114	227	116	26	11
16	7.7	18	26	40	66	121	70	121	239	106	24	10
17	7.7	18	29	39	65	117	81	125	246	98	22	10
18	7.7	123	27	41	69	111	106	135	236	92	22	9.9
19	7.7	96	26	43	71	108	128	151	218	81	22	9.5
20	7.7	47	41	37	62	100	111	174	208	82	22	9.3
21	7.7	37	51	36	61	98	101	199	201	79	22	9.3
22	8.1	44	317	106	60	88	115	222	207	77	22	10
23	16	40	140	83	62	86	130	247	205	75	20	10
24	22	33	84	131	62	84	139	262	194	71	19	11
25	30	30	69	80	62	80	139	264	190	68	18	11
26	104	28	62	67	69	76	125	276	188	64	17	20
27	32	27	56	85	83	77	125	281	182	61	16	13
28	24	30	51	64	95	82	153	284	178	59	15	12
29	21	40	49	62	---	101	159	286	176	57	14	22
30	71	91	45	56	---	128	153	281	171	54	15	33
31	46	---	43	53	---	153	---	277	---	51	18	---
TOTAL	552.5	1030	1597	1600	1988	3680	3390	5365	6419	3367	833	374.3
MEAN	17.8	34.3	51.5	51.6	71.0	119	113	173	214	109	26.9	12.5
MAX	104	123	317	131	130	231	163	286	268	175	48	33
MIN	7.7	18	26	36	43	76	68	103	171	51	14	9.3
AC-FT	1100	2040	3170	3170	3940	7300	6720	10640	12730	6680	1650	742

CAL YR 1982 TOTAL 23918.0 MEAN 65.5 MAX 1110 MIN 7.7 AC-FT 47440
WTR YR 1983 TOTAL 30195.8 MEAN 82.7 MAX 317 MIN 7.7 AC-FT 59890

NOTE.--Doubtful gage-height record Mar. 20 to May 16.

11243400 BASS LAKE NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'33", long 119°31'43", in SE 1/4 NE 1/4 sec.26, T.7 S., R.22 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, at outlet tower at dam on North Fork Willow Creek, 2.2 mi southeast of town of Bass Lake, and 5 mi north of North Fork.

DRAINAGE AREA.--50.4 mi².

PERIOD OF RECORD.--January 1911 to September 1982 (monthend contents only), October 1982 to September 1983. Bass Lake was formerly called Crane Valley Reservoir.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--Reservoir formed by earthfill and rockfill dam; completed in 1901 and raised in 1910. Since 1910 usable contents 45,100 acre-ft between elevations, 3,280.22 ft, invert of outlet conduit No. 3 and 3,376.40 ft, top of spillway gates. Additional storage of 300 acre-ft not available for release. Water is released through Crane Valley powerhouse below dam for use in three small powerhouses before being discharged into Kerckhoff Reservoir at Wishon powerhouse. Water is diverted from South Fork Willow Creek via Browns Creek ditch into Bass Lake near left end of dam. Madera Irrigation District has water rights to divert up to 50 ft³/s from North Fork Willow Creek through Soquel ditch into Nelder Creek (Fresno River basin) during October and from March to July each year. Chilkoot ditch can divert up to 7 ft³/s from Chilkoot Creek into North Fork Willow Creek just upstream from diversion dam from Oct. 1 to Aug. 1 each water year, if available. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co. in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 45,960 acre-ft June 17, 1923, elevation, 3,376.8 ft; minimum, 35 acre-ft Nov. 19, 1953, elevation, 3,270.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 45,388 acre-ft July 13, 19, 20, elevation, 3,376.38 ft; minimum, 22,198 acre-ft Oct. 14, elevation, 3,353.24 ft.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25355	25242	31728	33469	33939	35387	34227	36307	41085	45376	44702	38632
2	25127	25382	31640	33367	33846	35260	34217	36286	40943	45343	44606	38403
3	24961	25516	31552	33203	33795	34986	34186	36221	40660	45309	44486	38218
4	24622	25623	31434	33061	33734	34714	34155	36221	40376	45320	44354	37978
5	24364	25729	31375	32960	33713	34495	34134	36119	40147	45354	44210	37760
6	24106	25827	31346	32830	33795	34351	34227	36167	40311	45365	44050	37510
7	23850	25907	31356	32740	34881	34361	34279	36124	40834	45287	43877	37292
8	23603	26014	31346	32600	34850	34279	34371	36080	41357	45287	43723	37042
9	23341	26185	31170	32480	34474	34227	34433	36016	41817	45343	43534	36642
10	23106	26392	31006	32360	34258	34248	34537	35984	42296	45343	43333	36372
11	22854	26500	30850	32231	34104	34289	34589	35909	42786	45365	43134	36113
12	22570	26617	30696	32102	34145	34279	34620	35823	43192	45376	42925	35834
13	22288	26725	30533	31944	34382	34997	34630	35738	43546	45388	42729	35546
14	22198	26842	30360	31836	34237	34997	34620	35684	43937	45365	42547	35249
15	22247	26950	30177	31679	34145	34547	34599	35631	44342	45343	42376	34997
16	22288	27060	30006	31601	34021	34474	34610	35620	44726	45332	42159	34724
17	22346	27160	29854	31483	33970	34495	34589	35641	44982	45343	41982	34443
18	22387	28633	29692	31532	34114	34443	34745	35652	45072	45365	41762	34155
19	22429	29277	29521	31473	34042	34330	34818	35823	45106	45388	41532	34042
20	22462	29597	29418	31366	33970	34299	34986	36145	45083	45388	41335	34042
21	22495	29844	29692	31258	33918	34402	35049	36545	45049	45376	41117	34093
22	22561	30197	33540	32360	33898	34340	35081	36890	45016	45343	40920	34114
23	22653	30475	34186	32650	33867	34258	35281	37553	45004	45309	40671	34134
24	22720	30561	34114	33949	33867	34309	35482	37989	44948	45253	40474	34165
25	22997	30523	33980	34066	33990	34248	35525	38000	44869	45196	40256	34196
26	23739	30456	33918	34066	34042	34196	35493	38044	44786	45129	40027	34310
27	23969	30379	33826	34672	34289	34145	35450	39646	44822	45049	39788	34423
28	24114	30465	33744	34361	34299	34330	35781	39646	45072	44970	39559	34454
29	24235	30696	33550	34351	---	34258	35941	40605	45185	44925	39308	34568
30	24744	31542	33642	34134	---	34212	36242	41008	45253	44869	39079	34787
31	25039	---	33550	33990	---	34248	---	41216	---	44798	38850	---
MAX	25355	31542	34186	34672	34881	35387	36242	41216	45253	45388	44702	38632
MIN	22198	25242	29418	31258	33713	34145	34134	35620	40147	44798	38850	34042
a	3356.59	3363.60	3365.61	3366.04	3366.34	3366.29	3368.18	3372.75	3376.26	3375.86	3370.58	3366.81
b	-537	+6503	+2008	+440	+309	-51	+1994	+4974	+4037	-455	-5948	-4063

CAL YR 1982 b +9624

WTR YR 1983 b +9211

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

11243500 PACIFIC GAS AND ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'21", long 119°31'44", in NE 1/4 SE 1/4 sec.26, T.7 S., R.22 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on left bank 1,000 ft downstream from Crane Valley powerhouse and dam, and 2.5 mi southeast of town of Bass Lake.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1954, published as "near Crane Valley Reservoir."

GAGE.--Water-stage recorder and concrete flume. Altitude of gage is 3,300 ft, from topographic map.

REMARKS.--Conduit diverts from Bass Lake in sec.26, T.7 S., R.22 E. Water passes through Crane Valley powerhouse, then to powerhouse No. 3, and is stored temporarily at Manzanita Lake on North Fork Willow Creek; flow then diverts to powerhouses No. 2 and 1A before it enters San Joaquin River at Kerckhoff Reservoir through Wishon powerhouse No. 1. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--43 years, 71.8 ft³/s, 52,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 167 ft³/s June 23, 24, 1965; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	.03	139	158	152	129	136	149	149	150	156	151
2	160	.02	158	156	152	129	137	146	149	149	150	151
3	160	0	158	158	153	129	137	142	149	149	152	151
4	161	0	158	157	153	129	137	140	149	149	152	151
5	161	0	158	157	153	129	138	139	149	149	151	150
6	161	0	157	157	153	130	137	139	150	149	151	150
7	161	0	163	156	153	130	138	139	150	148	151	151
8	161	0	74	156	154	130	138	139	149	148	152	151
9	161	.37	145	156	154	131	138	138	149	148	153	150
10	161	4.7	162	156	154	131	141	139	150	148	152	151
11	161	4.7	162	156	154	131	143	140	149	149	151	151
12	161	3.3	162	156	154	137	144	140	150	150	149	151
13	161	.03	162	156	154	137	143	137	150	152	147	151
14	86	.03	162	157	153	137	144	133	151	153	147	152
15	.08	.03	162	157	151	137	144	133	152	155	147	136
16	.06	.03	162	157	153	137	144	134	154	155	149	149
17	.03	.03	162	157	153	142	149	134	155	155	152	149
18	.04	.28	162	157	145	145	152	134	155	155	153	149
19	.13	6.8	162	158	142	145	152	134	156	155	149	63
20	.23	6.6	162	159	142	145	152	135	157	156	150	.09
21	.29	.34	160	159	143	145	152	135	157	157	152	.06
22	.29	.08	161	155	151	145	152	135	157	157	152	.03
23	.29	.28	162	133	150	145	152	139	157	156	152	.03
24	.22	20	162	133	150	145	152	144	157	157	152	.03
25	.19	136	161	148	150	145	151	144	154	157	152	.03
26	.09	137	160	155	149	145	152	144	152	157	152	7.7
27	.97	137	160	156	146	145	146	146	151	158	152	.09
28	.78	137	160	157	149	144	142	148	151	158	152	.06
29	.03	137	160	141	---	144	150	146	150	158	152	.09
30	.03	137	159	139	---	139	150	148	150	157	151	.09
31	.03	---	159	144	---	137	---	149	---	156	151	---
TOTAL	2179.78	868.65	4856	4757	4220	4269	4343	4342	4558	4750	4684	2766.30
MEAN	70.3	29.0	157	153	151	138	145	140	152	153	151	92.2
MAX	161	137	163	159	154	145	152	149	157	158	156	152
MIN	.03	0	74	133	142	129	136	133	149	148	147	.03
AC-FT	4320	1720	9630	9440	8370	8470	8610	8610	9040	9420	9290	5490
CAL YR 1982	TOTAL	47585.70	MEAN	130	MAX	163	MIN	0	AC-FT	94390		
WTR YR 1983	TOTAL	46593.73	MEAN	128	MAX	163	MIN	0	AC-FT	92420		

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'20", long 119°31'45", in SE 1/4 SE 1/4 sec.26, T.7 S., R.22 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 1,500 ft downstream from Bass Lake spillway, and 2.5 mi southeast of town of Bass Lake.

DRAINAGE AREA.--50.8 mi².

PERIOD OF RECORD.--May 1940 to current year. Prior to October 1944, published as Willow Creek below Crane Valley Reservoir. October 1944 to September 1954, published as "below Crane Valley Reservoir."

GAGE.--Water-stage recorder. Broad-crested weir with V-notch Dec. 21, 1961, to Jan. 16, 1969, and since Mar. 26, 1971. Altitude of gage is 3,200 ft, from topographic map.

REMARKS.--Flow regulated by Bass Lake (station 11243400) 1,500 ft upstream and by diversion into Pacific Gas and Electric Co. conduit No. 3 near Bass Lake (station 11243500). Soquel ditch diverts up to 50 ft³/s from North Fork Willow Creek into Nelder Creek in Fresno River basin. Brown's Creek ditch diverted 13,330 acre-ft from South Fork Willow Creek into Bass Lake during the current year. See schematic diagram of San Joaquin River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--43 years, 14.3 ft³/s, 10,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,950 ft³/s Apr. 11, 1982, gage height, 7.78 ft; minimum daily, 0.1 ft³/s Nov. 13-16, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 927 ft³/s June 27, gage height, 4.79 ft; minimum daily, 0.28 ft³/s on several days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.43	1.0	.61	43	707	176	172	414	150	.95	.66
2	.33	.48	.57	.55	28	756	172	168	343	239	1.4	.65
3	.32	.47	.53	.50	17	604	157	164	401	239	1.3	.63
4	.32	.47	.48	.51	10	463	181	164	391	239	1.3	.61
5	.32	.45	.46	.53	7.8	342	72	157	382	212	1.3	.60
6	.32	.45	.46	.45	29	266	31	153	206	206	1.3	.59
7	.32	.45	.45	.44	416	257	34	149	16	224	1.3	.58
8	.32	.45	.44	.43	536	202	37	149	36	141	1.3	.57
9	.31	.46	.42	.42	330	160	40	149	51	96	.90	.57
10	.31	.71	.41	.41	175	149	44	145	52	89	1.3	.56
11	.31	.49	.39	.41	104	193	92	142	53	79	1.3	.55
12	.30	.41	.37	.41	110	176	45	145	55	78	1.3	.54
13	.30	.50	.42	.41	240	418	45	145	55	77	1.3	.53
14	.30	.49	.37	.41	169	516	44	138	57	76	1.3	.52
15	.28	.47	.35	.40	113	367	41	128	58	58	5.0	.52
16	.28	.47	.34	.46	83	298	32	125	91	39	.90	.51
17	.28	.47	.34	.43	64	298	43	181	186	17	1.3	.50
18	.28	2.6	.34	.41	92	293	50	128	239	6.8	1.3	.50
19	.28	4.0	.35	.65	84	239	53	153	241	3.0	1.3	.49
20	.28	.50	.48	.47	66	198	63	43	249	.94	1.3	.49
21	.28	.46	.54	.46	51	257	70	44	250	.93	1.3	.48
22	.28	.53	15	4.1	42	230	74	46	249	.92	1.2	.48
23	.30	.49	40	2.0	37	198	84	109	249	.92	1.2	.47
24	.34	.48	56	24	34	211	103	52	248	.91	1.5	.47
25	.39	.47	114	59	47	198	112	125	248	.91	.74	.46
26	.91	.46	100	57	80	168	112	172	246	1.5	1.9	.46
27	.40	.46	11	439	154	153	112	181	156	1.5	1.9	.45
28	.33	.47	8.5	281	220	239	138	193	83	1.5	1.9	.45
29	.32	2.2	5.3	252	---	207	164	202	181	1.5	1.9	.44
30	.77	4.5	3.5	142	---	221	193	211	183	1.4	1.9	.44
31	.56	---	2.1	74	---	221	---	293	---	1.4	1.9	---
TOTAL	10.97	25.74	364.91	1343.87	3381.8	9205	2614	4526	5669	2283.13	45.99	15.77
MEAN	.35	.86	11.8	43.4	121	297	87.1	146	189	73.6	1.48	.53
MAX	.91	4.5	114	439	536	756	193	293	414	239	5.0	.66
MIN	.28	.41	.34	.40	7.8	149	31	43	16	.91	.74	.44
AC-FT	22	51	724	2670	6710	18260	5180	8980	11240	4530	91	31
CAL YR 1982	TOTAL	11644.63	MEAN	31.9	MAX	968	MIN	.28	AC-FT	23100		
WTR YR 1983	TOTAL	29486.18	MEAN	80.8	MAX	756	MIN	.28	AC-FT	58490		

11246500 WILLOW CREEK AT MOUTH, NEAR AUBERRY, CA

LOCATION.--Lat 37°09'03", long 119°27'34", in SE 1/4 NE 1/4 sec.16, T.9 S., R.23 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on left bank 40 ft upstream from bridge, 0.4 mi upstream from mouth, 1.3 mi downstream from Whiskey Creek, and 4.3 mi northeast of Auberry.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--January 1952 to current year.

REVISED RECORDS.--WSP 2130: 1956-58(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 22, 1964. Datum of gage is 1,174.69 ft National Geodetic Vertical Datum of 1929 (levels by Southern California Edison Co.).

REMARKS.--Records good. Flow regulated by Bass Lake (station 11243400) 10 mi upstream and diversion into Pacific Gas and Electric Co. conduit No. 1. See schematic diagram of San Joaquin River basin.

COOPERATION.--Gage-height record and ten discharge measurements furnished by Southern California Edison Co., in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--31 years, 70.8 ft³/s, 51,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Dec. 23, 1955, gage height, 28.5 ft, from floodmarks, from rating curve extended above 4,700 ft³/s; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,230 ft³/s Dec. 22, gage height, 18.80 ft; minimum daily, 5.4 ft³/s Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	37	396	107	341	2490	663	689	956	167	13	13
2	10	27	192	98	293	2200	645	627	813	254	13	12
3	9.2	21	143	94	241	1690	599	585	830	254	12	12
4	8.5	18	135	90	205	1310	526	616	800	251	12	12
5	7.9	17	84	90	189	1010	471	562	817	234	12	11
6	7.7	15	46	90	269	843	353	562	759	202	11	10
7	7.6	15	39	86	1740	977	341	517	474	219	11	10
8	10	15	50	87	1950	800	339	536	480	172	11	10
9	9.0	16	56	86	1010	712	353	532	507	107	11	10
10	7.1	40	56	80	708	685	375	532	495	106	11	10
11	6.7	33	50	80	542	929	355	471	492	88	12	9.8
12	6.6	25	47	80	533	763	339	468	436	88	12	9.5
13	6.3	23	50	77	1320	1820	327	480	393	86	13	13
14	6.2	20	45	73	771	1650	309	480	391	86	13	15
15	8.0	19	39	70	606	1120	300	513	388	79	14	12
16	8.8	18	36	79	510	1010	293	548	412	55	12	25
17	7.9	18	35	86	456	989	325	565	489	44	11	12
18	7.1	417	33	78	539	1060	365	588	539	27	11	6.4
19	6.8	719	32	147	510	834	355	648	510	22	12	5.4
20	6.8	93	44	89	442	747	456	663	486	21	13	8.5
21	7.0	60	79	77	388	918	454	689	465	21	14	9.6
22	7.1	53	4070	1000	355	821	409	771	454	19	14	10
23	7.4	46	1390	757	346	751	417	788	451	18	13	12
24	11	35	602	1290	331	878	645	804	436	18	13	13
25	17	31	417	613	391	792	529	896	417	18	14	13
26	272	26	313	439	531	678	468	979	412	17	15	13
27	66	22	237	1460	708	616	431	989	365	17	13	24
28	28	26	192	792	778	887	689	970	187	17	12	17
29	20	95	179	923	---	720	720	951	217	16	12	16
30	73	882	137	595	---	659	970	891	260	15	15	64
31	96	---	118	428	---	678	---	878	---	14	16	---
TOTAL	763.7	2882	9342	10141	16993	32037	13821	20788	15131	2752	391	418.2
MEAN	24.6	96.1	301	327	607	1033	461	671	504	88.8	12.6	13.9
HAX	272	882	4070	1460	1950	2490	970	989	956	254	16	64
MIN	6.2	15	32	70	189	616	293	468	187	14	11	5.4
AC-FT	1510	5720	18530	20110	33710	63550	27410	41230	30010	5460	776	829
CAL YR 1982	TOTAL	73479.0	MEAN	201	HAX	5420	MIN	1.7	AC-FT	145700		
WTR YR 1983	TOTAL	125459.9	MEAN	344	HAX	4070	MIN	5.4	AC-FT	248800		

11249500 MADERA CANAL AT FRIANT, CA

LOCATION.--Lat 37°00'10", long 119°42'21", in NW 1/4 SW 1/4 sec.5, T.11 S., R.21 E., Madera County, Hydrologic Unit 18040006, at Friant Dam 0.9 mi northeast of Friant.

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for October 1943 to September 1950 published in WSP 1315-A. October 1954 to September 1966 published as Friant-Madera Canal at Friant.

REVISED RECORDS.--WSP 1151: 1944-48.

GAGE.--Discharge computed on basis of valve openings in dam and head on valves. Prior to Oct. 1, 1948, water-stage recorder at several sites at various datums. Oct. 1, 1948, to Sept. 30, 1949, water-stage recorder at site 8.8 mi downstream.

REMARKS.--Canal diverts from Millerton Lake (station 11250100) at right end of Friant Dam for irrigation between San Joaquin and Chowchilla Rivers.

COOPERATION.--Records furnished by Bureau of Reclamation and reviewed by the Geological Survey, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--40 years, 330 ft³/s, 239,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,330 ft³/s July 2, 1973, May 21, 1983; no flow many days in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	279			0	286	1090	1180	1280	1250	1200	1150
2	406	212			0	0	1120	1150	1270	1260	1190	1140
3	407	201			0	388	1130	1160	1260	1270	1220	1140
4	387	202			0	890	1120	1140	1230	1270	1210	1140
5	434	202			620	1000	1110	1150	1230	1270	1180	1130
6	470	55			752	999	1130	1160	1230	1270	1170	1130
7	472	0			758	997	1140	1140	1250	1260	1160	1130
8	490	0			335	1030	1130	1120	1250	1250	1100	1160
9	531	0			0	1090	1120	1150	1250	1230	1020	1180
10	588	0			0	1120	1100	1200	1270	1220	955	1150
11	594	0			0	1090	1120	1240	1260	1260	842	1130
12	585	0			0	1070	1130	1270	1260	1270	731	1130
13	536	0			0	997	1140	1220	1270	1280	696	1150
14	453	0			0	950	1140	1200	1270	1280	695	1170
15	421	0			0	922	1150	1210	1270	1280	665	1170
16	456	0			0	899	1140	1250	1270	1260	648	1170
17	475	0			0	897	1150	1270	1260	1260	648	1180
18	497	0			0	851	1170	1140	1270	1260	647	1170
19	509	0			666	820	1190	1060	1270	1260	647	1160
20	506	0			1000	818	1230	1210	1250	1260	617	1170
21	519	0			1000	865	1250	1330	1240	1260	598	1180
22	525	0			1000	946	1250	1310	1250	1260	598	1170
23	521	0			1010	976	1230	1260	1260	1220	598	1150
24	518	0			1010	974	1240	1270	1250	1220	838	1140
25	514	0			1010	974	1250	1260	1240	1260	1120	1130
26	433	0			1010	972	1270	1270	1250	1270	1150	1140
27	389	0			878	968	1280	1270	1250	1270	1130	1140
28	387	0			800	965	1260	1250	1240	1270	1130	1150
29	386	0			---	1020	1240	1270	1240	1270	1150	1180
30	370	0			---	1080	1220	1270	1240	1260	1160	1160
31	361	---			---	1100	---	1280	---	1250	1150	---
TOTAL	14544	1151	0	0	11849	27954	35240	37660	37630	39030	28863	34590
MEAN	469	38.4	0	0	423	902	1175	1215	1254	1259	931	1153
MAX	594	279	0	0	1010	1120	1280	1330	1280	1280	1220	1180
MIN	361	0	0	0	0	0	1090	1060	1230	1220	598	1130
AC-FT	28850	2280	0	0	23500	55450	69900	74700	74640	77420	57250	68610
CAL YR 1982	TOTAL	245818	MEAN	673	MAX	1290	MIN	0	AC-FT	487600		
WTR YR 1983	TOTAL	268511	MEAN	736	MAX	1330	MIN	0	AC-FT	532600		

11250000 FRIANT-KERN CANAL AT FRIANT, CA

LOCATION.--Lat 36°59'53", long 119°42'11", in SE 1/4 SW 1/4 sec.5, T.11 S., R.21 E., Fresno County, Hydrologic Unit 18040006, at Friant Dam 0.9 mi northeast of Friant.

PERIOD OF RECORD.--March 1949 to current year.

GAGE.--Discharge computed on basis of valve openings in dam and head on valves. Prior to July 8, 1949, nonrecording gages at various sites and datums. July 8 to Sept. 30, 1949, water-stage recorder at site 0.2 mi downstream.

REMARKS.--Canal diverts from Millerton Lake (station 11250100) at left end of Friant Dam for irrigation in upper San Joaquin Valley.

COOPERATION.--Records of discharge furnished by Bureau of Reclamation and reviewed by Geological Survey, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--34 years, 1,409 ft³/s, 1,021,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,330 ft³/s June 25, 1982; no flow for several months in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	884	932	166	100	154	0	197	0	2580	2900	4060	2150
2	909	902	166	100	201	0	196	0	2520	2630	4120	1810
3	968	829	100	71	215	0	214	0	2410	2600	4240	1620
4	1000	799	50	212	249	0	296	0	2280	2780	4150	1640
5	1120	784	67	212	109	0	392	84	2300	2940	3800	1750
6	1300	780	100	79	113	67	418	0	2450	3160	3550	1800
7	1380	830	134	226	198	63	491	0	2660	3410	3550	1860
8	1810	778	133	351	89	63	642	0	2810	3450	3610	1900
9	1800	694	0	382	253	63	693	75	2860	3380	3690	1840
10	1820	643	0	345	464	63	814	200	2780	3530	3620	1740
11	1870	623	0	251	500	63	899	227	2570	3920	3480	1810
12	1960	650	42	365	427	51	892	130	2640	4420	3190	1910
13	1950	728	33	540	315	0	951	117	2750	4370	2900	1980
14	1970	725	112	511	303	0	1020	0	2860	4120	3000	2060
15	2040	769	256	314	300	0	1050	121	3040	3860	3060	2360
16	2010	901	301	364	328	0	985	200	3110	3560	2940	2780
17	2020	898	372	532	378	0	666	200	2970	3690	2920	2620
18	2040	880	393	603	400	0	662	229	2860	3860	2810	2750
19	2110	662	360	517	400	0	831	250	3050	3990	2360	2810
20	2190	568	293	565	401	0	977	278	3100	4360	1580	2820
21	2320	598	241	502	456	0	885	1040	3110	4490	1630	2920
22	2210	571	224	566	499	0	667	1720	3250	4250	1780	2850
23	2110	512	161	597	500	0	582	2130	3280	4050	1980	2610
24	2140	508	199	494	412	0	670	2340	3090	4170	2170	2330
25	2150	464	199	329	223	0	693	2650	2880	4550	2190	2220
26	2000	427	198	134	202	0	516	2800	2920	4700	2060	2240
27	1610	470	66	194	168	0	306	2740	3060	4680	1980	1960
28	1540	504	132	117	115	101	187	2540	3170	4650	2130	2180
29	1510	473	307	0	---	190	42	2540	3200	4500	2190	2060
30	1320	216	159	157	---	234	0	2540	3160	4150	2200	1380
31	1260	---	100	247	---	199	---	2540	---	4050	2150	---
TOTAL	53321	20118	5064	9977	8372	1157	17834	27691	85720	119170	89090	64760
MEAN	1720	671	163	322	299	37.3	594	893	2857	3844	2874	2159
MAX	2320	932	393	603	500	234	1050	2800	3280	4700	4240	2920
MIN	884	216	0	0	89	0	0	0	2280	2600	1580	1380
AC-FT	105800	39900	10040	19790	16610	2290	35370	54930	170000	236400	176700	128500
CAL YR 1982	TOTAL	903617	MEAN	2476	MAX	5330	MIN	0	AC-FT	1792000		
WTR YR 1983	TOTAL	502274	MEAN	1376	MAX	4700	MIN	0	AC-FT	996300		

11250100 MILLERTON LAKE AT FRIANT, CA

LOCATION.--Lat 37°00'00", long 119°42'13", in SW 1/4 SW 1/4 sec.5, T.11 S., R.21 E., Fresno County, Hydrologic Unit 18040006, near center of Friant Dam on San Joaquin River just upstream from Cottonwood Creek, 0.9 mi northeast of Friant.

DRAINAGE AREA.--1,638 mi².

PERIOD OF RECORD.--October 1941 to current year. Monthend contents only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to May 29, 1944, nonrecording gage on left bank at same datum.

REMARKS.--Reservoir is formed by gravity-type concrete dam with spillway near center, completed in December 1942. Control valves installed in February 1944 and spillway gates installed in November 1947. Usable capacity, 503,200 acre-ft between elevations 375.4 ft invert of river outlet, and 578.0 ft top of drum-type spillway gates. Not available for release, 17,400 acre-ft. Millerton Lake is one of the storage units in Central Valley Project. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 528,700 acre-ft June 12, 1973, elevation, 579.66 ft; minimum since lake first filled, 133,600 acre-ft Apr. 11, 1969, elevation, 467.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 525,400 acre-ft July 7, elevation, 578.98 ft; minimum, 134,400 acre-ft May 10, elevation, 468.17 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

400	36,400	500	215,600
420	57,000	520	279,400
440	83,300	540	353,000
460	117,500	560	436,500
480	161,700	580	530,400

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367700	324900	356200	358200	395100	439600	389400	155000	263200	508400	500700	471600
2	370600	327100	355400	357000	392100	451500	383000	150500	270100	510200	503700	468300
3	373000	328400	352900	356100	388200	457200	376400	146600	277500	514200	505400	465500
4	375000	329600	350600	355700	384800	458500	369300	144000	284800	517500	507200	462900
5	376800	332100	348700	355500	382900	457200	362500	142300	291900	521400	508700	459800
6	380000	334900	346500	355500	383100	454500	355200	140000	303200	524200	508700	456500
7	383100	337000	344100	355400	396300	451500	341700	137300	314200	525400	507800	453300
8	386500	340900	341700	354600	407900	447700	338800	136400	321800	521400	507900	449900
9	388500	344500	339900	353900	410200	443400	330400	135700	330100	513800	511300	447800
10	390900	347900	339200	354000	410000	438400	322000	134400	340900	503900	514800	445800
11	392600	352000	337700	355500	409900	433900	313400	134900	355500	494500	517900	443600
12	394400	354500	337100	356400	409700	428500	304500	135500	369600	486900	518700	441100
13	396300	355600	336700	357800	416900	433200	295500	136300	376700	480700	517000	438400
14	398300	355900	336200	359100	417500	435100	286300	137200	383800	478000	515000	435500
15	395500	355500	335300	360300	417100	432800	277000	138100	393200	478100	513900	431500
16	390700	354500	336000	361700	415800	430000	267000	139000	404500	480900	513900	426900
17	385800	353200	334800	363300	412200	430300	256800	137900	418400	483000	512900	422400
18	380800	354100	334300	366700	412800	431700	246700	136900	433100	485300	511300	417700
19	375600	360000	334200	366100	413900	429700	236400	135800	444700	487100	512800	412900
20	370200	360500	334900	366700	415800	427400	226600	138100	452700	487500	516900	407800
21	364600	358300	336900	368400	417900	427500	217100	141700	459700	487400	519100	402600
22	359200	357500	369600	375400	420000	425300	206900	146500	467600	488000	518300	397700
23	354100	355600	378300	379300	421000	422800	197100	152500	477100	489600	517700	393500
24	348800	353700	378000	384800	420300	422700	189600	159400	485500	491400	514700	389800
25	343500	352400	376300	383300	419900	421700	181800	168600	491200	492100	511000	386300
26	339300	351000	373700	381400	421600	418400	173100	179300	496400	492100	507600	382500
27	336600	349500	371100	394900	422600	414600	167700	191000	500900	491700	501900	379500
28	333900	348300	367900	397200	423600	411800	164300	204400	502900	491500	495900	376000
29	331000	348000	364300	401800	---	407700	161500	219500	505700	492400	489600	372800
30	328200	353800	361400	401300	---	401700	159500	234300	507000	495100	483400	371100
31	325300	---	359200	398400	---	395000	---	249100	---	497900	477100	---
MAX	398300	360500	378300	401800	423600	458500	389400	249100	507000	525400	519100	471600
MIN	325300	324900	334200	346700	382900	395000	159500	134400	263200	478000	477100	371100
a	532.80	540.21	541.59	551.18	557.07	550.38	479.08	510.89	575.23	573.33	568.93	544.57
b	-38200	+28500	+5400	+39200	+25200	-28600	-235500	+89600	+257900	-9100	-20800	-106000
c	1130	400	300	360	520	880	1000	1240	2930	3750	3200	2320

CAL YR 1982 b +24600

WTR YR 1983 b +7600

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CA

LOCATION.--Lat 36°59'04", long 119°43'24", in SW 1/4 SW 1/4 sec.7, T.11 S., R.21 E., Fresno County, Hydrologic Unit 18040001, on left bank 0.5 mi west of Friant, 1.5 mi downstream from Cottonwood Creek, 2 mi downstream from Friant Dam, and at mile 268.1.

DRAINAGE AREA.--1,676 mi².

PERIOD OF RECORD.--October 1907 to current year. Published as "near Pollasky" October 1907 to December 1908, and as "near Friant" January 1909 to September 1938. Monthly discharge only for October 1907 to November 1908, published in WSP 1315-A.

REVISED RECORDS.--WSP 843: 1914(M).

GAGE.--Water-stage recorder. Datum of gage is 294.00 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Oct. 18, 1907, to Nov. 8, 1913, nonrecording gage at site 4.5 mi upstream at different datum. Nov. 10, 1913, to Sept. 30, 1968, water-stage recorder at site 2.5 mi upstream at different datum.

REMARKS.--Records good. Flow regulated by Millerton Lake (station 11250100) beginning in 1941, and by reservoirs described in REMARKS for San Joaquin River below Kerckhoff powerhouse (station 11247000). Diversion for irrigation through Madera and Friant-Kern Canals (stations 11249500, 11250000) began in 1944 and 1949, respectively. See schematic diagram of San Joaquin River basin.

AVERAGE DISCHARGE (adjusted for change in contents in and evaporation from Millerton Lake and for diversions to Madera and Friant-Kern Canals).--76 years, 2,446 ft³/s, 1,772,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,200 ft³/s Dec. 11, 1937, gage height, 23.8 ft site and datum then in use; minimum, 38 ft³/s regulated, July 29, 1940. Maximum discharge since construction of Friant Dam in 1941, 12,400 ft³/s June 6, 1969; minimum, 5.5 ft³/s Oct. 20, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft³/s July 6, gage height 11.99 ft; minimum daily, 45 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	88	4070	3770	6990	6000	7670	7330	8470	10200	169	2070
2	46	88	4180	3570	6960	6600	7730	7270	8420	10100	169	2100
3	46	89	4160	3570	6930	6690	7690	6580	8410	10100	169	2100
4	46	89	4150	3290	6580	6850	7700	5840	8430	10400	205	2100
5	47	89	4140	3060	5130	7000	7730	5820	8420	11100	360	2100
6	48	91	4130	3060	4220	7010	7750	5820	8400	11800	630	2100
7	49	91	4120	3060	4860	7230	7750	5460	8400	11300	894	2100
8	49	93	4110	3040	6030	7250	7710	4750	8390	10600	1030	2090
9	49	99	3960	3040	6200	7380	7670	4370	8390	10600	1050	2090
10	49	97	3310	2660	6160	7460	7630	4370	8400	10700	1060	2090
11	49	97	3110	1950	5860	7600	7720	4070	8400	10100	1060	2090
12	49	420	3110	1940	5680	7620	7770	3580	8430	8870	1340	2100
13	50	1150	3100	1940	6070	6990	7740	3430	8400	7840	1570	2110
14	50	1490	3100	1940	6160	7130	7710	3430	8350	6660	1570	2110
15	50	1880	3090	1950	6140	7460	7710	3430	8370	5200	1570	2270
16	51	2080	3080	1950	6110	7480	7820	3590	8410	3980	1570	2320
17	53	2070	2990	1960	6060	6820	8250	4240	8550	2990	1570	2300
18	53	2080	2600	1960	5680	6930	8320	4600	8630	2010	1570	2280
19	81	2090	2250	2040	4260	7250	8300	4600	8650	1280	1570	2250
20	111	2650	1970	1990	2940	7280	8310	5100	8570	754	1570	2220
21	111	3170	1970	2190	2500	7210	8300	7420	8430	385	1580	2190
22	111	3170	2800	3370	2490	7260	8300	7960	8400	265	1870	2110
23	111	3160	5160	5170	3050	7410	8290	8020	8580	265	2090	2090
24	109	3150	5060	5480	3630	7060	8220	8100	9140	265	2090	2090
25	109	3150	5040	6190	3900	7120	8120	8040	9880	265	2090	2080
26	101	3150	5020	6770	4470	7310	7440	8270	10200	265	2090	2080
27	88	3150	5010	6480	4870	7380	6300	8520	10200	265	2090	2090
28	88	3150	4990	6480	5170	7430	6300	8500	10200	265	2090	2100
29	88	3170	4960	6510	---	7590	6280	8500	10200	209	2080	2100
30	89	3350	4770	6800	---	7600	6790	8490	10200	169	2080	2080
31	88	---	4230	7030	---	7590	---	8490	---	169	2070	---
TOTAL	2164	48691	117740	114210	145100	222990	231020	187990	264320	159371	42916	64000
MEAN	69.8	1623	3798	3684	5182	7193	7701	6064	8811	5141	1384	2133
MAX	111	3350	5160	7030	6990	7620	8320	8520	10200	11800	2090	2320
MIN	45	88	1970	1940	2490	6000	6280	3430	8350	169	169	2070
AC-FT	4290	96580	233500	226500	287800	442300	458200	372900	524300	316100	85120	126900
MEAN a	1657	2818	4053	4649	6367	7681	5529	9650	17310	10160	4903	3701
AC-FT a	101900	167700	249200	285900	353600	472300	329000	593400	1030000	624700	301500	220200

CAL YR 1982	TOTAL	575219	MEAN	1576	MAX	8230	MIN	39	AC-FT	1141000	MEAN a	4783	AC-FT a	3463000
WTR YR 1983	TOTAL	1600512	MEAN	4385	MAX	11800	MIN	45	AC-FT	3175000	MEAN a	6533	AC-FT a	4730000

a Adjusted for change in contents and evaporation from Millerton Lake and for diversions to Madera and Friant-Kern canals.

11253310 CANTUA CREEK NEAR CANTUA CREEK, CA

LOCATION.--Lat 36°24'08", long 120°25'57", in SE 1/4 SE 1/4 sec.34, T.17 S., R.14 E., Fresno County, Hydrologic Unit 18030012, on left bank 9.2 mi southwest of town of Cantua Creek, and 19 mi north of Coalinga.

DRAINAGE AREA.--46.4 mi².

PERIOD OF RECORD.--Water years 1958-65 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft, from topographic map. Prior to October 1966, crest-stage gage at datum 2.00 ft lower.

REMARKS.--Records fair. Some small dams for stock use above station.

AVERAGE DISCHARGE.--17 years, 3.69 ft³/s, 2,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s Mar. 1, 1983, gage height, 5.72 ft; maximum gage height, 6.60 ft Feb. 24, 1969; no flow for several months in most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0715	51	2.45	Mar. 1	0145	*3,420	5.72
Dec. 22	1730	610	4.46	Mar. 23	2330	213	2.74
Jan. 27	0145	751	3.61	Apr. 19	2230	93	2.27
Feb. 8	0045	213	2.74	Apr. 28	1100	120	2.42

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	9.2	2.2	45	671	20	32	10	5.3	2.5	1.4
2	0	.01	2.9	2.1	42	597	19	28	11	5.3	2.4	1.4
3	0	.01	1.7	2.0	40	175	18	27	11	5.7	2.4	1.4
4	0	.02	1.3	1.9	38	97	18	26	10	5.6	2.4	1.3
5	0	.02	1.0	1.9	38	85	18	26	9.7	5.5	2.4	1.3
6	0	.02	.92	1.9	41	71	17	24	9.0	5.2	2.2	1.2
7	0	.02	.82	1.8	50	66	17	23	8.9	4.7	2.1	1.2
8	0	.03	.75	1.8	75	55	16	23	8.6	4.7	2.1	1.2
9	0	.08	.79	1.7	52	48	16	22	8.4	4.6	2.0	1.2
10	0	.35	.75	1.6	45	44	16	21	8.1	4.3	1.9	1.2
11	0	.17	.72	1.7	42	39	16	19	8.3	4.0	1.9	1.2
12	0	.07	.68	1.7	41	36	16	18	8.6	3.8	1.8	1.1
13	0	.06	.66	1.6	53	41	17	17	8.5	3.4	1.7	1.1
14	0	.06	.62	1.5	44	35	18	16	8.1	3.3	1.7	1.0
15	0	.06	.64	1.5	41	31	17	16	7.7	3.2	1.9	1.0
16	0	.06	.62	1.9	40	32	16	15	7.3	3.4	1.6	.96
17	0	.06	.61	1.7	39	34	16	15	6.9	3.5	1.5	.97
18	0	.08	.57	1.9	40	42	25	14	6.6	3.6	1.6	.96
19	0	4.1	.61	8.9	39	36	36	14	6.8	3.4	1.6	.96
20	0	.71	.60	3.5	38	32	42	14	6.7	3.4	1.9	.96
21	0	.31	.54	2.9	37	52	30	13	6.6	3.3	1.8	.95
22	0	.22	117	142	36	41	23	13	6.4	3.1	1.7	1.1
23	0	.20	32	48	36	50	21	12	6.1	3.1	1.7	1.1
24	0	.18	9.0	95	36	58	24	12	5.9	3.0	1.6	1.2
25	0	.13	5.4	38	37	45	20	12	5.8	3.0	1.6	1.2
26	0	.13	3.8	44	58	41	19	12	5.7	3.1	1.6	1.2
27	0	.14	3.2	269	67	38	18	12	5.6	3.1	1.5	1.2
28	0	.15	2.9	62	150	30	65	11	5.7	2.9	1.4	1.3
29	0	.66	2.6	82	---	28	37	11	5.6	2.8	1.4	1.6
30	.21	25	2.5	54	---	25	44	11	5.5	2.7	1.4	2.2
31	.02	---	2.4	48	---	22	---	10	---	2.6	1.4	---
TOTAL	0.23	33.12	207.80	929.7	1340	2697	695	539	229.1	118.6	56.7	36.06
MEAN	.007	1.10	6.70	30.0	47.9	87.0	23.2	17.4	7.64	3.83	1.83	1.20
MAX	.21	25	117	269	150	671	65	32	11	5.7	2.5	2.2
MIN	0	.01	.54	1.5	36	22	16	10	5.5	2.6	1.4	.95
AC-FT	.5	66	412	1840	2660	5350	1380	1070	454	235	112	72
CAL YR 1982	TOTAL	829.62	MEAN	2.27	MAX	133	MIN	0	AC-FT	1650		
WTR YR 1983	TOTAL	6882.31	MEAN	18.9	MAX	671	MIN	0	AC-FT	13650		

11253500 JAMES BYPASS NEAR SAN JOAQUIN, CA

LOCATION.--Lat 36°39'09", long 120°10'49", in NE 1/4 SW 1/4 sec.1, T.15 S., R.16 E., Fresno County, Hydrologic Unit 18030012, on right bank 3.2 mi north of San Joaquin.

PERIOD OF RECORD.--October 1947 to current year. Published as "Fresno Slough bypass" in WSP 1315-A and 1735. Daily discharge for period October 1954 to September 1972 are in files of Bureau of Reclamation. Monthly totals published in WDR CA-72-2.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft, from topographic map.

REMARKS.--Diversion above station for irrigation. James Bypass carries overflow from Kings River to San Joaquin River.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--36 years, 265 ft³/s, 192,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,570 ft³/s June 7, 1969; no flow for all or most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	3490	3680	4470	5320	5230	4980	4920	4970	3.0	1620
2		0	4100	3680	4290	5300	5200	4980	4900	4990	50	1810
3		5.0	3920	3670	4110	5360	5210	4970	4890	5020	100	1820
4		32	3800	3620	4070	5360	5170	4970	4900	5030	150	1790
5		60	3630	3540	4060	5330	5120	4950	4870	5010	150	1780
6		20	3550	3530	4020	5250	5130	4940	4840	4970	165	1770
7		150	3520	3480	3990	5120	5150	4980	4780	5030	180	1710
8		187	3500	3420	4170	5060	5110	5020	4760	5170	199	1370
9		296	3460	3430	4540	5060	5090	5010	4800	5230	210	1100
10		405	3440	3400	4620	5050	5080	5000	4830	5200	218	1210
11		848	3450	3370	4690	5080	5080	4990	4880	5220	117	1130
12		1030	3430	3150	4670	5120	5100	4950	4940	5230	85	842
13		1150	3430	2410	4670	5150	5080	4920	4950	5200	649	608
14		1230	3440	1750	4680	5150	5060	4950	4910	5200	1360	319
15		1370	3440	2010	4720	5220	5050	4980	4890	5070	1870	222
16		1440	3470	2660	4760	5230	5030	4970	4890	4150	2160	184
17		1430	3460	2880	4820	5160	5030	4950	4900	3000	1480	313
18		1510	3470	2930	4840	5230	5030	4950	4890	2540	1090	463
19		1610	3500	2980	4870	5230	5000	4950	4880	2140	909	453
20		1820	3480	3110	4940	5240	4990	4940	4920	1760	1260	172
21		2430	3430	3420	4980	5180	5010	4820	4940	1230	1840	226
22		2780	3380	3430	5050	5140	5040	4840	4900	675	2130	299
23		2910	3490	3540	5110	5150	5030	4840	4910	150	2120	496
24		3060	4060	4110	5150	5200	5010	4830	4940	150	2040	474
25		3310	4370	4670	5220	5230	5000	4830	5040	60	1950	518
26		3480	4260	4690	5230	5270	5000	4880	5030	40	1870	574
27		3450	4070	4720	5250	5220	4980	4890	5040	25	1780	421
28		3400	3870	4660	5280	5140	4990	4900	5060	25	1940	260
29		3370	3750	4850	---	5140	4990	4890	5030	15	1950	178
30		3480	3730	4720	---	5120	4980	4920	4960	10	1750	206
31		---	3710	4560	---	5150	---	4900	---	10	1600	---
TOTAL	0	46263.0	113100	110070	131270	160960	151970	152890	147390	92520	33375.0	24338
MEAN	0	1542	3648	3551	4688	5192	5066	4932	4913	2985	1077	811
MAX	0	3480	4370	4850	5280	5360	5230	5020	5060	5230	2160	1820
MIN	0	0	3380	1750	3990	5050	4980	4820	4760	10	3.0	172
AC-FT	0	91760	224300	218300	260400	319300	301400	303300	292300	183500	66200	48270
CAL YR 1982	TOTAL	387669.0	MEAN	1062	MAX	4870	MIN	0	AC-FT	768900		
WTR YR 1983	TOTAL	1164146.0	MEAN	3189	MAX	5360	MIN	0	AC-FT	2309000		

11257500 FRESNO RIVER NEAR KNOWLES, CA

LOCATION.--Lat 37°14'14", long 119°46'26", in SE 1/4 NW 1/4 sec.15, T.8 S., R.20 E., Madera County, Hydrologic Unit 18040007, on left bank at Fresno Crossing, 0.1 mi downstream from Bean Gulch, and 6 mi northeast of Knowles.

DRAINAGE AREA.--133 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to August 1913, November 1915 to current year.

REVISED RECORDS.--WSP 1515: 1916-19, 1920(M), 1921-23, 1925-26(M), 1932(M), 1935-36(M).

GAGE.--Water-stage recorder. Datum of gage is 1,086.4 ft National Geodetic Vertical Datum of 1929. Prior to June 13, 1930, nonrecording gage 10 ft upstream and June 13, 1930, to Jan. 13, 1931, water-stage recorder at site 40 ft upstream at datum 0.34 ft lower.

REMARKS.--Records good except those for January and March, which are fair. Diversions for irrigation of 160 acres above station. Diversions into Fresno River basin above station of up to 60 ft³/s at times since 1888 from the Merced River basin. Diversions are for irrigation downstream from station.

AVERAGE DISCHARGE.--68 years (water years 1912, 1917-83), 85.4 ft³/s, 61,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s Dec. 23, 1955, gage height, 11.52 ft, from rating curve extended above 4,500 ft³/s on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 590 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	0200	2,780	6.06	Feb. 7	1000	4,400	7.33
Nov. 30	1000	1,810	5.04	Mar. 1	0630	5,930	8.28
Dec. 22	2030	*8,000	9.36	Mar. 13	unknown	unknown	unknown
Jan. 27	unknown	5,400	7.97	Apr. 30	0500	1,470	4.61

Minimum daily, 15 ft³/s Sept. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	65	743	161	428	3220	580	688	223	100	41	40
2	29	44	312	155	400	2310	550	560	222	99	39	36
3	26	37	222	149	380	1910	515	499	223	101	38	32
4	23	32	196	148	342	1420	490	481	213	94	36	30
5	19	29	175	144	334	1060	475	464	205	89	35	26
6	19	28	160	141	533	833	450	499	193	87	35	24
7	20	27	149	136	2960	939	435	435	189	83	36	22
8	20	26	132	134	2420	722	418	409	183	79	36	22
9	21	29	122	129	987	637	411	395	178	78	34	21
10	23	100	113	124	699	592	421	389	172	78	35	21
11	22	120	103	122	584	620	437	378	170	73	39	21
12	22	75	101	118	577	670	418	356	172	69	42	20
13	21	53	102	116	1240	1900	446	347	162	66	44	20
14	20	48	93	111	668	1100	399	340	153	62	45	19
15	19	44	83	110	549	770	377	325	146	61	53	18
16	19	41	79	112	488	800	359	318	140	58	46	17
17	19	39	80	131	449	1080	351	307	137	58	41	16
18	18	270	91	120	648	1060	417	295	132	58	40	16
19	18	1050	82	640	566	790	396	299	128	57	42	15
20	18	230	99	300	454	680	463	286	127	58	45	15
21	18	142	159	170	416	1500	434	281	124	57	46	15
22	19	118	4140	2200	394	920	402	281	122	55	49	16
23	20	174	1760	1620	380	950	388	274	118	53	47	19
24	25	110	541	2800	363	1330	723	264	115	52	43	20
25	30	91	379	1200	465	1100	501	257	112	51	40	21
26	86	80	314	690	658	820	432	254	111	50	37	20
27	74	73	262	4800	743	790	395	247	108	50	34	21
28	40	83	227	921	724	940	660	240	107	48	32	20
29	29	232	207	1180	---	690	641	231	105	45	31	21
30	65	1260	190	619	---	650	1070	229	102	44	30	53
31	195	---	175	493	---	605	---	225	---	42	34	---
TOTAL	1026	4750	11591	19994	19849	33408	14454	10853	4592	2055	1225	677
MEAN	33.1	158	374	645	709	1078	482	350	153	66.3	39.5	22.6
MAX	195	1260	4140	4800	2960	3220	1070	688	223	101	53	53
MIN	18	26	79	110	334	592	351	225	102	42	30	15
AC-FT	2040	9420	22990	39660	39370	66260	28670	21530	9110	4080	2430	1340

CAL YR 1982 TOTAL 77441.8 MEAN 212 MAX 4140 MIN 5.0 AC-FT 153600
WTR YR 1983 TOTAL 124474 MEAN 341 MAX 4800 MIN 15 AC-FT 246900

NOTE.--No gage-height record Oct. 1 to Nov. 15.

11257500 FRESNO RIVER NEAR KNOWLES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1971 to current year.

INSTRUMENTATION.--Temperature recorder since July 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 33.0°C Aug. 11, 1971, Aug. 8, 9, 1978; minimum recorded, 0.0°C Jan. 5, 7, 1973, Dec. 8, 9, 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 29.5°C Aug. 7, 8, 10; minimum recorded, 3.5°C Jan. 1, 2.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	12.0	13.5	10.5	8.0	6.5	5.0	3.5	8.0	7.0	11.0	9.5
2	19.5	13.0	14.5	11.0	7.0	5.5	5.0	3.5	8.0	7.0	11.0	10.0
3	19.5	14.0	13.5	9.5	6.5	5.0	---	---	8.5	7.5	11.5	10.0
4	20.0	14.0	13.0	9.0	7.0	5.0	---	---	8.5	7.5	12.0	9.5
5	19.5	12.5	13.5	9.0	8.5	7.0	---	---	8.0	7.0	11.5	8.5
6	19.5	12.5	13.0	9.0	8.0	6.5	---	---	8.5	7.5	12.5	10.0
7	17.5	14.5	12.5	10.0	8.0	6.5	---	---	9.5	8.5	13.5	11.5
8	19.5	12.0	12.0	9.5	6.5	5.0	---	---	9.5	8.0	13.0	11.0
9	19.5	12.0	10.0	8.5	6.0	4.5	---	---	10.0	7.5	13.0	10.5
10	19.5	12.5	9.0	7.5	7.0	5.0	---	---	10.5	8.5	13.0	11.5
11	20.0	12.5	8.5	5.5	7.5	5.5	---	---	11.0	9.0	---	---
12	20.0	13.0	9.0	6.0	7.0	5.5	---	---	10.5	10.0	---	---
13	18.5	13.0	9.0	6.0	8.0	6.0	7.0	5.0	10.5	9.5	---	---
14	20.0	14.0	9.0	5.5	6.5	5.0	6.5	5.0	9.5	8.0	---	---
15	20.5	13.5	8.5	5.5	7.0	6.0	7.5	5.5	10.0	9.0	---	---
16	20.0	13.0	8.5	6.5	7.0	5.5	8.5	7.5	11.0	9.5	---	---
17	19.5	13.0	8.5	6.5	7.0	5.5	8.0	6.0	11.0	9.5	---	---
18	19.5	12.5	9.5	7.0	7.5	6.0	7.5	6.5	11.0	9.0	---	---
19	19.0	14.0	9.5	8.0	7.0	5.0	7.5	6.0	10.5	8.0	---	---
20	19.5	14.0	8.0	6.5	7.5	5.5	6.0	4.5	11.0	9.5	---	---
21	17.5	14.0	7.5	5.5	8.5	7.5	6.0	4.0	11.5	9.0	---	---
22	18.0	15.0	7.5	7.0	9.5	8.5	8.0	6.5	11.5	10.5	---	---
23	19.0	15.5	8.0	7.5	8.5	6.5	8.5	6.5	12.0	10.5	---	---
24	17.5	16.5	8.5	7.0	6.5	4.5	9.5	7.5	11.0	10.0	---	---
25	17.5	16.0	8.5	7.0	5.5	4.0	8.5	6.5	11.0	10.0	---	---
26	16.0	13.5	7.5	6.0	7.0	5.0	9.0	8.0	11.5	9.5	---	---
27	13.5	10.5	7.0	6.0	7.0	5.5	9.0	8.0	11.0	10.5	---	---
28	13.5	10.0	9.5	7.0	7.0	5.0	9.0	7.0	10.5	10.0	---	---
29	14.0	10.5	9.5	9.0	7.5	6.5	9.0	8.0	---	---	---	---
30	13.5	12.5	9.5	7.5	7.5	5.0	8.5	7.0	---	---	---	---
31	13.0	11.0	---	---	5.5	4.0	8.0	6.5	---	---	---	---
MONTH	20.5	10.0	14.5	5.5	9.5	4.0	9.5	3.5	12.0	7.0	13.5	8.5

SAN JOAQUIN RIVER BASIN

11257500 FRESNO RIVER NEAR KNOWLES, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	12.5	10.5	20.0	15.0	21.5	18.0	28.5	22.5	25.0	20.5
2	---	---	14.0	9.5	16.5	14.0	23.5	19.5	28.5	22.5	26.5	20.5
3	---	---	15.0	11.0	17.5	13.0	22.5	18.5	29.0	22.5	26.5	20.5
4	---	---	14.5	12.0	19.0	14.5	23.5	19.5	28.5	22.5	26.5	20.0
5	---	---	12.5	10.5	21.0	15.5	24.5	21.5	28.5	22.0	27.0	20.5
6	---	---	14.0	10.0	21.5	17.0	24.5	20.5	27.5	22.5	27.5	21.0
7	---	---	15.0	11.0	22.0	18.0	23.0	19.5	29.5	23.5	26.5	20.5
8	13.5	9.0	15.5	12.0	22.0	17.5	22.0	17.5	29.5	24.5	26.5	20.0
9	13.0	10.0	14.5	11.5	22.0	18.0	21.0	17.0	28.5	24.0	26.0	19.5
10	12.0	10.0	13.5	10.0	22.0	18.0	22.0	17.5	29.5	24.0	25.5	18.5
11	11.5	9.5	14.0	9.0	21.5	18.0	24.0	19.0	29.0	23.5	26.5	19.5
12	10.0	7.5	14.5	11.0	20.5	15.5	25.0	20.0	28.0	23.0	27.0	19.5
13	10.5	7.0	15.5	12.0	21.5	16.5	25.5	21.0	28.0	23.0	27.0	20.0
14	12.0	7.5	16.0	11.5	21.5	17.0	26.0	21.0	24.5	23.0	27.5	21.0
15	13.0	8.5	17.0	12.5	22.0	18.0	25.5	21.0	27.5	22.0	27.5	20.5
16	14.5	9.5	16.5	12.5	22.5	18.0	24.5	20.0	29.0	23.0	27.0	20.5
17	13.5	11.0	17.0	12.5	23.0	19.0	24.0	19.0	29.0	23.5	26.5	20.0
18	13.0	10.5	17.5	13.5	22.5	18.5	23.5	18.5	26.5	23.5	26.0	19.0
19	14.5	10.0	19.0	14.5	21.5	17.5	23.5	18.5	24.5	22.0	25.0	18.0
20	14.5	12.0	19.5	15.0	21.0	17.0	23.5	18.0	26.0	21.5	25.0	18.5
21	13.0	11.0	20.5	15.5	21.0	17.0	24.5	19.0	25.0	21.0	24.5	19.5
22	13.5	10.5	21.0	16.5	22.5	18.0	25.0	19.5	24.5	20.5	26.5	21.0
23	13.0	11.5	21.5	17.0	22.5	19.0	25.5	20.0	24.5	19.5	24.0	21.0
24	13.0	11.0	21.5	17.0	22.0	18.5	26.0	20.5	25.0	19.5	24.0	18.5
25	14.0	10.0	22.0	17.5	22.0	18.0	25.0	20.5	25.0	19.5	23.0	18.0
26	12.5	10.0	22.5	18.0	22.5	18.5	25.0	19.5	25.0	19.5	23.5	18.0
27	13.0	10.5	23.0	18.5	22.0	18.5	25.0	19.5	25.5	19.5	22.5	17.5
28	13.5	11.5	22.5	18.5	21.5	18.0	26.0	20.0	26.0	20.0	22.5	17.0
29	13.0	11.5	22.5	18.0	22.0	18.5	26.5	20.5	25.5	19.5	20.0	17.5
30	12.5	11.0	21.5	17.0	22.0	18.0	27.5	21.5	22.5	19.0	17.5	15.5
31	---	---	21.0	17.0	---	---	28.0	23.0	24.0	20.0	---	---
MONTH	14.5	7.0	23.0	9.0	23.0	13.0	28.0	17.0	29.5	19.0	27.5	15.5

11257950 HENSLEY LAKE NEAR DAULTON, CA

LOCATION.--Lat 37°06'34", long 119°53'05", in NE 1/4 NW 1/4 sec.34, T.9 S., R.19 E., Madera County, Hydrologic Unit 18040007, in control tower at center of Hidden Dam on Fresno River, and 5.3 mi southeast of Daulton.

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam. Storage began Oct. 1, 1975, usable capacity, 85,289 acre-ft, between elevations 448.0 ft lowest outlet, and 540.0 ft crest of spillway. Dead storage, 4,970 acre-ft. Records, including extremes, represent total contents at 2400 hours. Reservoir is used for flood control, irrigation, recreation, and wildlife enhancement.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 89,509 acre-ft June 6, 1979, elevation, 539.52 ft; minimum since reservoir first filled, 10,482 acre-ft Oct. 9-12, 1981, elevation, 462.91 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,477 acre-ft May 16, elevation, 539.50 ft; minimum, 21,474 acre-ft Nov. 26, elevation, 481.24 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

435	2,134	490	28,556
445	4,173	500	38,094
455	7,217	510	49,115
460	9,185	520	61,525
470	14,138	530	75,247
480	20,569	540	90,259

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36707	29387	27377	24526	34876	36758	53696	78335	87244	78599	65412	51982
2	36395	29253	27283	24016	35200	37031	54311	78981	87060	78218	64861	52042
3	36084	29085	26312	23866	35438	36636	54854	79172	86875	77868	64286	52090
4	35765	28925	24970	24016	35487	35676	55201	79658	86675	77488	63713	52139
5	35438	28731	23411	24143	35477	34611	55462	80190	86460	77139	63143	52175
6	35112	28740	22214	24255	36224	33873	55999	81379	86292	76747	62575	52187
7	34807	28810	22237	24358	43446	33612	56789	82425	86123	76342	62022	52175
8	34543	28863	22510	24446	46146	32687	57395	83312	85970	75952	61459	52163
9	34406	29005	22793	24518	43678	32441	58131	84264	85848	75678	60911	52151
10	34377	29191	23031	24719	40224	32772	58744	84856	85649	75433	60366	52139
11	34397	29369	23295	25002	36445	33124	59527	85848	85435	75117	59836	52127
12	34416	29467	23536	25263	32763	33315	60185	86645	85267	74730	59308	52127
13	34358	29556	23772	25516	31321	37031	60950	87584	85069	74273	58795	52115
14	34124	29637	24001	25763	28872	38475	61564	88621	84780	73831	58284	52090
15	33805	29745	24167	25979	26808	38021	62101	89353	84507	73376	57839	52079
16	33469	29835	24358	26236	25788	37458	62561	89477	84264	72894	57357	52055
17	33143	29906	24543	26513	25361	38279	63024	89244	83931	72526	56890	52030
18	32810	30087	24752	26875	25410	40097	63647	89103	83569	72117	56437	52018
19	32488	31766	24962	28136	25393	40713	64286	89041	83207	71639	55999	52018
20	32112	30250	25083	28696	24978	41002	65304	88979	82831	71191	55562	52030
21	31729	28643	25205	29138	24390	44055	66411	88995	82440	70701	55127	52055
22	31367	26926	34582	32131	24735	45331	67362	88979	82036	70228	54718	52079
23	31044	25303	38974	34866	25722	46328	68334	88948	81617	69797	54335	52090
24	30732	23701	37632	35915	26605	48495	70103	88901	81200	69326	53954	52090
25	30431	21958	35715	34319	27712	50105	71345	88761	80813	68857	53562	52067
26	30277	21474	33612	31897	29619	50735	72413	88590	80442	68375	53183	52055
27	30105	21541	31441	39360	30751	51129	73404	88482	80072	67895	52781	52042
28	29844	21786	29147	37642	31219	52175	74874	88326	79702	67417	52381	52042
29	29592	22404	26850	36909	---	52453	75606	88156	79349	66927	51982	51922
30	29449	25132	25467	34994	---	52381	77503	87893	78981	66411	51885	51693
31	29476	---	25010	34397	---	52915	---	87507	---	65910	51922	---
MAX	36707	31766	38974	39360	46146	52915	77503	89477	87244	78599	65412	52187
MIN	29449	21474	22214	23866	24390	32441	53696	78335	78981	65910	51885	51693
a	491.04	485.95	485.80	496.31	492.96	513.18	531.56	538.23	532.57	523.30	512.36	512.17
b	-7535	-4344	-122	+9387	-3178	+21696	+24588	+10004	-8526	-13071	-13988	-229
c	439	106	76	74	104	205	407	844	1145	1275	1083	913

CAL YR 1982 b +9785
WTR YR 1983 b +14682

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

11258000 FRESNO RIVER BELOW HIDDEN DAM, NEAR DAULTON, CA

LOCATION.--Lat 37°06'16", long 119°53'13", in NE 1/4 SW 1/4 sec.34, T.9 S., R.19 E., Madera County, Hydrologic Unit 18040007, on left bank 350 ft upstream from Willow Creek, 2,000 ft downstream from Hidden Dam, and 5.2 mi southeast of Daulton.

DRAINAGE AREA.--237 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1975, published as "near Daulton."

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 385 ft, from topographic map. See WDR CA-75-3 for history of changes prior to Oct. 1, 1975.

REMARKS.--Records fair except those for periods of backwater from beaver dams, which are poor. Flow completely regulated by Hensley Lake (station 11257950) since October 1975.

AVERAGE DISCHARGE.--42 years, 120 ft³/s, 86,940 acre-ft/yr, adjusted for change in contents and evaporation from Hensley Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s Dec. 23, 1955, gage height, 17.64 ft site and datum then in use, from rating curve extended above 6,400 ft³/s on basis of slope-area measurement at gage height 17.60 ft site and datum then in use; maximum gage height, 17.69 ft Feb. 24, 1969, site and datum then in use; no flow at times most years. Maximum discharge since construction of Hidden Dam in 1975, 4,190 ft³/s Mar. 1, 1983, gage height, 8.83 ft; no flow for many days in 1975-78, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 3, 1938, reached a discharge of 15,000 ft³/s, furnished by Bureau of Reclamation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,190 ft³/s Mar. 1, gage height, 8.83 ft; minimum daily, 0.40 ft³/s Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	139	1.9	503	540	2680	536	491	335	256	283	1.0
2	173	129	504	511	532	3830	540	493	302	260	296	.80
3	173	129	769	312	532	3400	541	497	302	258	304	.70
4	173	128	900	138	532	2680	540	497	304	258	302	.60
5	172	128	984	139	532	2200	540	210	304	251	302	.60
6	171	47	809	139	532	1670	417	2.2	275	263	304	9.3
7	171	1.2	173	139	1170	1620	210	1.8	258	263	304	18
8	144	1.5	4.5	139	2940	1620	219	1.8	252	256	304	18
9	94	3.0	7.9	139	3160	1160	219	1.8	228	224	299	18
10	31	1.9	11	74	3140	792	219	1.8	242	207	293	18
11	1.1	1.1	8.1	24	3060	792	219	1.8	253	230	293	18
12	1.6	1.2	3.5	23	3000	792	220	1.8	239	265	291	18
13	48	1.3	3.3	23	3000	875	222	1.8	252	278	291	18
14	123	1.6	5.2	27	2560	1230	222	1.8	263	278	280	18
15	172	2.2	5.3	37	2090	1500	222	1.8	262	278	270	18
16	183	3.1	4.4	36	1370	1490	224	228	246	278	268	18
17	183	4.2	2.6	36	951	1270	222	385	268	246	256	18
18	182	4.7	2.9	37	943	1010	222	356	286	246	246	10
19	181	353	1.9	38	943	1010	222	366	288	278	246	1.1
20	207	1030	50	37	935	1010	137	324	286	283	246	.70
21	213	1000	105	37	935	1010	3.4	301	291	293	246	.60
22	203	993	109	41	461	1010	3.0	297	296	288	235	.50
23	185	977	697	832	105	1020	2.2	289	296	275	228	.40
24	184	940	1550	2120	104	1030	1.7	292	296	275	226	13
25	193	954	1570	2170	106	1040	1.6	353	275	280	232	19
26	205	477	1550	2140	235	1040	1.4	346	260	286	230	18
27	206	16	1570	1900	727	1040	1.3	302	258	286	230	18
28	199	16	1550	2760	992	1050	63	305	256	280	228	18
29	170	6.9	1500	2560	---	1050	403	305	256	283	228	70
30	152	2.6	1060	2350	---	1060	488	362	256	288	90	126
31	150	---	503	1290	---	727	---	425	---	288	4.1	---
TOTAL	4816.7	7492.5	16015.5	20751	36127	43798	7081.6	7442.4	8185	8278	7855.1	506.30
MEAN	155	250	517	669	1290	1413	236	240	273	267	253	16.9
MAX	213	1030	1570	2760	3160	3830	541	497	335	293	304	126
MIN	1.1	1.1	1.9	23	104	727	1.3	1.8	228	207	4.1	.40
AC-FT	9550	14860	31770	41160	71660	86870	14050	14760	16230	16420	15580	1000

CAL YR 1982 TOTAL 100261.20 MEAN 275 MAX 2000 MIN .20 AC-FT 198900 MEAN a 297 AC-FT a 215000
WTR YR 1983 TOTAL 168349.10 MEAN 461 MAX 3830 MIN .40 AC-FT 333900 MEAN a 491 AC-FT a 355500

a Adjusted for change in contents and evaporation from Hensley Lake.

NOTE.--Backwater from beaver dams Oct. 12, 13 and from Nov. 7-19, Nov. 26 to Dec. 2, Dec. 7-20, Apr. 21-28, May 6-16, Sept. 19-24.

11258000 FRESNO RIVER BELOW HIDDEN DAM, NEAR DAULTON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1975 to current year.

INSTRUMENTATION.--Temperature recorder since Oct. 29, 1975.

REMARKS.--Water temperatures are affected by regulation from Hidden Dam.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum recorded, 32.0°C June 15, 1976; minimum recorded, 3.5°C Jan. 1, 1976, Nov. 26, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 25.0°C May 15; minimum recorded, 6.5°C Dec. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	19.0	18.0	13.5	11.0	9.0	8.5	---	---	12.5	12.0
2	---	---	18.5	18.0	11.5	8.5	8.5	8.5	---	---	12.0	12.0
3	---	---	18.5	18.0	11.5	11.0	8.5	8.0	---	---	12.0	12.0
4	---	---	18.5	18.0	11.5	11.0	8.0	7.5	---	---	12.0	12.0
5	---	---	18.0	17.5	11.5	11.0	8.0	7.5	---	---	12.0	12.0
6	---	---	19.0	16.0	11.5	11.0	7.5	7.5	---	---	12.5	12.0
7	---	---	17.5	13.5	12.5	10.0	7.5	7.5	---	---	12.5	12.0
8	---	---	16.0	11.5	10.5	7.5	7.5	7.5	---	---	12.5	12.5
9	---	---	12.5	10.5	9.0	6.5	7.5	7.5	10.0	10.0	12.5	12.5
10	---	---	12.5	10.0	9.5	8.0	8.0	7.5	10.0	10.0	13.0	12.5
11	---	---	14.0	8.5	11.0	7.5	8.0	7.5	10.0	10.0	13.0	12.5
12	---	---	13.5	9.0	12.0	8.5	8.5	7.5	10.5	10.0	13.0	13.0
13	19.5	16.0	11.5	9.0	11.5	9.0	8.0	7.5	11.0	10.5	13.0	13.0
14	20.5	19.0	12.5	10.0	10.0	8.5	8.5	7.5	11.0	11.0	13.0	13.0
15	20.5	20.0	11.0	10.0	10.0	9.0	8.5	7.5	11.0	11.0	13.0	12.5
16	20.5	20.0	11.0	10.0	11.0	8.0	8.5	7.5	11.0	11.0	12.5	12.5
17	20.5	20.0	11.0	10.0	11.0	8.5	8.5	7.5	11.0	11.0	12.5	12.5
18	20.5	20.0	12.0	10.5	11.0	7.5	8.5	8.0	11.5	11.0	12.5	12.5
19	20.5	20.0	15.5	11.5	10.5	8.5	9.5	8.0	11.5	11.5	12.5	12.0
20	20.5	20.0	13.5	13.0	11.0	9.5	9.5	8.0	11.5	11.5	12.0	12.0
21	20.0	20.0	13.5	13.0	10.5	10.5	9.0	8.0	11.5	11.5	12.0	11.5
22	20.0	20.0	13.5	13.0	11.0	10.5	9.0	8.5	11.5	11.0	11.5	11.5
23	20.5	20.0	13.5	13.5	11.0	10.5	9.5	8.5	11.5	11.0	11.5	11.5
24	20.0	20.0	13.5	13.0	10.5	10.0	9.0	8.5	11.5	11.0	11.5	11.5
25	20.0	20.0	13.5	13.0	10.0	10.0	9.5	9.0	11.5	11.0	11.5	11.5
26	20.0	20.0	14.5	12.0	10.0	9.5	9.5	9.0	12.0	11.5	11.5	11.5
27	19.5	19.5	13.0	10.0	9.5	9.5	---	---	12.0	11.5	11.5	11.5
28	19.5	19.0	13.5	12.0	9.5	9.5	---	---	12.0	12.0	12.0	11.5
29	19.0	19.0	14.0	12.5	9.5	9.5	---	---	---	---	12.0	11.5
30	19.0	19.0	13.5	12.0	9.0	9.0	---	---	---	---	12.0	11.5
31	19.0	18.5	---	---	9.0	9.0	---	---	---	---	12.0	11.5
MONTH	20.5	16.0	19.0	8.5	13.5	6.5	9.5	7.5	12.0	10.0	13.0	11.5

11258000 FRESNO RIVER BELOW HIDDEN DAM, NEAR DAULTON, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	11.5	13.0	12.5	14.0	13.5	14.5	14.0	15.5	15.0	21.0	19.0
2	12.0	11.5	13.0	12.5	14.0	13.5	14.5	14.0	15.5	15.0	21.0	18.5
3	12.0	11.5	13.0	12.5	14.0	13.5	14.5	14.0	15.5	15.0	21.0	19.0
4	---	---	13.0	12.5	14.0	13.5	15.0	14.0	15.5	15.0	20.5	19.0
5	---	---	16.5	13.0	14.0	13.5	14.5	14.5	15.5	15.0	21.0	19.5
6	---	---	21.0	14.0	14.0	13.5	15.0	14.0	16.0	15.5	23.0	16.0
7	---	---	22.0	15.5	14.0	13.5	15.0	14.0	16.0	15.5	19.0	15.5
8	12.5	11.5	22.0	16.0	14.0	13.5	15.0	14.0	16.0	15.5	19.0	15.5
9	12.5	11.5	22.5	16.0	14.5	13.5	15.0	14.5	16.0	15.5	19.0	15.0
10	12.0	12.0	21.5	16.5	14.0	13.5	15.0	14.0	16.0	15.5	19.0	15.0
11	12.5	11.5	21.0	16.0	14.0	13.5	15.0	14.5	16.0	15.5	19.0	15.5
12	12.5	12.0	21.0	18.0	14.5	13.5	15.0	14.5	16.0	15.5	19.0	15.5
13	12.5	12.0	22.0	18.0	14.5	13.5	15.0	14.5	16.0	15.5	19.0	15.5
14	12.5	12.0	23.5	19.5	14.5	14.0	15.0	14.5	16.0	15.5	19.0	15.5
15	12.5	12.0	25.0	20.0	14.5	14.0	15.0	14.5	16.5	16.0	19.0	15.5
16	12.5	12.0	21.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	19.0	15.5
17	12.5	12.0	13.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	19.0	15.5
18	12.5	12.0	13.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	20.5	15.5
19	12.5	12.0	13.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	19.5	17.5
20	16.5	12.0	13.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	19.5	17.5
21	20.5	13.5	13.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	21.5	19.5
22	20.5	15.0	13.5	13.0	14.5	14.0	15.0	14.5	16.5	16.0	22.0	21.0
23	18.0	15.5	13.5	13.0	14.5	14.0	15.5	14.5	17.0	16.0	21.5	20.0
24	20.0	14.5	14.0	13.5	14.5	14.0	15.5	14.5	17.0	16.0	20.5	16.0
25	22.5	15.0	14.0	13.5	14.5	14.0	15.5	14.5	17.0	16.5	19.0	16.0
26	19.5	15.0	14.0	13.5	14.5	14.0	15.5	14.5	17.0	16.5	18.5	16.0
27	18.5	16.0	14.0	13.5	14.5	14.0	15.5	15.0	17.0	16.5	18.5	15.5
28	19.5	12.5	14.0	13.5	14.5	14.0	15.5	15.0	17.0	16.5	18.5	15.5
29	12.5	12.5	14.0	13.5	14.5	14.0	15.5	15.0	17.0	16.5	16.5	16.0
30	12.5	12.5	14.0	13.5	14.5	14.0	15.5	15.0	19.5	16.5	17.0	16.5
31	---	---	14.0	13.5	---	---	15.5	15.0	20.5	18.5	---	---
MONTH	22.5	11.5	25.0	12.5	14.5	13.5	15.5	14.0	20.5	15.0	23.0	15.0

11258960 CHOWCHILLA RIVER ABOVE WILLOW CREEK, NEAR RAYMOND, CA

LOCATION.--Lat 37°16'23", long 119°52'49", in NE 1/4 NW 1/4 sec.3, T.8 S., R.19 E., Madera County, Hydrologic Unit 18040007, on left bank 0.9 mi upstream from Willow Creek and 4.7 mi northeast of Raymond.

DRAINAGE AREA.--173 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 680 ft, from topographic map.

REMARKS.--Records good. No large storage or diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s Dec. 22, 1982, gage height, 14.08 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 660 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	2330	4,750	10.63	Mar. 1	0545	12,800	14.07
Nov. 30	0900	2,670	9.11	Mar. 13	1700	7,300	11.98
Dec. 22	2030	*12,900	14.08	Mar. 21	0915	2,920	9.33
Jan. 22	2015	8,950	12.69	Apr. 30	0400	2,260	8.72
Feb. 7	0830	6,000	11.34				

Minimum daily, 5.6 ft³/s Sept. 21.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	48	1050	165	578	4910	646	775	137	55	21	13
2	11	30	356	154	520	2490	602	607	140	53	19	13
3	9.7	24	211	143	465	2390	577	538	141	51	19	13
4	8.0	21	160	141	414	1500	546	504	134	50	19	12
5	7.3	19	136	134	391	1050	540	480	128	48	17	11
6	7.3	18	120	127	790	897	509	507	120	45	17	9.7
7	7.6	18	108	121	3800	997	472	435	114	42	17	9.0
8	7.5	17	96	117	3000	778	437	401	111	41	15	8.5
9	8.1	19	88	114	1120	693	423	378	105	40	15	8.7
10	8.6	63	83	110	842	650	421	363	100	40	15	8.6
11	8.4	80	76	105	711	645	441	352	97	40	15	8.5
12	8.1	42	72	103	667	599	400	326	100	35	15	7.8
13	7.9	32	73	99	2050	2630	409	313	95	32	14	7.4
14	7.6	28	70	96	838	1330	374	304	90	32	14	7.2
15	7.3	26	66	94	700	850	351	283	84	29	15	6.8
16	7.1	24	63	98	629	865	331	272	83	29	17	6.7
17	7.0	23	63	116	575	1210	318	258	79	29	16	6.4
18	6.8	542	75	104	752	1200	371	245	76	29	16	5.8
19	6.7	1190	65	571	657	867	354	237	76	29	14	5.8
20	6.7	221	70	231	551	745	427	225	73	29	14	5.7
21	6.7	110	118	167	502	1710	419	213	73	28	15	5.6
22	7.3	82	6450	1930	464	1020	336	204	71	27	16	6.8
23	7.5	111	1960	1340	429	1060	325	194	67	27	16	7.4
24	9.5	78	679	2440	407	1530	941	185	66	26	16	9.1
25	12	64	460	847	501	1280	561	178	64	26	15	9.8
26	66	55	361	591	766	930	440	171	63	26	14	10
27	51	48	300	4290	1240	860	383	162	58	25	13	9.7
28	25	49	257	1870	877	1070	755	153	58	23	13	9.4
29	19	361	226	1500	---	784	697	147	58	22	12	10
30	50	1950	202	809	---	708	1340	140	58	22	11	20
31	160	---	183	656	---	683	---	138	---	22	11	---
TOTAL	573.7	5393	14297	19383	25236	38931	15146	9688	2719	1052	476	272.4
MEAN	18.5	180	461	625	901	1256	505	313	90.6	33.9	15.4	9.08
MAX	160	1950	6450	4290	3800	4910	1340	775	141	55	21	20
MIN	6.7	17	63	94	391	599	318	138	58	22	11	5.6
AC-FT	1140	10700	28360	38450	50060	77220	30040	19220	5390	2090	944	540

CAL YR 1982	TOTAL	100756.8	MEAN	276	MAX	7920	MIN	1.4	AC-FT	199900
WTR YR 1983	TOTAL	133167.1	MEAN	365	MAX	6450	MIN	5.6	AC-FT	264100

SAN JOAQUIN RIVER BASIN

11258960 CHOWCHILLA RIVER ABOVE WILLOW CREEK, NEAR RAYMOND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1980 to current year.

INSTRUMENTATION.--Temperature recorder since July 9, 1980.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 36.0°C July 28, 1980; minimum recorded, 1.5°C Dec. 10-14, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 31.5°C Aug. 1-3; minimum recorded, 5.5°C Jan. 4-6, 12.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	10.0	8.5	---	---				
2	---	---	---	---	8.5	7.5	---	---				
3	---	---	---	---	8.5	7.0	---	---				
4	---	---	---	---	9.0	7.0	6.5	5.5				
5	---	---	---	---	10.5	9.0	7.0	5.5				
6	20.5	14.5	---	---	10.0	9.5	8.0	5.5				
7	---	---	---	---	10.0	8.5	8.0	7.0				
8	---	---	---	---	8.5	6.5	8.0	7.0				
9	---	---	---	---	7.5	6.0	8.0	7.0				
10	---	---	---	---	8.0	6.0	8.0	7.0				
11	---	---	---	---	8.5	6.5	8.0	6.5				
12	---	---	---	---	9.0	7.0	7.5	5.5				
13	---	---	---	---	9.5	7.0	7.5	6.0				
14	---	---	---	---	8.0	6.5	8.0	6.0				
15	---	---	---	---	9.0	7.0	10.5	9.0				
16	---	---	---	---	8.5	6.5	10.0	7.5				
17	---	---	---	---	8.5	7.0	9.5	8.5				
18	---	---	---	---	8.5	6.5	10.0	9.0				
19	---	---	11.5	10.0	8.5	6.5	10.0	8.5				
20	---	---	10.0	9.0	9.0	8.0	9.0	7.0				
21	---	---	10.0	8.0	10.0	8.5	8.5	7.5				
22	---	---	10.0	9.5	11.0	9.0	---	---				
23	---	---	11.0	9.5	---	---	---	---				
24	---	---	10.5	9.5	---	---	---	---				
25	---	---	11.0	9.5	---	---	---	---				
26	---	---	10.0	8.0	---	---	---	---				
27	---	---	9.0	8.0	---	---	---	---				
28	---	---	11.0	9.5	---	---	---	---				
29	---	---	11.5	10.5	---	---	---	---				
30	---	---	11.0	9.5	---	---	---	---				
31	---	---	---	---	---	---	---	---				
MONTH	20.5	14.5	11.5	8.0	11.0	6.0	10.5	5.5				

11258960 CHOWCHILLA RIVER ABOVE WILLOW CREEK, NEAR RAYMOND, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	21.5	18.5	26.0	21.0	31.5	24.5	28.0	23.0
2	---	---	---	---	19.5	16.5	27.5	22.5	31.5	25.0	28.5	22.5
3	---	---	---	---	21.0	16.0	27.5	22.0	31.5	25.0	28.5	22.5
4	---	---	---	---	22.5	17.5	28.5	22.5	---	---	28.5	22.0
5	---	---	---	---	24.0	19.0	28.5	24.0	---	---	29.0	22.5
6	---	---	---	---	25.0	20.5	28.5	23.0	---	---	29.5	23.0
7	---	---	---	---	25.5	21.5	26.5	22.0	---	---	28.5	23.0
8	---	---	---	---	25.5	21.0	26.0	20.5	---	---	28.0	22.5
9	15.0	11.5	---	---	25.5	21.0	26.0	19.5	---	---	27.0	21.0
10	13.5	11.5	---	---	25.5	21.0	27.0	20.0	---	---	27.5	20.5
11	13.0	10.5	---	---	25.0	21.0	29.0	21.5	---	---	28.5	21.5
12	11.5	9.5	---	---	24.0	19.5	29.5	22.5	---	---	29.0	22.0
13	12.5	8.5	---	---	25.0	19.5	30.5	23.5	---	---	29.0	22.5
14	13.5	9.0	---	---	25.5	20.5	30.5	23.5	---	---	29.5	23.0
15	15.0	10.5	---	---	26.0	21.5	29.5	23.5	---	---	29.0	23.0
16	16.5	11.5	---	---	26.5	21.5	29.0	22.5	---	---	29.0	23.0
17	14.5	13.0	---	---	27.5	22.5	29.0	22.0	---	---	28.0	22.0
18	14.5	12.5	---	---	26.0	21.5	27.5	21.0	---	---	28.0	21.5
19	16.5	11.5	---	---	25.5	20.5	27.0	21.0	---	---	26.5	20.5
20	17.0	14.0	---	---	24.5	20.5	27.5	20.5	29.5	23.5	26.5	20.5
21	15.5	13.5	---	---	25.5	20.0	28.5	21.5	28.0	23.5	27.0	22.0
22	15.5	12.5	---	---	26.5	21.0	29.0	22.0	28.0	22.5	27.5	23.0
23	---	---	---	---	27.0	22.0	29.0	22.5	28.0	22.0	26.0	23.0
24	---	---	---	---	26.5	21.5	29.0	23.0	28.0	22.0	25.5	20.5
25	---	---	25.5	20.5	26.5	21.0	28.0	22.5	28.0	22.0	25.5	20.5
26	---	---	26.0	21.0	27.0	21.5	28.0	22.0	28.0	22.0	25.5	21.0
27	---	---	26.5	21.5	26.5	21.5	28.5	22.0	28.5	22.0	25.0	20.0
28	---	---	25.5	22.0	26.0	21.0	29.0	22.5	28.5	22.0	24.5	19.5
29	---	---	25.5	21.5	26.0	21.5	29.5	23.0	28.0	22.0	22.0	20.0
30	---	---	24.5	20.0	26.0	21.0	30.0	23.5	25.5	21.5	20.0	18.5
31	---	---	24.0	20.0	---	---	30.5	25.0	26.5	22.5	---	---
MONTH	17.0	8.5	26.5	20.0	27.5	16.0	30.5	19.5	31.5	21.5	29.5	18.5

11258990 H. V. EASTMAN LAKE NEAR RAYMOND, CA

LOCATION.--Lat 37°13'00", long 119°59'04", in SW 1/4 SE 1/4 sec.22, T.8 S., R.18 E., Madera County, Hydrologic Unit 18040007, in intake structure at center of dam on Chowchilla River, 4.4 mi west of Raymond.

DRAINAGE AREA.--235 mi².

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earth and rockfill dam. Dam was completed in December 1975, capacity, 150,604 acre-ft, between elevations, 410.0 ft invert elevation to outlet tunnel, and 587.0 ft crest of ungated spillway. Inactive pool, 10,150 acre-ft. Reservoir is used for flood control, irrigation, recreation, and fish and wildlife enhancement. Records, including extremes, represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 145,687 acre-ft June 4, 5, 1979, elevation, 584.22 ft; minimum since initial season of normal operation, 1,978 acre-ft Nov. 20, 1977, elevation, 440.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 145,285 acre-ft June 10, elevation, 583.99 ft; minimum, 99,601 acre-ft Feb. 16, elevation, 555.32 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

438	1,519	480	18,213
442	2,197	490	25,520
446	3,043	500	34,039
450	4,069	520	54,354
455	5,620	540	78,560
460	7,485	560	106,476
465	9,673	580	138,394
470	12,190	600	174,809
475	15,038		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106282	105820	110692	107883	111942	120377	116839	141859	143784	144254	135664	118279
2	106461	105716	109298	107223	112202	117527	117308	142517	143906	144219	135260	118075
3	106416	105553	107838	106580	112325	116605	117652	142673	144114	144149	134722	117856
4	106356	105285	106252	106297	112417	115485	117934	142707	144324	144080	134184	117652
5	106416	105137	105211	106177	112355	114648	118154	143123	144515	143923	133782	117480
6	106490	104930	105137	105924	113430	114107	118578	143784	144708	143697	133431	117292
7	106476	104796	105063	105835	122702	113922	119429	144289	144969	143488	133097	117042
8	106461	104841	105033	105746	125099	113153	120188	144690	145092	143314	132680	116776
9	106312	104959	104944	105627	121203	113184	120917	144795	145214	143158	132164	116605
10	106341	105226	104885	105657	116464	113799	121633	144638	145285	143089	131566	116511
11	106356	105404	104900	105820	111332	114385	122398	144690	145214	143037	130870	116433
12	106386	105404	104915	105954	106222	114834	123087	144760	145144	142933	130094	116386
13	106371	105553	104930	106088	104559	120377	123761	144795	145144	142707	129238	116309
14	106401	105642	104915	106207	101416	120885	124372	144830	145074	142361	128287	116200
15	106416	105686	104915	106312	99819	118641	124921	144778	145004	141928	127388	116106
16	106386	105746	104915	106431	99601	116153	125406	144690	145004	141428	126557	115997
17	106371	105790	104885	106610	99992	115578	125875	144673	144952	140929	125632	115857
18	106356	106192	104900	106924	101446	116028	126492	144708	144899	140499	124679	115717
19	106356	109540	104885	108378	103115	115500	127078	144725	144934	140087	123696	115562
20	106371	109616	104930	108529	104441	114725	127894	144708	144987	139726	122878	115454
21	106371	108860	105092	107943	105627	116823	128778	144655	145039	139418	122191	115345
22	106371	108063	119145	111256	106744	116886	129501	144480	145092	139110	121553	115236
23	106371	106909	123440	113015	107807	117323	130292	144411	145074	138837	120901	115066
24	106386	105256	122095	115175	108785	118609	132297	144306	145039	138513	120219	114911
25	106431	104648	120077	113599	110116	119350	133548	144219	144969	138155	119729	114787
26	106416	104781	117840	111210	111835	119050	134503	144463	144882	137815	119523	114633
27	106222	104870	115485	118845	117377	118484	135378	144184	144690	137492	119334	114493
28	105969	105137	113030	116293	114308	118389	136932	144080	144533	137220	119145	114370
29	105731	106207	110556	115221	---	117558	137917	143888	144341	136898	118908	114447
30	105716	109268	109102	112554	---	116496	140327	143801	144202	136509	118720	114339
31	105850	---	108514	111530	---	116153	---	143766	---	136103	118484	---
MAX	106490	109616	123440	118845	125099	120885	140327	144830	145285	144254	135664	118279
MIN	105716	104648	104885	105627	99601	113153	116839	141859	143784	136103	118484	114339
a	559.58	561.86	561.36	563.35	565.16	566.35	581.13	583.12	583.37	578.65	567.84	565.18
b	-447	+3418	-754	+3016	+2778	+1845	+24174	+3439	+436	-8099	-17619	-4145
c	548	155	120	103	152	260	452	865	1200	1343	1216	987

CAL YR 1982 b +93343
WTR YR 1983 b +8042

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

11259000 CHOWCHILLA RIVER BELOW BUCHANAN DAM, NEAR RAYMOND, CA

LOCATION.--Lat 37°12'56", long 119°59'25", in SE 1/4 SW 1/4 sec.22, T.8 S., R.18 E., Madera County, Hydrologic Unit 18040007, on left bank 1,800 ft downstream from Buchanan Dam, and 4.6 mi west of Raymond.

DRAINAGE AREA.--236 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1923, October 1930 to September 1972, October 1975 to current year. Prior to Oct. 1, 1962, published as "at Buchanan damsite."

REMARKS.--Records good. Flow completely regulated by H. V. Eastman Lake (station 11258990) 1,800 ft upstream beginning Jan. 1, 1976.

GAGE.--Water-stage recorder and concrete control since October 1975. Altitude of gage is 420 ft, from topographic map. October 1921 to September 1923, at site 2.4 mi upstream at different datum. October 30 to May 17, 1972, at site 0.3 mi upstream at datum 407.32 ft National Geodetic Vertical Datum of 1929. May 18, 1972, to Sept. 30, 1972, at site 500 ft downstream at different datum. Oct. 1, 1975, to Mar. 2, 1982, at datum 1.00 ft higher.

AVERAGE DISCHARGE (adjusted for change in contents in and evaporation from H. V. Eastman Lake since 1976).--52 years (water years 1922-23, 1931-72, 1976-83), 108 ft³/s, 78,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s Dec. 23, 1955, gage height, 16.50 ft site and datum then in use, from rating curve extended above 6,000 ft³/s on basis of slope-area measurement at gage height, 15.06 ft; no flow for part of each year except 1937-38, 1940-43. Maximum discharge since construction of Buchanan Dam in 1975, 5,020 ft³/s Mar. 1, 1983, gage height, 11.67 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,020 ft³/s Mar. 1, gage height, 11.67 ft; no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	71	1000	513	501	3300	498	305	76	66	210	99
2	0	74	998	513	501	4460	498	368	75	51	244	99
3	24	96	996	510	501	3510	495	521	50	62	263	99
4	16	107	992	335	501	2640	498	508	35	83	252	99
5	.20	107	698	181	501	1880	498	315	35	91	207	101
6	.10	107	182	181	501	1460	349	198	35	103	197	104
7	.10	73	147	181	1120	1400	97	198	35	103	197	104
8	0	.50	147	181	3350	1400	102	198	35	103	197	104
9	0	.40	147	182	3700	863	102	346	34	70	234	68
10	0	.60	120	112	3660	515	102	438	34	51	300	48
11	0	.30	76	48	3610	498	103	346	92	64	354	48
12	0	.20	76	48	3570	498	103	298	115	107	382	48
13	0	.20	76	48	3530	701	103	308	119	149	430	48
14	0	.20	76	49	2800	1660	103	305	117	190	451	48
15	0	.10	76	49	1730	2320	103	305	108	219	448	49
16	0	.10	76	49	908	2460	103	305	97	226	448	49
17	0	.10	76	49	505	1990	103	272	82	228	448	49
18	.20	.30	76	49	259	1480	103	246	63	208	451	49
19	.20	.30	76	50	31	1480	103	246	35	200	457	49
20	.20	195	76	229	.30	1470	63	246	26	198	376	49
21	.20	515	76	501	.30	1480	.20	248	26	190	298	36
22	.20	502	76	504	.30	1480	.10	248	39	178	286	48
23	.20	708	629	1280	.20	1480	.10	248	52	166	317	48
24	.30	967	1520	2070	.20	1480	.20	248	54	155	322	49
25	.30	336	1560	2070	.20	1480	.20	236	65	160	232	51
26	61	.90	1540	2060	219	1480	.20	91	87	163	98	50
27	123	.80	1530	2300	748	1480	.20	202	108	166	100	50
28	124	.90	1530	3010	1010	1480	106	202	116	168	100	50
29	126	.80	1530	2520	---	1480	300	202	116	182	97	51
30	109	588	971	2510	---	1480	303	162	100	210	98	51
31	95	---	521	1360	---	1040	---	93	---	210	99	---
TOTAL	680.20	4452.70	17670	23742	33757.50	51825	4939.20	8452	2061	4520	8593	1895
MEAN	21.9	148	570	766	1206	1672	165	273	68.7	146	277	63.2
MAX	126	967	1560	3010	3700	4460	498	521	119	228	457	104
MIN	0	.10	76	48	.20	498	.10	91	26	51	97	36
AC-FT	1350	8830	35050	47090	66960	102800	9800	16760	4090	8970	17040	3760

CAL YR 1982 TOTAL 62945.80 MEAN 172 MAX 2100 MIN 0 AC-FT 124900 MEAN a 311 AC-FT a 225200
WTR YR 1983 TOTAL 162587.60 MEAN 445 MAX 4460 MIN 0 AC-FT 322500 MEAN a 467 AC-FT a 338100

a Adjusted for change in contents and evaporation from H. V. Eastman Lake.

11259000 CHOWCHILLA RIVER BELOW BUCHANAN DAM, NEAR RAYMOND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-65, 1976 to current year.

CHEMICAL ANALYSES: Water years 1958-65. Published as "at Buchanan Damsite."

WATER TEMPERATURES: Water years 1976 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1975 to current year.

INSTRUMENTATION.--Temperature recorder since October 1975.

REMARKS.--Water temperatures are affected by regulation from Buchanan Dam.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum recorded, 33.5°C June 7, 1977; minimum recorded, 0.0°C Jan. 2, 4, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 22.0°C Oct. 12, 13; minimum recorded, 8.5°C Nov. 13, 15.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	12.5	13.0	12.0	12.5	11.5	10.5	10.5	9.5	9.5	10.5	10.0
2	20.5	13.5	12.5	11.5	12.0	11.5	10.5	10.5	9.5	9.5	10.5	10.0
3	15.5	11.0	12.0	12.0	11.5	11.5	10.5	10.5	9.5	9.5	11.0	10.5
4	15.0	10.5	12.0	12.0	11.5	11.5	10.5	9.5	9.5	9.5	11.0	10.5
5	17.5	11.5	12.0	12.0	11.5	11.5	10.0	9.5	9.5	9.5	10.5	10.5
6	20.5	12.0	12.5	12.0	11.5	11.5	9.5	9.5	9.5	9.5	10.5	10.5
7	19.5	14.5	12.0	12.0	11.5	11.5	9.5	9.5	9.5	9.5	11.0	10.5
8	19.5	13.0	12.0	10.5	11.5	11.5	9.5	9.5	10.0	9.5	11.0	10.5
9	21.0	13.5	10.5	10.0	11.5	11.5	9.5	9.5	10.0	9.5	11.0	10.5
10	21.0	14.0	11.5	10.0	12.0	11.5	10.0	9.5	10.0	9.5	11.0	10.5
11	21.5	15.0	12.5	9.5	12.0	11.5	9.5	9.5	10.0	10.0	11.0	11.0
12	22.0	15.5	12.5	9.0	12.0	11.5	10.0	9.5	10.0	10.0	11.0	11.0
13	22.0	15.5	10.0	8.5	11.5	11.5	10.0	9.5	10.0	10.0	11.0	11.0
14	21.0	15.0	11.5	9.0	11.5	11.5	9.5	9.5	10.0	10.0	11.0	11.0
15	21.0	15.0	10.0	8.5	11.5	11.5	10.0	9.5	10.0	10.0	11.5	11.0
16	20.0	15.0	10.5	9.0	12.0	11.5	10.0	9.5	10.0	10.0	11.5	11.0
17	20.0	15.0	11.0	9.0	11.5	11.5	9.5	9.5	10.0	10.0	11.5	11.5
18	17.5	13.5	11.5	10.0	11.5	11.5	9.5	9.5	10.5	10.0	11.5	11.5
19	18.5	15.0	12.5	10.5	11.5	11.5	10.0	9.5	14.0	10.0	11.5	11.5
20	18.0	15.0	12.0	9.0	11.5	11.5	9.5	9.0	15.0	10.5	11.5	11.5
21	17.5	15.5	12.5	12.0	11.5	11.5	9.5	9.5	15.5	11.0	11.5	11.5
22	18.5	16.5	12.5	12.5	11.5	11.0	9.5	9.0	13.5	12.0	11.5	11.5
23	19.5	17.0	12.5	12.5	11.0	11.0	9.5	9.0	14.5	12.0	11.5	11.5
24	18.5	17.5	12.5	12.5	11.0	11.0	9.5	9.5	14.5	12.0	---	---
25	18.5	17.5	13.0	11.5	11.0	10.5	9.5	9.5	13.0	11.0	---	---
26	17.5	11.5	12.0	10.5	10.5	10.5	9.5	9.5	15.0	10.0	---	---
27	12.0	11.5	12.0	10.5	10.5	10.0	9.5	9.5	10.5	10.0	---	---
28	12.0	11.5	13.0	11.5	10.5	10.5	9.5	9.5	10.5	10.0	---	---
29	12.0	11.5	13.0	12.0	10.5	10.5	10.0	9.5	---	---	---	---
30	12.0	12.0	12.5	12.0	10.5	10.5	10.0	10.0	---	---	---	---
31	12.0	12.0	---	---	10.5	10.5	10.0	9.5	---	---	---	---
MONTH	22.0	10.5	13.0	8.5	12.5	10.0	10.5	9.0	15.5	9.5	11.5	10.0

11259000 CHOWCHILLA RIVER BELOW BUCHANAN DAM, NEAR RAYMOND, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	12.5	12.0	13.0	13.0	13.5	13.0	13.5	13.0	13.5	13.0
2	---	---	12.5	12.5	13.5	13.0	14.0	13.0	13.0	13.0	14.0	13.0
3	---	---	12.5	12.5	13.5	12.5	14.0	13.0	13.0	13.0	13.5	13.0
4	---	---	12.5	12.5	14.0	12.5	13.5	13.0	13.0	13.0	13.5	13.0
5	---	---	12.5	12.5	14.5	13.0	13.5	13.0	13.5	13.0	14.0	13.5
6	---	---	12.5	12.5	14.0	13.0	13.5	13.0	13.0	13.0	14.0	13.5
7	---	---	12.5	12.5	14.0	13.0	13.5	13.0	13.0	13.0	13.5	13.5
8	---	---	12.5	12.5	14.5	13.0	13.5	12.5	13.0	13.0	14.0	13.5
9	---	---	12.5	12.5	14.5	13.0	14.0	12.5	13.0	13.0	14.5	13.5
10	---	---	12.5	12.5	14.5	13.0	14.0	12.5	13.0	13.0	14.5	13.5
11	---	---	12.5	12.5	13.5	13.0	14.0	13.0	13.0	13.0	14.5	13.5
12	12.5	12.0	12.5	12.5	13.0	13.0	13.5	13.0	13.0	13.0	14.5	13.5
13	12.5	12.0	12.5	12.5	13.5	13.0	13.5	13.0	13.0	13.0	14.5	13.5
14	12.5	12.0	12.5	12.5	13.5	13.0	13.0	13.0	13.0	13.0	14.0	13.5
15	12.5	12.0	12.5	12.5	13.5	12.5	13.0	13.0	13.0	13.0	14.5	13.5
16	12.5	12.0	12.5	12.5	13.5	12.5	13.0	13.0	13.0	13.0	14.5	13.5
17	12.5	12.0	13.0	12.5	13.5	13.0	13.0	13.0	13.0	13.0	14.0	13.5
18	12.5	12.0	13.0	13.0	14.0	13.0	13.0	13.0	13.0	13.0	14.5	13.5
19	12.5	12.0	13.0	13.0	14.5	12.5	13.0	13.0	13.0	13.0	14.5	13.5
20	14.0	12.0	13.0	12.5	14.5	12.5	13.5	13.0	13.0	13.0	14.5	13.5
21	18.5	13.0	13.0	12.5	14.5	12.5	13.5	13.0	13.0	13.0	17.0	13.5
22	18.5	14.0	13.0	12.5	14.0	13.0	13.5	13.0	13.5	13.0	14.0	13.5
23	17.0	15.0	13.0	12.5	13.5	12.5	13.5	13.0	13.5	13.0	14.0	13.5
24	19.0	14.0	13.0	12.5	14.0	12.5	13.5	13.0	13.5	13.0	14.0	13.0
25	19.5	15.5	13.0	12.5	13.5	13.0	13.5	13.0	13.5	13.0	14.0	13.5
26	19.0	15.0	19.0	13.0	13.5	13.0	13.5	13.0	13.5	13.0	14.0	13.5
27	18.5	15.5	13.0	13.0	13.5	13.0	13.5	13.0	13.5	13.0	14.0	13.5
28	21.0	12.5	13.0	13.0	13.5	13.0	13.5	13.0	14.0	13.0	14.0	13.5
29	12.5	12.5	13.0	13.0	13.0	13.0	13.0	13.0	14.0	13.0	13.5	13.5
30	12.5	12.5	13.0	13.0	13.5	13.0	13.0	13.0	13.5	13.0	13.5	13.0
31	---	---	13.5	13.0	---	---	13.0	13.0	13.5	13.0	---	---
MONTH	21.0	12.0	19.0	12.0	14.5	12.5	14.0	12.5	14.0	13.0	17.0	13.0

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA
(Hydrologic bench-mark station)

LOCATION.--Lat 37°43'54", long 119°33'28", unsurveyed, Mariposa County, Hydrologic Unit 18040008, Yosemite National Park, on right bank 10 ft downstream from footbridge at Happy Isles, 0.4 mi downstream from Illilouette Creek, and 2.0 mi southeast of Yosemite National Park Headquarters.

DRAINAGE AREA.--181 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1915 to current year.

REVISED RECORDS.--WSP 1215: 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 4,016.58 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1916, nonrecording gage at datum 0.55 ft lower.

REMARKS.--Records good. Up to 5 ft³/s can be diverted above station for Yosemite Valley water supply.

AVERAGE DISCHARGE.--68 years, 354 ft³/s, 256,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s Dec. 23, 1955, gage height, 12.73 ft, from rating curve extended above 4,000 ft³/s on basis of contracted-opening measurements at gage heights 10.4 ft and 11.55 ft; minimum, 1.5 ft³/s Sept. 30, 1926, Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0415	2,410	6.56	June 18	0200	4,800	8.30
May 29	2345	*5,450	8.68	July 6	0300	4,500	8.11

Minimum daily, 40 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	400	204	145	165	277	244	271	3230	2930	1420	659
2	142	322	198	140	160	252	275	276	2640	3050	1340	559
3	120	270	195	142	155	219	277	339	2610	3290	1280	402
4	100	220	190	145	148	197	247	436	2530	3440	1090	321
5	91	210	182	146	150	186	228	375	2650	3850	944	284
6	82	200	170	148	160	204	216	343	3140	3920	904	285
7	76	190	165	155	180	266	211	386	3370	3300	995	284
8	71	175	162	158	195	248	221	483	3340	2380	1120	276
9	65	160	160	155	180	244	242	545	3340	2030	1250	273
10	62	160	160	152	161	248	247	547	3550	1740	1330	243
11	57	162	159	155	175	271	228	465	4180	2080	910	213
12	54	163	158	158	270	267	210	477	3630	2310	719	200
13	51	156	145	160	240	435	201	482	3020	2520	649	200
14	49	157	145	160	220	389	192	528	3290	2610	760	202
15	48	152	147	162	210	312	188	681	3680	2470	1130	206
16	47	147	148	160	195	286	200	847	3920	2160	1170	200
17	45	145	142	158	205	271	233	916	4190	1760	742	197
18	43	233	135	155	195	256	237	1110	4200	1550	645	193
19	41	278	145	150	195	237	244	1400	3630	1370	963	177
20	40	220	163	145	197	228	280	1740	3180	1250	807	155
21	45	195	175	155	190	224	279	2170	2990	1320	557	138
22	89	205	270	175	200	211	318	2560	3270	1470	452	161
23	258	192	240	180	210	204	350	2810	3600	1510	392	214
24	403	174	225	240	210	204	315	3150	3430	1380	343	205
25	1080	169	220	210	210	198	288	3530	3250	1290	303	169
26	1390	162	210	220	190	186	272	3870	3320	1210	271	152
27	575	160	190	215	191	189	262	4180	3200	1210	252	160
28	402	170	175	200	199	189	281	4380	3060	1310	240	156
29	341	185	170	200	---	182	288	4690	3080	1450	231	175
30	680	200	155	180	---	194	290	4460	2980	1490	234	246
31	500	---	150	170	---	236	---	4060	---	1480	596	---
TOTAL	7217	5932	5453	5194	5356	7510	7564	52507	99500	65130	24039	7305
MEAN	233	198	176	168	191	242	252	1694	3317	2101	775	244
MAX	1390	400	270	240	270	435	350	4690	4200	3920	1420	659
MIN	40	145	135	140	148	182	188	271	2530	1210	231	138
AC-FT	14310	11770	10820	10300	10620	14900	15000	104100	197400	129200	47680	14490

CAL YR 1982	TOTAL	241429	MEAN	661	MAX	3500	MIN	40	AC-FT	478900
WTR YR 1983	TOTAL	292707	MEAN	802	MAX	4690	MIN	40	AC-FT	580600

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL ANALYSES: Water years 1968 to current year.

BIOLOGICAL DATA: Water years 1973-81.

WATER TEMPERATURES: Water years 1966-77, 1979 to current year.

SEDIMENT RECORDS: Water years 1970-71, 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to September 1977, October 1978 to current year.

INSTRUMENTATION.--Temperature recorder October 1965 to September 1977 and since October 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 20.0°C July 15, 1979; minimum recorded, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 16.5°C Aug. 7; minimum recorded, 0.0°C on several days during March and April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, O.7 UM-HF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC 01...	1130	229	18	6.6	1.0	650	.50	11.9	101	K10	K3
FEB 10...	1500	203	25	6.5	2.5	660	.50	11.8	100	K2	K4
MAY 10...	1300	544	19	6.7	3.0	660	.60	11.4	98	<1	<1
JUL 27...	1400	1170	7	5.9	11.0	660	1.6	10.0	105	<1	K10
SEP 21...	1400	140	15	--	13.5	665	.50	9.1	100	K2	19

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 01...	6	0	1.9	.30	1.6	35	.3	.40	8	<5.0	2.2
FEB 10...	7	0	2.5	.16	1.9	35	.3	.50	8	1.4	2.3
MAY 10...	5	0	1.8	.15	1.5	37	.3	.40	5	1.3	1.4
JUL 27...	4	0	1.1	.20	.60	25	.1	.30	3	1.1	.50
SEP 21...	4	1	1.5	.11	1.0	32	.2	.30	3	1.2	1.1

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
DEC 01...	<.10	7.7	19	--	.03	<.10	<.06	.80	.01	.02	<.010
FEB 10...	<.10	8.5	19	22	.03	<.10	<.06	.40	.02	.02	<.010
MAY 10...	<.10	7.8	17	18	.02	<.10	.11	.30	.03	.04	.020
JUL 27...	<.10	3.1	3	9	.00	<.10	.10	.50	.03	.02	<.010
SEP 21...	<.10	4.4	8	12	.01	<.10	.03	.30	.01	.01	<.010

See footnotes at end of table.

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA---Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
DEC 01...	1130	30	1	7	<.5	<1	<1	<3	<1	36	2
SEP 21...	1400	10	<1	4	<.5	<1	<1	<3	<1	22	<1

DATE	TIME	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 01...	11		2	--	<10	<1	<1	<1	29	<6	4
SEP 21...	4		3	.2	<10	1	<1	<1	17	<6	<3

		GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
SEP 21...	1400	.9	<.4	1.3	<.4	1.2	<.4	.02	.35

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	5.5			1.0	.5	1.0	1.0	1.0	1.0	3.0	1.5
2	9.5	6.5			1.0	.5	1.0	1.0	1.0	1.0	3.5	2.5
3	9.0	6.5			2.0	1.0	1.0	1.0	1.0	1.0	4.0	2.5
4	8.5	5.5			2.5	1.5	2.5	1.0	1.0	1.0	4.5	2.5
5	7.5	4.5			2.0	1.5	3.5	2.5	1.0	1.0	4.5	2.0
6	8.0	5.0			2.5	2.0	3.5	2.5	1.0	1.0	5.0	2.5
7	8.0	6.0			1.5	.5	4.0	3.0	1.5	1.0	5.0	3.0
8	8.0	5.0			1.5	.5	3.5	3.0	2.0	1.5	6.0	3.5
9	7.5	5.0			2.0	1.5	3.5	2.5	2.5	2.0	6.0	3.0
10	7.5	5.0			2.0	2.0	3.5	3.0	2.5	2.0	6.0	3.0
11	---	---			3.0	1.5	3.5	2.5	3.5	1.5	5.5	3.5
12	---	---			3.0	1.5	3.5	2.5	3.5	3.0	5.0	3.0
13	---	---			3.0	1.0	3.0	2.0	3.5	1.0	4.5	3.0
14	---	---			1.5	1.0	3.5	2.5	3.0	.5	4.0	2.5
15	---	---			3.5	1.5	4.0	2.5	4.0	2.0	4.0	.5
16	---	---			3.5	3.0	4.0	3.5	3.5	1.5	4.0	1.5
17	---	---			3.5	3.0	3.5	2.0	4.0	1.5	3.0	1.5
18	---	---			3.0	2.0	3.5	2.5	4.0	1.5	3.0	1.5
19	---	---			2.5	1.5	3.0	1.0	3.0	.5	4.0	.5
20	---	---			3.0	2.5	1.0	1.0	4.0	1.5	3.5	1.5
21	---	---			3.0	2.5	1.0	1.0	4.0	1.5	3.5	1.5
22	---	---			2.5	2.0	1.0	1.0	5.0	2.5	1.5	.5
23	---	---			2.5	1.0	1.5	1.0	4.0	3.5	2.0	.0
24	---	---			1.0	1.0	2.5	1.5	4.5	3.5	1.5	.5
25	---	---			1.5	1.0	2.5	1.5	4.0	1.5	3.0	1.0
26	---	---			2.5	1.5	3.0	2.5	3.0	1.5	3.0	.0
27	---	---			2.5	2.0	3.0	1.5	3.0	1.5	3.5	2.0
28	---	---			2.0	1.0	1.5	1.0	3.5	2.5	3.5	2.5
29	---	---			1.5	1.5	2.0	1.5	---	---	5.5	3.0
30	---	---			1.5	1.0	1.5	1.0	---	---	6.5	3.0
31	---	---			1.0	1.0	1.5	1.0	---	---	5.5	3.5
MONTH	9.5	4.5			3.5	.5	4.0	1.0	5.0	.5	6.5	.0

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	2.0	5.5	2.0	9.5	5.5	10.5	7.0	15.5	12.0	15.5	13.5
2	6.0	3.0	7.0	2.5	9.0	5.5	11.5	8.0	15.5	12.0	15.5	11.5
3	3.0	1.0	8.0	3.0	8.5	6.0	12.0	7.5	15.5	12.0	15.5	10.5
4	3.5	1.0	5.5	3.0	9.5	5.5	12.5	8.0	15.5	11.5	16.0	11.5
5	3.0	1.0	4.5	2.5	10.0	5.5	12.5	8.5	16.0	11.5	16.0	13.0
6	4.0	.0	6.5	2.0	9.5	5.5	11.5	8.0	16.0	12.5	15.5	13.0
7	4.5	.5	7.5	3.0	8.5	6.0	11.0	7.5	16.5	14.0	15.5	12.5
8	6.0	2.0	6.5	2.0	9.5	6.0	11.0	7.0	16.0	14.0	14.5	13.0
9	5.5	2.0	6.5	1.5	10.0	5.5	10.0	6.5	15.5	13.5	15.0	11.5
10	4.0	2.5	4.0	1.5	9.5	5.5	12.0	6.5	15.0	13.5	15.0	11.0
11	3.0	1.5	6.5	1.0	9.0	6.5	12.0	8.0	15.5	12.0	15.5	12.5
12	2.0	.0	5.5	2.5	9.0	5.0	12.5	8.5	15.0	12.0	15.0	12.0
13	1.5	.0	6.0	3.0	10.0	5.5	13.0	9.5	16.0	12.5	15.5	12.5
14	3.0	.0	7.5	2.5	10.0	6.5	12.5	9.0	15.5	14.0	16.0	13.5
15	4.5	1.5	7.5	3.0	10.0	6.5	11.5	9.0	16.0	13.5	15.5	12.0
16	6.5	2.5	7.0	2.0	10.5	6.5	11.5	7.5	15.5	12.5	16.0	13.5
17	5.5	3.0	7.5	2.5	10.5	6.5	12.0	8.0	15.5	13.5	15.5	13.0
18	5.5	3.5	8.0	1.5	10.0	6.5	11.0	8.0	15.0	13.5	14.5	11.0
19	6.5	2.5	8.0	1.5	9.5	5.5	12.0	8.0	14.0	13.5	13.5	10.5
20	5.5	4.5	8.0	4.0	9.5	6.0	12.0	7.0	14.0	12.0	14.5	11.5
21	6.0	3.0	8.0	4.0	10.5	6.0	13.0	8.5	14.0	11.5	15.0	13.0
22	7.0	3.5	8.0	4.0	11.0	7.0	13.0	9.5	14.0	11.0	15.5	14.0
23	5.0	2.5	8.0	4.5	11.0	7.0	13.0	8.5	14.5	10.0	14.0	13.0
24	4.0	2.0	8.0	4.5	11.0	6.5	13.5	9.0	14.0	10.5	13.5	10.5
25	5.5	2.0	8.0	4.5	11.5	7.0	13.0	9.0	14.5	10.5	13.5	11.0
26	5.0	2.5	8.5	4.5	11.0	6.5	13.0	9.0	14.5	10.0	13.0	11.5
27	5.5	3.5	8.5	5.0	11.0	6.5	14.5	10.0	13.5	10.5	12.5	9.5
28	6.0	3.0	8.5	4.5	11.5	6.5	15.0	11.5	14.0	10.5	12.5	11.0
29	5.5	3.5	8.5	5.0	11.0	6.5	15.5	12.0	13.5	10.0	11.5	9.5
30	5.0	3.0	9.0	4.5	11.0	7.0	15.5	12.0	14.0	11.5	9.5	9.0
31	---	---	8.5	5.0	---	---	15.5	12.5	15.0	13.5	---	---
MONTH	7.0	.0	9.0	1.0	11.5	5.0	15.5	6.5	16.5	10.0	16.0	9.0
YEAR	16.5	.0										

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (°C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 01...	1130	229	2.0	1	0.62	--
FEB 10...	1500	203	2.5	0	0	--
MAY 10...	1300	544	3.0	5	7.3	41
JUL 27...	1400	1170	11.0	3	9.5	34
SEP 21...	1400	140	13.5	1	.38	--

SAN JOAQUIN RIVER BASIN

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA

LOCATION.--Lat 37°43'01", long 119°39'55", Mariposa County, Hydrologic Unit 18040008, Yosemite National Park, on left bank 150 ft upstream from Pohono bridge, 0.4 mi upstream from Artist Creek, and 4.8 mi southwest of Yosemite National Park headquarters.

DRAINAGE AREA.--321 mi².

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3,861.66 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 5, 1918, at datum 1.8 ft higher. Sept. 5, 1918, to Sept. 30, 1955, at datum 1.0 ft higher.

REMARKS.--Records good. No diversions between stations at Happy Isles bridge and Pohono bridge.

AVERAGE DISCHARGE.--67 years, 622 ft³/s, 450,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft³/s Dec. 23, 1955, gage height, 21.52 ft from floodmarks in well, from rating curve extended above 17,000 ft³/s on basis of computation of flow over diversion dam for Yosemite powerhouse, 1 mi downstream at gage heights 20.1 ft and 21.98 ft, present datum; minimum, 3.3 ft³/s Sept. 29, Oct. 1, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0515	4,350	8.36	June 18	0200	8,740	11.62
May 30	0145	*9,520	12.11	July 5	0500	6,990	10.43

Minimum daily, 73 ft³/s Oct. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	812	409	311	359	755	621	643	6380	5310	1900	840
2	256	645	425	304	343	700	678	629	5040	5350	1770	734
3	221	553	421	299	338	606	669	740	4930	5760	1690	564
4	194	498	405	303	322	549	601	979	5040	5890	1490	450
5	173	454	397	308	312	501	550	853	5310	6410	1320	391
6	156	432	387	313	325	491	517	772	6150	6400	1250	379
7	145	410	352	315	373	571	499	829	6450	5770	1300	375
8	138	373	344	333	421	567	512	1030	6510	4340	1390	362
9	127	342	338	334	406	583	563	1170	6460	3720	1580	355
10	117	347	339	329	385	595	591	1210	6790	3120	1720	324
11	108	343	334	328	374	656	549	1020	7700	3520	1270	287
12	101	352	335	335	405	659	495	1080	7020	3830	1030	265
13	95	334	339	338	569	1050	472	1080	5850	4080	933	260
14	91	336	307	340	473	1060	454	1160	6240	4170	997	260
15	92	322	317	335	451	847	449	1470	6910	3930	1350	262
16	86	311	304	349	423	762	463	1790	7270	3430	1420	256
17	83	303	308	338	406	727	551	1920	7680	2870	1010	250
18	79	438	295	332	442	699	558	2220	7780	2580	877	245
19	76	578	288	332	413	625	550	2730	6960	2280	1260	227
20	73	469	338	306	417	597	655	3300	6060	2110	1150	204
21	73	410	369	305	407	597	631	4010	5620	2110	849	185
22	103	449	586	382	405	551	691	4780	6120	2270	710	203
23	367	425	557	377	440	526	803	5290	6610	2300	620	263
24	581	385	472	548	445	528	752	5920	6440	2120	540	265
25	1810	361	477	456	449	506	696	6580	6080	1990	472	223
26	2820	350	463	433	450	477	645	7130	6200	1850	419	195
27	1170	336	426	493	479	494	611	7580	5930	1800	383	221
28	808	356	381	425	488	510	660	8000	5690	1890	358	209
29	665	384	371	437	---	482	673	8320	5700	2010	341	241
30	1370	419	340	382	---	501	702	8180	5440	2040	332	367
31	1040	---	329	369	---	610	---	7510	---	2000	660	---
TOTAL	13519	12527	11753	11089	11520	19382	17861	99925	188360	107250	32391	9662
MEAN	436	418	379	358	411	625	595	3223	6279	3460	1045	322
MAX	2820	812	586	548	569	1060	803	8320	7780	6410	1900	840
MIN	73	303	288	299	312	477	449	629	4930	1800	332	185
AC-FT	26810	24850	23310	22000	22850	38440	35430	198200	373600	212700	64250	19160
CAL YR 1982	TOTAL	438496	MEAN	1201	MAX	8410	MIN	63	AC-FT	869800		
WTR YR 1983	TOTAL	535239	MEAN	1466	MAX	8320	MIN	73	AC-FT	1062000		

11269500 LAKE MCCLURE AT EXCHEQUER, CA

LOCATION.--Lat 37°35'02", long 120°16'09", in NW 1/4 SE 1/4 sec.13, T.4 S., R.15 E., Mariposa County, Hydrologic Unit 18040008, on left end of New Exchequer Dam on Merced River, 0.9 mi east of Exchequer, and 5.5 mi northeast of Merced Falls.

DRAINAGE AREA.--1,037 mi².

PERIOD OF RECORD.--April 1926 to September 1930 (daily gage heights; also summary of yearly contents in WSP 881), October 1930 to current year.

REVISED RECORDS.--WSP 881: 1926-32 (yearly summaries only). WSP 1345: 1951(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Merced Irrigation District). Prior to Oct. 1, 1964, indicator in powerhouse at same datum. Oct. 1, 1964, to July 31, 1966, nonrecording gage at center of upstream face of dam at same datum.

REMARKS.--Reservoir is formed by a rockfill dam with a reinforced concrete face completed in March 1967. Dam is downstream from and connected to the original concrete arch and gravity-type dam which was completed in April 1926. Usable capacity, 1,024,000 acre-ft between elevations 440.0 ft invert entrance to outlet tunnel, and 867.0 ft top of spillway gates. Dead storage, 300 acre-ft. Water is released through a series of powerplants down the Merced River to a diversion dam for Merced Irrigation District's main canal. Records, including extremes, represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,026,000 acre-ft July 14, 15, 1969, elevation, 867.2 ft; practically no storage at times in 1926, 1930-31, 1964-65 when reservoir was drained for inspection or construction. Minimum since construction of New Exchequer Dam in 1966, and since lake first filled, 72,200 acre-ft Dec. 14, 1977, elevation, 593.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,010,000 acre-ft several days during July and August, elevation, 865.0 ft; minimum, 624,900 acre-ft May 17, 18, elevation 799.7 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

590	67,900	720	317,800
600	79,900	750	415,900
610	92,800	780	534,500
620	106,700	820	729,600
640	137,800	840	845,800
660	173,500	860	975,700
680	215,200	870	1,046,000
700	263,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	761400	652000	706300	682100	732900	751300	806600	670200	780900	986800	1010000	923400
2	757400	649500	711100	677900	730700	772200	802500	668200	787200	988800	1010000	919400
3	753500	645500	713800	673300	728000	785500	798900	665100	792500	991600	1009000	914900
4	749600	641500	715500	669700	725200	791900	794200	662100	798300	995800	1008000	910300
5	745100	637600	713300	666100	722000	794200	789600	659000	803600	1001000	1006000	905800
6	740700	633600	711700	662600	720900	794800	783800	656500	813100	1006000	1004000	901200
7	736200	629200	706900	659500	739000	794200	778000	653000	823300	1009000	1002000	896100
8	731800	627800	701000	657000	756300	792500	772200	650000	833000	1008000	1001000	890900
9	727400	629200	696200	654000	760800	790200	766500	647000	842700	1006000	998600	884600
10	723100	631200	691500	651500	759700	787800	760800	644500	852600	1001000	997700	880800
11	718700	632600	687300	650500	757400	784900	755200	641000	864400	997900	996500	875700
12	713800	633600	683100	650000	756300	782600	749000	637600	874400	995100	993700	870700
13	709500	634600	678500	649500	762000	799500	742900	634100	880800	994400	990200	865000
14	704700	636100	674800	649000	761400	808400	736200	630700	887100	994400	987400	860000
15	700500	637100	671800	648500	758600	810200	729600	627800	895400	994400	985400	854400
16	695700	638000	668700	649000	755200	810800	723100	626300	904500	995800	983300	849500
17	691000	639000	665100	649000	751300	811400	716500	624900	915500	997900	980500	844000
18	686800	645000	662100	650000	747900	811900	710600	624900	926700	999900	977100	838500
19	682100	654500	659000	652000	744000	811400	704700	625300	935300	1001000	973700	832400
20	676400	658000	656500	652000	740100	810200	700500	629200	940600	1002000	971600	827500
21	671200	660000	656500	652000	735100	813700	694600	634600	943900	1003000	968200	821500
22	666100	662600	689900	661500	730200	814300	688900	642500	949300	1005000	964800	816100
23	660500	665100	703100	670700	725200	814900	683600	652500	955400	1006000	961400	811400
24	656500	666600	704200	690400	719800	817300	682600	663100	960800	1007000	957400	806000
25	655000	668700	703700	694600	714900	819700	679500	676900	965500	1008000	950600	800700
26	661500	669700	701500	695700	711700	820300	674800	691500	970300	1008000	949300	794800
27	661000	671200	698900	720300	712800	819100	670200	706300	974400	1010000	944600	789600
28	658000	673300	695700	725800	715500	818500	668200	722000	977800	1010000	939900	783800
29	655000	677900	693600	732400	---	816100	667700	739000	981200	1009000	935300	778600
30	654500	697300	689900	734000	---	812500	669200	755200	984000	1010000	930600	773400
31	654500	---	686200	734000	---	809600	---	769900	---	1010000	926700	---
MAX	761400	697300	715500	734000	762000	820300	806600	769900	984000	1010000	1010000	923400
MIN	654500	627800	656500	648500	711700	751300	667700	624900	780900	986800	926700	773400
a	805.7	814.0	811.9	820.8	817.4	834.0	808.6	827.2	861.2	864.9	852.7	827.8
b	-110900	+42800	-11100	+47800	-18500	+94100	-140400	+100700	+214100	+26000	-83300	-153300

CAL YR 1982 b +253900
WTR YR 1983 b +8000

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CA

LOCATION.--Lat 37°31'18", long 120°19'53", in SE 1/4 SW 1/4 sec.4, T.5 S., R.15 E., Merced County, Hydrologic Unit 18040008, on right bank 0.1 mi south of Merced Falls, 0.2 mi downstream from Merced Falls Dam, and 5.8 mi east of Snelling.

DRAINAGE AREA.--1,061 mi².

PERIOD OF RECORD.--April 1901 to current year. Records for water years 1914-16 incomplete, yearly estimates published in WSP 1315-A. Published as "near Merced Falls" 1901-13; as "at Exchequer" 1916-64. Records at present site are about equivalent when adjusted for diversion to North Side Canal and change in contents in Lake McClure and McSwain Reservoir.

GAGE.--Water-stage recorder. Datum of gage is 310.55 ft National Geodetic Vertical Datum of 1929. See WSP 1930 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records excellent. Merced Falls Dam diverts water to North Side Canal to irrigate 4,100 acres below station. Flow regulated by Exchequer, McSwain, and Merced Falls powerplants, Lake McClure (station 11269500) since 1926, and McSwain Reservoir since 1966, capacity, 9,200 acre-ft.

AVERAGE DISCHARGE (adjusted for diversion to North Side Canal and change in contents in Lake McClure since 1965 and change in contents in McSwain Reservoir since 1969).--82 years, 1,376 ft³/s, 996,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (water years 1901-13, 1916-83): Maximum discharge observed, 47,700 ft³/s Jan. 31, 1911, gage height, 23.3 ft site and datum then in use; no flow for part of Nov. 21, 1901. Maximum discharge since construction of Exchequer Dam in 1926, 46,200 ft³/s Dec. 4, 1950, gage height, 22.6 ft from floodmarks, site and datum then in use, from rating curve extended above 16,000 ft³/s on basis of computation of peak flow over dam; minimum daily, 3.4 ft³/s Mar. 5, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,100 ft³/s July 7, gage height, 11.78 ft; minimum daily, 193 ft³/s Nov. 10, Dec. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2490	2920	204	3320	3340	3940	5340	5260	5790	7310	2670	2810
2	2470	2900	199	3310	3330	3610	5330	5240	5880	7810	2670	2940
3	2470	2930	193	3190	3310	3440	5320	5240	5890	7800	2700	3000
4	2470	2940	194	3000	3310	3570	5330	5230	5890	7790	2730	3000
5	2480	2950	614	2990	3310	3980	5340	4990	5890	7800	2730	3010
6	2490	2940	1940	2950	3410	4380	5370	4840	5880	7830	2730	3010
7	2490	2940	3410	2570	3740	4570	5360	4830	5930	7830	2740	3020
8	2490	1010	3950	2420	3630	4810	5360	4830	6140	7810	2740	3030
9	2490	196	3620	2420	3810	4820	5350	4810	6250	7810	2670	3040
10	2490	193	3270	1990	4810	4860	5350	4800	6540	7800	2720	3030
11	2490	199	3230	1570	4440	4850	5330	4800	6830	7800	2770	3030
12	2490	208	3230	1210	3370	4850	5340	4790	6820	7650	2780	3030
13	2490	209	3230	1130	3410	4430	5340	4780	7040	7120	2780	3040
14	2490	204	2700	1060	4170	4240	5340	4760	7260	6700	2780	3050
15	2490	215	2410	1030	4830	4830	5340	4760	7250	6160	2790	3060
16	2490	214	2410	1000	4820	4860	5320	4750	7260	4730	2780	3060
17	2490	211	2400	1000	4820	4830	5320	4760	7280	3590	2790	3060
18	2480	221	2400	988	4820	4850	5310	4750	7270	3160	2800	3060
19	2480	218	2400	1070	4810	4830	5280	4750	7270	3070	2780	3060
20	2760	213	2380	1110	4800	4880	4550	4760	7420	2960	2780	3070
21	2870	208	1380	1180	4780	5090	5250	4770	7590	2740	2770	3080
22	2860	212	2910	1350	4770	4950	5230	4780	7600	2780	2770	3100
23	2890	212	2820	1670	4820	4930	5260	4790	7700	2810	2770	3090
24	2860	204	2840	2460	4850	5010	5240	4810	7810	2810	2780	3100
25	2880	204	2870	2890	4880	4920	5230	4830	7790	2800	2800	3090
26	2890	200	3140	3200	4870	4870	5210	5290	7780	2680	2800	3100
27	2880	201	3300	4500	5060	4850	5220	5770	7790	2630	2800	3120
28	2880	202	3310	3440	4600	5070	5240	5760	7790	2670	2790	3120
29	2890	236	2490	3600	---	5300	5290	5770	7810	2710	2790	3130
30	2920	287	3220	3400	---	5320	5250	5790	7820	2680	2790	3120
31	2920	---	3320	3370	---	5340	---	5810	---	2660	2800	---
TOTAL	81720	26197	75984	70388	118920	145080	158340	155900	209260	160500	85590	91460
MEAN	2636	873	2451	2271	4247	4680	5278	5029	6975	5177	2761	3049
MAX	2920	2950	3950	4500	5060	5340	5370	5810	7820	7830	2800	3130
MIN	2470	193	193	988	3310	3440	4550	4750	5790	2630	2670	2810
AC-FT	162100	51960	150700	139600	235900	287800	314100	309200	415100	318400	169800	181400
a	1990	46	0	0	0	0	1050	3310	4600	4780	4460	3510
CAL YR 1982	TOTAL	918067	MEAN	2515	MAX	7100	MIN	186	AC-FT	1821000	MEAN	b 2900
WTR YR 1983	TOTAL	1379339	MEAN	3779	MAX	7830	MIN	193	AC-FT	2736000	MEAN	b 3824
												AC-FT b 2100000
												b 2768000

a Diversion, in acre-feet, to Northside Canal furnished by Merced Irrigation District.

b Adjusted for diversion to Northside Canal and change in contents in Lake McClure and McSwain Reservoir.

11271290 MERCED RIVER AT SHAFFER BRIDGE, NEAR CRESSEY, CA

LOCATION.--Lat 37°27'15", long 120°36'28", in NW 1/4 SW 1/4 sec.36, T.5 S., R.12 E., Merced County, Hydrologic Unit 18040002, near center of span on downstream side of county road bridge, 0.6 mi upstream from Dry Creek, and 4.0 mi northeast of Cressey.

DRAINAGE AREA.--1,117 mi².

PERIOD OF RECORD.--October 1965 to current year (low flow only).

GAGE.--Water-stage recorder. Datum of gage is 116.79 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Most water released from Lake McClure (station 11269500) is diverted upstream into the Main Canal of Merced Irrigation District. Flow past station consists of releases from diversion dam, irrigation return flow, and tributary inflow. No records computed above 200 ft³/s.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---									
2		---	147									
3		---	135									
4		---	127									
5		---	---									
6		---	---									
7		---	---									
8		---	---									
9		---	---									
10		---	---									
11		151	---									
12		147	---									
13		147	---									
14		143	---									
15		139	---									
16		143	---									
17		139	---									
18		147	---									
19		---	---									
20		147	---									
21		139	---									
22		130	---									
23		135	---									
24		135	---									
25		130	---									
26		127	---									
27		127	---									
28		127	---									
29		151	---									
30		---	---									
31		---	---									
TOTAL		---	---									
MEAN		---	---									
MAX		---	---									
MIN		---	---									
AC-FT		---	---									
a	55450	655	325	702	863	1280	24420	80140	107000	113900	108100	82820

a Diversion, in acre-feet, to Main Canal near diversion dam, near Merced Falls, furnished by Merced Irrigation District.

11271320 DRY CREEK NEAR SNELLING, CA

LOCATION.--Lat 37°33'18", long 120°27'44", in NE 1/4 SE 1/4 sec.30, T.4 S., R.14 E., Merced County, Hydrologic Unit 18040002, on left bank 650 ft downstream from Fields Road, and 2.8 mi northwest of Snelling.

DRAINAGE AREA.--67.6 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 230 ft, from topographic map.

REMARKS.--Records good. Small weir upstream from gage regulates storage for stock pond and irrigation pumping.

AVERAGE DISCHARGE.--17 years, 23.8 ft³/s, 17,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,710 ft³/s Jan. 21, 1969, gage height, 17.01 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0600	1,520	9.19	Feb. 7	0315	2,980	11.97
Dec. 20	1815	2,730	11.53	Mar. 1	2100	3,700	13.10
Jan. 19	0045	3,960	13.48	Mar. 13	1345	4,850	14.72
Jan. 27	0300	*5,160	15.12				

Minimum, no flow for many days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.38	216	8.1	56	1900	29	69	2.9	4.1	2.0	1.4
2	0	.28	51	7.6	44	913	28	23	2.3	4.1	1.7	1.3
3	0	.52	21	7.3	36	292	25	14	1.4	2.3	1.2	.91
4	0	.45	12	6.8	30	132	22	10	1.0	1.3	.64	.73
5	0	.28	9.1	6.4	34	80	18	8.7	.93	1.3	.45	.67
6	0	.25	7.0	6.1	317	65	14	8.8	.80	2.5	1.1	.50
7	0	.20	5.6	5.8	1550	280	13	9.0	.70	2.8	1.4	.39
8	0	.16	4.4	5.6	951	79	12	6.9	.61	4.3	1.5	.33
9	0	.23	3.5	5.3	184	56	11	5.6	.51	3.3	1.2	.98
10	0	.33	3.3	5.0	95	50	11	4.6	.48	2.5	.68	.92
11	0	.28	3.2	4.9	62	81	10	4.0	.48	1.8	.45	.54
12	0	.25	2.1	4.7	49	89	9.7	3.7	.99	.94	.39	.51
13	0	.24	1.9	4.5	225	2340	9.3	3.5	.90	.59	.96	.56
14	0	.34	2.3	4.4	75	1500	8.7	3.3	.58	.44	2.7	.45
15	0	.33	2.3	4.2	50	620	8.1	3.0	.46	1.8	3.3	.41
16	0	.34	1.6	4.7	44	270	7.5	2.6	.41	3.0	2.6	.79
17	0	.32	1.7	5.3	37	100	6.9	2.3	.62	3.9	1.3	.80
18	0	.51	1.3	158	153	53	6.3	2.2	2.9	4.0	1.7	.95
19	0	35	1.2	837	60	47	6.8	2.2	2.8	2.4	2.0	.87
20	0	9.6	1.3	99	39	42	6.4	2.2	2.7	1.7	3.2	.80
21	0	3.6	1.9	49	33	39	6.2	2.0	2.2	1.3	2.2	.76
22	.01	2.0	965	1030	29	36	7.0	1.6	1.5	.87	1.2	.56
23	.02	1.6	295	315	27	35	6.3	1.4	1.6	2.1	.95	.39
24	.02	1.9	78	1050	23	260	11	1.2	1.1	2.9	1.0	1.1
25	.04	1.6	34	275	84	150	10	1.1	2.9	1.8	1.8	.75
26	.06	1.2	23	135	130	60	7.5	1.1	3.7	.75	3.6	.42
27	.05	1.0	17	2340	609	46	6.2	1.1	1.7	.60	3.5	.36
28	.05	5.7	14	311	376	39	8.3	1.2	1.4	.90	3.8	.34
29	.05	239	12	764	---	35	74	2.9	1.3	2.3	2.5	.29
30	.19	718	10	185	---	32	75	2.3	1.0	3.4	1.8	.31
31	.31	---	9.0	91	---	30	---	5.1	---	2.9	1.4	---
TOTAL	0.80	1025.89	1810.7	7735.7	5402	9751	474.2	209.6	42.87	68.89	54.22	20.09
MEAN	.026	34.2	58.4	250	193	315	15.8	6.76	1.43	2.22	1.75	.67
MAX	.31	718	965	2340	1550	2340	75	69	3.7	4.3	3.8	1.4
MIN	0	.16	1.2	4.2	23	30	6.2	1.1	.41	.44	.39	.29
AC-FT	1.6	2030	3590	15340	10710	19340	941	416	85	137	108	40
CAL YR 1982	TOTAL	17174.18	MEAN	47.1	MAX	1730	MIN	0	AC-FT	34060		
WTR YR 1983	TOTAL	26595.96	MEAN	72.9	MAX	2340	MIN	0	AC-FT	52750		

11272500 MERCED RIVER NEAR STEVINSON, CA

LOCATION.--Lat 37°22'15", long 120°55'46", in SW 1/4 NE 1/4 sec.36, T.6 S., R.9 E., Merced County, Hydrologic Unit 18040002, on right bank 4.4 mi upstream from mouth, and 5.3 mi northwest of Stevinson.

DRAINAGE AREA.--1,273 mi².

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. October 1940 to Aug. 15, 1955, at datum 55.74 ft higher, Aug. 16, 1955, to Sept. 30, 1959, at datum 54.74 ft higher.

REMARKS.--Records good except those for periods of backwater, which are fair. Practically entire flow is diverted above station for irrigation of 120,000 acres during low runoff years. Some return flow enters above station. Flow regulated by three reservoirs, combined capacity, 1,035,000 acre-ft, the largest of which is Lake McClure (station 11269500).

AVERAGE DISCHARGE.--43 years, 733 ft³/s, 531,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s Dec. 5, 1950, elevation, 73.79 ft present datum; no flow July 19 to Aug. 21, 1961, result of temporary dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,420 ft³/s Mar. 14, elevation, 70.94 ft; minimum daily, 440 ft³/s Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	2320	710	3380	3950	5530	5490	4680	3680	5560	1250	1390
2	1550	2500	660	3310	3900	6160	5420	4610	3660	5270	1180	1450
3	1560	2660	635	3240	3850	6150	5330	4590	3720	5350	1160	1510
4	1550	2690	610	3160	3830	4930	5300	4630	3760	5600	1140	1580
5	1520	2720	600	3000	3810	4640	5310	4590	3800	5570	1130	1590
6	1540	2740	860	2920	3760	4680	5290	4450	3800	5510	1100	1600
7	1570	2740	1300	2880	4100	4900	5310	4200	3740	5490	1150	1570
8	1590	2740	2300	2710	5900	5160	5320	4120	3730	5470	1200	1560
9	1600	2090	3250	2550	5430	5170	5310	4070	3820	5540	1140	1590
10	1610	1110	3290	2500	4750	5090	5320	3870	3910	5590	1100	1600
11	1620	895	3080	2340	5320	5070	5300	3750	4050	5570	1080	1630
12	1600	783	3010	2070	5270	5090	5210	3690	4410	5490	1100	1640
13	1600	715	2980	1860	4430	5190	5210	3590	4510	5450	1110	1640
14	1610	676	2960	1690	4360	6750	5200	3520	4560	5060	1170	1670
15	1590	643	2780	1570	4520	5790	5130	3400	4750	4560	1190	1690
16	1580	611	2520	1450	5080	5430	5140	3330	4760	4240	1160	1670
17	1590	583	2460	1350	5080	5470	4890	3270	4770	3390	1140	1660
18	1610	558	2440	1280	4970	5560	4640	3200	4770	2650	1160	1680
19	1600	539	2440	1440	4970	5290	4530	3200	4870	2240	1180	1740
20	1610	531	2440	2030	4930	5200	4580	3140	4880	2050	1220	1740
21	1740	512	2420	1670	4840	5370	4320	3110	4810	1840	1290	1770
22	1940	495	2050	1770	4790	6110	4560	3060	4990	1580	1300	1830
23	1990	480	2970	2350	4730	5850	4660	3050	5100	1530	1240	1860
24	2030	467	3230	2670	4670	5880	4700	3010	5190	1520	1170	1860
25	2040	460	3040	3420	4690	6140	4660	3010	5310	1470	1180	1940
26	2070	455	3170	3730	4780	6030	4440	2980	5290	1400	1200	1970
27	2100	450	3350	4170	4990	5530	4310	3090	5390	1360	1260	1950
28	2100	445	3530	6850	5750	5330	4440	3440	5400	1280	1340	1980
29	2140	440	3500	5650	---	5340	4540	3520	5440	1250	1340	2030
30	2200	460	3160	4500	---	5510	4600	3590	5490	1240	1260	2080
31	2250	---	3300	4100	---	5490	---	3640	---	1270	1300	---
TOTAL	54210	35508	75045	87610	131450	169830	148460	113400	136360	111390	36940	51470
MEAN	1749	1184	2421	2826	4695	5478	4949	3658	4545	3593	1192	1716
MAX	2250	2740	3530	6850	5900	6750	5490	4680	5490	5600	1340	2080
MIN	1510	440	600	1280	3760	4640	4310	2980	3660	1240	1080	1390
AC-FT	107500	70430	148900	173800	260700	336900	294500	224900	270500	220900	73270	102100

CAL YR 1982 TOTAL 648833 MEAN 1778 MAX 5480 MIN 237 AC-FT 1287000
WTR YR 1983 TOTAL 1151673 MEAN 3155 MAX 6850 MIN 440 AC-FT 2284000

NOTE.--Stage-discharge relationship affected by variable backwater from November to February.

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA

LOCATION.--Lat 37°21'02", long 120°58'34", in NW 1/4 SW 1/4 sec.3, T.7 S., R.9 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 600 ft downstream from bridge on Hills Ferry Road, 650 ft downstream from Merced River, and 3.5 mi northeast of Newman.

DRAINAGE AREA.--9,520 mi².

PERIOD OF RECORD.--April 1912 to current year. Prior to Oct. 1, 1937, and subsequent to Oct. 1, 1943, flow that bypassed station at discharges above 9,000 ft³/s not included in records.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. See WSP 1930 for history of changes prior to Aug. 9, 1960.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, ground-water withdrawals, diversions for irrigation, and imported water; low flows consist mainly of return water from irrigated areas.

AVERAGE DISCHARGE.--71 years, 2,135 ft³/s, 1,547,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (river only), 30,700 ft³/s Mar. 4, 1983, elevation, 65.78 ft; river and Merced River Slough, 34,400 ft³/s Feb 26, 1969, elevation, 65.90 ft present datum; minimum, 15 ft³/s Aug. 9, 10, 1924.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 2, 1868, reached a stage of 21.7 ft from floodmarks; flood of February 1886, reached a stage of 19.8 ft from floodmarks; and flood of 1911 reached a stage of 19 ft from floodmarks. All stages referred to datum in use from 1931 to 1959. Discharges unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,700 ft³/s Mar. 4, elevation, 65.78 ft; minimum daily, 1,140 ft³/s Nov. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2580	3220	6970	14000	25900	20200	22400	17500	14700	16300	3100	3800
2	2580	3350	7900	13100	23900	22200	21900	17800	14800	16400	2900	3880
3	2590	3470	9110	12400	21400	26400	21200	18100	14900	16300	2770	3990
4	2550	3510	9870	11700	19900	30300	21000	18400	15000	16600	2710	4130
5	2440	3600	10300	11200	18300	29300	20900	18300	15200	16800	2610	4160
6	2380	3620	10600	10800	17000	26900	20500	17800	15200	16800	2520	4270
7	2350	3520	10900	10600	15900	25200	20300	16800	15200	16700	2570	4350
8	2310	3400	11200	10200	18000	24300	20000	16000	15200	16700	2620	4360
9	2270	3000	11600	9820	21900	23900	19500	15600	15200	17100	2550	4330
10	2230	1620	11300	9590	25800	23500	19200	15400	15000	17200	2460	4290
11	2270	1330	11000	9400	26700	22900	19000	15100	15000	17200	2370	4110
12	2260	1250	10800	9070	26400	22400	18900	14300	15200	17100	2340	3900
13	2210	1140	10600	8710	25500	22200	18800	13600	15300	17200	2330	3890
14	2200	1260	10300	8240	24800	22700	18500	12900	15300	16600	2340	4010
15	2150	1500	10000	7660	24500	23600	18100	12000	15400	15500	2360	4050
16	2150	1400	9600	7080	24200	24300	18000	11200	15400	14600	2370	3640
17	2130	1210	9380	6540	23300	24400	17800	11000	15300	12600	2340	3190
18	2150	1380	9280	6050	22200	24300	17500	10800	15200	10600	2370	3090
19	2150	1580	9260	5960	21200	23800	17400	10900	15200	9070	2490	3150
20	2210	1940	9270	6910	20700	23300	17600	10900	15300	7990	2470	3220
21	2340	2420	9280	7700	20200	23300	17700	11000	15300	6670	2450	3310
22	2550	2840	9050	8580	19500	23800	17700	11000	15400	5500	2480	3560
23	2600	3340	9470	9160	18400	24400	17700	11000	15400	4860	2460	3570
24	2660	3990	10500	10500	17300	24600	17900	11700	15300	4440	2380	3280
25	2700	4540	11800	12600	16500	24700	18000	13100	15200	4030	2710	3230
26	2800	5140	13600	16700	16300	24900	17900	13400	15200	3680	2890	3580
27	2890	5840	14800	20800	16900	24500	17800	13400	15400	3530	3080	3720
28	2930	6220	15200	25200	18100	23900	17900	13700	15900	3340	3350	3780
29	2980	6300	15100	29700	---	23400	17600	13900	16200	3210	3530	3850
30	3060	6340	14700	29700	---	23000	17200	14300	16100	3170	3600	3890
31	3130	---	14400	27400	---	22700	---	14500	---	3150	3660	---
TOTAL	76800	93270	337140	387070	590700	749300	565900	435400	458400	350940	83180	113580
MEAN	2477	3109	10880	12490	21100	24170	18860	14050	15280	11320	2683	3786
MAX	3130	6340	15200	29700	26700	30300	22400	18400	16200	17200	3660	4360
MIN	2130	1140	6970	5960	15900	20200	17200	10800	14700	3150	2330	3090
AC-FT	152300	185000	668700	767800	1172000	1486000	1122000	863600	909200	696100	165000	225300
CAL YR 1982	TOTAL	1664970	MEAN	4562	MAX	20200	MIN	733	AC-FT	3302000		
WTR YR 1983	TOTAL	4241680	MEAN	11620	MAX	30300	MIN	1140	AC-FT	8413000		

11274500 ORESTIMBA CREEK NEAR NEWMAN, CA

LOCATION.--Lat 37°18'48", long 121°07'32", in SE 1/4 NE 1/4 sec.19, T.7 S., R.8 E., Stanislaus County, Hydrologic Unit 18040002, on right bank 220 ft upstream from California Aqueduct siphon, 3 mi downstream from Oso Creek, and 5 mi west of Newman.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--January 1932 to current year.

REVISED RECORDS.--WSP 1445: 1932(M), 1938(P), 1940-41(M), 1945, 1951(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 216.01 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1958, at site 1,320 ft downstream at datum 24.14 ft lower. Oct. 1, 1958, to Aug. 13, 1969, at site 1,200 ft downstream at datum 27.14 ft lower.

REMARKS.--Records fair. No storage or diversion above station except for minor stock ponds.

AVERAGE DISCHARGE.--51 years, 17.4 ft³/s, 12,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s Apr. 2, 1958, gage height, 6.57 ft site and datum then in use, from rating curve extended above 5,000 ft³/s; no flow for all or parts of each year.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1000	1,300	6.62	Feb. 28	2400	5,470	8.51
Dec. 22	1830	5,770	8.63	Mar. 13	1215	609	5.89
Jan. 24	0645	*6,360	8.87	Mar. 25	0100	306	4.91
Feb. 8	0215	2,060	7.12	Apr. 28	2115	339	4.99

Minimum, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	140	17	165	2560	116	133	23	2.0		
2		0	54	14	138	1990	108	107	23	2.2		
3		0	28	12	121	651	100	88	25	2.0		
4		0	16	10	104	353	94	77	25	2.2		
5		0	11	9.2	98	259	89	70	25	1.7		
6		0	9.0	8.3	182	200	85	67	22	1.7		
7		0	7.9	7.7	410	193	81	61	25	1.3		
8		0	5.6	7.0	1170	153	76	57	24	1.3		
9		0	4.5	6.4	356	131	72	52	23	.62		
10		0	3.6	5.7	230	117	70	49	20	.37		
11		0	3.1	5.2	171	113	68	46	18	.29		
12		0	3.0	5.0	154	94	65	45	13	.24		
13		0	2.6	4.7	152	320	62	44	10	.16		
14		0	2.2	4.6	131	246	59	43	8.1	.19		
15		0	2.2	4.6	120	160	57	41	6.5	.19		
16		0	2.0	6.5	110	130	54	40	5.5	.17		
17		0	1.9	8.6	99	141	51	38	4.9	.14		
18		0	1.9	17	104	144	59	37	4.1	.13		
19		0	2.0	85	98	125	61	35	3.6	.11		
20		0	2.5	59	89	147	67	31	3.7	.12		
21		0	6.2	40	84	221	60	29	3.5	.10		
22		0	1150	866	79	192	49	28	3.0	.08		
23		0	507	485	76	189	47	27	2.8	.06		
24		0	167	2460	88	271	59	28	2.6	.03		
25		0	100	366	151	271	57	28	2.1	.01		
26		0	72	298	262	217	50	29	1.9	0		
27		0	55	1870	366	202	48	27	1.7	0		
28		0	42	383	1610	179	252	26	1.7	0		
29		0	33	601	---	155	250	24	2.0	0		
30		314	26	311	---	138	179	24	2.2	0		
31		---	21	215	---	126	---	23	---	0		
TOTAL	0	314	2482.2	8192.5	6918	10388	2545	1454	335.9	17.41	0	0
MEAN	0	10.5	80.1	264	247	335	84.8	46.9	11.2	.56	0	0
MAX	0	314	1150	2460	1610	2560	252	133	25	2.2	0	0
MIN	0	0	1.9	4.6	76	94	47	23	1.7	0	0	0
AC-FT	0	623	4920	16250	13720	20600	5050	2880	666	35	0	0
CAL YR 1982	TOTAL	17591.57	MEAN	48.2	MAX	1930	MIN	0	AC-FT	34890		
WTR YR 1983	TOTAL	32647.01	MEAN	89.4	MAX	2560	MIN	0	AC-FT	64760		

11274630 DEL PUERTO CREEK NEAR PATTERSON, CA

LOCATION.--Lat 37°29'12", long 121°12'29", in SE 1/4 NW 1/4 sec.21, T.5 S., R.7 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 1.0 mi upstream from California Aqueduct crossing, and 4.4 mi west of Patterson.

DRAINAGE AREA.--72.6 mi².

PERIOD OF RECORD.--October 1958 to May 1965 (maximums only), June 1965 to current year.

REVISED RECORDS.--WSP 1930: 1959-60(M), drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 200 ft, from topographic map. Prior to June 1965, crest-stage gage at site 1.0 mi downstream at different datum.

REMARKS.--Records good. Some stock ponds and small diversions above station.

AVERAGE DISCHARGE.--18 years, 7.93 ft³/s, 5,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s Feb. 16, 1959, gage height, 14.68 ft site and datum then in use, from rating curve extended above 690 ft³/s; no flow for several months in most years.

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

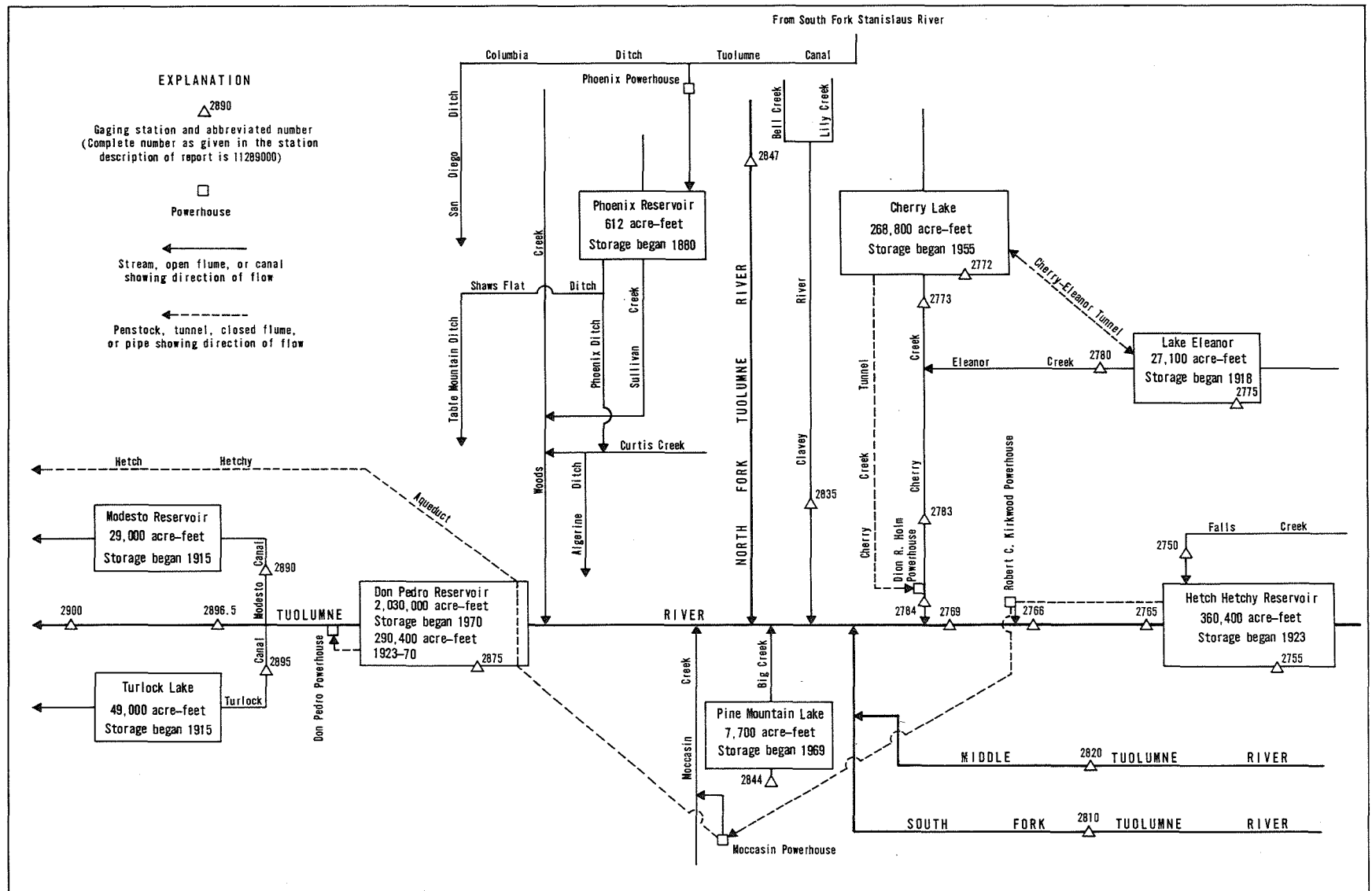
Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1515	240	3.58	Mar. 13	1000	546	4.71
Dec. 22	2015	385	4.16	Mar. 24	0200	215	3.50
Jan. 27	0100	1,540	7.73	Apr. 28	1315	145	3.19
Feb. 8	0600	423	4.29	June 1	1615	66	2.75
Mar. 1	0230	*1,610	7.93				

Minimum, no flow for several days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.8	58	9.0	88	973	81	41	60	10	4.1	1.8
2	0	1.4	27	9.0	76	780	77	34	61	10	3.8	1.5
3	0	1.1	17	8.7	66	447	75	32	60	9.7	3.5	1.3
4	0	.87	13	8.5	59	292	72	30	58	8.8	3.3	1.1
5	0	.80	11	8.3	58	228	68	29	53	7.9	3.2	1.0
6	0	.74	9.2	8.0	86	198	66	29	49	7.2	2.9	1.0
7	.12	.64	8.2	7.8	176	204	61	27	48	7.0	2.7	1.0
8	.12	.60	7.1	7.7	308	174	58	27	46	6.8	2.4	1.1
9	.16	1.9	6.6	7.6	147	154	56	25	44	6.4	2.0	1.1
10	.26	14	6.2	7.2	106	141	54	24	41	6.0	1.9	1.1
11	.27	7.1	5.9	6.6	87	142	53	25	39	5.2	1.8	.97
12	.30	4.8	5.4	6.6	79	140	52	26	37	4.8	1.6	.85
13	.22	3.8	5.2	6.6	73	307	50	25	33	4.3	1.4	.83
14	.13	3.2	5.4	6.5	66	215	48	24	30	4.0	1.2	.84
15	.11	2.9	4.9	6.5	61	168	46	23	27	3.8	1.3	.81
16	.14	2.7	5.6	8.1	59	154	44	22	25	3.5	1.3	.74
17	.14	2.0	5.0	7.9	54	152	43	22	23	3.7	1.2	.71
18	.16	16	4.8	9.3	60	140	47	23	22	4.3	1.2	.70
19	.12	31	4.6	27	55	124	45	24	21	4.4	1.4	.76
20	.10	13	4.6	16	50	121	45	23	20	4.7	2.5	.79
21	.11	8.0	6.0	12	48	148	40	24	19	4.5	2.4	.71
22	.11	6.5	89	324	46	154	37	26	18	4.6	2.2	.91
23	.11	6.4	116	172	46	141	37	28	16	4.6	2.0	1.1
24	.13	5.8	42	643	49	181	39	31	15	4.5	1.9	1.3
25	.16	5.0	27	160	86	163	37	35	14	4.5	1.8	1.4
26	.64	4.6	19	192	132	138	34	40	13	4.7	1.8	1.4
27	1.5	4.3	16	618	139	139	39	44	12	4.7	1.6	1.3
28	1.3	4.3	14	184	528	126	104	48	12	4.5	1.3	1.5
29	1.0	6.1	12	340	---	119	63	53	12	4.5	1.2	1.7
30	1.4	120	12	152	---	106	53	56	11	4.5	1.3	5.2
31	2.0	---	11	108	---	93	---	58	---	4.3	1.6	---
TOTAL	10.81	281.35	578.7	3087.9	2888	6762	1624	978	939	172.4	63.8	36.52
MEAN	.35	9.38	18.7	99.6	103	218	54.1	31.5	31.3	5.56	2.06	1.22
MAX	2.0	120	116	643	528	973	104	58	61	10	4.1	5.2
MIN	0	.60	4.6	6.5	46	93	34	22	11	3.5	1.2	.70
AC-FT	21	558	1150	6120	5730	13410	3220	1940	1860	342	127	72

CAL YR 1982	TOTAL	5279.75	MEAN	14.5	MAX	494	MIN	0	AC-FT	10470
WTR YR 1983	TOTAL	17422.48	MEAN	47.7	MAX	973	MIN	0	AC-FT	34560



11275000 FALLS CREEK NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'15", long 119°45'48", in NW 1/4 SE 1/4 sec.3, T.1 N., R.20 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, on right bank 0.2 mi upstream from Wapama Falls, 0.6 mi upstream from mouth, and 2 mi northeast of Hetch Hetchy.

DRAINAGE AREA.--46.0 mi².

PERIOD OF RECORD.--October 1915 to September 1983 (discontinued). Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1918, published as "near Sequoia."

REVISED RECORDS.--WSP 531: 1917(M). WSP 931: 1938. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft, from topographic map.

REMARKS.--Records good. No regulation or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--68 years, 146 ft³/s, 105,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s Nov. 19, 1950, Dec. 23, 1955, gage height, 9.0 ft from floodmarks, from rating curve extended above 2,500 ft³/s on basis of velocity-area studies; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0400	*2,220	6.99	July 7	0815	1,780	6.65
May 28	1745	1,840	6.70	July 15	0915	1,370	6.27
June 18	0645	1,710	6.59				

Minimum daily, 14 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	196	94	76	57	144	118	86	1150	1030	621	135
2	78	143	96	64	54	100	118	90	920	1050	575	140
3	66	116	106	54	54	82	97	125	909	1290	546	111
4	56	105	98	54	49	78	82	147	978	1170	491	86
5	47	96	89	61	45	78	76	110	1110	1400	414	70
6	40	92	85	62	44	84	71	106	1220	1430	381	64
7	36	89	77	63	63	92	70	128	1190	1470	356	60
8	35	80	72	70	69	103	78	167	1090	1080	468	58
9	32	73	66	68	62	104	92	175	1100	966	460	56
10	28	81	70	64	64	107	93	162	1190	696	345	52
11	24	82	69	64	66	161	77	158	1480	816	292	45
12	21	81	69	66	75	137	71	182	1290	922	262	40
13	19	75	72	65	125	364	64	200	944	1020	230	37
14	21	73	65	65	90	179	60	236	1020	1120	234	36
15	28	69	60	63	80	124	60	294	1190	1150	289	35
16	23	64	57	64	75	108	70	313	1250	925	247	34
17	20	60	67	61	73	95	85	346	1300	749	201	32
18	18	233	66	60	74	84	88	427	1480	719	184	31
19	16	215	60	65	67	77	103	529	1300	692	268	29
20	14	124	92	63	66	71	128	644	1020	668	374	25
21	15	97	97	59	67	67	115	728	978	607	239	22
22	47	133	193	92	69	61	141	832	1080	672	169	24
23	239	104	113	81	85	58	137	978	1240	727	137	32
24	338	84	93	135	86	54	111	1190	1240	644	117	35
25	1220	76	83	85	78	54	104	1340	1120	642	102	32
26	1480	71	78	75	71	53	96	1420	1190	602	92	45
27	468	67	73	76	67	58	95	1490	1140	561	85	34
28	243	75	64	67	79	60	118	1530	1070	597	78	30
29	169	93	56	66	---	60	110	1550	1090	626	71	68
30	546	112	57	61	---	78	100	1510	1070	652	67	115
31	325	---	66	59	---	144	---	1320	---	643	88	---
TOTAL	5802	3059	2503	2128	1954	3119	2828	18513	34349	27336	8483	1613
MEAN	187	102	80.7	68.6	69.8	101	94.3	597	1145	882	274	53.8
MAX	1480	233	193	135	125	364	141	1550	1480	1470	621	140
MIN	14	60	56	54	44	53	60	86	909	561	67	22
AC-FT	11510	6070	4960	4220	3880	6190	5610	36720	68130	54220	16830	3200

CAL YR 1982	TOTAL	98356	MEAN	269	MAX	2130	MIN	14	AC-FT	195100
WTR YR 1983	TOTAL	111687	MEAN	306	MAX	1550	MIN	14	AC-FT	221500

11275500 HETCH HETCHY RESERVOIR AT HETCH HETCHY, CA

LOCATION.--Lat 37°56'52", long 119°47'13", in NW 1/4 NW 1/4 sec.16, T.1 N., R.20 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, near center of O'Shaughnessy Dam on Tuolumne River at Hetch Hetchy, 1.5 mi downstream from Falls Creek.

DRAINAGE AREA.--455 mi².

PERIOD OF RECORD.--May 1923 to current year. Prior to October 1930 monthend contents, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 1.84 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1927, nonrecording gage at same site and datum. Oct. 1, 1927, to July 9, 1972, water-stage recorder at same site and datum. Prior to October 1974, datum published as at mean sea level.

REMARKS.--Reservoir is formed by concrete gravity-type dam, completed to crest gage height 3,726.5 ft in 1923 and raised to 3,812.0 ft in 1937. Storage began Apr. 6, 1923. Ten-foot drum gates were installed on spillway in 1949. Capacity, 360,400 acre-ft between gage heights 3,512.0 ft bottom outlet, and 3,806.0 ft top of drum-type spillway gates. Water is diverted from reservoir through tunnel to Robert C. Kirkwood powerplant 15 mi downstream. Flow is diverted from powerplant tailrace in a closed conduit through Hetch Hetchy aqueduct to Moccasin Creek powerplant with flows in excess of aqueduct capacity being spilled to the river. At Moccasin Creek diversion dam, water re-enters Hetch Hetchy aqueduct and flows into Crystal Springs Reservoir, which supplies city of San Francisco. Surplus water is spilled into Don Pedro Reservoir (station 11287500) at Red Mountain Bar. Flow down river is for State Department of Fish and Game and Raker Act requirements. Hetch Hetchy Reservoir is main storage unit of Hetch Hetchy water-supply system for San Francisco. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 0800 hours.

COOPERATION.--Record of gage heights furnished by city and county of San Francisco.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 369,100 acre-ft Dec. 3, 1950, gage height, 3,810.4 ft; no contents at times in 1929-31.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 365,100 acre-ft July 14, gage height, 3,808.4 ft; minimum, 106,700 acre-ft May 15, gage height, 3,648.7 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

3,512	0	3,540	8,700	3,640	97,000	3,740	238,900
3,513	51	3,560	22,900	3,660	119,900	3,760	273,700
3,515	154	3,580	39,500	3,680	146,200	3,780	310,400
3,520	410	3,600	57,400	3,700	175,000	3,800	348,600
3,530	3,300	3,620	76,500	3,720	206,000	3,810.4	369,100

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	342400	345500	338700	294000	273300	261000	234500	147200	230800	358800	362900	357600
2	341800	346100	338500	293100	272300	262600	234200	143100	234300	356200	362500	358200
3	341200	346500	338300	292200	271400	263100	234200	139200	234500	356600	362100	358200
4	340600	346100	338100	291100	270500	263100	232800	136200	235400	357400	361700	358000
5	339300	345500	337700	290000	269400	262900	230800	133000	237000	358200	362100	357200
6	338100	345300	337400	289100	268500	262600	228300	129200	241300	361000	362300	356400
7	337200	345100	337000	288200	268200	262200	226200	125300	247100	362300	362100	355400
8	336000	344500	336400	287300	268400	262000	223700	121800	255000	358800	363500	354500
9	334900	343900	334500	286400	268000	261900	221500	117600	262600	352700	363700	353700
10	333500	343500	331800	285400	267300	261700	219400	115300	270300	352500	364100	352700
11	332400	342800	328200	284500	266600	261900	217300	113100	280000	358400	363100	351500
12	330800	342200	324200	283600	266400	262200	215300	110100	292000	362900	362100	350600
13	329500	341600	319800	282700	266200	263300	212700	108000	298100	364700	362700	348800
14	328200	341000	315600	281800	266200	266400	209500	107000	303100	365100	362900	347800
15	326800	340400	312100	280900	265900	267300	205100	106700	310000	364700	363500	346600
16	325300	339700	308100	280000	265200	265900	200300	107400	319000	363500	363700	345300
17	324000	338700	304000	279100	264500	264800	196000	108200	328500	362100	363100	344100
18	322400	337900	300000	278200	263800	262900	192100	109100	338900	361700	362700	342800
19	321100	340300	297200	277600	263400	261000	188200	111100	347600	361500	362900	341600
20	319600	340400	296100	276900	262900	258900	184700	114500	352100	361900	363900	340300
21	318100	340300	295700	275800	262200	256800	181500	119100	353300	361900	363300	338900
22	316600	339900	296400	275100	261500	254700	178200	126000	354500	362300	362500	337500
23	318100	340300	299400	275300	261000	252400	175300	134700	357200	362900	361700	336200
24	319200	340100	299400	275500	260500	250400	172000	144200	359600	362700	361400	334900
25	320000	339600	299000	276400	259900	248300	168800	153600	359200	362300	361000	333500
26	330100	339100	298700	275800	259800	246100	165100	164900	359600	362300	360600	332000
27	335600	338300	298100	276200	259600	243700	161100	176700	361500	362100	360000	330800
28	337900	337700	297000	275800	259200	241800	157400	188400	362100	362100	359400	329500
29	338300	337500	296600	275500	---	239600	154200	200800	362300	362700	358600	328200
30	339900	338500	295900	275000	---	237400	150700	213600	361200	362900	357600	327600
31	344100	---	295000	274400	---	235900	---	223400	---	362900	357000	---
MAX	344100	346500	338700	294000	273300	267300	234500	223400	362300	365100	364100	358200
MIN	316600	337500	295000	274400	259200	235900	150700	106700	230800	352500	357000	327600
a	3797.7	3794.8	3771.7	3760.4	3751.8	3738.2	3683.2	3730.7	3806.4	3807.3	3804.3	3789.1
b	+1300	-5600	-43500	-20600	-15200	-23300	-85200	+72700	+137800	+1700	-5900	-29400

CAL YR 1982 b +93700

WTR YR 1983 b -15200

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°56'15", long 119°47'50", in SW 1/4 SE 1/4 sec.17, T.1 N., R.20 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, on left bank 0.9 mi downstream from O'Shaughnessy Dam at Hetch Hetchy, and 2.5 mi downstream from Falls Creek.

DRAINAGE AREA.--457 mi².

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Hetch Hetchy damsite, near Sequoia" 1910-14 and as "below Hetch Hetchy damsite, near Sequoia" 1915-18.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder with concrete control since May 5, 1970. Altitude of gage is 3,480 ft, from topographic map. Prior to Jan. 1, 1915, water-stage recorder at site 1 mi upstream, at damsite, at different datum. Jan. 1, 1915, to Sept. 30, 1968, water-stage recorder, at same site and datum. Oct. 1, 1968, to May 4, 1970, nonrecording gage at site 0.5 mi upstream at different datum.

REMARKS.--Records good. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 1 mi upstream beginning in April 1923. Flow diverted above station through tunnel to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct beginning Apr. 26, 1967. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (prior to diversion to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct).--57 years (water years 1911-67), 999 ft³/s, 723,800 acre-ft/yr; 16 years (water years 1968-83), 441 ft³/s, 319,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s June 1, 1943, gage height, 13.90 ft; no flow at times in 1968-70.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft³/s July 7, gage height, 13.09 ft; minimum daily, 42 ft³/s Oct. 15-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	69	74	64	91	110	362	1940	4570	8910	3140	141
2	52	69	68	64	64	88	72	1940	5270	8720	2910	141
3	47	68	68	64	63	81	379	1900	5420	8720	2710	141
4	46	67	65	64	63	76	858	1900	5330	8720	1930	141
5	45	68	64	64	63	73	858	1940	5310	8770	1760	140
6	45	68	64	63	71	72	854	1940	5250	9180	1720	139
7	44	67	63	62	92	72	838	1880	4370	10100	1510	139
8	44	67	404	63	88	72	838	1920	3840	9600	1980	138
9	43	67	887	63	78	71	862	1940	3940	6260	2120	137
10	43	66	1370	63	74	70	870	1940	4030	1830	2550	136
11	43	66	1660	62	71	69	862	1900	4150	2030	2090	135
12	43	66	1710	61	70	68	858	1610	4250	4250	1100	132
13	43	64	1680	62	77	91	1120	1150	4310	6050	928	130
14	43	63	1650	63	72	76	1610	1050	4380	7020	1030	128
15	42	62	1620	63	69	468	1880	1040	4430	6890	1430	130
16	42	61	1620	63	68	732	1850	1040	4520	5720	1480	103
17	42	60	1670	63	67	887	1800	1060	4860	4370	1170	86
18	42	67	1260	63	70	887	1760	1090	5750	3690	915	86
19	42	75	367	63	70	887	1680	1120	5880	2880	1160	88
20	47	67	57	62	68	883	1650	1190	6340	2880	1590	98
21	58	65	61	63	66	879	1610	1260	6760	2860	1170	89
22	58	65	125	76	65	870	1610	1370	7020	3050	868	88
23	58	67	82	69	64	866	1820	1650	7750	3410	558	88
24	58	66	69	83	67	862	1940	2260	8900	3260	333	88
25	60	65	68	70	66	850	1860	2720	8910	2940	192	88
26	65	64	67	67	73	838	1770	3100	7890	2760	125	88
27	60	63	66	89	79	842	1850	3600	7710	2630	134	88
28	60	63	64	71	80	842	1850	3990	7820	2770	141	88
29	60	67	64	71	---	830	1850	4170	8270	3010	141	88
30	69	106	65	90	---	826	1850	4310	9310	3160	141	87
31	69	---	65	114	---	822	---	4450	---	3190	141	---
TOTAL	1579	2018	17217	2122	2009	15160	39871	64370	176540	159630	39167	3389
MEAN	50.9	67.3	555	68.5	71.8	489	1329	2076	5885	5149	1263	113
MAX	69	106	1710	114	92	887	1940	4450	9310	10100	3140	141
MIN	42	60	57	61	63	68	72	1040	3840	1830	125	86
AC-FT	3130	4000	34150	4210	3980	30070	79080	127700	350200	316600	77690	6720
CAL YR 1982	TOTAL	366084	MEAN	1003	MAX	7590	MIN	35	AC-FT	726100		
WTR YR 1983	TOTAL	523072	MEAN	1433	MAX	10100	MIN	42	AC-FT	1038000		

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA

LOCATION.--Lat 37°52'46", long 119°56'46", in SE 1/4 SW 1/4 sec.1, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 0.5 mi upstream from Early Intake, 2.4 mi upstream from Cherry Creek, and 5.0 mi west of Mather.

DRAINAGE AREA.--484 mi².

PERIOD OF RECORD.--October 1970 to current year. Records for the period October 1939 to September 1970 in the files of the California district office of the Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 2,420 ft, from topographic map.

REMARKS.--Records good. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 12 mi upstream.

AVERAGE DISCHARGE.--13 years, 479 ft³/s, 347,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s July 7, 1983, gage height, 21.38 ft; minimum daily, 33 ft³/s Aug. 17, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1943, reached a stage of 22.1 ft, discharge, 12,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,700 ft³/s July 7, gage height, 21.38 ft; minimum daily, 48 ft³/s Oct. 15-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	86	290	127	259	1130	763	2270	4840	8880	3350	147
2	67	83	183	122	185	754	288	2270	5520	8690	3120	145
3	56	81	150	119	170	611	368	2220	5940	8690	2910	144
4	55	80	142	114	160	467	1030	2220	5920	8680	2170	143
5	54	80	130	112	154	373	1020	2240	5940	8740	1810	142
6	52	79	120	109	198	335	999	2280	5890	8980	1790	141
7	50	78	113	107	661	368	980	2180	4820	9810	1590	140
8	50	79	302	106	598	355	969	2190	4100	9480	1950	140
9	49	81	834	104	381	298	997	2210	4200	6950	2210	139
10	49	91	1410	102	292	271	1000	2190	4290	2320	2640	137
11	49	88	1780	101	250	295	994	2170	4420	1850	2290	136
12	49	85	1890	100	246	280	985	1940	4500	4190	1290	134
13	49	84	1870	99	416	664	1210	1390	4550	6080	888	133
14	49	82	1830	100	297	466	1720	1180	4600	7190	982	131
15	48	80	1790	99	240	523	2170	1170	4700	7170	1370	131
16	48	80	1790	103	217	969	2120	1180	4800	6070	1520	128
17	48	78	1830	105	199	1180	2060	1200	5200	4670	1220	92
18	48	134	1540	106	261	1210	1990	1220	6000	3990	929	89
19	48	283	667	162	282	1140	1930	1250	6200	3130	1020	89
20	49	148	127	131	233	1110	1890	1310	6750	3060	1640	99
21	60	108	157	118	209	1160	1850	1390	6940	3040	1250	97
22	66	120	1020	315	193	1140	1830	1500	7160	3210	878	95
23	67	143	570	326	186	1130	2020	1760	7840	3600	600	93
24	67	107	280	561	180	1160	2410	2490	8710	3490	357	93
25	83	99	213	319	205	1120	2290	3010	8980	3170	227	92
26	140	94	187	228	330	1090	2110	3400	8160	2960	149	92
27	81	91	169	592	462	1140	2130	4020	7890	2820	136	93
28	74	93	155	346	429	1220	2250	4400	8010	2920	149	92
29	72	146	144	336	---	1090	2270	4550	8200	3160	147	97
30	116	639	137	272	---	1070	2290	4660	9200	3360	146	101
31	105	---	133	287	---	1110	---	4800	---	3390	147	---
TOTAL	1994	3600	21953	5928	7893	25229	46933	72260	184270	163740	40875	3525
MEAN	64.3	120	708	191	282	814	1564	2331	6142	5282	1319	118
MAX	140	639	1890	592	661	1220	2410	4800	9200	9810	3350	147
MIN	48	78	113	99	154	271	288	1170	4100	1850	136	89
AC-FT	3960	7140	43540	11760	15660	50040	93090	143300	365500	324800	81080	6990
CAL YR 1982	TOTAL	408664	MEAN	1120	MAX	7790	MIN	48	AC-FT	810600		
WTR YR 1983	TOTAL	578200	MEAN	1584	MAX	9810	MIN	48	AC-FT	1147000		

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CA

LOCATION.--Lat 37°52'54", long 119°58'09", in NW 1/4 SW 1/4 sec.2, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 0.6 mi upstream from Cherry Creek, 0.7 mi downstream from Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct, and 6.3 mi west of Mather.

DRAINAGE AREA.--487 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 2,200 ft, from topographic map.

REMARKS.--Records fair. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 13 mi upstream and Robert C. Kirkwood powerplant beginning Apr. 26, 1967. Water is diverted to Hetch Hetchy aqueduct from the tailrace of the powerplant through a closed conduit. Flow in excess of aqueduct capacity is diverted to river. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--17 years, 581 ft³/s, 420,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft³/s June 4, 1969, gage height, 9.82 ft; maximum gage height, 9.98 ft July 7, 1983; minimum daily discharge, 12 ft³/s Nov. 28-30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,730 ft³/s July 7, gage height, 9.98 ft; minimum daily, 150 ft³/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	243	493	292	479	1450	895	2460	5040	8910	3900	396
2	203	234	372	307	389	983	403	2460	5720	8710	3700	388
3	160	226	338	325	365	828	411	2400	6140	8720	3530	383
4	208	222	323	320	353	666	1080	2410	6120	8710	2710	398
5	200	218	328	312	343	560	1060	2430	6140	8760	2260	417
6	200	218	320	306	344	464	1040	2480	6090	9000	2250	421
7	195	232	324	291	908	582	1020	2370	5020	9400	1980	412
8	192	236	490	283	848	526	1010	2380	4300	8940	2470	400
9	185	228	977	246	601	384	1030	2400	4400	6770	2760	390
10	198	238	1550	303	491	408	1060	2380	4490	2500	3230	385
11	201	233	1940	295	439	444	1060	2350	4620	2070	2840	323
12	195	236	2060	288	424	439	1050	2110	4700	4280	1690	420
13	190	231	2040	284	613	876	1350	1530	4750	6110	1260	409
14	185	238	2000	281	511	678	1880	1310	4820	6970	1380	402
15	180	241	1950	274	437	727	2350	1300	4870	7410	1810	396
16	174	241	1950	290	384	1200	2300	1310	4960	6480	1960	384
17	150	239	1990	305	384	1290	2230	1330	5270	5040	1620	326
18	205	289	1690	304	431	1310	2170	1340	6100	4410	1300	337
19	199	446	824	364	471	1240	2100	1390	6220	3670	1390	354
20	196	308	337	332	370	1180	2050	1450	6620	3590	2070	358
21	201	238	280	313	405	1300	2010	1530	6990	3590	1660	350
22	198	282	1180	505	399	1270	1990	1640	7210	3720	1280	318
23	194	314	707	536	380	1240	2200	1920	7870	4040	953	326
24	204	272	431	765	372	1250	2610	2690	8730	3990	656	323
25	228	262	365	527	396	1210	2480	3210	9000	3720	488	340
26	273	255	308	440	512	1190	2290	3600	8200	3520	394	358
27	219	251	348	841	651	1260	2310	4220	7930	3380	365	353
28	205	224	322	574	630	1350	2440	4600	8040	3490	399	343
29	201	359	314	542	---	1200	2460	4750	8230	3710	412	344
30	234	836	302	385	---	1170	2480	4860	9220	3880	401	342
31	215	---	295	485	---	1220	---	5000	---	3940	398	---
TOTAL	6213	8290	27148	11915	13330	29895	50819	77610	187810	171430	53516	11096
MEAN	200	276	876	384	476	964	1694	2504	6260	5530	1726	370
MAX	273	836	2060	841	908	1450	2610	5000	9220	9400	3900	421
MIN	150	218	280	246	343	384	403	1300	4300	2070	365	318
AC-FT	12320	16440	53850	23630	26440	59300	100800	153900	372500	340000	106100	22010
CAL YR 1982	TOTAL	453140	MEAN	1241	MAX	7320	MIN	150	AC-FT	898800		
WTR YR 1983	TOTAL	649072	MEAN	1778	MAX	9400	MIN	150	AC-FT	1287000		

11277200 CHERRY LAKE NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'33", long 119°54'47", in SE 1/4 NW 1/4 sec.5, T.1 N., R.19 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on upstream face of Cherry Valley Dam on Cherry Creek, 4.2 mi upstream from Eleanor Creek, 7 mi north of Early Intake, and 7.3 mi northwest of Hetch Hetchy.

DRAINAGE AREA.--117 mi².

PERIOD OF RECORD.--August 1956 to current year. Prior to October 1959, published as Lake Lloyd near Hetch Hetchy.

GAGE.--Water-stage recorder. Datum of gage is 2.42 ft National Geodetic Vertical Datum of 1929. Prior to October 1974, datum published as at mean sea level.

REMARKS.--Reservoir is formed by a rockfill dam completed in 1956. Storage began in December 1955. Capacity, 268,800 acre-ft between gage heights 4,430 ft bottom of sluice gates, and 4,700 ft top of spillway gates. No dead storage. Water is released down Cherry Creek for power development and domestic supply as part of Hetch Hetchy system of city and county of San Francisco. Unmeasured diversion from Lake Eleanor into Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake through tunnel to Cherry powerhouse near mouth of Cherry Creek began Aug. 1, 1960. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 274,100 acre-ft July 4, 1983, gage height, 4,702.9 ft; normal minimum since reservoir first filled, 7,660 acre-ft Jan. 24, 1960, gage height, 4,502.1 ft. Reservoir drained for inspection in 1961 and 1964.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 274,100 acre-ft July 4, gage height, 4,702.9 ft; minimum, 161,700 acre-ft May 6, 7, gage height, 4,634.7 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

4,440	0	4,490	3,020	4,560	60,800	4,660	201,100
4,450	75	4,500	6,030	4,580	85,100	4,680	234,100
4,460	250	4,510	11,700	4,600	111,800	4,700	268,800
4,470	675	4,520	19,700	4,620	139,900	4,705	277,900
4,480	1,530	4,540	38,900	4,640	169,700		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218700	219900	193500	176000	173600	171700	168300	162100	230600	273500	273900	246100
2	218200	219000	192500	176200	173100	171700	168300	161800	233400	273300	273500	245400
3	218000	217900	191200	176200	172500	171600	168200	161800	235300	273200	273500	244700
4	216900	216700	190000	175700	171900	171200	168000	161800	237500	274100	273200	244400
5	215700	215600	189000	175400	171600	170800	167400	161800	240600	273300	272800	243700
6	214600	214400	188200	175000	171700	170300	166700	161700	244200	273200	272600	242700
7	213500	213800	187100	174700	171900	169800	166200	161700	247300	273200	272100	241500
8	212300	212800	186500	174800	171900	169500	165900	162000	249700	273200	272300	240300
9	211700	211700	185700	175000	171600	169200	165600	162400	251900	273200	272100	239100
10	211300	210900	184900	175000	171100	169200	165500	162900	255100	273200	271500	238200
11	210200	210000	184100	174800	171200	169200	165200	163000	259700	273300	270800	237500
12	208900	209100	183300	174300	171700	169700	164700	163300	262500	273500	269900	236300
13	207900	208100	182700	173900	172300	172500	164300	164000	264200	273700	269200	235100
14	206800	207300	181800	173400	172200	173600	163600	164600	265600	273300	267900	234100
15	205700	206300	180900	173400	172000	173600	163200	165800	266900	272800	267400	232900
16	205000	205200	180100	173700	171700	173600	162900	167300	267900	273200	266700	231700
17	204700	204000	179500	173400	171200	173400	162600	168600	269000	273300	265500	230600
18	203400	204800	178700	173300	171100	173100	162300	170000	270100	273200	264200	229900
19	202200	204200	177900	173100	170900	172800	162000	172900	269700	273200	263500	228700
20	200900	202900	177900	172600	170900	172500	162100	175700	270300	273200	262500	227400
21	199800	202100	178400	172500	170800	172000	161800	178800	271500	273000	261300	226200
22	198700	200900	179800	172900	170600	171700	162000	182900	272400	273300	260000	225100
23	199700	200500	180200	174200	170200	171200	162600	187100	272800	273300	258600	223900
24	202200	199200	180100	174700	169800	170900	162900	192000	272800	273300	257000	222900
25	216600	198100	179500	174700	169800	170300	162700	196800	272600	273200	255400	222000
26	220000	197000	179000	174700	170200	169700	162400	201600	272800	273000	253900	221000
27	220700	196000	178400	174500	170300	169500	162100	207400	272600	273000	252300	219700
28	220000	195200	177800	174300	171100	169200	162300	212800	272600	273300	250900	218500
29	219700	195100	177100	174500	---	168600	162600	218300	272600	273700	249300	218500
30	220400	194100	176400	174700	---	168300	162400	223400	273000	273700	247600	218500
31	220500	---	176000	174000	---	168500	---	226700	---	273700	246300	---
MAX	220700	219900	193500	176200	173600	173600	168300	226700	273000	274100	273900	246100
MIN	198700	194100	176000	172500	169800	168300	161800	161700	230600	272800	246300	218500
a	4671.9	4655.6	4644.1	4642.8	4640.9	4639.2	4635.2	4675.6	4702.3	4702.7	4687.1	4670.7
b	+800	-26400	-18100	-2000	-2900	-2600	-6100	+64300	+46300	+700	-27400	-27800
CAL YR 1982	b	-14000										
WTR YR 1983	b	-1200										

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'04", long 119°54'59", in SE 1/4 SW 1/4 sec.5, T.1 N., R.19 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on right bank 0.7 mi downstream from Cherry Valley Dam, 3.5 mi upstream from Eleanor Creek, 6.7 mi north of Early Intake, and 7.2 mi west of Hetch Hetchy.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--November 1956 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,337.08 ft National Geodetic Vertical Datum of 1929 (levels by city and county of San Francisco).

REMARKS.--Records good. Flow regulated by Cherry Lake (station 11277200) 0.7 mi upstream. Diversion between Lake Eleanor (station 11277500) and Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake to Dion R. Holm powerplant began Aug. 1, 1960. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (since diversion to Dion R. Holm powerplant).--23 years (water years 1961-83), 36.7 ft³/s, 26,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,210 ft³/s July 10, 1974, gage height, 10.53 ft; minimum daily, 1.6 ft³/s Apr. 10, 1957, Oct. 12, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,410 ft³/s July 6, gage height, 9.98 ft; minimum daily, 6.1 ft³/s on several days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	7.2	16	9.2	11	39	15	12	223	1440	249	14
2	6.1	10	13	8.9	11	33	15	11	526	1840	201	22
3	6.1	14	12	8.7	10	28	14	11	526	2430	160	25
4	6.1	11	11	8.6	10	23	13	11	528	1580	118	11
5	6.1	8.8	11	8.6	10	20	13	11	529	2640	22	11
6	6.1	6.6	10	8.3	11	19	12	11	530	2410	21	11
7	6.2	6.6	9.9	8.2	20	20	12	11	532	2550	19	11
8	6.1	6.7	9.6	8.0	18	18	12	10	533	808	16	11
9	6.1	6.7	9.1	8.0	15	16	11	10	535	1570	14	11
10	6.1	6.8	8.9	8.0	14	16	11	9.8	528	433	14	11
11	6.1	6.6	8.6	7.7	13	16	11	9.6	535	975	14	11
12	6.1	6.6	8.7	7.7	15	16	11	9.4	537	1270	14	11
13	6.1	6.6	8.6	7.7	23	37	10	9.4	649	1270	14	11
14	6.1	6.6	8.4	7.5	16	25	10	9.2	1270	1520	14	11
15	6.1	6.6	8.3	7.5	15	20	10	8.9	1510	1610	15	11
16	6.1	6.6	8.1	7.7	14	18	9.7	8.8	1800	700	14	11
17	6.1	6.6	8.5	7.5	14	18	9.6	8.6	1990	596	14	11
18	6.1	18	8.3	7.8	16	17	9.5	8.6	2000	637	14	11
19	6.1	12	8.0	8.0	14	16	9.4	8.5	2190	529	14	11
20	6.1	9.1	10	7.7	13	15	9.7	8.3	1560	470	14	11
21	6.1	8.3	19	7.5	13	15	9.3	8.3	949	384	14	11
22	6.1	9.3	52	14	13	15	9.0	8.3	1490	360	14	11
23	6.3	8.7	24	11	12	14	9.7	8.2	1910	450	14	11
24	6.3	8.2	16	19	12	14	11	8.5	2150	466	14	12
25	7.4	8.0	14	13	13	14	11	8.1	2020	456	14	13
26	9.1	7.7	13	13	16	13	10	8.0	1890	352	14	11
27	7.1	7.7	12	16	20	15	10	8.0	1890	183	14	11
28	6.9	8.7	11	13	21	15	12	7.9	1720	125	14	11
29	6.9	13	10	13	---	14	12	7.7	1610	194	14	12
30	8.2	29	9.9	12	---	15	13	7.7	1280	273	14	11
31	7.4	---	9.6	12	---	16	---	7.7	---	274	14	---
TOTAL	203.0	278.3	386.5	304.8	403	590	334.9	285.5	35940	30795	1129	362
MEAN	6.55	9.28	12.5	9.83	14.4	19.0	11.2	9.21	1198	993	36.4	12.1
MAX	9.2	29	52	19	23	39	15	12	2190	2640	249	25
MIN	6.1	6.6	8.0	7.5	10	13	9.0	7.7	223	125	14	11
AC-FT	403	552	767	605	799	1170	664	566	71290	61080	2240	718
CAL YR 1982	TOTAL	29938.5	MEAN	82.0	MAX	2030	MIN	6.1	AC-FT	59380		
WTR YR 1983	TOTAL	71012.0	MEAN	195	MAX	2640	MIN	6.1	AC-FT	140900		

11277500 LAKE ELEANOR NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'27", long 119°52'48", in SE 1/4 NW 1/4 sec.3, T.1 N., R.19 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, 720 ft from left bank on downstream side of dam on Eleanor Creek, 1.7 mi upstream from Miguel Creek, and 5.5 mi northwest of Hetch Hetchy.

DRAINAGE AREA.--78.1 mi².

PERIOD OF RECORD.--June 1918 to current year. Prior to October 1930, published in WSP 1315A. Published as "near Sequoia" 1919-20.

REVISED RECORDS.--WSP 1445: 1938(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2.46 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1927, nonrecording gage on upstream side of dam at same site and datum.

REMARKS.--Reservoir is formed by multiple-arch dam completed in 1918; storage began June 23, 1918. Usable capacity, 26,110 acre-ft between gage heights, 4,620.9 ft, natural outlet of old lake and 4,660.0 ft, top of 5-ft flashboards. Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of Tuolumne River basin.

COOPERATION.--Periodic observations of gage height furnished by city and county of San Francisco.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,000 acre-ft Dec. 11, 1937, from capacity table then in use, gage height, 4,663.4 ft; no usable contents at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,700 acre-ft Oct. 25, gage height, 4,661.6 ft; minimum 15,100 acre-ft May 2, 3, gage height, 4,647.8 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

4,608	0	4,620	36	4,628	1,480	4,646	13,500
4,610	6	4,622	49	4,630	2,450	4,650	17,000
4,612	12	4,624	92	4,632	3,580	4,655	21,500
4,614	18	4,625	211	4,635	5,270	4,660	26,100
4,616	24	4,626	550	4,638	7,330	4,663	29,100
4,618	27	4,627	996	4,642	10,300		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26800	26300	27000	23300	17900	18100	20600	15300	25400	25200	26900	27100
2	26800	26100	26600	22800	17700	18400	20600	15100	25200	25200	26900	27100
3	26800	26100	26400	22400	17300	18500	20500	15100	25300	25300	26800	27100
4	26800	26100	26500	22100	17100	18500	20300	15200	25400	25300	26800	26900
5	26800	26100	26600	21800	16800	18500	20000	15300	25700	25400	26900	26800
6	26700	26100	26600	21400	16700	18400	19600	15300	25700	25400	27000	26800
7	26700	26100	26300	21100	16900	18400	19300	15200	25500	26100	27100	26800
8	26700	26100	26100	20900	17100	18500	19000	15300	25400	26300	27100	26700
9	26700	26100	26000	20600	17100	18500	18800	15500	25500	26300	27100	26800
10	26700	26200	25800	20300	16900	18600	18600	15800	25600	26200	27100	26800
11	26700	26400	25500	20100	16700	19000	18300	16000	25900	26200	27000	26800
12	26700	26500	25300	19800	16700	18500	18000	16300	25400	26500	27000	26800
13	26700	26500	25000	19500	17400	22200	17600	16600	25300	26700	26900	26700
14	26700	26500	24800	19200	17700	23400	17300	17200	25400	26800	26900	26700
15	26700	26300	24500	19000	17700	23700	16900	18100	25500	26700	27100	26700
16	26700	26200	24200	18800	17700	23700	16600	19100	25600	26800	27100	26700
17	26700	26100	23900	18500	17500	23700	16300	20100	25700	26800	27000	26600
18	26700	27500	23600	18300	17500	23500	16000	21200	25600	26700	26800	26600
19	26700	27300	23400	18100	17400	23400	15900	22800	25300	26700	27000	26500
20	26700	26900	23400	17900	17300	23100	15800	24500	25100	26700	27100	26500
21	26700	26500	23700	17700	17200	22900	15800	25200	25100	26700	27100	26500
22	26800	26500	25200	17900	17000	22600	15700	25400	25300	26900	26900	26400
23	27000	26300	25700	18000	16900	22300	15900	25600	25400	27000	26800	26400
24	26900	26200	25700	18600	16800	22100	16000	25900	25400	27000	26900	26400
25	27700	26200	25600	18700	16800	21700	15900	26100	25500	27000	26900	26400
26	27100	26100	25400	18700	16900	21300	15700	26100	25600	26900	26900	26400
27	26800	26100	25000	18900	17000	21100	15400	26200	25500	26900	27000	26400
28	26600	26100	24800	18700	17200	20800	15500	26200	25400	26900	27000	26400
29	26600	26400	24400	18600	---	20500	15500	26200	25400	26900	27000	26600
30	27100	27100	24000	18400	---	20300	15400	26000	25300	27000	27000	27200
31	26500	---	23600	18200	---	20400	---	25800	---	27000	27000	---
MAX	27700	27500	27000	23300	17900	23700	20600	26200	25900	27000	27100	27200
MIN	26500	26100	23400	17700	16700	18100	15400	15100	25100	25200	26800	26400
a	4660.4	4661.0	4657.3	4651.3	4650.2	4653.8	4648.2	4659.6	4659.1	4660.9	4660.9	4661.1
b	-300	+600	-3500	-5400	-1000	+3200	-5000	+10400	-500	+1700	0	+200
CAL YR 1982	b	-3200										
WTR YR 1983	b	+400										

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'09", long 119°52'52", in NW 1/4 SW 1/4 sec.3, T.1 N., R.19 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, on right bank 0.5 mi downstream from Lake Eleanor Dam, 1.1 mi upstream from Miguel Creek, and 5.5 mi northwest of Hetch Hetchy.

DRAINAGE AREA.--78.4 mi².

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Sequoia" 1910-18.

REVISED RECORDS.--WSP 1315-A: 1923(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,500 ft, from topographic map. November 1909 to November 1915, nonrecording gage and water-stage recorder at site 1 mi upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Eleanor (station 11277500) 0.5 mi upstream beginning in 1918. Diversion from Lake Eleanor to Cherry Lake began in March 1960. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (prior to diversion to Cherry Lake).--50 years (water years 1910-59), 223 ft³/s, 161,400 acre-ft/yr; 24 years (water years 1960-83), 87.1 ft³/s, 63,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s Nov. 19, 1950, gage height, 14.95 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurements at gage heights 9.94 ft and 12.24 ft; no flow at times in 1910, 1930-31, 1933, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft³/s Oct. 26, gage height, 8.74 ft; minimum daily, 5.4 ft³/s Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	470	414	6.2	6.2	14	6.7	6.2	1870	1140	383	51
2	45	349	442	6.2	6.2	9.8	6.5	5.8	1520	1090	379	123
3	45	259	319	6.1	6.1	8.4	6.4	5.6	1390	1180	372	129
4	44	167	193	6.0	6.0	7.4	6.2	5.6	1490	1150	313	120
5	45	111	165	6.0	6.0	6.8	6.2	5.6	1590	1260	230	116
6	44	91	100	6.0	6.2	6.6	6.0	5.6	1900	1270	182	71
7	44	91	13	6.0	12	7.5	6.0	5.6	1830	829	182	37
8	28	91	18	6.0	7.7	6.7	6.0	5.6	1720	767	201	33
9	18	91	6.6	6.0	7.0	6.5	5.8	5.6	1720	839	260	33
10	18	91	6.5	6.0	6.6	6.4	5.6	5.6	1790	718	265	33
11	18	91	6.5	6.0	6.5	6.6	5.6	5.6	2100	685	258	33
12	18	91	6.5	6.0	7.5	7.0	5.6	5.7	1980	645	219	33
13	18	154	6.5	6.0	9.4	15	5.6	5.8	1550	696	167	33
14	17	199	6.5	6.0	6.7	8.2	5.6	5.6	1530	773	149	32
15	15	199	6.5	6.0	6.5	10	5.6	5.6	1730	806	153	32
16	15	199	6.5	6.0	6.5	13	5.6	5.6	1800	629	208	32
17	14	199	6.8	6.0	6.3	14	5.6	5.6	1850	572	213	31
18	14	373	6.8	6.1	6.9	14	5.6	5.6	1960	566	207	31
19	13	812	6.5	6.2	6.6	10	5.7	6.7	1780	520	114	31
20	13	538	7.1	6.2	6.5	7.8	5.7	147	1480	493	118	30
21	13	474	10	6.2	6.3	7.2	5.6	822	1360	421	163	30
22	12	418	20	11	6.2	7.1	5.4	1270	1370	377	154	29
23	197	409	10	6.8	6.2	7.0	5.7	1380	1510	389	151	29
24	479	227	13	11	6.2	6.9	7.1	1590	1480	395	86	29
25	2200	91	6.7	6.5	6.7	6.5	6.7	1960	1340	415	47	29
26	3130	90	6.5	6.7	7.9	6.6	6.1	2330	1380	429	47	29
27	877	89	6.5	8.3	9.0	7.8	5.7	2380	1380	405	47	29
28	479	44	6.5	6.6	11	7.3	6.7	2440	1280	384	47	28
29	268	17	6.2	6.5	---	6.8	6.9	2430	1260	381	47	29
30	1120	126	6.2	6.5	---	6.9	6.8	2360	1200	381	47	67
31	959	---	6.2	6.3	---	7.7	---	2070	---	383	47	---
TOTAL	10324	6651	1841.1	203.4	198.9	263.5	180.3	21287.6	48140	20988	5456	1392
MEAN	333	222	59.4	6.56	7.10	8.50	6.01	687	1605	677	176	46.4
MAX	3130	812	442	11	12	15	7.1	2440	2100	1270	383	129
MIN	12	17	6.2	6.0	6.0	6.4	5.4	5.6	1200	377	47	28
AC-FT	20480	13190	3650	403	395	523	358	42220	95490	41630	10820	2760

CAL YR 1982 TOTAL 122352.8 MEAN 335 MAX 5610 MIN 4.1 AC-FT 242700
WTR YR 1983 TOTAL 116925.8 MEAN 320 MAX 3130 MIN 5.4 AC-FT 231900

11278300 CHERRY CREEK NEAR EARLY INTAKE, CA

LOCATION.--Lat 37°53'40", long 119°57'42", in NW 1/4 SE 1/4 sec.35, T.1 N., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on right bank 1.2 mi upstream from mouth, 1.3 mi north of Early Intake, and 10.3 mi southwest of Hetch Hetchy.

DRAINAGE AREA.--226 mi².

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,272.00 ft National Geodetic Vertical Datum of 1929 (levels by city and county of San Francisco).

REMARKS.--Records good except those from Aug. 3 to Sept. 30, which are fair. Flow regulated by Cherry Lake (station 11277200) 10 mi upstream and Lake Eleanor (station 11277500) 9.8 mi upstream. Diversion from Cherry Lake to Dion R. Holm powerplant began Aug. 1, 1960. Water is returned to creek 1.2 mi below station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE (since diversion to Dion R. Holm powerplant).--23 years (water years 1961-83), 147 ft³/s, 106,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s Feb. 1, 1963, gage height, 14.50 ft, from rating curve extended above 4,600 ft³/s; minimum daily, 0.30 ft³/s Apr. 5, 6, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,370 ft³/s Oct. 26, gage height, 10.65 ft; minimum daily, 22 ft³/s Oct. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	522	625	126	190	826	330	266	2160	2540	672	120
2	70	386	626	120	180	689	311	228	2150	2850	619	150
3	69	309	499	116	171	585	284	208	2020	3660	572	160
4	68	218	370	112	163	487	253	204	2120	2690	480	135
5	68	154	319	109	159	427	233	205	2200	3890	320	125
6	68	124	281	106	183	405	217	221	2490	3780	200	90
7	70	124	126	104	452	461	208	205	2440	3440	215	64
8	63	127	123	101	473	437	202	183	2330	1550	260	48
9	37	130	98	99	336	387	201	172	2320	2490	280	47
10	37	138	95	95	288	362	204	163	2370	1240	290	46
11	36	132	92	91	264	408	199	154	2680	1620	275	46
12	32	132	91	88	287	387	191	150	2600	1920	240	47
13	28	177	96	85	492	882	185	152	2250	1920	200	47
14	28	244	90	83	333	476	177	142	2770	2230	170	47
15	26	242	85	81	288	361	171	136	3250	2390	215	47
16	24	242	83	89	270	330	167	130	3610	1450	230	46
17	24	241	91	94	257	336	166	124	3890	1200	240	45
18	23	399	96	96	302	326	165	120	4050	1270	225	45
19	23	990	86	131	288	295	164	116	4040	1110	130	45
20	22	602	114	105	268	279	189	184	3170	1020	160	44
21	22	532	194	96	251	290	175	901	2310	875	185	44
22	23	493	949	234	244	279	165	1430	2810	775	170	44
23	135	494	467	267	251	266	174	1560	3420	896	160	44
24	436	341	281	435	249	269	261	1740	3650	920	120	44
25	1970	159	225	279	270	257	254	2070	3370	937	68	46
26	3110	152	200	215	338	245	226	2440	3260	845	66	44
27	963	147	183	368	403	284	208	2490	3270	649	66	45
28	501	126	166	270	418	350	296	2550	3000	532	66	45
29	333	169	154	254	---	289	316	2530	2840	597	66	62
30	1030	489	143	220	---	297	307	2470	2520	688	66	150
31	1040	---	134	202	---	384	---	2180	---	700	67	---
TOTAL	10579	8735	7182	4871	8068	12356	6599	25824	85360	52674	7093	2012
MEAN	341	291	232	157	288	399	220	833	2845	1699	229	67.1
MAX	3110	990	949	435	492	882	330	2550	4050	3890	672	160
MIN	22	124	83	81	159	245	164	116	2020	532	66	44
AC-FT	20980	17330	14250	9660	16000	24510	13090	51220	169300	104500	14070	3990

CAL YR 1982 TOTAL 187453 MEAN 514 MAX 9350 MIN 22 AC-FT 371800
WTR YR 1983 TOTAL 231353 MEAN 634 MAX 4050 MIN 22 AC-FT 458900

NOTE.--No gage-height record Aug. 3 to Sept. 30.

11278400 CHERRY CREEK BELOW DION R. HOLM POWERHOUSE, NEAR MATHER, CA

LOCATION.--Lat 37°53'24", long 119°58'08", in NE 1/4 NW 1/4 sec.2, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 600 ft upstream from mouth, 0.5 mi downstream from powerhouse, 0.8 mi northwest of Early Intake, and 6.2 mi west of Mather.

DRAINAGE AREA.--234 mi².

PERIOD OF RECORD.--March 1963 to current year. Prior to October 1965, published as "below Cherry powerhouse, near Mather."

GAGE.--Water-stage recorder. Altitude of gage is 2,150 ft, from topographic map.

REMARKS.--Records good except those for May 26 to July 14, which are fair. Flow regulated by Cherry Lake (station 11277200) 11 mi upstream and Lake Eleanor (station 11277500) 10 mi upstream. Prior to May 1971, Cherry Creek Canal diverted 2 mi upstream from station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--20 years, 702 ft³/s, 508,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s Apr. 11, 1982, gage height, 15.36 ft, from rating curve extended above 4,400 ft³/s on basis of combined peak flow for Cherry Creek near Early Intake (station 11278300) and Dion R. Holm powerplant; minimum daily, 1.6 ft³/s June 4, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,020 ft³/s Oct. 26, gage height, 12.10 ft; maximum gage height recorded, 12.66 ft, July 7 (backwater from Tuolumne River); minimum daily discharge, 204 ft³/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	817	1380	1510	469	889	1670	1270	1210	3040	3430	1640	961
2	396	1190	1500	443	888	1620	1250	1170	3040	3740	1600	881
3	240	1100	1380	769	867	1490	1210	1150	2910	4550	1530	851
4	684	1020	1240	775	862	1390	1180	1140	3010	3580	1440	848
5	669	939	994	763	706	1310	1160	1140	2950	4780	1240	848
6	686	846	1140	761	736	1280	1140	1160	3380	4670	1150	840
7	695	607	1010	762	1230	1350	1130	1150	3330	4330	1140	597
8	687	907	1010	575	1230	1310	1130	961	3220	2440	1160	529
9	352	913	993	419	1050	1260	1130	1110	3210	3380	1210	542
10	204	917	990	746	993	1230	972	1090	3260	2140	1240	564
11	668	653	988	748	969	1280	1120	1050	3570	2520	1220	414
12	671	914	987	749	813	1260	1110	1080	3490	2820	1190	658
13	669	887	992	746	1010	1740	1110	1090	3140	2810	1140	641
14	668	695	986	748	1030	1440	1100	1080	3660	3120	1100	634
15	652	1020	982	562	982	1290	1100	1070	4140	3690	1100	540
16	358	1020	968	421	968	1250	1100	1070	4500	2520	1150	627
17	206	1020	987	746	953	1270	1090	1060	4780	2170	1180	528
18	637	1250	987	756	1000	1260	1090	1050	4940	2240	1170	400
19	642	2030	818	787	825	1220	1090	1050	4870	2070	1120	540
20	659	1580	1000	761	808	1200	1120	1120	4060	1990	1030	614
21	656	1500	1070	753	792	1220	1100	1820	3200	1850	1110	662
22	659	1430	1910	632	952	1200	1090	2230	3700	1730	1110	665
23	484	1350	1390	580	957	1190	1100	2540	4300	1850	1090	534
24	686	1280	1160	1110	951	1190	1040	2730	4540	1810	1060	705
25	2890	1080	1100	924	970	1180	1190	3140	4260	1900	979	750
26	4340	1070	1080	860	880	1170	1160	3330	4140	1820	977	765
27	2000	1070	1060	1050	918	1050	1140	3380	4160	1630	980	502
28	1460	1050	1040	921	1150	1290	1240	3440	3890	1490	982	631
29	1270	1110	1030	737	---	1210	1270	3420	3730	1550	986	658
30	2040	1500	1020	560	---	1230	1260	3350	3410	1640	986	629
31	2080	---	1010	850	---	1330	---	3070	---	1660	986	---
TOTAL	29825	33328	34332	22483	26379	40380	34192	54451	111830	81920	35996	19558
MEAN	962	1111	1107	725	942	1303	1140	1756	3728	2643	1161	652
MAX	4340	2030	1910	1110	1230	1740	1270	3440	4940	4780	1640	961
MIN	204	607	818	419	706	1050	972	961	2910	1490	977	400
AC-FT	59160	66110	68100	44600	52320	80090	67820	108000	221800	162500	71400	38790

CAL YR 1982 TOTAL 463487 MEAN 1270 MAX 9790 MIN 204 AC-FT 919300
WTR YR 1983 TOTAL 524674 MEAN 1437 MAX 4940 MIN 204 AC-FT 1041000

NOTE.--Stage discharge relationship affected by backwater from Tuolumne River May 26 to July 14.

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CA

LOCATION.--Lat 37°49'18", long 120°00'43", in SE 1/4 SE 1/4 sec.29, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on right bank 75 ft downstream from Rainbow Pool picnic area, 0.5 mi southwest of Oakland Recreation Camp, and 0.6 mi upstream from Middle Tuolumne River.

DRAINAGE AREA.--87.0 mi².

PERIOD OF RECORD.--March 1923 to current year.

REVISED RECORDS.--WSP 1445: 1923, 1925(M), 1926-28, 1929-30(M), 1932(M), 1935-36(M), 1937-38, 1943(M), 1945(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft, from topographic map. Prior to Nov. 22, 1931, at site 50 ft upstream and Nov. 22, 1931, to July 19, 1977, at datum 1.00 ft higher.

REMARKS.--Records good. No diversion above station. One small recreation reservoir (capacity unknown) is located approximately 3.5 mi upstream. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--60 years, 98.8 ft³/s, 71,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s Dec. 23, 1955, gage height, 11.9 ft from floodmarks, present datum, from rating curve extended above 3,300 ft³/s on basis of slope-area measurements at gage heights 9.08 ft and 11.9 ft; minimum, 0.3 ft³/s Aug 23, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0630	1,080	6.49	Feb. 8	0015	1,410	6.94
Nov. 18	2045	1,960	7.59	Mar. 1	0500	4,380	9.49
Nov. 30	0630	1,730	7.34	Mar. 13	1815	2,650	8.26
Dec. 22	1715	*4,710	9.68	May 29	2200	1,430	6.96
Jan. 24	0915	2,670	8.27	June 18	0030	1,040	6.43

Minimum daily, 18 ft³/s for several days in October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	96	289	143	280	2590	518	599	837	423	97	45
2	21	69	187	137	257	1880	505	502	650	423	91	43
3	21	58	151	132	240	1400	473	469	605	426	87	39
4	20	51	142	127	223	944	432	479	630	444	81	37
5	20	48	130	124	214	693	401	472	660	436	76	36
6	20	45	119	121	253	597	379	464	787	408	72	34
7	21	43	112	118	879	612	362	436	813	373	70	32
8	20	43	101	118	890	549	353	436	762	329	67	31
9	20	45	95	116	519	498	351	434	750	297	64	31
10	19	57	91	112	405	471	358	423	783	260	63	31
11	19	48	87	110	349	517	349	390	876	278	60	32
12	19	47	86	108	353	486	338	406	719	276	57	29
13	18	45	91	107	702	1490	331	403	656	273	54	28
14	18	45	84	105	460	1220	318	392	698	259	55	27
15	18	44	81	103	384	757	307	420	735	240	62	26
16	18	44	78	117	344	622	299	442	756	213	55	26
17	18	44	84	115	315	618	304	462	775	195	50	25
18	18	570	87	131	361	609	323	496	749	186	49	25
19	18	497	80	191	354	552	316	559	657	176	52	24
20	18	188	129	137	326	515	368	636	570	166	53	24
21	18	122	330	125	301	547	347	734	523	155	51	23
22	20	143	2390	818	286	522	339	829	573	156	51	24
23	22	160	1020	501	282	501	343	892	591	149	49	28
24	24	116	413	1450	276	511	632	948	552	142	47	28
25	108	97	298	560	320	477	553	1010	533	136	44	27
26	385	86	250	391	417	446	469	1070	531	126	43	25
27	101	80	218	1150	682	499	416	1130	504	121	41	39
28	63	99	194	517	846	586	600	1140	491	119	39	34
29	51	228	178	480	---	490	666	1160	473	115	38	53
30	228	920	164	372	---	488	709	1060	431	111	37	80
31	162	---	153	316	---	573	---	992	---	104	41	---
TOTAL	1568	4178	7912	9152	11518	23260	12459	20285	19670	7515	1796	986
MEAN	50.6	139	255	295	411	750	415	654	656	242	57.9	32.9
MAX	385	920	2390	1450	890	2590	709	1160	876	444	97	80
MIN	18	43	78	103	214	446	299	390	431	104	37	23
AC-FT	3110	8290	15690	18150	22850	46140	24710	40240	39020	14910	3560	1960
CAL YR 1982	TOTAL	79880	MEAN	219	MAX	4980	MIN	14	AC-FT	158400		
WTR YR 1983	TOTAL	120299	MEAN	330	MAX	2590	MIN	18	AC-FT	238600		

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CA

LOCATION.--Lat 37°49'42", long 120°00'38", in SW 1/4 NW 1/4 sec.28, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 1,000 ft downstream from Oakland Recreation Camp, 0.8 mi upstream from South Fork Tuolumne River, and 2.7 mi east of Buck Meadows Post Office.

DRAINAGE AREA.--73.5 mi².

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A. Published as Middle Fork of Tuolumne River near Buck Meadows 1917-32 and as "near Buck Meadows" 1933-40.

REVISED RECORDS.--WSP 1395: 1919(M), 1938(M), 1951(P). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft, from topographic map.

REMARKS.--Records good. No regulation but small diversion above station for irrigation. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--67 years, 78.9 ft³/s, 57,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,920 ft³/s Dec. 23, 1955, gage height, 11.75 ft from flood profile, 11.05 ft from floodmarks inside gage well, from rating curve extended above 2,300 ft³/s on basis of slope-area measurement of maximum flow; no flow at times in 1924, 1931, 1934, 1961, and 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0800	551	4.72	Mar. 1	0415	*2,060	8.20
Nov. 18	2045	620	4.96	Mar. 13	1600	1,070	6.26
Nov. 30	0430	849	5.67	Apr. 24	0200	496	4.51
Dec. 22	1615	1,530	7.25	May 30	0145	1,330	6.85
Jan. 24	0800	1,050	6.21	June 18	0115	1,280	6.74
Feb. 7	2400	623	4.97				

Minimum daily, 9.2 ft³/s Oct. 15, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	82	132	73	127	1040	275	283	944	664	110	39
2	15	64	96	73	120	690	258	256	774	650	102	36
3	14	53	84	71	114	551	245	247	727	658	99	32
4	13	46	79	68	108	388	228	255	764	682	96	29
5	12	42	76	67	105	296	219	242	805	689	83	26
6	11	39	71	66	135	258	214	243	915	638	75	26
7	12	38	67	65	434	270	201	233	960	589	74	24
8	12	37	63	65	404	246	185	248	936	512	70	23
9	11	38	62	65	243	230	186	263	942	467	74	22
10	10	51	60	64	192	221	194	256	988	381	67	21
11	10	38	58	63	161	253	190	234	1110	415	65	21
12	9.9	39	57	64	163	252	184	242	974	418	57	19
13	9.6	38	61	64	305	615	184	248	871	419	53	19
14	9.4	37	56	65	207	529	179	240	929	407	51	18
15	9.2	37	58	64	172	347	177	262	976	371	68	17
16	9.5	37	56	69	151	297	175	295	1010	311	67	16
17	9.5	37	58	69	138	303	169	322	1050	280	53	17
18	9.4	243	61	79	194	302	168	371	1030	277	47	17
19	9.2	246	54	97	189	263	170	405	935	244	55	15
20	9.2	99	67	72	162	246	205	455	828	230	60	14
21	9.3	70	150	69	147	281	199	535	754	225	55	14
22	11	85	823	360	140	265	199	627	829	228	50	15
23	15	92	368	210	139	257	234	722	851	215	50	21
24	23	70	169	582	140	286	340	794	819	199	46	20
25	81	61	126	237	168	263	266	880	796	187	43	19
26	279	56	113	180	217	251	224	959	801	163	40	18
27	95	53	102	594	346	266	207	1030	759	144	38	28
28	61	60	93	237	372	314	260	1110	740	139	35	24
29	48	109	88	248	---	252	316	1150	742	135	33	37
30	169	449	79	174	---	248	328	1120	684	130	32	58
31	132	---	78	142	---	297	---	1060	---	122	35	---
TOTAL	1144.2	2446	3565	4416	5493	10577	6579	15587	26243	11189	1883	705
MEAN	36.9	81.5	115	142	196	341	219	503	875	361	60.7	23.5
MAX	279	449	823	594	434	1040	340	1150	1110	689	110	58
MIN	9.2	37	54	63	105	221	168	233	684	122	32	14
AC-FT	2270	4850	7070	8760	10900	20980	13050	30920	52050	22190	3730	1400

CAL YR 1982	TOTAL	65435.6	MEAN	179	MAX	2070	MIN	7.0	AC-FT	129800
WTR YR 1983	TOTAL	89827.2	MEAN	246	MAX	1150	MIN	9.2	AC-FT	178200

11283500 CLAVEY RIVER NEAR BUCK MEADOWS, CA

LOCATION.--Lat 37°54'02", long 120°04'15", in SE 1/4 NE 1/4 sec.35, T.1 N., R.17 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on right bank 300 ft upstream from Forest Service road bridge, 1.7 mi downstream from Quilty Creek, and 6 mi north of Buck Meadows Post Office.

DRAINAGE AREA.--144 mi².

PERIOD OF RECORD.--October 1959 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 2,374.08 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--24 years, 287 ft³/s, 207,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s Jan. 13, 1980 gage height, 21.47 ft, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement at gage height 21.40 ft; minimum daily, 1.2 ft³/s Sept. 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0415	4,980	13.92	Feb. 7	2400	2,320	11.02
Nov. 18	2130	2,460	11.21	Mar. 1	0400	4,830	13.79
Nov. 30	unknown	unknown	unknown	Mar. 13	1415	*6,350	15.04
Dec. 22	unknown	unknown	unknown	Apr. 29	2130	1,470	9.36
Jan. 24	0800	2,730	11.57	May 29	1945	4,180	13.18

Minimum daily, 33 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	293	1000	460	527	3730	1100	1150	2030	1120	184	142
2	56	224	640	436	489	2880	1110	1060	1640	1130	171	113
3	52	185	500	417	458	2060	1070	1060	1700	1140	162	84
4	48	160	465	388	430	1570	978	1140	1760	1160	151	71
5	46	144	430	370	414	1350	905	1070	1910	1110	140	64
6	44	133	395	353	474	1200	828	993	2110	1020	134	60
7	48	125	360	334	1330	1300	786	963	2190	932	131	56
8	47	123	330	327	1580	1200	784	955	2010	755	124	53
9	44	128	308	312	1040	1140	815	970	2000	699	121	52
10	42	144	290	304	837	1120	826	925	2120	544	117	51
11	40	131	281	299	718	1340	766	880	2300	584	113	49
12	39	139	278	303	795	1330	717	905	1940	594	107	46
13	38	131	293	302	1470	4360	674	900	1770	600	97	45
14	37	135	273	298	1080	2740	634	895	1830	584	99	44
15	36	134	260	292	937	1830	615	980	1940	556	112	42
16	35	130	249	311	817	1520	624	1060	2010	467	98	41
17	34	128	272	301	739	1390	670	1220	2030	425	84	40
18	34	935	280	318	822	1260	709	1490	1990	405	80	39
19	34	929	262	338	767	1130	750	1770	1700	387	83	38
20	33	441	660	301	724	1080	928	2080	1530	361	84	37
21	34	324	2000	291	672	1080	899	2390	1400	331	81	37
22	39	386	4400	803	645	1010	909	2600	1490	336	78	38
23	56	421	3000	772	660	966	1040	2730	1580	328	76	43
24	123	327	1300	1770	671	962	1060	2930	1470	303	73	45
25	1490	290	910	1070	712	913	968	3080	1420	310	69	43
26	2260	267	790	817	875	841	886	3170	1400	262	66	41
27	445	259	695	1150	995	898	848	3220	1360	248	62	40
28	269	310	630	857	1390	937	1130	3170	1320	235	60	40
29	204	700	582	786	---	843	1300	3230	1250	219	58	47
30	774	1990	535	657	---	853	1300	2770	1170	209	56	175
31	477	---	494	585	---	1110	---	2610	---	200	62	---
TOTAL	7019	10166	23162	16322	23068	45943	26629	54366	52370	17554	3133	1716
MEAN	226	339	747	527	824	1482	888	1754	1746	566	101	57.2
MAX	2260	1990	4400	1770	1580	4360	1300	3230	2300	1160	184	175
MIN	33	123	249	291	414	841	615	880	1170	200	56	37
AC-FT	13920	20160	45940	32370	45760	91130	52820	107800	103900	34820	6210	3400

CAL YR 1982 TOTAL 235827 MEAN 646 MAX 12000 MIN 22 AC-FT 467800
WTR YR 1983 TOTAL 281448 MEAN 773 MAX 4400 MIN 33 AC-FT 558300

NOTE.--No gage-height record Nov. 28 to Jan. 10 and June 8 to July 6.

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CA

LOCATION.--Lat 37°50'31", long 120°11'02", in SW 1/4 NE 1/4 sec.23, T.1 S., R.16 E., Tuolumne County, Hydrologic Unit 18040009, on right bank 500 ft upstream from Whites Gulch, and 2.5 mi east of Groveland.

DRAINAGE AREA.--16.4 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 2,561.79 ft National Geodetic Vertical Datum of 1929 (levels by Boise-Cascade Corp.).

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--14 years, 10.3 ft³/s, 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s Jan. 5, 1982, gage height, 6.69 ft from rating curve extended above 700 ft³/s on basis of slope-area measurement at gage height 6.51 ft; no flow many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 reached a stage of 6.4 ft from floodmarks, discharge, 1,390 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	1845	865	5.41	Mar. 1	0400	1,130	5.92
Nov. 30	0500	*1,360	6.35	Mar. 13	1330	1,190	6.02
Dec. 22	1500	1,130	5.91	Mar. 22	1930	163	3.57
Jan. 27	0600	1,220	6.09	May 1	0030	197	3.71
Feb. 7	0545	738	5.15				

Minimum daily, 0.07 ft³/s Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	2.0	138	10	44	687	43	131	9.6	4.0	1.2	1.4
2	.07	1.4	40	9.7	35	366	40	70	9.9	4.0	1.2	1.0
3	.08	1.1	22	8.9	28	179	36	50	9.8	3.9	1.1	.86
4	.08	.90	16	8.7	24	110	34	41	9.2	3.7	1.0	.77
5	.08	.80	13	8.1	26	80	31	40	9.0	3.5	1.0	.70
6	.09	.72	10	7.4	76	61	29	46	8.3	3.3	.96	.60
7	.17	.69	8.7	6.9	512	64	27	33	7.9	3.2	.95	.51
8	.18	.75	7.7	6.6	434	49	25	29	7.7	3.2	.89	.45
9	.15	1.1	7.1	6.4	131	41	23	26	7.3	3.1	.84	.42
10	.13	6.1	6.5	6.0	73	37	23	25	7.1	3.0	.85	.39
11	.12	3.4	5.6	5.6	51	36	23	23	7.3	2.9	.84	.36
12	.11	2.0	6.0	5.3	45	39	21	21	7.3	2.5	.79	.32
13	.11	1.6	7.6	5.1	148	486	21	25	6.7	2.4	.74	.27
14	.11	1.3	5.8	4.9	73	170	20	24	6.3	2.2	.75	.23
15	.10	1.2	5.3	4.9	51	84	19	20	6.1	2.1	1.1	.21
16	.10	1.1	4.9	7.1	40	78	18	19	5.9	2.1	.88	.19
17	.10	1.0	5.8	6.7	33	101	17	17	5.7	2.1	.70	.17
18	.11	228	5.4	15	65	100	20	17	5.5	2.1	.65	.15
19	.11	161	5.0	44	55	67	19	16	5.4	2.1	.72	.13
20	.12	30	7.2	22	39	58	20	15	5.3	2.0	.80	.12
21	.12	11	139	16	33	114	18	14	5.2	1.9	.79	.12
22	.17	13	684	307	28	111	16	14	4.9	1.8	.83	.15
23	.42	13	184	150	26	115	29	13	4.8	1.7	.86	.25
24	.46	7.1	66	407	23	132	45	12	4.7	1.7	.78	.35
25	2.8	5.2	38	113	58	114	28	12	4.5	1.6	.71	.36
26	10	4.3	27	67	73	86	21	11	4.3	1.6	.66	.31
27	2.1	3.8	21	653	165	85	20	11	4.1	1.6	.62	.28
28	1.3	8.0	17	139	237	77	68	10	4.1	1.5	.56	.28
29	1.0	76	15	173	---	62	134	9.7	4.2	1.4	.50	.35
30	7.8	708	13	98	---	53	148	9.4	4.1	1.4	.49	1.0
31	4.3	---	12	60	---	53	---	9.4	---	1.3	.79	---
TOTAL	32.66	1295.56	1543.6	2382.3	2626	3895	1036	813.5	192.2	74.9	25.55	12.70
MEAN	1.05	43.2	49.8	76.8	93.8	126	34.5	26.2	6.41	2.42	.82	.42
MAX	10	708	684	653	512	687	148	131	9.9	4.0	1.2	1.4
MIN	.07	.69	4.9	4.9	23	36	16	9.4	4.1	1.3	.49	.12
AC-FT	65	2570	3060	4730	5210	7730	2050	1610	381	149	51	25
CAL YR 1982	TOTAL	9420.48	MEAN	25.8	MAX	819	MIN	0	AC-FT	18690		
WTR YR 1983	TOTAL	13929.97	MEAN	38.2	MAX	708	MIN	.07	AC-FT	27630		

11284700 NORTH FORK TUOLUMNE RIVER NEAR LONG BARN, CA

LOCATION.--Lat 38°05'56", long 120°05'55", in NW 1/4 SW 1/4 sec.22, T.3 N., R.17 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on right bank 0.6 mi upstream from small tributary, 1.5 mi east of Long Barn, and 3.8 mi upstream from Wrights Creek.

DRAINAGE AREA.--23.1 mi².

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

REVISED RECORDS.--WRD CA-81-3: 1963, 1980 (M).

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft, from topographic map.

REMARKS.--Records good except those for Oct. 1 to Nov. 17, which are fair. No storage or diversion above station. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--21 years, 31.9 ft³/s, 23,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,190 ft³/s Jan. 13, 1980, gage height, 8.80 ft from floodmarks, from rating curve extended above 1,000 ft³/s; minimum daily, 0.07 ft³/s July 29, 1976, and many days during 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 9.52 ft from floodmarks, discharge, 2,560 ft³/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	Unknown	Unknown	Unknown	Mar. 1	0400	1,050	6.51
Nov. 18	1930	365	4.87	Mar. 13	1415	*1,080	6.58
Nov. 30	0545	307	4.69	Mar. 31	2245	180	4.19
Dec. 22	1730	982	6.37	Apr. 30	0015	218	4.36
Jan. 23	2215	527	5.30	May 26	2300	292	4.64
Feb. 12	2115	261	4.53				

Minimum daily, 2.7 ft³/s Oct. 2, 3, Sept. 19-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	22	102	61	89	782	173	189	201	37	7.1	19
2	2.7	16	74	57	83	582	155	173	174	34	6.9	8.7
3	2.7	14	64	53	78	392	147	161	155	32	6.5	6.5
4	2.8	12	62	49	73	293	137	161	152	28	6.4	5.7
5	2.8	12	59	47	70	261	125	153	152	27	6.1	5.1
6	2.8	11	56	46	88	218	115	154	156	26	5.9	4.5
7	3.4	11	55	45	194	230	106	153	161	25	5.9	4.1
8	3.6	11	51	45	218	219	101	148	167	23	5.7	3.9
9	3.6	11	47	44	179	209	101	145	158	22	4.7	3.9
10	3.6	13	45	43	148	202	103	142	157	20	2.9	3.9
11	3.7	12	42	42	129	221	100	136	159	18	3.6	3.6
12	4.0	11	40	41	179	219	98	133	149	17	3.9	3.5
13	4.1	10	39	40	236	674	96	134	127	16	4.0	3.5
14	4.2	10	37	39	217	407	93	130	122	15	4.1	3.3
15	4.4	10	36	39	188	281	91	134	121	14	4.6	3.0
16	4.5	10	34	45	158	224	90	142	120	14	4.5	3.0
17	5.0	10	47	43	136	204	93	145	118	14	4.1	3.0
18	5.1	155	46	53	135	186	97	155	116	13	3.9	2.9
19	5.4	126	42	57	130	176	104	168	109	13	4.3	2.7
20	5.7	62	72	49	123	158	119	189	92	13	4.7	2.7
21	6.2	46	163	47	114	153	112	205	83	12	4.8	2.7
22	7.2	67	564	192	109	140	111	229	77	11	4.8	2.9
23	8.0	71	327	214	119	132	123	248	71	11	4.7	3.0
24	10	54	191	314	145	127	132	257	66	11	4.4	3.0
25	34	44	140	183	154	122	133	264	61	11	4.1	3.0
26	96	39	115	185	183	112	133	266	57	11	3.8	3.0
27	25	36	98	180	217	113	139	266	53	10	3.5	3.0
28	15	46	85	141	314	121	177	262	49	9.8	3.4	3.0
29	13	77	77	122	---	120	203	256	45	9.1	3.2	4.1
30	56	196	72	106	---	125	212	238	41	8.4	3.4	10
31	41	---	66	96	---	158	---	221	---	7.9	9.4	---
TOTAL	388.3	1225	2948	2718	4206	7561	3719	5757	3469	533.2	149.3	134.2
MEAN	12.5	40.8	95.1	87.7	150	244	124	186	116	17.2	4.82	4.47
MAX	96	196	564	314	314	782	212	266	201	37	9.4	19
MIN	2.7	10	34	39	70	112	90	130	41	7.9	2.9	2.7
AC-FT	770	2430	5850	5390	8340	15000	7380	11420	6880	1060	296	266

CAL YR 1982 TOTAL 24938.2 MEAN 68.3 MAX 1210 MIN 1.1 AC-FT 49460
WTR YR 1983 TOTAL 32808.0 MEAN 89.9 MAX 782 MIN 2.7 AC-FT 65070

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

11287500 DON PEDRO RESERVOIR NEAR LA GRANGE, CA

LOCATION.--Lat 37°42'06", long 120°25'16", in NE 1/4 SW 1/4 sec.3, T.3 S., R.14 E., Tuolumne County, Hydrologic Unit 18040009, on left end of New Don Pedro Dam on Tuolumne River, 500 ft downstream from Mexican Gulch, and 3.4 mi northeast of La Grange.

DRAINAGE AREA.--1,533 mi².

PERIOD OF RECORD.--September 1923 to current year. Year-end contents only 1923-24 and October 1924 to September 1930 monthend contents, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Turlock Irrigation District). Prior to Feb. 1, 1941, nonrecording gage at site 1.5 mi upstream at same datum. Feb. 2, 1941, to Nov. 3, 1970, water-stage recorder at site 1.5 mi upstream at same datum. Nov. 4, 1970, to Apr. 26, 1972, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed June 23, 1971. Storage began Nov. 3, 1970. Total capacity, 2,030,000 acre-ft at elevation 830.0 ft top of uncontrolled spillway, of which 309,000 acre-ft below elevation 600.0 ft, mutually agreed-upon minimum, is not available for release. Water passes through powerplant at dam and down Tuolumne River to La Grange Dam, 2.5 mi downstream, where it is diverted into Turlock and Modesto Canals (stations 11289500 and 11289000) for irrigation. This reservoir is operated jointly by Turlock and Modesto Irrigation Districts. Prior to June 1971, reservoir was formed by a concrete gravity-type dam completed Jan. 1, 1923, capacity, 290,400 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Tuolumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,025,000 acre-ft Aug. 4-6, 13, 1983, elevation, 829.6 ft; minimum, 29,200 acre-ft Sept. 1-3, 5, 1934; minimum elevation, 475.0 ft Sept. 1, 2, 1934. Minimum since reservoir first filled, 302,600 acre-ft Oct. 14, 15, 1977, elevation, 598.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,025,000 acre-ft Aug. 4-6, 13, elevation, 829.6 ft; minimum, 1,457,000 acre-ft May 27, elevation, 780.0 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

550	158,700	650	517,400	770	1,359,000
570	212,900	680	679,000	800	1,669,000
590	274,800	710	869,700	830	2,030,000
620	384,100	740	1,095,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1744000	1650000	1715000	1679000	1686000	1769000	1880000	1667000	1472000	1846000	2020000	1927000
2	1737000	1649000	1711000	1675000	1686000	1796000	1875000	1659000	1478000	1863000	2022000	1921000
3	1730000	1649000	1703000	1671000	1685000	1810000	1869000	1652000	1486000	1883000	2024000	1913000
4	1724000	1648000	1694000	1667000	1684000	1815000	1864000	1643000	1496000	1902000	2025000	1906000
5	1717000	1648000	1685000	1663000	1681000	1819000	1860000	1636000	1506000	1922000	2025000	1899000
6	1712000	1650000	1679000	1659000	1681000	1819000	1855000	1629000	1515000	1940000	2025000	1890000
7	1705000	1652000	1675000	1656000	1704000	1821000	1848000	1620000	1524000	1957000	2024000	1880000
8	1699000	1653000	1669000	1651000	1723000	1820000	1839000	1613000	1530000	1970000	2022000	1869000
9	1693000	1653000	1666000	1647000	1730000	1815000	1831000	1605000	1536000	1977000	2022000	1858000
10	1686000	1653000	1663000	1641000	1731000	1810000	1822000	1597000	1542000	1976000	2022000	1849000
11	1680000	1655000	1662000	1638000	1729000	1808000	1815000	1588000	1550000	1970000	2024000	1843000
12	1676000	1655000	1660000	1634000	1731000	1806000	1807000	1578000	1556000	1967000	2024000	1838000
13	1669000	1653000	1658000	1630000	1742000	1839000	1797000	1569000	1560000	1967000	2025000	1832000
14	1663000	1653000	1656000	1626000	1743000	1855000	1789000	1558000	1567000	1972000	2017000	1826000
15	1658000	1652000	1655000	1620000	1740000	1860000	1783000	1547000	1576000	1977000	2012000	1821000
16	1651000	1652000	1652000	1616000	1739000	1867000	1776000	1536000	1589000	1977000	2012000	1815000
17	1646000	1651000	1651000	1612000	1735000	1872000	1769000	1526000	1603000	1976000	2009000	1809000
18	1642000	1661000	1650000	1610000	1733000	1873000	1762000	1514000	1617000	1976000	2007000	1802000
19	1640000	1667000	1646000	1609000	1730000	1872000	1758000	1503000	1634000	1975000	2004000	1795000
20	1637000	1670000	1642000	1605000	1725000	1872000	1753000	1492000	1651000	1977000	2002000	1789000
21	1635000	1675000	1643000	1601000	1721000	1877000	1744000	1481000	1665000	1981000	1999000	1781000
22	1631000	1676000	1678000	1613000	1716000	1879000	1735000	1474000	1678000	1985000	1997000	1770000
23	1628000	1679000	1691000	1616000	1712000	1881000	1725000	1468000	1695000	1989000	1994000	1759000
24	1626000	1679000	1695000	1636000	1708000	1889000	1717000	1463000	1715000	1994000	1988000	1748000
25	1630000	1679000	1695000	1641000	1706000	1894000	1708000	1459000	1735000	1998000	1981000	1737000
26	1643000	1678000	1694000	1645000	1710000	1894000	1697000	1458000	1753000	2000000	1974000	1725000
27	1646000	1678000	1693000	1670000	1717000	1894000	1686000	1457000	1770000	2003000	1966000	1719000
28	1645000	1678000	1691000	1676000	1730000	1893000	1669000	1459000	1788000	2006000	1957000	1713000
29	1645000	1684000	1688000	1684000	---	1890000	1676000	1463000	1806000	2009000	1948000	1707000
30	1647000	1707000	1686000	1686000	---	1886000	1671000	1466000	1825000	2012000	1940000	1702000
31	1650000	---	1682000	1686000	---	1884000	---	1469000	---	2016000	1932000	---
MAX	1744000	1707000	1715000	1686000	1743000	1894000	1880000	1667000	1825000	2016000	2025000	1927000
MIN	1626000	1648000	1642000	1601000	1681000	1769000	1669000	1457000	1472000	1846000	1932000	1702000
a	798.3	803.4	801.2	801.5	805.4	818.4	800.2	781.2	813.5	828.9	822.3	802.9
b	-100000	+57000	-25000	+4000	+44000	+154000	-213000	-202000	+356000	+191000	-84000	-230000
CAL YR 1982	b	+384000										
WTR YR 1983	b	-48000										

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

11289000 MODESTO CANAL NEAR LA GRANGE, CA

LOCATION.--Lat 37°40'04", long 120°27'26", in SE 1/4 SW 1/4 sec.17, T.3 S., R.14 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 0.5 mi northeast of La Grange, and 1.4 mi downstream from intake at La Grange Dam.

PERIOD OF RECORD.--April 1903 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1904-9 (monthly figures only).

GAGE.--Water-stage recorder. V-notch sharp-crested weir since Mar. 19, 1963. Datum of gage is 272.4 ft National Geodetic Vertical Datum of 1929 (levels by Modesto Irrigation District). See WSP 1930 for history of changes prior to March 1932. March 1932 to Aug. 14, 1975, on right bank at same datum.

REMARKS.--Records good. Canal diverts from right bank of Tuolumne River at La Grange Dam for irrigation in Modesto and Waterford Irrigation Districts. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--80 years, 412 ft³/s, 298,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,820 ft³/s July 1, 1935; no flow at times most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	.13	412	38		.04	37	519	1140	923	965	859
2	208	.13	413	38		.09	38	519	1080	922	964	859
3	208	.12	412	22		0	38	522	973	923	966	859
4	208	7.8	410	.16		0	37	516	972	916	971	861
5	207	448	411	.09		0	37	521	973	909	970	856
6	207	81	406	.08		0	37	519	975	918	967	861
7	207	26	401	0		0	371	518	975	1110	963	862
8	207	649	401	0		0	505	501	975	1250	958	861
9	207	801	401	0		0	508	485	974	1250	959	857
10	207	694	401	0		0	503	468	973	1250	1140	853
11	161	34	401	0		0	492	478	974	1180	957	857
12	115	851	401	0		0	488	494	973	1130	960	857
13	115	969	402	0		2.2	487	494	976	1140	962	809
14	115	35	402	0		.09	740	496	975	1140	973	758
15	115	959	402	0		.09	512	492	976	1140	968	753
16	115	964	402	0		.02	512	496	976	1140	960	753
17	115	969	402	0		0	512	493	977	1140	1170	753
18	78	963	402	0		0	407	647	976	1140	961	753
19	36	799	403	0		0	191	787	978	1140	964	753
20	36	131	402	0		0	513	804	959	798	966	753
21	36	33	401	0		0	849	809	910	519	971	1060
22	36	972	405	.08		0	697	810	913	519	973	926
23	36	1040	412	.04		0	517	862	912	515	973	649
24	35	1050	412	0		0	518	1050	912	505	972	650
25	33	947	413	0		0	518	1140	912	505	969	650
26	9.2	960	413	0		0	517	1140	914	791	973	650
27	.16	939	413	0		0	516	1140	921	966	973	747
28	.13	941	413	0		0	518	1140	916	966	971	806
29	.13	740	413	0		0	526	1140	917	965	973	869
30	.28	364	297	0		0	523	1140	915	965	972	1170
31	.15	---	38	0		15	---	1150	---	965	898	---
TOTAL	3261.05	17367.18	12117	98.45	0	17.53	12664	22290	28892	29640	30282	24564
MEAN	105	579	391	3.18	0	.57	422	719	963	956	977	819
MAX	208	1050	413	38	0	15	849	1150	1140	1250	1170	1170
MIN	.13	.12	38	0	0	0	37	468	910	505	898	649
AC-FT	6470	34450	24030	195	0	35	25120	44210	57310	58790	60060	48720
CAL YR 1982	TOTAL	179681.61	MEAN	492	MAX	1620	MIN	0	AC-FT	356400		
WTR YR 1983	TOTAL	181193.21	MEAN	496	MAX	1250	MIN	0	AC-FT	359400		

11289500 TURLOCK CANAL NEAR LA GRANGE, CA

LOCATION.--Lat 37°39'57", long 120°26'24", in NW 1/4 NW 1/4 sec.21, T.3 S., R.14 E., Stanislaus County, Hydrologic Unit 18040002, on right bank 2,400 ft downstream from intake at La Grange Dam, and 1.2 mi east of La Grange.

PERIOD OF RECORD.--October 1898 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1899-1908 (monthly figures only). WSP 1445: 1917-20, 1922.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 277.70 ft National Geodetic Vertical Datum of 1929 (levels by Turlock Irrigation District). See WSP 1930 for history of changes prior to Apr. 17, 1924.

REMARKS.--Records good. Canal diverts from left bank of Tuolumne River at La Grange Dam for irrigation in Turlock Irrigation District and to supply town of La Grange. Capacity of canal increased in March 1980. During fall and winter some unmeasured flow is diverted from canal at tunnel 0.3 mi upstream from gage, passed through La Grange powerplant and returned to river. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--85 years, 635 ft³/s, 460,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,110 ft³/s July 15, 1980; no diversion for irrigation during some periods in some years. Prior to 1939, unmeasured small discharge during winter called zero.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	979	32	1250	28	28	26	27	1980	1520	1410	2700	1330
2	981	32	1690	28	27	29	26	1900	1610	1410	2410	1330
3	984	32	1680	27	26	30	26	1670	1610	1410	2190	1240
4	1140	32	1680	27	26	30	26	1420	1610	1410	2200	1190
5	1250	710	1680	27	27	29	25	1170	1610	1420	2200	1190
6	1260	538	1100	27	29	28	110	913	1610	1550	2200	1610
7	1270	27	689	28	30	26	211	740	1610	1820	2200	2280
8	1270	558	695	28	29	26	237	740	1610	2080	2200	2490
9	1270	690	695	28	29	25	246	742	1610	2330	2200	2500
10	1270	887	694	28	25	25	246	731	1610	2570	2470	1830
11	1270	1040	694	28	28	25	246	729	1610	2480	2230	41
12	1270	1160	694	28	27	25	246	730	1610	2300	2230	41
13	1270	1170	694	28	28	26	246	730	1610	2300	2230	41
14	1270	1010	695	28	28	25	244	729	1610	2310	2230	41
15	1280	1180	695	28	27	24	186	730	1610	2310	2230	41
16	1280	1230	694	28	26	24	31	730	1610	2310	2230	204
17	491	1220	694	28	24	24	31	844	1500	2120	1850	302
18	46	1230	695	29	26	23	31	1240	1410	1780	1600	300
19	46	1240	669	30	26	21	31	1690	1420	1520	1610	314
20	33	1270	148	29	25	20	72	2000	1420	993	1610	300
21	33	1010	219	29	22	20	395	2000	1420	713	1620	1070
22	33	1130	147	30	17	20	659	2000	1420	713	1610	2140
23	33	1180	28	30	15	20	907	2160	1420	1040	1610	2650
24	33	1220	27	30	15	20	1160	2420	1420	1720	1610	2650
25	33	1670	27	29	18	20	1390	2680	1420	1720	1600	2650
26	32	1660	28	55	16	20	1640	2830	1420	2040	1730	2650
27	32	1670	28	31	16	20	1900	2210	1420	2500	1780	1000
28	32	1680	28	30	15	467	1980	1080	1410	2710	1820	40
29	32	1420	28	30	---	28	1990	899	1420	2700	1820	40
30	32	727	28	30	---	27	1980	899	1410	2700	1820	40
31	32	---	28	30	---	27	---	1200	---	2700	1680	---
TOTAL	20287	28655	18841	914	675	1200	16545	42536	45600	59089	61720	33545
MEAN	654	955	608	29.5	24.1	38.7	552	1372	1520	1906	1991	1118
MAX	1280	1680	1690	55	30	467	1990	2830	1610	2710	2700	2650
MIN	32	27	27	27	15	20	25	729	1410	713	1600	40
AC-FT	40240	56840	37370	1810	1340	2380	32820	84370	90450	117200	122400	66540
CAL YR 1982	TOTAL	351361	MEAN	963	MAX	2870	MIN	12	AC-FT	696900		
WTR YR 1983	TOTAL	329607	MEAN	903	MAX	2830	MIN	15	AC-FT	653800		

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA

LOCATION.--Lat 37°39'59", long 120°26'28", in NW 1/4 NW 1/4 sec.21, T.3 S., R.14 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 0.5 mi downstream from La Grange Dam, and 1.1 mi east of La Grange.

DRAINAGE AREA.--1,538 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 170.19 ft National Geodetic Vertical Datum of 1929 (levels by Turlock Irrigation District).

REMARKS.--Records good. Flow diverted into Modesto Canal (station 11289000) and Turlock Canal (station 11289500) at La Grange Dam. Flow regulated by Don Pedro powerplant, Don Pedro Reservoir (station 11287500), 4.5 mi upstream, Hetch Hetchy Reservoir (station 11275500), Cherry Lake (station 11277200), and Lake Eleanor (station 11277500). Tuolumne Canal (station 11297500) diverts water from the Stanislaus River basin into the Tuolumne River basin for power, irrigation, and domestic supply in the vicinity of Sonora, upstream from station. Diversion through Hetch Hetchy aqueduct to San Francisco began Oct. 19, 1934; an average of 221 ft³/s was diverted during the current year. See schematic diagram of Tuolumne River basin. For records of combined discharge of river and Modesto and Turlock canals, see following page.

AVERAGE DISCHARGE (River only).--13 years, 1,075 ft³/s, 778,800 acre-ft/yr.
(Combined river and canals).--13 years, 2,385 ft³/s, 1,728,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 10,400 ft³/s Apr. 24, 1983, gage height, 15.09 ft; no flow for several days during September and October 1977.
Combined flow, maximum daily discharge, 13,800 ft³/s May 26, 1983; minimum daily, 0.45 ft³/s Nov. 2, 1970.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 10,400 ft³/s Apr. 24, gage height, 15.09 ft; minimum daily, 406 ft³/s Nov. 7.
Combined flow, maximum daily discharge, 13,800 ft³/s May 26; minimum daily, 459 ft³/s Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3630	2910	4540	4300	4450	4460	8520	8960	8140	3080	610	3070
2	3630	2910	5350	4250	4450	4420	8530	9050	6590	3080	877	3100
3	3630	2910	5880	4300	4450	5130	8500	9210	5850	3080	1120	3070
4	3330	2740	5850	4350	4450	6400	8320	9530	5400	3070	1110	3050
5	3130	461	5860	4370	4440	6550	8270	9780	5300	3480	1120	3110
6	3130	417	4930	4370	4460	6560	8230	9590	6050	4720	1120	3400
7	3130	406	4060	4370	4630	6590	8440	9540	6550	5150	1120	3780
8	3130	478	4060	4370	4560	7550	8530	9550	6640	5410	1130	3750
9	3130	505	4060	4370	4430	8520	8570	9580	6640	6100	1130	3800
10	3130	427	4060	4370	5470	8450	8530	9700	6650	6220	704	3710
11	3130	414	4050	4380	5910	7510	8550	9810	6690	6180	1120	3470
12	3130	414	4030	4390	4350	7380	8590	9920	6670	6140	1120	3470
13	3130	414	4020	4400	4390	5350	8590	9990	6630	6160	1120	3510
14	3130	414	4040	4400	5440	4220	8570	10000	6660	6190	1120	3550
15	3130	414	4040	4400	6140	5480	8560	10000	5260	6180	1120	3560
16	3130	414	4050	4410	5380	5500	8570	10000	4060	6190	1120	3560
17	3130	414	4030	4430	6540	5560	8550	10000	4090	6190	1280	3550
18	2950	414	4040	4470	6540	7180	8540	10000	4130	5700	1730	3560
19	2870	421	4050	4580	6540	8200	8280	9830	4220	4560	1740	3560
20	2890	420	4050	4570	6530	7400	8460	9680	4140	3430	1760	3570
21	2900	420	4020	4570	6510	5430	8770	9780	4140	3050	1740	3600
22	2900	424	3940	4630	6550	6340	9250	9840	4110	3060	1750	3560
23	2900	420	4090	4590	6280	6210	9980	9830	4100	2750	1750	3600
24	2710	420	4090	4630	5460	5440	10300	9830	4080	2060	2500	3630
25	2830	420	4080	4580	5950	6610	10400	9820	4070	2050	2960	3650
26	2870	420	4080	4540	4360	7080	10200	9860	4000	1480	3050	3630
27	2890	420	4080	4650	4380	7370	10000	9870	4060	846	3460	3560
28	2890	420	4090	4560	4390	7790	9050	9900	3710	617	3450	3580
29	2900	790	4100	4510	---	8160	9520	9850	3090	606	3450	3520
30	2900	3040	4170	4460	---	8350	9840	9850	3100	608	3450	3210
31	2900	---	4360	4450	---	8540	---	9900	---	607	3330	---
TOTAL	95210	25511	134150	138020	147430	205730	267010	302050	154820	118044	54161	104740
MEAN	3071	850	4327	4452	5265	6636	8900	9744	5161	3808	1747	3491
MAX	3630	3040	5880	4650	6550	8540	10400	10000	8140	6220	3460	3800
MIN	2710	406	3940	4250	4350	4220	8230	8960	3090	606	610	3050
AC-FT	188800	50600	266100	273800	292400	408100	529600	599100	307100	234100	107400	207800

CAL YR 1982 TOTAL 1098370 MEAN 3009 MAX 8150 MIN 45 AC-FT 2179000
WTR YR 1983 TOTAL 1746876 MEAN 4786 MAX 10400 MIN 406 AC-FT 3465000

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF TUOLUMNE RIVER, MODESTO CANAL NEAR LA GRANGE, AND TURLOCK CANAL NEAR LA GRANGE, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4820	2940	6200	4370	4480	4490	8580	11500	10800	5410	4280	5260
2	4820	2940	7450	4320	4480	4450	8590	11500	9280	5410	4250	5290
3	4820	2940	7970	4350	4480	5160	8560	11400	8430	5410	4280	5170
4	4680	2780	7940	4380	4480	6430	8380	11500	7980	5400	4280	5100
5	4590	1620	7950	4400	4470	6580	8330	11500	7880	5810	4290	5160
6	4600	1040	6440	4400	4490	6590	8380	11000	8640	7190	4290	5870
7	4610	459	5150	4400	4660	6620	9020	10800	9140	8080	4280	6920
8	4610	1690	5160	4400	4590	7580	9270	10800	9230	8740	4290	7100
9	4610	2000	5160	4400	4460	8550	9320	10800	9220	9680	4290	7160
10	4610	2010	5160	4400	5500	8480	9280	10900	9230	10000	4310	6390
11	4560	1480	5150	4410	5940	7540	9290	11000	9270	9840	4310	4370
12	4520	2420	5130	4420	4380	7410	9320	11100	9250	9570	4310	4370
13	4520	2550	5120	4430	4420	5380	9320	11200	9220	9600	4310	4360
14	4520	1460	5140	4430	5470	4250	9550	11200	9250	9640	4320	4350
15	4530	2550	5140	4430	6170	5500	9260	11200	7850	9630	4320	4350
16	4530	2600	5150	4440	5410	5520	9110	11200	6650	9640	4310	4520
17	3740	2600	5130	4460	6560	5580	9090	11300	6570	9450	4300	4610
18	3070	2600	5140	4500	6570	7200	8980	11900	6520	8620	4290	4610
19	2950	2460	5120	4610	6570	8220	8500	12300	6620	7220	4310	4630
20	2960	1820	4600	4600	6560	7420	9050	12500	6520	5220	4340	4620
21	2970	1460	4640	4600	6530	5450	10000	12600	6470	4280	4330	5730
22	2970	2520	4490	4660	6570	6360	10600	12700	6440	4290	4330	6630
23	2970	2640	4530	4620	6300	6230	11400	12900	6430	4310	4330	6900
24	2780	2690	4530	4660	5480	5460	12000	13300	6410	4290	5080	6930
25	2900	3040	4520	4610	5970	6630	12300	13600	6400	4280	5530	6950
26	2910	3040	4520	4600	4380	7100	12400	13800	6330	4310	5750	6930
27	2920	3030	4520	4680	4400	7390	12400	13200	6400	4320	6210	5310
28	2920	3040	4530	4590	4410	8260	11600	12100	6040	4300	6240	4430
29	2930	2950	4540	4540	---	8190	12000	11900	5430	4280	6240	4430
30	2930	4130	4500	4490	---	8380	12300	11900	5430	4280	6240	4420
31	2930	---	4430	4480	---	8580	---	12300	---	4280	5910	---
TOTAL	118800	71499	165150	139080	148180	206980	296180	366900	229330	206780	146150	162870
MEAN	3832	2383	5327	4486	5292	6677	9873	11840	7644	6670	4715	5429
MAX	4820	4130	7970	4680	6570	8580	12400	13800	10800	10000	6240	7160
MIN	2780	459	4430	4320	4380	4250	8330	10800	5430	4280	4250	4350
AC-FT	235600	141800	327600	275900	293900	410500	587500	727700	454900	410100	289900	323100
CAL YR 1982	TOTAL	1629907	MEAN	4465	MAX	11000	MIN	167	AC-FT	3233000		
WTR YR 1983	TOTAL	2257899	MEAN	6186	MAX	13800	MIN	459	AC-FT	4479000		

WATER-QUALITY RECORDS

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	12.5	13.0	12.5							---	---
2	13.0	12.5	13.0	12.5							---	---
3	13.0	12.5	13.0	12.5							---	---
4	13.0	12.5	13.0	12.5							---	---
5	13.0	12.5	12.5	12.0							---	---
6	13.0	12.5	12.5	12.0							---	---
7	13.0	12.5	12.0	12.0							---	---
8	13.0	12.5	12.5	11.5							---	---
9	13.0	12.5	12.0	12.0							10.0	9.5
10	13.0	12.5	12.5	12.0							10.0	9.5
11	13.0	12.5	12.0	12.0							10.0	9.5
12	13.0	12.5	12.5	12.0							10.0	9.5
13	13.0	12.5	12.5	12.0							10.0	9.5
14	13.0	12.5	12.5	12.0							9.5	9.5
15	13.0	12.5	12.5	12.0							9.5	9.5
16	13.0	12.5	12.5	12.0							9.5	9.5
17	13.0	12.5	12.5	12.0							9.5	9.5
18	13.0	12.5	---	---							10.0	9.5
19	13.0	12.5	---	---							10.0	9.5
20	13.0	12.5	---	---							9.5	9.5
21	13.0	12.0	---	---							10.0	9.5
22	13.0	12.5	---	---							9.5	9.5
23	13.0	12.5	---	---							9.5	9.5
24	13.0	12.5	---	---							9.5	9.5
25	13.0	12.5	---	---							9.5	9.5
26	13.0	12.5	---	---							9.5	9.5
27	13.0	12.5	---	---							9.5	9.5
28	13.0	12.5	---	---							9.5	9.5
29	12.5	12.5	---	---							10.0	9.5
30	12.5	12.5	---	---							10.0	9.5
31	13.0	12.5	---	---							10.0	9.5
MONTH	13.0	12.0	13.0	11.5							10.0	9.5

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.5	10.5	10.5	12.0	11.5	12.5	12.0	13.0	12.0	12.0	11.5
2	10.0	9.5	10.5	10.5	12.0	11.5	12.5	12.0	13.0	12.0	12.0	11.5
3	10.0	9.5	10.5	10.5	12.0	11.5	12.5	12.0	13.0	12.0	12.0	11.5
4	10.0	9.5	10.5	10.5	12.0	11.5	12.5	12.0	13.0	12.0	12.0	11.5
5	10.0	9.5	10.5	10.5	12.0	11.5	12.5	12.0	13.0	12.0	12.0	11.5
6	10.0	9.5	11.0	10.5	12.0	11.5	12.5	11.5	13.0	12.0	12.0	11.5
7	10.0	9.5	11.0	10.5	12.0	12.0	12.0	11.5	13.0	12.5	12.0	11.5
8	10.0	9.5	11.0	10.5	12.0	11.5	12.5	12.0	13.0	12.0	11.5	11.0
9	10.0	9.5	11.0	10.5	12.0	11.5	12.5	12.0	13.0	12.0	11.5	11.0
10	10.0	10.0	11.0	10.5	12.0	11.5	12.5	12.0	13.0	12.0	11.5	11.0
11	10.0	10.0	11.0	10.5	12.0	11.5	12.5	12.5	13.0	12.0	11.5	11.0
12	10.0	9.5	11.0	10.5	12.0	11.5	12.5	12.5	13.0	12.0	11.5	11.0
13	10.0	10.0	11.0	10.5	12.0	12.0	12.5	12.5	13.0	12.0	11.5	11.0
14	10.0	10.0	11.0	10.5	12.0	12.0	12.5	12.5	12.5	12.0	11.5	11.0
15	10.0	10.0	11.0	10.5	12.5	12.0	12.5	12.5	13.0	12.0	11.5	11.0
16	10.0	10.0	11.0	11.0	12.5	12.0	12.5	12.5	12.5	12.0	11.5	11.0
17	10.0	10.0	11.5	10.5	12.5	12.0	12.5	12.5	12.5	12.0	11.0	10.5
18	10.5	10.0	11.0	10.0	12.0	12.0	13.0	12.5	12.5	11.5	11.0	10.5
19	10.0	10.0	11.0	10.5	12.0	12.0	13.0	12.5	12.5	12.0	11.0	10.5
20	10.0	10.0	11.0	11.0	12.0	12.0	13.0	12.5	12.5	12.0	11.0	10.5
21	10.0	10.0	11.5	11.0	12.5	12.0	13.0	12.5	12.0	11.5	11.0	10.5
22	10.0	10.0	11.5	11.0	12.5	12.0	13.0	12.0	12.5	11.5	11.0	10.5
23	10.0	10.0	11.5	11.0	12.0	12.0	13.0	12.0	12.5	11.5	11.0	10.5
24	10.5	10.0	11.5	11.0	12.5	12.0	13.0	12.0	12.5	11.5	11.0	10.5
25	10.5	10.0	11.5	11.5	12.5	12.0	13.0	12.0	12.5	11.5	11.0	10.5
26	10.5	10.0	11.5	11.5	12.5	12.0	13.0	12.0	12.0	11.5	11.0	10.5
27	10.5	10.0	11.5	11.5	12.5	12.0	13.0	12.0	12.0	11.5	11.0	10.5
28	10.5	10.0	11.5	11.5	12.5	12.0	13.0	12.0	12.0	11.5	10.5	10.0
29	10.5	10.0	11.5	11.5	12.5	12.0	13.0	12.5	12.0	11.5	10.5	10.5
30	10.5	10.0	11.5	11.5	12.5	12.0	13.0	12.5	12.0	11.5	10.5	10.0
31	---	---	12.0	11.5	---	---	13.0	12.5	12.0	11.5	---	---
MONTH	10.5	9.5	12.0	10.0	12.5	11.5	13.0	11.5	13.0	11.5	12.0	10.0

11290000 TUOLUMNE RIVER AT MODESTO, CA

LOCATION.--Lat 37°37'38", long 120°59'11", in SE 1/4 SW 1/4 sec.33, T.3 S., R.9 E., Stanislaus County, Hydrologic Unit 18040002, on left bank at bridge on Ninth Street in Modesto, and 0.2 mi downstream from Dry Creek.

DRAINAGE AREA.--1,884 mi².

PERIOD OF RECORD.--1878-84, 1891-94, 1897 (gage heights only), January 1895 to December 1896, April 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Modesto Irrigation District). Prior to July 11, 1947, at site 1,700 ft downstream at same datum, July 11, 1947, to Nov. 16, 1953, at site 1,000 ft downstream at same datum.

REMARKS.--Records good. Flow regulated by reservoirs and powerplants above station. In addition to diversions into Modesto and Turlock Canals (stations 11289000, 11289500), there are diversions for irrigation of about 1,300 acres between station above La Grange Dam and at Modesto. See REMARKS for station 11289650 for Tuolumne River below La Grange Dam. See schematic diagram of Tuolumne River basin.

AVERAGE DISCHARGE.--44 years (water years 1896, 1941-83), 1,462 ft³/s, 1,059,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (water years 1895-96, 1941-83).--Maximum discharge observed, 57,000 ft³/s Dec. 9, 1950, elevation, 69.19 ft; minimum, 56 ft³/s Aug. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s Mar. 14, elevation, 57.34 ft; minimum daily, 1,140 ft³/s Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4350	3980	5710	5040	5120	6620	8880	10400	10400	3670	1170	4000
2	4080	3980	5720	4940	5010	6960	8900	9870	8650	3640	1140	3830
3	4020	3970	5960	4730	4930	7220	8880	9740	6950	3630	1410	3750
4	3990	3960	6320	4740	4880	6260	8820	9950	6130	3640	1590	3690
5	3830	3610	6360	4760	4860	6940	8670	10400	5800	3630	1590	3650
6	3640	2080	6530	4740	4890	7060	9000	10700	5650	4040	1580	3650
7	3530	1750	6070	4710	6320	7180	8680	10600	6180	4950	1590	3920
8	3600	1650	5330	4670	9790	7670	8730	10500	6500	5340	1610	4220
9	3580	1660	5190	4650	7360	7910	8870	10500	6590	5630	1620	4220
10	3540	1810	5160	4620	5500	8660	8890	10400	6560	6120	1530	4220
11	3530	1680	5150	4620	5880	8790	8850	10500	6600	6280	1220	4130
12	3530	1600	5140	4620	6110	8320	8860	10500	6620	6190	1540	3950
13	3580	1590	5140	4610	5260	8690	8970	10500	6600	6150	1570	3920
14	3580	1580	5120	4610	5420	10800	9020	10600	6570	6170	1590	3940
15	3580	1550	5130	4600	5870	6380	8960	10600	6540	6180	1610	3970
16	3520	1550	5130	4620	6210	6290	8950	10600	5470	6170	1600	4020
17	3500	1570	5130	4610	5950	6370	8920	10600	4670	6200	1570	4010
18	3300	1650	5120	4670	6680	6570	8990	10600	4590	6210	1800	4030
19	3180	1690	5110	5150	7000	7590	8860	10600	4640	5810	2220	4070
20	3180	1890	5140	5520	6970	8390	8490	10500	4660	4970	2350	4050
21	3190	1720	5140	4920	6820	8200	8690	10300	4600	4010	2360	4030
22	3310	1650	5500	4970	6790	7210	9190	10300	4550	3610	2470	4150
23	3710	1590	7240	7730	6830	7970	9820	10400	4540	3570	2560	4130
24	3870	1580	5730	6910	6430	7260	10500	10400	4530	3220	2550	4120
25	3780	1650	5130	7310	6050	7410	10800	10400	4500	2690	3160	4190
26	3940	1680	5040	5540	6320	7870	10900	10400	4540	2600	3550	4220
27	3990	1660	5000	6130	5930	7740	10700	10500	4480	2050	3710	4180
28	3990	1710	4980	8450	6880	7900	10600	10400	4480	1490	4090	4190
29	3980	1720	4980	6590	---	8180	9720	10500	4190	1290	4210	4350
30	4080	2590	4990	6820	---	8360	9920	10400	3720	1210	4230	4430
31	4010	---	4960	5440	---	8620	---	10400	---	1190	4170	---
TOTAL	114490	62350	168350	166040	172060	237390	278030	323060	170500	131550	68960	121230
MEAN	3693	2078	5431	5356	6145	7658	9268	10420	5683	4244	2225	4041
MAX	4350	3980	7240	8450	9790	10800	10900	10700	10400	6280	4230	4430
MIN	3180	1550	4960	4600	4860	6260	8490	9740	3720	1190	1140	3650
AC-FT	227100	123700	333900	329300	341300	470900	551500	640800	338200	260900	136800	240500

CAL YR 1982 TOTAL 1309084 MEAN 3587 MAX 9130 MIN 624 AC-FT 2597000
WTR YR 1983 TOTAL 2014010 MEAN 5518 MAX 10900 MIN 1140 AC-FT 3995000

11292000 MIDDLE FORK STANISLAUS RIVER AT KENNEDY MEADOWS, NEAR DARDANELLE, CA

LOCATION.--Lat 38°17'51", long 119°44'25", in SW 1/4 NE 1/4 sec.11, T.5 N., R.20 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank at upper end of Kennedy Meadows, 1.3 mi upstream from Deadman Creek, 1.6 mi downstream from Relief Reservoir, and 5.8 mi southwest of Dardanelle.

DRAINAGE AREA.--47.5 mi².

PERIOD OF RECORD.--October 1938 to current year. Records for water year 1946 incomplete, yearly estimate published in WSP 1315-A. Prior to October 1960, published as "at Kennedy Meadows."

REVISED RECORDS.--WSP 1315-A: 1939(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,326.3 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by Relief Reservoir 1.6 mi upstream, capacity, 15,600 acre-ft. Contents of Relief Reservoir, 6,270 acre-ft Sept. 30, 1982, and 7,090 acre-ft Sept. 30, 1983. No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (unadjusted).--45 years, 137 ft³/s, 99,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 1,700 ft³/s Nov. 20, 1950, gage height, 6.66 ft; maximum gage height, 6.67 ft May 29, 1983; minimum daily discharge recorded, 7.1 ft³/s Jan. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s May 29, gage height, 6.67 ft; minimum daily, 20 ft³/s Mar. 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	239	36	27	108	28	30	35	916	788	577	419
2	241	226	37	27	108	21	32	37	729	934	538	364
3	235	217	34	25	106	20	31	47	689	1030	516	270
4	229	210	34	25	105	20	29	53	734	991	473	253
5	223	204	34	25	105	20	27	46	812	1150	408	303
6	218	199	34	26	104	22	27	44	938	1270	405	301
7	215	194	33	26	106	51	25	49	1010	1190	459	298
8	210	188	32	27	104	29	27	57	945	848	648	298
9	205	129	34	27	101	27	30	63	927	682	548	295
10	201	53	34	26	99	28	30	64	985	502	441	282
11	196	50	33	27	50	31	28	62	1140	497	331	273
12	192	48	32	28	88	31	27	66	1040	610	279	269
13	189	46	32	29	96	53	26	73	852	726	368	268
14	186	44	32	28	88	43	25	88	853	798	394	269
15	183	43	30	28	85	35	24	115	1030	787	415	268
16	179	41	30	28	84	32	27	129	1110	670	358	264
17	175	41	30	75	23	30	30	135	1260	584	312	264
18	170	49	29	121	22	29	31	157	1350	562	262	261
19	166	49	28	121	26	27	35	197	1150	527	301	255
20	162	44	33	120	23	26	40	232	910	486	294	248
21	158	44	31	117	23	26	40	279	839	487	253	243
22	169	43	33	117	24	26	47	329	923	558	211	248
23	202	42	26	120	26	25	47	353	1040	550	189	251
24	240	39	41	120	27	26	43	408	922	478	178	246
25	424	37	38	119	27	24	39	467	898	403	162	239
26	447	36	32	115	28	22	36	502	981	402	108	238
27	295	35	30	114	27	24	35	619	950	423	126	234
28	257	36	31	115	27	23	36	1070	868	356	136	230
29	243	37	28	114	---	23	37	1360	847	329	135	246
30	299	34	31	112	---	25	36	1270	819	560	138	277
31	260	---	26	109	---	34	---	1040	---	552	215	---
TOTAL	7019	2697	998	2138	1840	881	977	9446	28467	20730	10178	8174
MEAN	226	89.9	32.2	69.0	65.7	28.4	32.6	305	949	669	328	272
MAX	447	239	41	121	108	53	47	1360	1350	1270	648	419
MIN	158	34	26	25	22	20	24	35	689	329	108	230
AC-FT	13920	5350	1980	4240	3650	1750	1940	18740	56460	41120	20190	16210
CAL YR 1982	TOTAL	87549	MEAN	240	MAX	975	MIN	21	AC-FT	173700		
WTR YR 1983	TOTAL	93545	MEAN	256	MAX	1360	MIN	20	AC-FT	185500		

11292500 CLARK FORK STANISLAUS RIVER NEAR DARDANELLE, CA

LOCATION.--Lat 38°21'50", long 119°52'13", in NE 1/4 NE 1/4 sec.22, T.6 N., R.19 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 0.5 mi upstream from mouth, and 2.6 mi northwest of Dardanelle.

DRAINAGE AREA.--67.5 mi².

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,507.3 ft National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Stanislaus River Basin.

AVERAGE DISCHARGE.--33 years, 157 ft³/s, 113,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,350 ft³/s Nov. 20, 1950, gage height, 11.88 ft, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement of maximum flow; minimum daily, 9.8 ft³/s Sept. 11-15, 26-30, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0315	868	5.83	June 17	2100	1,940	8.30
May 29	2030	*2,030	8.47	July 6	2045	1,680	7.82

Minimum daily, 61 ft³/s Oct. 18-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	186	100	81	80	120	155	135	1290	1130	499	234
2	84	167	102	80	79	111	150	138	1140	1310	479	172
3	80	155	93	78	78	105	140	169	1090	1240	456	146
4	77	146	93	79	77	103	130	200	1130	1300	419	132
5	75	139	94	79	78	103	125	172	1240	1380	389	127
6	73	135	92	80	79	105	118	164	1300	1420	380	124
7	74	132	90	80	82	109	116	187	1330	1250	440	119
8	72	125	89	83	82	113	117	220	1280	1080	448	117
9	70	121	89	83	77	123	116	239	1320	969	414	114
10	68	121	89	82	76	130	112	237	1420	881	385	108
11	67	117	89	83	76	139	110	212	1590	893	337	102
12	66	114	89	84	80	139	110	226	1380	933	315	99
13	65	110	90	85	90	203	110	249	1280	992	298	96
14	65	109	88	87	82	172	110	286	1330	1010	380	95
15	66	106	86	86	81	147	111	349	1450	951	333	90
16	64	103	85	87	79	138	116	391	1490	845	296	88
17	63	101	88	85	80	133	124	411	1600	769	280	87
18	61	115	84	86	84	128	124	479	1600	727	250	84
19	61	116	84	86	83	123	134	592	1400	685	286	80
20	61	114	90	84	83	121	150	667	1300	640	244	78
21	62	107	92	84	83	119	142	795	1270	626	224	76
22	80	109	92	84	84	117	165	951	1330	648	211	88
23	98	103	93	85	92	115	178	1050	1400	627	198	88
24	166	100	92	103	95	115	156	1200	1360	597	185	83
25	494	98	104	89	95	110	146	1320	1340	575	174	81
26	496	97	90	88	93	106	139	1390	1340	543	164	79
27	261	96	86	94	92	107	135	1500	1270	536	154	88
28	208	99	84	86	94	103	136	1610	1230	547	146	80
29	192	100	83	86	---	102	141	1680	1220	557	140	95
30	266	89	83	83	---	108	139	1570	1180	550	134	121
31	213	---	80	82	---	125	---	1460	---	526	185	---
TOTAL	3936	3530	2783	2622	2334	3792	3955	20249	39900	26737	9243	3171
MEAN	127	118	89.8	84.6	83.4	122	132	653	1330	862	298	106
MAX	496	186	104	103	95	203	178	1680	1600	1420	499	234
MIN	61	89	80	78	76	102	110	135	1090	526	134	76
AC-FT	7810	7000	5520	5200	4630	7520	7840	40160	79140	53030	18330	6290

CAL YR 1982	TOTAL	105626	MEAN	289	MAX	1260	MIN	60	AC-FT	209500
WTR YR 1983	TOTAL	122252	MEAN	335	MAX	1680	MIN	61	AC-FT	242500

11292600 DONNELL LAKE NEAR DARDANELLE, CA

LOCATION.--Lat 38°19'46", long 119°57'37" unsurveyed, T.6 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank in hoist house of Donnell Dam on Middle Fork Stanislaus River, 1.2 mi downstream from Niagara Creek, and 6.9 mi west of Dardanelle.

DRAINAGE AREA.--230 mi².

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1960, published as Donnell's Reservoir near Dardanelle.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4.84 ft National Geodetic Vertical Datum of 1929 (levels by Oakdale and South San Joaquin Irrigation Districts).

REMARKS.--Lake is formed by concrete arch-type dam completed in 1957. Usable capacity, 64,745 acre-ft, between gage heights 4,720.0 ft, minimum operating head and 4,917.0 ft, top of spillway gates. Lake is for power and conservation storage. Water passes through a 7.2 mi tunnel to a powerplant and down the Middle Fork Stanislaus River to Beardsley Lake (station 11292800). Records, including extremes, represent total contents at 2400 hours of which 2,150 acre-ft is below minimum operating head. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,900 acre-ft May 8, 1963, gage height, 4,917.3 ft; minimum since reservoir first filled, 2,220 acre-ft Apr. 15, 1983, gage height, 4,720.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 64,500 acre-ft Aug. 9, gage height, 4,916.5 ft; minimum, 2,220 acre-ft Apr. 15, gage height, 4,720.6 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

4,720	2,150	4,780	16,200
4,725	2,850	4,790	19,100
4,730	3,730	4,800	22,100
4,735	4,730	4,820	28,400
4,740	5,830	4,850	38,700
4,750	8,220	4,880	49,800
4,760	10,800	4,917.3	64,900
4,770	13,400		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54100	62600	38900	20000	6480	10400	6200	2740	58300	60900	64100	59400
2	53500	60900	38100	19300	6340	10300	6080	2790	57700	61900	64100	60200
3	52800	59200	37200	18700	6150	10300	6040	3080	58200	62100	64200	59900
4	52200	58000	36400	18000	6010	10100	5920	3220	58300	62500	64000	59500
5	51500	57000	35500	17300	6040	9820	5340	3070	58400	63100	64000	59100
6	50800	56600	34600	16600	6040	9590	4800	3000	58500	63500	63900	58800
7	51000	56200	33700	15900	5970	9430	4280	3810	59100	63200	64300	58400
8	51500	55700	33000	15400	5990	9300	3830	4060	59000	62800	64000	57900
9	52100	55200	32300	15000	6380	9230	4060	4380	59100	62000	64500	57500
10	52600	54400	31700	14500	6480	9180	4220	4670	59200	62200	64000	57000
11	53100	53700	31100	13800	6220	10000	3920	4800	59300	63500	63700	56600
12	53500	52800	30400	13200	6010	10600	3440	5080	59000	63700	63900	56000
13	54000	52100	29800	12500	6400	12600	2820	5520	58900	63800	64200	55500
14	54500	51200	29300	11800	6340	12800	2300	6290	59100	63800	64100	55000
15	54900	50300	28400	11300	6450	12700	2220	7530	61400	63700	64000	54500
16	55400	49300	28200	11000	6400	12300	3140	8970	63700	63700	63900	53900
17	55800	48400	27700	10400	6360	11900	3980	10500	63500	63700	63800	53300
18	56200	48200	27300	9900	6360	11400	4000	12600	62800	63900	63800	52800
19	56700	47700	26800	9510	6290	10800	4200	15400	62600	63900	63900	52100
20	57100	47100	26500	8950	6290	10100	3890	18900	63400	63900	64000	51500
21	57500	46200	26000	8420	6200	9480	3540	23400	62800	63900	63800	50800
22	57800	45600	26000	8420	6730	9230	3680	28800	63500	64100	63500	50600
23	58000	44800	25600	8640	7340	8470	3600	34700	61800	64000	63100	50000
24	58100	44100	25100	8440	7970	7700	3310	41500	60800	64200	62700	49400
25	61400	43300	24500	8040	8620	6900	2900	49300	60900	64200	62200	48800
26	63400	42600	24000	7630	9230	6060	2730	57500	60800	64200	61600	48100
27	63200	41700	23300	7260	9870	5920	2950	58700	60600	64200	60900	47400
28	63200	41000	22800	6810	10300	6220	2780	58800	60400	63900	60300	46800
29	63100	40300	22300	6830	---	6310	3150	59000	60500	64200	59700	46200
30	63800	39700	21400	6950	---	6260	2780	58700	60700	64300	59000	45800
31	63500	---	20700	6620	---	6380	---	58600	---	63900	58700	---
MAX	63800	62600	38900	20000	10300	12800	6200	59000	63700	64300	64500	60200
MIN	50800	39700	20700	6620	5970	5920	2220	2740	57700	60900	58700	45800
a	4914.1	4852.8	4795.6	4743.4	4758.0	4742.4	4724.5	4902.1	4907.4	4914.9	4902.4	4869.4
b	+8800	-23800	-19000	-14080	+3680	-3920	-3600	+55820	+2100	+3200	-5200	-12900

CAL YR 1982 b -3900

WTR YR 1983 b -8900

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CA

LOCATION.--Lat 38°14'50", long 120°02'01", in NW 1/4 NE 1/4 sec.31, T.5 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, on left bank 200 ft upstream from Donnell powerplant, 800 ft downstream from Hells Half Acre bridge, 1.1 mi upstream from Cow Creek, and 4.7 mi northwest of Pinecrest.

DRAINAGE AREA.--287 mi².

PERIOD OF RECORD.--February 1956 to current year. Prior to October 1965, published as Middle Fork Stanislaus River at Hells Half Acre bridge.

GAGE.--Water-stage recorder. Datum of gage is 3,418.31 ft National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Aug. 9, 1961, at site 1,600 ft upstream at different datum.

REMARKS.--Records good. Flow regulated by Relief Reservoir since 1909, capacity, 15,600 acre-ft, by Donnell Lake (station 11292600), and by diversion around station through Donnell powerplant. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--27 years, 280 ft³/s, 202,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s Dec. 24, 1964, gage height, 13.64 ft in gage well, 14.2 ft outside, from floodmarks, from rating curve extended above 5,200 ft³/s on basis of slope-area measurement at gage height 12.20 ft; minimum daily, 3.3 ft³/s Nov. 9, 10, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1905, 23 ft Dec. 23, 1955, from floodmarks, at present site, discharge, 26,600 ft³/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,450 ft³/s May 29, gage height, 12.82 ft; minimum daily, 63 ft³/s Sept. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	597	252	205	218	733	432	394	5000	2990	805	159
2	68	966	216	202	214	653	431	380	4050	3130	809	96
3	67	869	212	187	212	555	399	413	3780	3380	722	85
4	66	604	217	184	210	488	357	457	4000	3430	758	80
5	65	413	210	184	216	437	330	409	4460	3610	451	77
6	65	170	199	180	233	426	312	385	4950	3780	490	75
7	67	118	191	180	233	468	302	414	4790	3790	322	72
8	65	118	180	185	237	476	305	468	4800	2970	1020	74
9	65	118	176	185	249	452	321	484	4760	2660	716	71
10	64	121	174	178	254	452	325	474	5200	1770	576	70
11	64	114	171	178	251	585	302	443	6010	1170	533	69
12	64	113	172	180	251	576	284	469	5190	1770	128	69
13	64	112	172	178	251	1940	271	479	4480	2170	93	68
14	64	110	164	175	254	1060	260	524	4590	2300	329	67
15	64	109	163	174	286	724	255	598	4240	2230	524	67
16	64	106	163	186	317	605	260	629	4120	1810	336	66
17	65	106	188	183	274	540	280	636	5720	1490	198	66
18	64	306	176	185	289	488	285	724	5970	1240	83	65
19	64	341	168	191	294	440	313	844	4910	1260	85	64
20	65	217	217	178	296	416	392	913	3690	1150	85	64
21	66	185	274	174	299	398	379	1040	4370	1040	83	64
22	68	220	749	258	299	368	398	1130	3890	1100	82	65
23	84	218	571	265	289	347	423	1220	5290	1270	80	64
24	117	193	371	456	289	340	391	1310	4680	856	79	64
25	526	178	317	341	306	318	367	1370	4070	944	77	64
26	1300	168	290	312	317	301	347	1390	4130	830	75	64
27	617	162	271	306	330	311	336	5000	3920	762	72	63
28	271	192	253	260	380	304	389	6520	3640	964	71	63
29	167	266	240	254	---	291	443	6950	3470	516	70	68
30	614	339	221	254	---	310	436	6570	3190	900	70	82
31	583	---	211	239	---	473	---	5800	---	1160	89	---
TOTAL	5715	7849	7549	6797	7548	16275	10325	48837	135360	58442	9911	2185
MEAN	184	262	244	219	270	525	344	1575	4512	1885	320	72.8
MAX	1300	966	749	456	380	1940	443	6950	6010	3790	1020	159
MIN	64	106	163	174	210	291	255	380	3190	516	70	63
AC-FT	11340	15570	14970	13480	14970	32280	20480	96870	268500	115900	19660	4330
CAL YR 1982	TOTAL	232590	MEAN	637	MAX	5220	MIN	64	AC-FT	461300		
WTR YR 1983	TOTAL	316793	MEAN	868	MAX	6950	MIN	63	AC-FT	628400		

11292800 BEARDSLEY LAKE NEAR STRAWBERRY, CA

LOCATION.--Lat 38°12'17", long 120°04'31", in SE 1/4 NW 1/4 sec.14, T.4 N., R.17 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, in hoist house of Beardsley Dam on Middle Fork Stanislaus River, 2.4 mi upstream from Spring Gap powerhouse, 3.9 mi west of Strawberry, and 4.7 mi west of Pinecrest.

DRAINAGE AREA.--309 mi².

PERIOD OF RECORD.--June 1957 to current year. Prior to October 1960, published as Lake Hartley near Strawberry.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.84 ft National Geodetic Vertical Datum of 1929 (levels by Oakdale and South San Joaquin Irrigation Districts).

REMARKS.--Reservoir is formed by rockfill, earth-core dam completed in 1957. Capacity, 98,500 acre-ft between gage heights 3,145.0 ft, tunnel invert and 3,398.0 ft, top of spillway gates. No dead storage. Reservoir is used for power and conservation storage. Water passes through Beardsley powerplant and down Middle Fork Stanislaus River to Melones Reservoir (station 11299000). Records, including extremes, represent contents at 2400 hours. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 98,700 acre-ft June 27, 1957, gage height, 3,398.2 ft; minimum since reservoir first filled, 3 acre-ft Sept. 23, 1976, gage height, 3,154.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 97,700 acre-ft on several days from July through September, gage height, 3,396.9 ft; minimum, 67,700 acre-ft Oct. 23, gage height, 3,352.1 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

3,154	2	3,240	11,600
3,160	41	3,260	19,500
3,170	267	3,290	33,100
3,180	693	3,320	48,800
3,190	1,370	3,350	66,400
3,200	2,373	3,370	79,200
3,210	3,790	3,398	98,500
3,220	5,720		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85500	85100	78200	78100	77800	77800	78400	78400	95000	96800	97200	97000
2	85500	82000	78200	78100	77800	78600	78500	78400	94900	97000	97400	97100
3	85700	79400	78200	78100	77800	78500	78200	78400	95400	96900	97400	97300
4	85800	78500	78200	78100	77700	78400	78800	78500	96000	96900	97700	97600
5	85800	78400	78200	78100	77400	78400	78900	78500	96100	97200	97500	97500
6	86000	78100	78200	78100	77400	78300	78900	78300	96000	97300	97600	97400
7	85300	78000	78100	78100	77800	78400	78800	78200	95800	97200	97600	97400
8	84100	78000	78000	78000	78100	78400	78800	78500	94900	97200	97600	97500
9	82900	78000	78000	78000	77700	78400	78600	78000	95600	96900	97500	97400
10	81700	78000	78000	78000	77700	78400	78700	78500	95900	96600	97600	97300
11	80500	78000	78000	78000	77800	78100	78800	78500	95800	97300	97400	97300
12	79400	78000	78000	78000	78100	78400	78800	78500	94900	97700	97300	97500
13	78200	78000	77900	78100	78200	79400	78800	78600	95900	97500	97200	97700
14	77100	78000	77800	78100	78200	79000	78400	78600	96100	97600	97400	97700
15	75900	78000	77800	78000	78000	78800	78000	78600	95900	97400	97400	97600
16	74800	78000	77800	78000	78000	78700	77400	78600	96700	97200	97200	97700
17	73600	78000	77800	78000	77900	78600	77000	78700	96200	97500	97400	97700
18	72500	78400	77800	78200	78000	78600	77200	78800	95800	97500	97300	97600
19	71300	78300	77700	78200	78000	78600	77500	80200	95500	97400	97500	97700
20	70200	78200	77800	78100	77900	78500	78300	82400	96200	97400	97500	97600
21	69000	78100	78200	78100	77900	78500	78400	85000	95700	97600	97400	97700
22	68100	78200	78800	78100	77400	78400	78400	87800	95400	97400	97400	97500
23	67700	78200	78500	77800	77200	78500	78500	91300	95400	97600	97500	97700
24	68000	78100	78200	78400	76700	78500	78500	93700	94900	97400	97500	97700
25	69700	78100	78100	78300	76300	78400	78400	95300	95200	97500	97600	97600
26	73700	78000	78100	78400	75900	78400	78300	95500	96100	97400	97600	97500
27	76300	78100	78100	78400	75700	78200	78200	96100	95900	97300	97600	97500
28	78000	78200	78000	78300	75900	77900	78400	95500	95400	97700	97600	97500
29	79200	78200	78000	78000	---	77900	78400	95800	95900	97400	97600	97700
30	81800	78400	78000	77800	---	78000	78500	94700	96500	97700	97600	97700
31	84200	---	78000	77900	---	78400	---	95200	---	97500	97700	---
MAX	86000	85100	78800	78400	78200	79400	78900	96100	96700	97700	97700	97700
MIN	67700	78000	77700	77800	75700	77800	77000	78200	94900	96600	97200	97000
a	3377.6	3368.8	3368.2	3368.1	3365.0	3368.8	3369.0	3393.4	3395.2	3396.6	3396.9	3396.8
b	-1200	-5800	-400	-100	-2000	+2500	+100	+16700	+1300	+1000	+200	0

CAL YR 1982 b +24600

WTR YR 1983 b +12300

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CA

LOCATION.--Lat 38°11'36", long 120°05'53", in NW 1/4 NW 1/4 sec.22, T.4 N., R.17 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 0.5 mi downstream from Beardsley afterbay dam, 1.5 mi downstream from Beardsley Dam, and 5.7 mi west of Pinecrest.

DRAINAGE AREA.--316 mi².

PERIOD OF RECORD.--December 1956 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,044.7 ft National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Records good. No diversion above station. Flow regulated by Relief Reservoir, capacity, 15,600 acre-ft, Donnell Lake since April 1957 (station 11292600), and by Beardsley Lake since January 1957 (station 11292800). See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--26 years (water years 1958-83), 667 ft³/s, 483,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft³/s May 30, 1983, gage height, 12.30 ft; minimum daily, 3.0 ft³/s Oct. 10, 11, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,080 ft³/s May 30, gage height, 12.30 ft; minimum daily, 85 ft³/s Oct. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	676	529	1090	823	715	877	1170	1190	6190	3400	1550	1040
2	676	3210	997	814	696	1250	1210	1090	4910	3550	1300	286
3	676	3110	964	808	690	1420	1220	1110	4350	3960	1300	614
4	676	1720	965	799	686	1310	721	1330	4440	3960	1180	614
5	676	1180	958	798	684	1230	1090	1340	5280	4050	1200	777
6	676	1020	943	794	685	1170	1110	1310	5970	4300	1130	777
7	680	842	945	786	726	1210	1090	912	5890	4400	990	777
8	681	802	825	746	810	1200	1090	1230	6270	3490	1560	690
9	679	799	765	717	781	1170	921	1370	5350	3280	1330	718
10	676	818	770	711	706	1170	846	1400	6060	2530	1130	792
11	674	804	769	720	708	1140	936	1350	7160	1380	1290	752
12	671	798	771	754	747	954	1060	1360	6760	2110	803	610
13	669	788	779	786	990	2410	1070	1370	4650	2760	785	658
14	667	790	732	790	930	2480	1260	1400	5310	2780	819	762
15	664	785	697	741	856	1870	938	1470	5160	2850	1170	752
16	660	785	692	721	766	1690	731	1540	4360	2480	1130	752
17	658	792	689	711	764	1600	694	1550	7080	1890	802	728
18	656	907	686	762	786	1520	694	1620	7270	1780	777	762
19	653	1170	681	812	792	1440	697	1110	5980	1880	653	728
20	651	1000	681	822	765	1390	884	699	4050	1670	757	757
21	649	927	775	792	744	1380	1210	704	5380	1530	757	737
22	646	934	1280	802	708	1190	1170	708	4670	1710	757	623
23	646	956	1550	734	606	1250	1310	713	6210	1730	713	623
24	648	914	1180	998	625	1310	1350	726	5790	1550	713	623
25	411	896	1020	1070	682	1280	1310	1480	4550	1430	713	623
26	85	791	946	1010	710	1240	1180	2180	4320	1430	728	623
27	85	841	938	1110	725	999	964	5920	4620	1380	728	627
28	88	881	887	1020	752	829	1140	8260	4520	1320	728	627
29	87	991	874	907	---	747	1080	8290	3760	1340	728	627
30	90	1130	863	727	---	790	1340	8630	3450	1330	728	620
31	86	---	840	743	---	1010	---	6820	---	1760	742	---
TOTAL	16916	31910	27552	25328	20835	40526	31486	70182	159760	75010	29691	20699
MEAN	546	1064	889	817	744	1307	1050	2264	5325	2420	958	690
MAX	681	3210	1550	1110	990	2480	1350	8630	7270	4400	1560	1040
MIN	85	529	681	711	606	747	694	699	3450	1320	653	286
AC-FT	33550	63290	54650	50240	41330	80380	62450	139200	316900	148800	58890	41060
CAL YR 1982	TOTAL	455717	MEAN	1249	MAX	4680	MIN	85	AC-FT	903900		
WTR YR 1983	TOTAL	549895	MEAN	1507	MAX	8630	MIN	85	AC-FT	1091000		

11293500 NORTH FORK STANISLAUS RIVER BELOW SILVER CREEK, CA

LOCATION.--Lat 38°26'22", long 120°00'53", unsurveyed, T.7 N., R.18 E., Alpine County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 100 ft downstream from Silver Creek, and 5.6 mi northeast of Big Meadows.

DRAINAGE AREA.--27.8 mi².

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1930: 1954(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,677.3 ft National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Flow regulated by Lake Alpine, Union, and Utica Reservoirs, combined capacity, 9,580 acre-ft. No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--31 years, 82.5 ft³/s, 59,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,780 ft³/s Dec. 24, 1964, gage height, 11.16 ft, from floodmarks, from rating curve extended above 700 ft³/s; minimum daily, 0.19 ft³/s Oct. 14, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1950, reached a stage of 11.17 ft, from Pacific Gas and Electric Co. recorder chart, discharge, 2,790 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0115	1,080	7.46	July 4	2315	990	7.35
May 29	2100	*1,770	8.47	Sept. 1	1115	383	6.22
June 17	2045	1,760	8.44				

Minimum daily, 0.19 ft³/s Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	51	90	17	19	96	98	62	728	484	81	231
2	68	37	75	17	18	65	106	66	516	711	72	107
3	67	25	63	17	17	51	92	118	601	557	64	72
4	66	27	42	17	16	42	70	165	714	619	57	60
5	65	56	36	19	16	37	56	125	892	655	48	54
6	64	92	31	20	19	35	48	95	927	619	43	50
7	63	94	29	20	35	41	46	110	858	512	41	46
8	62	97	26	22	39	43	53	159	754	380	41	43
9	59	98	25	22	28	49	73	176	815	313	57	41
10	55	100	25	21	25	57	81	172	1030	257	44	39
11	41	95	25	21	27	77	67	149	1400	299	76	38
12	8.1	89	25	22	34	90	56	182	830	323	67	29
13	.48	87	26	22	73	186	49	193	775	336	9.9	8.2
14	.19	85	24	22	62	133	43	234	952	319	9.6	7.5
15	.25	83	21	21	51	96	44	333	1050	277	14	7.0
16	2.2	81	20	21	44	70	54	364	1020	220	15	6.7
17	2.1	81	22	20	39	64	74	348	1170	197	16	6.5
18	3.0	119	22	21	45	57	77	446	987	184	16	6.1
19	5.4	124	21	24	45	46	93	561	725	172	19	5.8
20	5.5	97	24	22	38	43	128	654	679	156	20	5.7
21	5.7	88	31	20	35	46	108	765	724	147	22	5.4
22	6.9	97	59	37	34	44	135	845	875	156	17	5.9
23	46	91	50	37	39	45	158	885	899	148	14	5.8
24	111	85	30	44	44	52	125	979	774	133	12	5.7
25	383	83	25	30	51	46	98	1060	749	129	11	5.4
26	345	80	22	24	74	37	71	1020	721	114	16	5.6
27	74	78	21	38	74	39	64	1090	644	105	26	5.5
28	43	88	20	27	71	38	73	1160	610	107	25	6.2
29	35	110	19	27	---	35	74	1260	620	106	30	11
30	170	129	18	23	---	39	74	1060	552	104	37	18
31	86	---	17	20	---	81	---	984	---	91	49	---
TOTAL	2011.82	2547	984	735	1112	1880	2388	15820	24591	8930	1069.5	938.0
MEAN	64.9	84.9	31.7	23.7	39.7	60.6	79.6	510	820	288	34.5	31.3
MAX	383	129	90	44	74	186	158	1260	1400	711	81	231
MIN	.19	25	17	17	16	35	43	62	516	91	9.6	5.4
AC-FT	3990	5050	1950	1460	2210	3730	4740	31380	48780	17710	2120	1860

CAL YR 1982	TOTAL	52177.12	MEAN	143	MAX	1580	MIN	.19	AC-FT	103500
WTR YR 1983	TOTAL	63006.32	MEAN	173	MAX	1400	MIN	.19	AC-FT	125000

11294000 HIGHLAND CREEK BELOW SPICER MEADOWS RESERVOIR, CA

LOCATION.--Lat 38°23'34", long 119°59'50", in NW 1/4 NE 1/4 sec.9, T.6 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 500 ft downstream from Spicer Meadows Reservoir dam, 5.8 mi upstream from mouth, and 7 mi east of Big Meadow.

DRAINAGE AREA.--42.4 mi².

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1930: 1953.

GAGE.--Water-stage recorder. Datum of gage is 6,382.2 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by Spicer Meadows Reservoir 500 ft upstream, capacity, 4,060 acre-ft. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--31 years, 128 ft³/s, 92,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s Jan. 31, 1963, gage height, 11.88 ft, from rating curve extended above 1,200 ft³/s; no flow some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1950, reached a stage of 11.50 ft, from Pacific Gas and Electric Co. recorder chart, discharge, 8,800 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0115	*2,850	8.04	June 17	2230	2,250	7.48
Mar. 13	1330	589	5.07	July 4	2315	1,330	6.39
May 29	2015	2,540	7.76				

Minimum daily, 12 ft³/s Oct. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	187	77	59	56	96	137	113	1010	714	176	202
2	25	151	77	59	55	85	143	113	771	950	162	84
3	22	130	76	58	54	74	122	175	815	831	151	48
4	20	118	77	56	52	66	101	247	946	876	136	42
5	18	106	81	58	52	65	89	169	1170	972	117	36
6	17	100	80	60	55	65	82	139	1220	946	109	29
7	20	95	76	60	60	74	82	170	1210	815	107	28
8	19	88	75	66	71	79	98	250	1160	629	118	26
9	20	85	55	65	62	98	124	271	1150	541	111	26
10	13	88	57	63	57	114	121	261	1330	448	95	26
11	13	81	72	64	55	150	100	219	1640	477	85	26
12	12	78	72	68	76	142	89	264	1150	507	76	51
13	12	74	74	70	166	435	80	277	1040	537	68	68
14	49	73	66	69	115	245	75	354	1190	534	65	67
15	73	72	64	66	89	158	80	434	1330	490	66	66
16	72	72	60	67	77	128	96	454	1320	403	66	65
17	71	72	65	62	73	112	121	450	1470	366	57	64
18	70	95	59	66	79	98	121	531	1390	341	53	63
19	69	145	61	66	68	88	151	690	1040	319	58	62
20	68	105	80	63	70	86	185	782	944	290	54	61
21	67	87	99	63	68	83	157	904	965	276	47	59
22	67	88	86	67	68	78	203	1030	1100	289	43	58
23	67	85	84	59	83	74	223	1120	1140	274	40	57
24	69	80	76	80	90	75	160	1260	1030	255	37	56
25	1160	77	71	65	88	68	129	1370	988	245	34	55
26	1200	75	71	64	81	63	114	1360	996	222	32	58
27	332	74	68	65	78	67	106	1460	901	210	31	62
28	224	75	65	60	76	62	114	1550	853	214	30	61
29	188	88	64	62	---	60	134	1690	859	214	30	59
30	517	82	60	55	---	74	132	1440	782	210	30	58
31	277	---	58	55	---	147	---	1310	---	192	40	---
TOTAL	4878	2826	2206	1960	2074	3309	3669	20857	32910	14587	2324	1723
MEAN	157	94.2	71.2	63.2	74.1	107	122	673	1097	471	75.0	57.4
MAX	1200	187	99	80	166	435	223	1690	1640	972	176	202
MIN	12	72	55	55	52	60	75	113	771	192	30	26
AC-FT	9680	5610	4380	3890	4110	6560	7280	41370	65280	28930	4610	3420

CAL YR 1982	TOTAL	79091.9	MEAN	217	MAX	2980	MIN	4.3	AC-FT	156900
WTR YR 1983	TOTAL	93323	MEAN	256	MAX	1690	MIN	12	AC-FT	185100

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA

LOCATION.--Lat 38°14'45", long 120°17'20", in SW 1/4 NE 1/4 sec.35, T.5 N., R.15 E., Calaveras County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 700 ft upstream from intake of Utica Canal, 3.3 mi upstream from Beaver Creek, and 5.1 mi northeast of Avery.

DRAINAGE AREA.--163 mi².

PERIOD OF RECORD.--July 1914 to September 1925, November 1928 to current year. Yearly discharge only for some years, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1938(M). WSP 1515: 1915(M), 1932(M), 1936(M), 1938, 1940(M).

GAGE.--Water-stage recorder. Datum of gage is 3,388.3 ft National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to September 1922, nonrecording gage at same site at datum 0.05 ft lower.

REMARKS.--Flow regulated at low and medium stages by Lake Alpine, Spicer Meadows, Union and Utica Reservoirs, combined capacity, 13,600 acre-ft. Diversion of a maximum of 10 ft³/s during summer from Beaver Creek into river above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--66 years, 431 ft³/s, 312,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s Jan. 31, 1963, gage height, 15.00 ft, from floodmarks, from rating curve extended above 14,000 ft³/s on basis of slope-area measurement at gage height 13.8 ft; minimum daily, 5.5 ft³/s Dec. 6, 7, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0245	*10,500	10.04	Mar. 13	Unknown	Unknown	Unknown
Nov. 18	2115	2,060	5.92	May 29	2145	8,870	9.51
Dec. 22	1915	2,250	6.09	June 17	2300	7,150	8.87
Jan. 24	Unknown	Unknown	Unknown	July 5	0130	3,390	6.96
Feb. 8	Unknown	Unknown	Unknown				

Minimum daily, 35 ft³/s Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	601	539	285	436	1710	1010	837	3830	2160	344	679
2	123	448	434	277	406	1580	1010	787	2860	2640	306	377
3	117	341	409	270	376	1370	912	955	2950	2420	280	219
4	112	294	405	267	353	1220	770	1240	3380	2390	260	173
5	108	275	394	273	336	1070	656	1010	4080	2650	233	147
6	105	296	361	279	383	959	599	896	4460	2460	210	131
7	108	303	333	275	918	1020	580	920	4280	2210	199	119
8	106	292	297	295	1250	971	615	1150	3860	1700	198	112
9	101	291	288	293	849	925	735	1250	3820	1480	208	109
10	97	300	259	279	645	929	762	1240	4550	1220	193	104
11	87	282	281	276	565	1050	647	1080	5780	1290	173	100
12	71	275	283	281	633	959	572	1250	3910	1340	211	97
13	46	263	308	281	1260	2370	523	1320	3470	1390	145	109
14	35	254	270	280	910	1930	481	1490	4020	1360	112	110
15	62	248	261	273	766	1430	474	1820	4400	1260	115	107
16	91	243	247	283	649	1330	519	1960	4380	1060	123	104
17	91	241	323	276	592	1250	640	1900	4790	952	117	102
18	91	802	285	287	702	1180	654	2220	4390	883	110	100
19	90	1010	263	318	671	1050	753	2860	3340	823	112	98
20	92	569	377	268	614	997	1020	3250	3010	740	122	96
21	89	434	784	263	554	1000	916	3810	3030	651	111	95
22	93	487	1480	577	527	918	987	4230	3400	671	105	97
23	197	485	1070	565	512	865	1150	4540	3630	655	95	101
24	366	403	655	1130	489	914	975	4970	3280	578	86	98
25	3240	365	523	846	550	887	863	5370	3110	552	80	96
26	4380	338	473	675	721	819	720	5320	3100	499	75	92
27	975	319	440	1080	785	773	694	5570	2790	448	74	96
28	597	424	389	770	918	709	911	5810	2620	437	81	97
29	451	641	365	694	---	592	1010	6210	2620	432	80	100
30	1690	794	326	554	---	599	964	5300	2380	423	87	136
31	1010	---	304	478	---	963	---	4870	---	383	120	---
TOTAL	14946	12318	13426	13248	18370	34339	23122	85435	109520	38157	4765	4201
MEAN	482	411	433	427	656	1108	771	2756	3651	1231	154	140
MAX	4380	1010	1480	1130	1260	2370	1150	6210	5780	2650	344	679
MIN	35	241	247	263	336	592	474	787	2380	383	74	92
AC-FT	29650	24430	26630	26280	36440	68110	45860	169500	217200	75680	9450	8330

CAL YR 1982 TOTAL 311889 MEAN 854 MAX 14000 MIN 22 AC-FT 618600
WTR YR 1983 TOTAL 371847 MEAN 1019 MAX 6210 MIN 35 AC-FT 737600

NOTE.--No gage-height record Jan. 22 to Mar. 31.

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CA

LOCATION.--Lat 38°08'29", long 120°22'19", in NW 1/4 SW 1/4 sec.6, T.3 N., R.15 E., Calaveras County, Hydrologic Unit 18040010, on right bank 1,000 ft upstream from Stanislaus powerplant, and 3.6 mi south of Hathaway Pines.

DRAINAGE AREA.--629 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-80-3: 1979.

GAGE.--Water-stage recorder. Datum of gage is 1,077.21 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1982, published at datum 47.21 ft higher.

REMARKS.--Records good. Many diversions above station for hydroelectric powerplants. Small diversions for domestic water supply. Stanislaus tunnel diverts from left bank of Middle Fork Stanislaus River 13.7 mi upstream from station in SE 1/4 sec.24, T.4 N., R.16 E., to Stanislaus powerplant 1,000 ft downstream from station. See schematic diagram of Stanislaus River basin. For records of combined discharge of river and tunnel, see following page.

COOPERATION.--Records of diversion to Stanislaus powerplant furnished by Pacific Gas and Electric Co.

AVERAGE DISCHARGE.--River only: 16 years, 958 ft³/s, 694,100 acre-ft/yr.
Combined river and powerplant: 16 years, 1,425 ft³/s, 1,032,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 37,000 ft³/s Feb. 16, 1982, gage height, 22.5 ft from outside highwater mark, from rating curve extended above 10,000 ft³/s on basis of computation of peak flow over a weir; minimum daily, 9.4 ft³/s Aug. 7, 1977.
Combined flow: Maximum discharge, 37,500 ft³/s Feb. 16, 1982; minimum daily, 27 ft³/s July 20, 1977.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 15,900 ft³/s May 30, gage height, 17.33 ft; minimum daily, 172 ft³/s Sept. 12.
Combined flow: Maximum discharge, 16,400 ft³/s May 30; minimum daily, 669 ft³/s Oct. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	963	2120	980	1250	4610	2760	2600	9720	6400	1490	1290
2	290	3440	1530	941	1170	4260	2730	2250	7760	6900	1140	551
3	287	3360	1330	908	1090	3710	2620	2370	7350	7200	1170	287
4	282	2180	1270	877	1030	3310	2010	2940	7860	6890	1010	286
5	276	1550	1230	866	984	2910	1930	2710	9610	7040	1010	365
6	273	1410	1170	867	1110	2630	1960	2560	10700	7220	947	411
7	273	1250	1110	846	2520	2800	1900	2140	10800	7010	751	376
8	273	1180	988	845	3400	2660	1880	2540	10800	5480	1250	296
9	269	1160	824	812	2340	2540	1880	2900	9880	4960	1140	311
10	259	1190	794	765	1800	2550	1760	2860	10900	4050	853	362
11	303	1170	784	762	1590	2860	1670	2650	13000	3200	1110	361
12	317	1150	788	784	1770	2630	1680	2820	11200	2880	605	172
13	295	1140	841	814	3430	6340	1640	2980	8910	2760	508	180
14	273	943	773	820	2500	5200	1740	3140	9610	3000	435	324
15	266	589	708	780	2120	3880	1500	3560	10100	2650	788	327
16	225	568	665	779	1810	3610	1300	3900	9140	2420	757	290
17	222	572	772	780	1660	3400	1320	3890	12300	2160	469	295
18	221	1730	808	808	1950	3200	1350	4310	12300	2000	373	313
19	224	2610	718	983	1870	2880	1470	4590	10000	1790	289	307
20	220	1490	820	865	1720	2730	2020	4550	7700	1700	312	317
21	214	1180	1820	809	1560	2740	2240	5200	9040	1600	360	318
22	229	1210	4840	1620	1490	2520	2250	5640	9030	1600	325	206
23	320	1360	3620	1590	1450	2380	2580	5900	10500	1600	258	188
24	530	1150	2340	3090	1390	2510	2680	6260	9630	1550	221	294
25	3540	1040	1830	2330	1550	2440	2490	6960	8360	1500	218	319
26	4810	900	1620	1880	2000	2260	2120	7250	8120	1500	217	337
27	1330	843	1480	2950	2170	2140	1810	10600	8220	1350	235	323
28	861	963	1320	2130	2520	1970	2330	13200	8220	1210	242	305
29	669	1790	1230	1930	---	1660	2780	13500	7690	1250	271	314
30	2040	3160	1130	1560	---	1680	3020	13300	6820	1200	271	377
31	1440	---	1060	1360	---	2640	---	11200	---	1540	324	---
TOTAL	21332	43241	42333	38131	51244	93650	61420	161270	285270	103610	19349	10402
MEAN	688	1441	1366	1230	1830	3021	2047	5202	9509	3342	624	347
MAX	4810	3440	4840	3090	3430	6340	3020	13500	13000	7220	1490	1290
MIN	214	568	665	762	984	1660	1300	2140	6820	1200	217	172
AC-FT	42310	85770	83970	75630	101600	185800	121800	319900	565800	205500	38380	20630

CAL YR 1982 TOTAL 724214 MEAN 1984 MAX 21700 MIN 113 AC-FT 1436000
WTR YR 1983 TOTAL 931252 MEAN 2551 MAX 13500 MIN 172 AC-FT 1847000

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF STANISLAUS RIVER AND STANISLAUS
POWERPLANT AT STANISLAUS, NEAR HATHAWAY PINES, CA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	825	963	2650	1500	1770	5140	3290	3130	10200	6930	2030	1830
2	814	3440	2060	1470	1690	4790	3260	2780	8290	7430	1680	1090
3	811	3360	1850	1430	1610	4240	3150	2900	7880	7730	1700	828
4	806	2180	1790	1400	1550	3840	2540	3470	8390	7420	1540	824
5	800	1550	1750	1390	1510	3440	2460	3240	10100	7570	1540	902
6	797	1410	1700	1390	1640	3160	2490	3090	11200	7750	1480	946
7	797	1250	1640	1370	3050	3330	2430	2670	11300	7540	1280	910
8	797	1180	1510	1370	3930	3190	2410	3070	11300	6010	1780	828
9	793	1400	1350	1340	2870	3070	2410	3430	10400	5490	1670	843
10	783	1190	1320	1290	2330	3080	2290	3390	11400	4580	1390	893
11	827	1210	1310	1290	2120	3390	2200	3180	13500	3730	1640	892
12	840	1340	1310	1310	2300	3160	2210	3350	11700	3410	1140	702
13	818	1140	1370	1340	3960	6870	2170	3510	9440	3290	1040	710
14	796	1140	1300	1340	3030	5730	2270	3670	10100	3530	966	854
15	789	1120	1230	1300	2650	4410	2030	4090	10600	3180	1320	857
16	748	1100	1190	1300	2340	4140	1830	4430	9670	2950	1290	820
17	745	1100	1300	1300	2190	3930	1850	4420	12800	2690	999	825
18	744	2260	1330	1330	2480	3730	1880	4840	12800	2530	903	843
19	747	3140	1240	1510	2400	3410	2000	5120	10500	2320	819	837
20	743	2020	1350	1390	2250	3260	2550	5080	8230	2230	842	847
21	737	1710	2350	1330	2090	3270	2770	5730	9570	2130	890	848
22	752	1740	5370	2150	2020	3050	2780	6170	9560	2130	855	736
23	843	1890	4150	2120	1980	2910	3110	6430	11000	2130	788	718
24	1050	1680	2870	3620	1920	3040	3210	6790	10200	2080	751	824
25	3900	1570	2360	2860	2080	2970	3020	7490	8890	2030	748	849
26	4900	1430	2150	2410	2530	2790	2650	7780	8650	2030	747	867
27	1330	1370	2010	3480	2700	2670	2340	11100	8750	1880	765	853
28	861	1490	1850	2660	3050	2500	2860	13700	8750	1740	772	835
29	669	2320	1750	2460	---	2190	3310	14000	8220	1780	802	844
30	2040	3690	1650	2090	---	2210	3550	13800	7350	1740	802	907
31	1440	---	1580	1890	---	3170	---	11700	---	2080	855	---
TOTAL	34342	52383	58640	54430	66040	110080	77320	177550	300740	120060	35824	26362
MEAN	1108	1746	1892	1756	2359	3551	2577	5727	10020	3873	1156	879
MAX	4900	3690	5370	3620	3960	6870	3550	14000	13500	7750	2030	1830
MIN	669	963	1190	1290	1510	2190	1830	2670	7350	1740	747	702
AC-FT	68120	103900	116300	108000	131000	218300	153400	352200	596500	238100	71060	52290
CAL YR 1982	TOTAL	905816	MEAN	2482	MAX	22200	MIN	499	AC-FT	1797000		
WTR YR 1983	TOTAL	1113771	MEAN	3051	MAX	14000	MIN	669	AC-FT	2209000		

SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1970 to March 1978, October 1978 to February 1983 (discontinued).

INSTRUMENTATION.--Temperature recorder February 1970 to March 1978 and October 1978 to February 1983.

REMARKS.--Water temperatures are affected by the powerplant operation.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.5°C July 19, 20, 1977; minimum recorded, 1.5°C Jan. 3, 1975, Dec. 22, 27-29, 1976.

EXTREMES FOR CURRENT PERIOD.--

WATER TEMPERATURES: Maximum recorded, 15.0°C Oct. 23, 24; minimum recorded, 4.0°C Dec. 25, 31, Jan. 1, 2

TEMPERATURE (DEG. C) OF WATER, OCTOBER 1982 TO FEBRUARY 1983

DAY	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN	HAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.5	12.5	10.0	8.5	7.5	6.5	5.0	4.0	---	---	---	---
2	14.0	13.0	14.0	10.0	7.5	6.5	5.5	4.0	---	---	---	---
3	14.0	13.0	14.0	13.0	7.5	6.5	5.5	5.0	---	---	---	---
4	14.0	13.0	13.5	12.0	7.5	6.5	5.5	5.0	---	---	---	---
5	13.5	12.5	12.5	11.0	7.5	7.0	6.0	5.5	---	---	---	---
6	13.5	12.5	12.0	11.0	7.5	6.5	6.0	5.5	---	---	---	---
7	13.5	13.0	11.5	11.0	7.5	6.5	6.5	6.0	---	---	---	---
8	13.5	12.5	11.5	10.0	6.5	5.5	6.0	5.5	---	---	---	---
9	13.5	12.5	10.0	9.0	6.5	5.5	6.0	5.0	---	---	---	---
10	13.5	12.5	9.5	9.0	7.0	6.0	5.5	5.0	---	---	---	---
11	13.5	13.0	9.5	8.5	7.0	6.0	---	---	---	---	---	---
12	14.0	13.0	10.0	8.5	7.0	6.0	---	---	---	---	---	---
13	13.5	13.0	10.0	8.5	7.0	6.5	---	---	---	---	---	---
14	14.0	13.5	10.0	8.5	6.5	6.0	---	---	---	---	---	---
15	14.0	13.5	9.5	8.0	7.0	6.0	---	---	---	---	---	---
16	14.0	13.5	9.5	8.5	6.5	6.0	---	---	---	---	---	---
17	14.0	13.0	10.0	8.5	7.0	6.0	---	---	---	---	---	---
18	14.0	13.0	10.0	8.5	6.5	5.5	---	---	---	---	---	---
19	14.0	13.5	8.5	7.5	6.0	5.5	---	---	---	---	---	---
20	14.5	14.0	8.5	7.5	7.0	6.0	---	---	---	---	---	---
21	14.5	13.5	8.5	7.0	7.0	6.5	---	---	---	---	---	---
22	14.5	14.0	9.0	8.0	7.5	6.5	---	---	---	---	---	---
23	15.0	14.0	9.0	8.5	6.5	5.5	---	---	8.5	7.0	---	---
24	15.0	14.0	9.0	8.0	5.5	4.5	---	---	8.0	6.5	---	---
25	14.5	11.5	8.5	7.5	5.5	4.0	---	---	7.5	6.0	---	---
26	12.5	10.5	8.5	7.5	6.5	5.5	---	---	7.0	6.0	---	---
27	10.5	8.5	9.0	7.5	6.5	6.0	---	---	7.0	6.0	---	---
28	10.0	8.5	9.0	8.5	6.0	5.0	---	---	7.5	6.5	---	---
29	10.5	9.5	9.0	8.0	5.5	5.0	---	---	---	---	---	---
30	11.0	10.0	8.0	6.5	5.0	4.5	---	---	---	---	---	---
31	10.0	8.5	---	---	5.0	4.0	---	---	---	---	---	---
MONTH	15.0	8.5	14.0	6.5	7.5	4.0	6.5	4.0	8.5	6.0	---	---

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CA

LOCATION.--Lat 38°11'51", long 120°00'27", in SW 1/4 sec.16, T.4 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 0.3 mi downstream from bridge on State Highway 108 at Strawberry, 0.6 mi downstream from Herring Creek, and 1.2 mi downstream from Pinecrest Lake.

DRAINAGE AREA.--44.8 mi².

PERIOD OF RECORD.--October 1911 to January 1917, August 1938 to current year. Monthly discharge only for October 1913 and yearly estimates for 1912-13, published in WSP 1315-A. Published as "near Confidence" 1911-13.

REVISED RECORDS.--WSP 1215: 1945(M). WSP 1515: 1916, 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 5,235.1 ft National Geodetic Vertical Datum of 1929 (river-profile survey). October 1911 to January 1917, nonrecording gage at site 1 mi downstream at different datum.

REMARKS.--Flow at low and medium stages regulated beginning in 1916 by Pinecrest Lake 1.2 mi upstream, capacity, 18,300 acre-ft. No diversion above station. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--50 years (water years 1912-16, 1939-83), 130 ft³/s, 94,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft³/s Nov. 21, 1950, gage height, 9.25 ft, from rating curve extended above 1,100 ft³/s on basis of contracted-opening measurement of maximum flow at bridge 0.3 mi below station; minimum, 1.3 ft³/s Nov. 22, 23, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,690 ft³/s June 17, gage height, 6.34 ft; minimum daily, 39 ft³/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	156	93	84	87	127	95	101	1010	931	323	116
2	73	127	98	84	83	117	99	100	775	1040	280	87
3	73	112	91	84	83	110	98	110	768	1020	251	79
4	72	105	91	86	83	103	96	115	844	1090	212	75
5	72	101	91	88	83	99	95	111	926	1180	182	73
6	72	99	90	87	83	99	93	110	1060	1200	155	72
7	74	97	88	86	90	103	91	111	1110	1120	155	70
8	75	94	87	88	92	98	91	123	1060	934	197	70
9	75	94	87	89	89	102	91	130	998	819	180	70
10	75	95	87	88	88	105	91	134	1140	646	169	69
11	75	93	87	90	88	113	90	125	1370	706	156	69
12	70	93	89	92	90	116	90	134	1080	776	130	69
13	71	92	86	90	100	165	88	129	962	838	95	69
14	72	92	85	84	95	133	88	142	1050	846	94	70
15	73	89	85	85	95	117	87	155	1200	794	117	69
16	72	89	86	88	96	110	87	168	1220	656	143	69
17	69	89	89	88	97	105	88	181	1310	571	106	68
18	69	100	90	90	90	101	90	205	1340	548	88	69
19	68	94	89	91	87	99	91	239	1130	524	114	69
20	69	94	88	91	87	98	95	293	986	480	109	70
21	70	93	91	92	85	94	99	358	982	458	85	70
22	73	98	105	99	85	89	104	470	1120	473	63	71
23	81	95	98	94	87	88	106	897	1180	471	52	73
24	89	93	92	109	88	88	104	1050	1120	430	48	72
25	385	91	92	96	89	97	99	1170	1050	427	39	71
26	382	89	90	95	91	88	98	1240	1110	380	47	71
27	174	89	90	98	92	88	95	1280	1060	357	62	77
28	177	92	88	96	101	88	101	1310	1020	374	59	72
29	160	93	88	97	---	88	102	1370	1020	379	66	90
30	463	94	86	94	---	88	99	1300	969	380	70	98
31	241	---	84	95	---	116	---	1180	---	336	91	---
TOTAL	3738	2932	2781	2818	2504	3232	2841	14541	31970	21184	3938	2237
MEAN	121	97.7	89.7	90.9	89.4	104	94.7	469	1066	683	127	74.6
MAX	463	156	105	109	101	165	106	1370	1370	1200	323	116
MIN	68	89	84	84	83	88	87	100	768	336	39	68
AC-FT	7410	5820	5520	5590	4970	6410	5640	28840	63410	42020	7810	4440

CAL YR 1982 TOTAL 80334 MEAN 220 MAX 1760 MIN 13 AC-FT 159300
WTR YR 1983 TOTAL 94716 MEAN 259 MAX 1370 MIN 39 AC-FT 187900

NOTE.--No gage-height record Mar. 26 to May 16.

11297000 PHILADELPHIA CANAL NEAR STRAWBERRY, CA

LOCATION.--Lat 38°10'39", long 120°02'46", in NW 1/4 NW 1/4 sec.30, T.4 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 250 ft downstream from diversion dam on South Fork Stanislaus River, and 2.8 mi southwest of Strawberry.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,960 ft National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Canal diverts from right bank of South Fork Stanislaus River for power development in Spring Gap powerplant of Pacific Gas and Electric Co.; tailrace empties into Middle Fork Stanislaus River at powerplant above Sand Bar Flat. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--44 years, 42.7 ft³/s, 30,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 64 ft³/s in 1941, 1961-63, 1965, 1971-72, 1974-75, 1982-83; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	59	56	60	59	47	61	60	58	60	61	62
2	60	59	59	60	59	4.1	61	60	60	61	59	60
3	60	60	60	60	59	.08	61	60	62	61	59	60
4	60	60	60	60	59	.08	60	61	63	62	60	60
5	60	60	59	60	59	.08	60	60	62	62	60	61
6	60	60	59	60	52	.08	60	60	62	62	60	62
7	60	60	59	60	51	2.4	60	60	61	61	62	62
8	61	60	59	60	53	7.6	60	61	60	60	62	62
9	60	60	60	60	53	29	60	61	63	60	61	61
10	60	58	60	60	56	59	61	60	60	59	61	61
11	61	58	60	60	59	59	62	60	61	61	41	61
12	61	60	60	60	60	59	62	60	59	62	42	61
13	62	60	60	60	57	54	62	60	61	63	59	60
14	62	60	60	60	59	55	60	61	62	61	60	61
15	61	60	60	60	59	58	60	62	62	62	61	61
16	61	60	60	60	59	54	57	62	62	61	63	60
17	61	61	60	60	60	54	59	61	62	61	61	61
18	61	58	60	60	61	59	58	63	62	61	60	61
19	61	56	60	55	60	58	50	64	60	61	61	61
20	61	59	58	58	60	58	61	63	60	60	61	62
21	61	60	56	60	60	59	60	63	62	61	60	60
22	61	59	51	56	60	59	52	61	61	61	17	61
23	62	58	50	52	60	57	61	60	61	61	0	60
24	61	60	60	53	60	56	61	61	60	60	0	61
25	54	60	60	52	60	59	61	62	61	61	0	61
26	54	60	60	53	60	59	61	56	61	61	12	61
27	58	60	60	50	59	59	60	63	60	61	28	60
28	61	61	60	49	58	59	61	63	60	61	40	61
29	60	59	60	51	---	59	60	63	62	62	58	61
30	55	56	60	54	---	59	60	62	62	61	60	61
31	53	---	60	57	---	60	---	62	---	61	61	---
TOTAL	1853	1781	1826	1780	1631	1362.42	1792	1895	1832	1892	1510	1827
MEAN	59.8	59.4	58.9	57.4	58.2	43.9	59.7	61.1	61.1	61.0	48.7	60.9
MAX	62	61	60	60	61	60	62	64	63	63	63	62
MIN	53	56	50	49	51	.08	50	56	58	59	0	60
AC-FT	3680	3530	3620	3530	3240	2700	3550	3760	3630	3750	3000	3620
CAL YR 1982	TOTAL	21503.13	MEAN	58.9	MAX	63	MIN	0	AC-FT	42650		
WTR YR 1983	TOTAL	20981.42	MEAN	57.5	MAX	64	MIN	0	AC-FT	41620		

11297500 TUOLUMNE CANAL NEAR LONG BARN, CA

LOCATION.--Lat 38°05'35", long 120°10'03", in SE 1/4 SW 1/4 sec.24, T.3 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank 300 ft downstream from intake, 350 ft downstream from Lyons Reservoir on South Fork Stanislaus River, 2 mi west of Long Barn, and 15 mi northeast of Sonora.

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,110.0 ft National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to June 1938, at site 200 ft downstream at different datum.

REMARKS.--Canal diverts from left bank of South Fork Stanislaus River into Tuolumne River basin for power and domestic supply in vicinity of Sonora. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--46 years, 28.4 ft³/s, 20,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 59 ft³/s May 11, 1975; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	29	33	43	37	33	33	41	46	48	49	48
2	30	34	42	43	38	28	39	40	48	49	49	49
3	30	39	44	42	38	35	41	40	48	49	50	48
4	30	40	44	42	39	36	40	40	48	49	43	49
5	30	42	45	43	41	36	41	40	48	50	48	49
6	30	43	43	44	41	34	40	39	48	49	48	49
7	30	43	44	44	36	35	45	40	49	48	48	48
8	30	43	43	43	31	33	41	41	49	48	48	48
9	30	42	43	43	35	36	41	41	48	49	49	48
10	30	42	42	43	40	41	41	41	50	48	49	49
11	30	42	43	41	39	41	41	41	49	47	49	49
12	30	42	43	41	40	41	43	41	42	48	50	49
13	30	43	43	43	43	35	41	41	43	53	50	49
14	30	43	43	43	42	26	41	41	47	52	49	49
15	30	43	43	43	42	34	41	41	52	51	49	49
16	30	43	43	43	41	34	41	42	48	50	49	49
17	29	44	44	41	40	30	41	41	46	45	50	49
18	8.1	40	44	42	41	32	41	42	46	47	49	49
19	0	37	44	43	41	33	41	42	45	48	49	48
20	0	41	44	43	40	35	41	43	45	49	49	48
21	0	42	40	43	40	36	41	43	48	50	49	48
22	4.3	43	21	39	40	36	41	40	50	49	48	49
23	27	43	34	22	40	36	41	41	50	50	48	49
24	28	43	47	22	40	37	42	43	50	49	48	48
25	11	43	36	29	41	36	42	45	50	49	48	48
26	0	42	44	31	41	36	41	44	50	50	48	48
27	0	42	43	35	41	36	40	44	49	51	48	48
28	0	43	43	34	41	37	41	44	50	50	49	48
29	.49	41	43	33	---	38	41	44	49	49	49	49
30	36	29	47	34	---	39	41	46	48	49	48	49
31	32	---	43	35	---	38	---	43	---	49	48	---
TOTAL	655.89	1226	1298	1215	1109	1093	1225	1295	1439	1522	1505	1457
MEAN	21.2	40.9	41.9	39.2	39.6	35.3	40.8	41.8	48.0	49.1	48.5	48.6
MAX	36	44	47	44	43	41	45	46	52	53	50	49
MIN	0	29	21	22	31	26	33	39	42	45	43	48
AC-FT	1300	2430	2570	2410	2200	2170	2430	2570	2850	3020	2990	2890
CAL YR 1982	TOTAL	14613.89	MEAN	40.0	MAX	58	MIN	0	AC-FT	28990		
WTR YR 1983	TOTAL	15039.89	MEAN	41.2	MAX	53	MIN	0	AC-FT	29830		

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CA

LOCATION.--Lat 38°05'33", long 120°10'02", in SE 1/4 SW 1/4 sec.24, T.3 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank 600 ft downstream from Lyons Dam, 2 mi west of Long Barn, and 15 mi northeast of Sonora.

DRAINAGE AREA.--66.9 mi².

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1938(M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 4,073.4 ft National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Flow regulated by Lyons Reservoir 600 ft upstream, capacity, 5,510 acre-ft and Pinecrest Lake, capacity, 18,300 acre-ft. Tuolumne Canal (station 11297500) diverts at Lyons Dam; other diversions, see schematic diagram of Stanislaus River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--46 years, 87.5 ft³/s, 63,470 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,900 ft³/s Nov. 21, 1950, gage height, 9.3 ft, from rating curve extended above 1,100 ft³/s on basis of computation of maximum flow over Lyons Dam; no flow at times in 1937-39, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft³/s May 30, gage height, 6.38 ft; minimum daily, 1.3 ft³/s Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	125	153	39	100	875	177	190	1050	828	209	2.5
2	2.0	62	83	34	85	819	166	161	741	819	187	2.4
3	2.0	33	62	30	76	583	148	140	659	897	183	2.2
4	2.1	22	55	27	66	435	127	141	759	882	107	2.7
5	2.1	13	47	24	59	350	107	134	809	1050	45	2.9
6	2.1	7.9	43	21	87	299	94	133	965	1140	44	2.6
7	2.0	7.5	38	19	296	298	80	114	1020	1180	43	2.3
8	2.0	7.5	28	18	324	267	79	113	1010	991	44	2.4
9	2.0	4.8	26	17	233	234	77	116	877	853	110	2.4
10	2.0	2.1	25	15	178	172	79	115	1010	619	78	2.6
11	2.0	2.0	22	14	147	191	76	100	1270	558	29	2.7
12	2.0	2.0	20	13	245	190	70	102	1050	573	32	2.7
13	2.0	2.0	23	9.8	270	607	69	98	838	647	9.9	2.6
14	2.0	1.9	20	8.5	232	476	65	99	887	754	3.3	2.6
15	2.0	2.2	17	7.8	214	308	59	114	1040	763	2.7	2.4
16	2.0	2.3	15	12	180	252	55	134	1110	668	3.2	2.4
17	2.0	1.6	26	17	156	239	56	135	1150	504	4.8	2.4
18	1.4	53	30	20	188	208	59	157	1260	438	2.9	2.2
19	1.3	159	24	44	175	175	64	190	1070	358	2.8	2.2
20	2.0	62	40	27	152	157	79	224	877	331	2.4	2.2
21	2.4	35	125	20	135	162	73	262	828	297	2.2	2.1
22	2.6	47	634	154	124	146	73	327	949	289	2.0	2.2
23	2.2	61	506	197	124	133	89	776	1060	308	2.0	2.2
24	2.2	38	229	417	122	136	130	1020	1010	315	2.0	2.2
25	3.2	26	168	277	147	115	131	1160	923	308	2.0	2.0
26	3.3	19	123	209	190	105	111	1260	975	214	1.9	2.0
27	2.7	14	97	333	224	122	101	1290	949	171	2.3	2.0
28	2.4	16	78	230	280	135	152	1350	668	234	2.8	2.1
29	2.5	71	65	207	---	112	207	1380	843	245	2.6	2.3
30	125	327	50	156	---	114	215	1390	853	247	2.5	2.2
31	268	---	46	126	---	178	---	1200	---	245	2.5	---
TOTAL	455.6	1226.8	2918	2743.1	4809	8593	3068	14125	28510	17726	1167.8	70.7
MEAN	14.7	40.9	94.1	88.5	172	277	102	456	950	572	37.7	2.36
MAX	268	327	634	417	324	875	215	1390	1270	1180	209	2.9
MIN	1.3	1.6	15	7.8	59	105	55	98	659	171	1.9	2.0
AC-FT	904	2430	5790	5440	9540	17040	6090	28020	56550	35160	2320	140
CAL YR 1982	TOTAL	69718.6	MEAN	191	MAX	3040	MIN	1.3	AC-FT	138300		
WTR YR 1983	TOTAL	85413.0	MEAN	234	MAX	1390	MIN	1.3	AC-FT	169400		

11299000 NEW MELONES RESERVOIR NEAR SONORA, CA

LOCATION.--Lat 37°57'02", long 120°30'49", in NW 1/4 SE 1/4 sec.11, T.1 N., R.13 E., Tuolumne County, Hydrologic Unit 18040010, at right abutment of New Melones Dam on Stanislaus River, 0.1 mi downstream from the old Melones Dam, and 7.6 mi southwest of Sonora.

DRAINAGE AREA.--904 mi².

PERIOD OF RECORD.--1926 (year-end content only, published in WSP 1315-A), June 1927 to current year. Prior to October 1970, published as Melones Reservoir at Melones Dam. October 1970 to September 1978, published as Melones Lake near Sonora.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Feb. 28, 1961, nonrecording gage and Mar. 1, 1961, to Nov. 26, 1978, water-stage recorder at site on left side of old Melones Dam, at same datum.

REMARKS.--Reservoir is formed by earth and rockfill dam completed in November 1978. Dam is downstream from the original concrete dam which was completed in December 1926. Usable capacity 2,420,000 acre-ft between elevations 543.0 ft invert entrance to outlet tunnel, and 1,088.0 ft gross pool elevation. No dead storage. When elevation is above 808.0 ft water is released through a powerplant to Tulloch Reservoir where it is used for irrigation. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,400,000 acre-ft July 8-10, 1983, elevation, 1,086.42 ft; minimum since reservoir first filled, 2,024,000 acre-ft Sept. 30, 1983, elevation, 1,054.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,400,000 acre-ft July 8-10, elevation, 1,086.42 ft; minimum, 1,329,000 acre-ft Oct. 22-24, elevation 984.05 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

700	53,900	760	160,500	880	611,500	1,000	1,471,000
710	66,950	780	212,300	900	723,000	1,020	1,662,000
720	81,800	800	272,800	920	846,500	1,040	1,867,000
730	98,530	820	342,400	940	982,600	1,060	2,087,000
740	117,200	840	421,800	960	1,132,000	1,088	2,420,000
750	137,800	860	511,200	980	1,295,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1357000	1352000	1439000	1545000	1688000	1903000	2068000	1930000	2042000	2372000	2321000	2141000
2	1356000	1358000	1444000	1548000	1693000	1924000	2065000	1927000	2051000	2378000	2316000	2138000
3	1356000	1363000	1447000	1551000	1696000	1938000	2062000	1925000	2060000	2378000	2311000	2134000
4	1351000	1366000	1449000	1554000	1700000	1949000	2057000	1923000	2069000	2382000	2305000	2129000
5	1350000	1367000	1450000	1558000	1704000	1956000	2052000	1922000	2081000	2387000	2300000	2125000
6	1349000	1367000	1452000	1561000	1710000	1963000	2048000	1923000	2096000	2392000	2295000	2121000
7	1347000	1367000	1453000	1563000	1727000	1971000	2042000	1921000	2110000	2397000	2289000	2116000
8	1346000	1367000	1454000	1564000	1744000	1977000	2038000	1919000	2124000	2400000	2284000	2112000
9	1344000	1367000	1456000	1565000	1749000	1982000	2032000	1918000	2138000	2400000	2278000	2108000
10	1343000	1367000	1456000	1566000	1761000	1986000	2027000	1916000	2154000	2400000	2272000	2104000
11	1341000	1368000	1458000	1569000	1768000	1990000	2021000	1913000	2174000	2395000	2267000	2099000
12	1339000	1367000	1458000	1572000	1775000	1995000	2016000	1909000	2190000	2392000	2260000	2095000
13	1337000	1367000	1459000	1571000	1788000	2028000	2010000	1907000	2202000	2391000	2254000	2090000
14	1336000	1367000	1460000	1570000	1796000	2045000	2004000	1904000	2214000	2390000	2247000	2086000
15	1334000	1370000	1461000	1570000	1804000	2053000	1996000	1903000	2228000	2388000	2241000	2082000
16	1332000	1370000	1461000	1571000	1811000	2058000	1989000	1903000	2239000	2385000	2235000	2077000
17	1333000	1372000	1463000	1571000	1817000	2062000	1982000	1903000	2253000	2381000	2228000	2073000
18	1333000	1378000	1465000	1572000	1824000	2066000	1974000	1904000	2269000	2377000	2222000	2068000
19	1332000	1386000	1466000	1575000	1831000	2068000	1967000	1906000	2281000	2374000	2215000	2064000
20	1331000	1389000	1467000	1576000	1836000	2070000	1962000	1906000	2288000	2370000	2208000	2060000
21	1330000	1391000	1481000	1578000	1839000	2073000	1957000	1909000	2299000	2365000	2202000	2056000
22	1329000	1394000	1497000	1589000	1842000	2075000	1952000	1911000	2309000	2361000	2195000	2052000
23	1329000	1397000	1511000	1597000	1846000	2077000	1948000	1914000	2322000	2358000	2188000	2049000
24	1329000	1340000	1517000	1614000	1847000	2082000	1946000	1919000	2332000	2354000	2181000	2047000
25	1336000	1401000	1521000	1623000	1850000	2085000	1942000	1924000	2339000	2350000	2175000	2042000
26	1346000	1403000	1524000	1632000	1856000	2082000	1938000	1933000	2346000	2346000	2169000	2037000
27	1347000	1404000	1528000	1649000	1867000	2081000	1933000	1949000	2353000	2342000	2163000	2034000
28	1347000	1406000	1530000	1660000	1880000	2078000	1931000	1970000	2361000	2338000	2157000	2030000
29	1347000	1411000	1534000	1670000	---	2076000	1930000	1990000	2366000	2334000	2152000	2027000
30	1350000	1430000	1538000	1677000	---	2072000	1931000	2011000	2369000	2329000	2146000	2024000
31	1352000	---	1542000	1683000	---	2070000	---	2028000	---	2325000	2142000	---
MAX	1357000	1430000	1542000	1683000	1880000	2085000	2068000	2028000	2369000	2400000	2321000	2141000
MIN	1329000	1340000	1439000	1545000	1688000	1903000	1930000	1903000	2042000	2325000	2142000	2024000
a	986.71	995.53	1007.59	1022.09	1041.23	1059.57	1045.99	1054.82	1083.89	1080.34	1064.81	1054.45
b	-6000	+78000	+112000	+141000	+197000	+190000	-139000	+97000	+341000	-44000	-183000	-118000
c	2620	1090	820	730	1190	2020	3490	5980	8540	10000	9490	6270

CAL YR 1982 b +1196300
WTR YR 1983 b +666000

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

SAN JOAQUIN RIVER BASIN

11299600 BLACK CREEK NEAR COPPEROPOLIS, CA

LOCATION.--Lat 37°57'40", long 120°36'51"; in SE 1/4 SE 1/4, sec.2, T.1 N., R.12 E., Calaveras County, Hydrologic Unit 18040010, on left bank 100 ft upstream from O'Byrnes Ferry Road bridge, 1,300 ft upstream from Copper Creek, and 2.1 mi southeast of Copperopolis.

DRAINAGE AREA.--14.4 mi².

PERIOD OF RECORD.--August 24, 1983 to September 1983.

GAGE.--Water-stage recorder. Datum of gage is 746.13 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No storage or diversion above station. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD.--Maximum discharge, 0.58 ft³/s Aug. 31, gage height, 2.04 ft; minimum, no flow for several days during September.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1983
MEAN VALUES

[illegible]

11299995 TULLOCH RESERVOIR NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°52'34", long 120°36'12", in Rancheria Del Rio Estanislao Grant, T.1 S., R.12 E., Tuolumne County, Hydrologic Unit 18040010, in center of dam on Stanislaus River, 1.9 mi upstream from Goodwin Dam, and 5.3 mi northeast of Knights Ferry.

DRAINAGE AREA.--980 mi².

PERIOD OF RECORD.--November 1957 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Oakdale and South San Joaquin Irrigation Districts).

REMARKS.--Reservoir is formed by gravity-type concrete dam completed in October 1957. Usable capacity, 56,840 acre-ft between elevations 431.0 ft normal minimum water surface, and 511.0 ft top of radial gates. Dead storage, 11,560 acre-ft. Reservoir is used for irrigation and power. Water passes down Stanislaus River, some first passing through Tulloch powerplant at dam. Part of flow is diverted at Goodwin Dam to Oakdale Canal (station 11301000) and South San Joaquin Canal (station 11300500). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 69,500 acre-ft Jan. 7, 1965, elevation, 512.0 ft; minimum, 4,580 acre-ft Oct. 3, 1960, elevation, 404.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 66,600 acre-ft July 5, 16, 17, elevation, 509.7 ft; minimum, 55,700 acre-ft Feb. 2, elevation, 500.4 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

404	4,580	460	23,600
411	6,020	475	33,100
420	8,200	490	45,300
430	11,100	512	69,500
445	16,400		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62400	60600	59100	59100	55800	58700	59600	64200	65500	64000	65200	66000
2	61700	59600	57300	59000	55700	58500	60300	64600	65700	65100	65700	65100
3	60400	59200	57200	58800	56400	57900	60600	64500	65600	66100	65800	65500
4	63600	58800	57600	58600	57000	58400	60700	64700	65800	66100	66100	66200
5	63600	59100	58300	58500	57000	58800	60200	62800	65800	66600	65800	66100
6	63600	59200	58600	58300	57600	58800	60700	61700	65600	66300	65600	65700
7	63500	59300	58700	59000	60900	58800	60200	65700	66000	66000	65600	65700
8	63400	59300	58700	59100	58800	58700	60000	62400	66000	66000	65600	65700
9	63500	59800	58500	59300	57300	58400	60000	62100	64700	66100	66000	65700
10	63800	60000	58500	59000	56500	58700	60200	62200	63800	65500	66000	65700
11	64000	60000	58400	56900	56300	58800	59600	62900	64400	65600	65800	65700
12	63600	60200	58600	56000	56500	58800	60000	63900	64400	65500	65800	65800
13	64200	60300	58700	56400	57200	59500	60200	63900	63800	65200	65800	65800
14	63500	60400	58700	57900	57300	57900	60900	64500	64000	66000	65500	65600
15	62400	60600	58700	58000	57200	58000	62000	64700	63800	66100	66000	65700
16	64200	59600	58600	58000	57300	58700	62300	64000	63500	66600	66000	65700
17	62600	58400	58800	58400	57000	58500	62100	63600	65100	66600	66000	65700
18	62200	60000	58700	59100	58400	59300	62700	62800	65500	66300	65600	65700
19	62100	60200	58700	59100	58300	58400	63800	62300	65600	65500	65400	66200
20	62000	60100	58700	58800	58500	59400	63500	62400	65200	65800	65000	66200
21	62000	60000	60900	58300	58400	59200	63600	62300	64500	66200	65600	66100
22	62100	59900	60000	60700	58600	59400	64000	62700	63200	66200	65200	66000
23	62000	59100	58300	57500	57900	59500	64200	62900	63800	66100	65000	66200
24	61800	58300	58600	58200	57800	59000	64100	63900	64400	65700	65100	64700
25	62100	58200	59000	56700	59000	58300	63500	65700	64700	66000	65400	65800
26	62400	57900	58800	56800	59400	60600	63300	66000	64000	66200	65700	66100
27	62100	57800	58800	58400	59500	60300	63500	65200	64000	66100	66100	66200
28	61600	58200	59400	56700	59100	60600	63900	65000	62800	65400	66000	66100
29	61100	59500	59500	56800	---	60800	64200	65800	62400	65400	66200	66500
30	60900	61300	59300	56100	---	60800	64100	65800	63800	65400	66000	66300
31	60400	---	59300	55800	---	60200	---	65200	---	65400	66100	---
MAX	64200	61300	60900	60700	60900	60800	64200	66000	66000	66600	66200	66500
MIN	60400	57800	57200	55800	55700	57900	59600	61700	62400	64000	65000	64700
a	504.6	505.3	503.6	500.5	503.4	504.4	507.7	508.6	507.4	508.7	509.3	509.5
b	-2500	+900	-2000	-3500	+3300	+1100	+3900	+1100	-1400	+1600	+700	+200

CAL YR 1982 b -900

WTR YR 1983 b +3400

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°52'34", long 120°36'15", in Rancheria del Rio Estanislao Grant, T.1 S., R.12 E., on Calaveras-Tuolumne County line, Hydrologic Unit 18040010, temperature recorder in south corner of Tulloch powerplant at downstream side of Tulloch Dam, 5.2 mi northeast of Knights Ferry.

DRAINAGE AREA.--980 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1972 to current year.

INSTRUMENTATION.--Temperature recorder since June 1972.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.5°C Aug. 30, 1977; minimum recorded, 5.0°C Jan. 13, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 11.5°C Aug. 21, Sept. 20-30; minimum recorded, 9.0°C on many days March through May.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	HAX	HIN	HAX	HIN	HAX	HIN	HAX	HIN	HAX	HIN	HAX	HIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0	10.0	10.0	10.5	10.0
2	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0	10.0	10.0	10.5	10.0
3	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0
4	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5
5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5
6	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5
7	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0
8	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0
9	10.0	10.0	10.5	10.5	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.0
10	10.0	10.0	10.5	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
11	10.0	10.0	10.5	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
12	10.0	10.0	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
13	10.5	10.0	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
14	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5
15	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5
16	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5
17	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.0	10.0	9.5
18	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5	9.5
19	10.0	10.0	10.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5	9.0
20	10.0	10.0	10.0	10.0	10.5	10.5	10.0	10.0	10.0	10.0	9.5	9.0
21	10.0	10.0	10.0	10.0	10.5	10.5	9.5	9.5	10.0	10.0	9.5	9.0
22	10.5	10.0	10.0	10.0	10.5	10.5	10.0	9.5	10.0	10.0	9.0	9.0
23	10.5	10.0	10.0	10.0	10.5	10.5	10.0	9.5	10.0	10.0	9.0	9.0
24	10.5	10.0	10.0	10.0	10.5	10.5	10.0	9.5	10.0	10.0	9.0	9.0
25	10.5	10.0	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0	9.0	9.0
26	10.5	10.0	10.0	10.0	10.5	10.5	10.0	10.0	10.5	10.0	9.0	9.0
27	10.5	10.0	10.0	10.0	10.5	10.5	10.0	10.0	10.0	10.0	9.0	9.0
28	10.5	10.0	10.0	10.0	10.5	10.5	10.0	10.0	10.0	10.0	9.0	9.0
29	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	---	---	9.0	9.0
30	10.5	10.5	10.0	10.0	10.5	10.5	10.0	10.0	---	---	9.0	9.0
31	10.5	10.5	---	---	10.5	10.0	10.0	10.0	---	---	9.0	9.0
MONTH	10.5	10.0	10.5	10.0	10.5	10.0	10.5	9.5	10.5	10.0	10.5	9.0

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	10.5
2	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
3	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
4	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
5	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
6	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
7	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
8	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
9	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
10	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
11	9.0	9.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
12	9.0	9.0	9.0	9.0	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
13	9.0	9.0	9.0	9.0	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
14	9.0	9.0	9.0	9.0	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
15	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
16	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
17	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
18	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
19	9.0	9.0	9.5	9.0	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
20	9.0	9.0	9.5	9.0	10.0	10.0	10.0	10.0	10.5	10.5	11.5	11.0
21	9.0	9.0	9.5	9.5	10.0	10.0	10.0	10.0	11.5	10.5	11.5	11.0
22	9.0	9.0	9.5	9.5	10.0	10.0	10.0	10.0	11.0	10.5	11.5	11.5
23	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.0	11.0	10.5	11.5	11.5
24	9.0	9.0	9.5	9.5	10.0	10.0	10.0	10.0	10.5	10.5	11.5	11.5
25	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.0	10.5	10.5	11.5	11.5
26	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	10.5	10.5	11.5	11.5
27	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	10.5	10.5	11.5	11.5
28	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	10.5	10.5	11.5	11.5
29	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	10.5	11.5	11.5
30	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	10.5	11.5	11.5
31	---	---	9.5	9.5	---	---	10.5	10.5	11.0	10.5	---	---
MONTH	9.0	9.0	9.5	9.0	10.0	9.5	10.5	10.0	11.5	10.5	11.5	10.5

SAN JOAQUIN RIVER BASIN

11300500 SOUTH SAN JOAQUIN CANAL NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'16", long 120°38'14", in Rancheria Del Rio Estanislao Grant, Calaveras County, Hydrologic Unit 18040010, on left bank 0.8 mi downstream from headgate at Goodwin Dam, and 3.0 mi northeast of Knights Ferry.

PERIOD OF RECORD.--May 1914 to current year. Monthly and yearly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 334.18 ft National Geodetic Vertical Datum of 1929 (levels by Oakdale Irrigation District). Prior to Mar. 12, 1915, nonrecording gage 100 ft downstream. Mar. 12, 1915, to July 1, 1921, nonrecording gage at present site and datum.

REMARKS.--Records good. Canal diverts from right bank of Stanislaus River at Goodwin Dam for irrigation in Oakdale and South San Joaquin Irrigation Districts. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--69 years, 435 ft³/s, 315,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,320 ft³/s Aug. 10-17, 1978; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	1.0	.17	1.5	2.4	675	885	568	1200	1230	1240	674
2	273	1.0	.13	1.5	1.7	335	888	488	1190	1230	1240	771
3	290	1.0	0	1.5	.72	84	889	425	1200	1230	1240	923
4	267	1.0	0	1.5	.27	117	888	465	1200	1220	1240	970
5	267	7.1	0	1.5	.18	358	886	495	1190	1170	1240	967
6	267	0	0	1.5	.41	370	886	424	1150	1120	1240	956
7	267	0	0	1.5	65	375	885	425	1040	1120	1240	946
8	345	0	0	1.5	21	361	885	471	966	1120	1240	950
9	542	.07	0	1.5	20	381	883	572	921	1190	1240	950
10	542	.05	0	1.5	20	399	883	746	919	1220	1240	922
11	542	0	0	1.5	19	401	883	887	917	1220	1240	887
12	543	0	0	1.5	19	405	882	964	1050	1230	1240	888
13	389	0	0	1.5	20	435	881	987	1140	1230	1240	943
14	251	0	0	1.5	19	397	880	1000	1190	1230	1230	987
15	251	0	0	1.5	19	387	879	1040	1230	1220	1230	1040
16	46	0	41	1.5	19	395	878	995	1230	1230	1230	1040
17	2.5	0	79	1.4	19	393	878	936	1240	1230	1230	1020
18	1.9	.81	90	1.5	13	393	877	1010	1240	1220	1230	1010
19	2.6	.21	66	1.9	12	393	876	1080	1240	1220	1230	873
20	4.1	.01	101	1.7	20	398	871	1200	1240	1230	1230	766
21	4.1	0	204	1.5	179	320	870	1210	1240	1230	1230	766
22	4.1	0	207	2.8	385	9	879	1210	1240	1190	1230	766
23	4.1	0	205	2.3	560	163	839	1210	1240	1160	1220	765
24	3.9	0	204	2.7	869	454	758	1190	1230	1160	1210	788
25	3.6	0	203	2.2	570	455	766	1200	1230	1160	1140	868
26	3.9	0	293	2.0	15	468	869	1200	1230	1220	1090	785
27	2.7	0	239	3.0	299	469	874	1200	1230	1240	1100	713
28	1.1	.08	3.4	2.5	864	468	845	1200	1230	1250	1100	701
29	1.1	.31	1.9	2.9	---	465	716	1200	1230	1240	1080	684
30	1.0	.74	1.6	2.6	---	672	616	1200	1220	1240	1080	493
31	1.0	---	1.5	2.4	---	883	---	1200	---	1240	871	---
TOTAL	5372.7	13.38	1940.70	57.4	4051.68	12278	25675	28398	35013	37440	37081	25812
MEAN	173	.45	62.6	1.85	145	396	856	916	1167	1208	1196	860
MAX	543	7.1	293	3.0	869	883	889	1210	1240	1250	1240	1040
MIN	1.0	0	0	1.4	.18	9.0	616	424	917	1120	871	493
AC-FT	10660	27	3850	114	8040	24350	50930	56330	69450	74260	73550	51200
CAL YR 1982	TOTAL	190865.16	MEAN	523	MAX	1250	MIN	0	AC-FT	378600		
WTR YR 1983	TOTAL	213132.86	MEAN	584	MAX	1250	MIN	0	AC-FT	422700		

11300600 SOUTH SAN JOAQUIN CANAL BELOW DIVISION POINT, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°49'54", long 120°40'24", in Rancheria del Rio Estanislao Grant, Stanislaus County, Hydrologic Unit 18040002, on left bank 600 ft downstream from division point and 0.85 mi north of Knights Ferry.

PERIOD OF RECORD.--October 1982 to September 1983.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 325 ft, from topographic map.

REMARKS.--Records good. Canal diverts 600 ft upstream from South San Joaquin Canal (station 11300500) for irrigation in South San Joaquin Irrigation District. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 890 ft³/s Apr. 19; no flow for many days from October through February.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	0	.03	0	.01	655	855	544	847	840	847	282
2	27	0	.01	0	0	320	856	465	845	841	847	379
3	29	0	.01	0	0	80	858	396	845	841	847	541
4	27	0	0	0	0	112	858	393	845	841	848	599
5	27	11	0	0	0	342	858	393	845	780	848	599
6	26	0	0	0	.63	354	860	395	797	736	847	599
7	26	0	0	0	69	359	861	396	680	736	847	599
8	99	0	0	0	31	345	862	398	584	736	848	607
9	295	0	0	0	24	365	865	412	535	801	848	614
10	294	0	0	0	23	383	866	519	532	838	848	589
11	294	0	0	0	22	386	869	665	542	838	847	558
12	295	0	0	0	24	390	870	727	672	838	847	560
13	154	0	0	0	26	413	873	727	746	838	847	611
14	23	0	0	0	23	382	876	726	793	837	845	670
15	22	0	0	0	23	371	880	722	840	834	845	714
16	4.5	0	33	0	22	380	883	671	842	834	845	714
17	0	0	70	0	22	377	886	589	843	834	844	686
18	0	2.6	76	3.3	18	378	887	659	843	837	843	659
19	0	.06	59	2.1	11	378	890	753	843	839	843	517
20	0	.01	92	.01	23	383	839	833	843	840	842	399
21	0	0	203	.01	151	307	730	847	847	840	834	401
22	0	0	215	23	333	6.5	664	847	849	794	840	471
23	0	0	200	1.8	533	158	608	846	850	755	817	498
24	0	0	197	9.4	847	441	536	844	847	755	801	497
25	0	0	196	.01	561	442	539	845	840	753	747	496
26	0	0	294	1.4	19	454	599	846	841	818	701	408
27	0	0	259	6.6	325	455	646	847	841	847	700	339
28	0	.24	4.9	.07	839	454	650	846	839	848	700	341
29	0	1.2	0	4.5	---	451	657	848	839	847	697	340
30	0	6.1	0	.03	---	653	593	848	840	848	697	283
31	0	---	0	.01	---	852	---	848	---	848	494	---
TOTAL	1667.5	21.21	1898.95	52.24	3969.64	11826.5	23574	20695	23595	25312	24951	15570
MEAN	53.8	.71	61.3	1.69	142	382	786	668	786	817	805	519
MAX	295	11	294	23	847	852	890	848	850	848	848	714
MIN	0	0	0	0	0	6.5	536	393	532	736	494	282
AC-FT	3310	42	3770	104	7870	23460	46760	41050	46800	50210	49490	30880

WTR YR 1983 TOTAL 153133.04 MEAN 420 MAX 890 MIN 0 AC-FT 303700

SAN JOAQUIN RIVER BASIN

11300700 SOUTH SAN JOAQUIN CANAL BELOW WOODWARD RESERVOIR, NEAR OAKDALE, CA

LOCATION.--Lat 37°51'38", long 120°52'45", in Eight Square Leagues On Stanislaus River Grant, Stanislaus County, Hydrologic Unit 18040002, on left bank 500 ft downstream from Woodward Reservoir, and 7.0 mi north of Oakdale.

PERIOD OF RECORD.--July 1982 to September 1983.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 175 ft, from topographic map.

REMARKS.--Records good. Canal diverts from right bank of Stanislaus River 500 ft downstream from Woodward Reservoir for irrigation in South San Joaquin Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 845 ft³/s May 24, 1983; no flow at times in 1983.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	0	.21	.63	.28	297	410	398	686	684	634	416
2	381	0	.06	.63	.14	295	438	439	690	606	635	436
3	381	0	0	.63	.03	337	445	439	690	635	642	444
4	382	0	0	.81	0	378	452	457	690	654	686	407
5	381	0	0	.56	0	377	456	478	690	680	646	412
6	313	0	0	0	.93	377	483	453	643	785	664	414
7	381	0	0	0	2.8	342	490	379	522	791	669	441
8	375	0	0	0	1.0	364	381	379	477	753	644	416
9	374	.07	0	0	.20	376	489	410	546	639	696	418
10	373	.39	0	0	.14	389	490	463	709	622	743	415
11	372	.06	0	0	.05	397	504	560	692	624	703	415
12	371	0	0	0	.29	374	553	562	741	631	703	443
13	371	0	0	.12	.60	304	646	561	706	666	698	505
14	370	0	0	.13	.20	333	731	561	775	680	650	544
15	186	0	0	.13	.08	422	729	478	796	722	649	544
16	1.3	0	.26	.30	.04	386	729	529	842	676	632	534
17	.57	0	81	.24	0	367	730	636	776	677	652	488
18	.30	1.4	186	2.3	1.7	405	718	686	715	716	699	457
19	.18	.62	184	1.0	0	433	594	743	593	575	625	461
20	.13	.09	182	.24	146	416	650	745	590	495	626	500
21	.06	0	186	.09	239	367	600	746	590	566	627	500
22	0	.05	105	5.3	277	397	582	747	656	656	625	443
23	0	.03	150	.52	382	410	523	843	682	682	625	360
24	.04	0	201	2.7	383	375	523	845	593	704	617	360
25	.49	0	207	.23	386	363	575	769	585	706	586	360
26	.34	0	228	.75	378	401	586	770	676	774	585	361
27	.02	0	249	2.3	356	409	570	799	715	760	552	362
28	0	.07	147	.29	379	433	419	776	609	746	538	364
29	0	.86	.63	2.4	---	433	399	695	549	727	449	367
30	.27	2.9	.54	.27	---	374	400	685	696	634	344	320
31	.04	---	.62	.19	---	430	---	686	---	635	360	---
TOTAL	5312.74	6.54	2108.32	22.76	2934.48	11761	16295	18719	19920	20901	19204	12907
MEAN	171	.22	68.0	.73	105	379	543	604	664	674	619	430
MAX	382	2.9	249	5.3	386	433	731	845	842	791	743	544
MIN	0	0	0	0	0	295	381	379	477	495	344	320
AC-FT	10540	13	4180	45	5820	23330	32320	37130	39510	41460	38090	25600

WTR YR 1983 TOTAL 130091.84 MEAN 356 MAX 845 MIN 0 AC-FT 258000

11300700 SOUTH SAN JOAQUIN CANAL BELOW WOODWARD RESERVOIR, NEAR OAKDALE, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										660	679	635
2										652	728	636
3										652	727	635
4										653	732	633
5										651	729	633
6										605	728	635
7										594	728	629
8										695	728	642
9										737	735	637
10										742	833	641
11										644	779	639
12										714	693	640
13										717	676	641
14										756	700	591
15										755	638	568
16										754	622	572
17										756	700	572
18										757	768	538
19										755	766	421
20										756	764	421
21										629	751	459
22										655	616	490
23										624	620	482
24										716	621	391
25										734	666	406
26										633	670	404
27										674	647	460
28										593	635	417
29										581	636	389
30										579	636	339
31		---			---		---		---	673	633	---
TOTAL	---	---	---	---	---	---	---	---	---	21096	21584	16196
MEAN	---	---	---	---	---	---	---	---	---	681	696	540
MAX	---	---	---	---	---	---	---	---	---	757	833	642
MIN	---	---	---	---	---	---	---	---	---	579	616	339
AC-FT	---	---	---	---	---	---	---	---	---	41840	42810	32120

SAN JOAQUIN RIVER BASIN

11300800 NORTH MAIN CANAL BELOW DIVISION POINT, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°50'01", long 120°40'21"; in Rancheria del Rio Estanislao Grant, Stanislaus County, Hydrologic Unit 18040002, on left bank at Parshall flume, 600 ft downstream from division point and 1.0 mi north of Knights Ferry.

PERIOD OF RECORD.--October 1982 to September 1983.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 310 ft, from topographic map.

REMARKS.--Records good. Canal diverts 600 ft upstream from South San Joaquin Canal (station 11300500) for irrigation in Oakdale Irrigation District. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 400 ft³/s Aug. 10, 12, 17-20; no flow for many days from October through April.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	0	1.2	0	0	0	0	.02	379	398	398	384
2	224	0	0	0	0	0	0	.01	382	398	398	387
3	267	0	0	0	0	0	0	.01	383	398	398	388
4	246	0	0	0	.07	0	0	46	383	398	399	385
5	246	0	0	0	0	0	0	81	384	397	396	385
6	236	0	0	0	5.9	0	0	.01	383	397	394	385
7	236	0	0	0	6.9	0	0	.01	381	397	394	381
8	236	0	0	0	0	0	0	48	381	394	396	369
9	237	0	0	0	0	0	0	138	383	392	399	362
10	237	0	0	0	0	0	0	200	383	393	400	363
11	237	0	0	0	0	0	0	198	373	393	399	364
12	239	0	0	0	0	0	0	224	363	397	400	362
13	234	0	0	0	0	8.0	0	249	374	398	396	361
14	232	0	0	0	0	0	0	266	384	398	394	360
15	233	0	0	0	0	0	1.2	314	384	398	395	359
16	50	0	0	0	0	.02	1.2	319	385	398	396	359
17	0	0	0	0	0	0	1.4	330	388	398	400	358
18	.48	4.1	0	.07	0	0	1.4	351	397	396	400	360
19	0	1.2	0	.32	.28	0	1.6	353	399	395	400	359
20	0	0	0	.71	0	0	.93	383	399	395	400	362
21	0	0	1.2	0	0	0	67	382	399	396	395	362
22	0	0	.19	16	0	1.5	167	383	398	398	394	289
23	0	0	0	0	5.2	0	149	383	398	397	390	261
24	0	0	0	3.5	8.9	.17	99	383	398	397	389	285
25	0	0	0	0	0	0	102	383	397	397	392	358
26	0	0	0	2.4	0	0	199	383	393	397	391	357
27	0	0	0	12	1.8	0	199	383	392	394	391	344
28	0	.99	0	.27	4.2	0	171	380	392	392	391	334
29	0	5.1	0	7.4	---	0	36	379	392	392	389	318
30	0	16	0	0	---	0	.02	379	396	395	386	195
31	0	---	0	0	---	0	---	379	---	398	380	---
TOTAL	3612.48	27.39	2.59	42.67	33.25	9.69	1196.75	7697.06	11623	12281	12240	10496
MEAN	117	.91	.084	1.38	1.19	.31	39.9	248	387	396	395	350
MAX	267	16	1.2	16	8.9	8.0	199	383	399	398	400	388
MIN	0	0	0	0	0	0	0	.01	363	392	380	195
AC-FT	7170	54	5.1	85	66	19	2370	15270	23050	24360	24280	20820
WTR YR 1983	TOTAL	59261.88	MEAN	162	MAX	400	MIN	0	AC-FT	117500		

11301000 OAKDALE CANAL NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'32", long 120°37'56", in SW 1/4 SE 1/4 sec.10, T.1 S., R.12 E., Tuolumne County, Hydrologic Unit 18040010, on left bank 0.3 mi downstream from headgate at Goodwin Dam, and 3.4 mi northeast of Knights Ferry.

PERIOD OF RECORD.--May 1914 to current year. Records for water years 1933-36 incomplete, monthly and yearly estimates published in WSP 1315-A.

GAGE.--Water-stage recorder. Altitude of gage is 350 ft, from topographic map. Prior to Apr. 29, 1916, nonrecording gage at site 1,000 ft upstream at different datum. Apr. 29, 1916, to July 3, 1925, nonrecording gage and July 4, 1925, to Apr. 3, 1949, water-stage recorder at present site at datum 0.18 ft higher.

REMARKS.--Records good. Canal diverts water from left bank of Stanislaus River at Goodwin Dam 0.3 mi upstream for irrigation in Oakdale Irrigation District. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--69 years, 168 ft³/s, 121,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 556 ft³/s July 8-11, 1967; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	.02	.06	0	0	.25	.04	0	497	525	527	506
2	335	.05	.01	0	0	.52	.02	0	489	525	528	495
3	355	.03	0	0	0	.07	0	0	494	525	528	485
4	355	.02	0	0	0	.02	.01	0	496	525	528	485
5	343	.03	0	0	0	.02	0	0	497	525	528	481
6	332	.05	0	0	.05	.01	0	0	496	524	528	463
7	332	.05	.04	0	.62	.04	0	0	496	525	528	470
8	332	.05	.07	0	.34	.02	0	0	373	524	528	475
9	332	.06	.07	0	.03	.02	0	0	504	524	528	476
10	332	.06	.12	0	.02	.02	0	0	506	524	528	476
11	332	.12	.06	0	.01	.02	0	0	504	524	528	467
12	333	.05	0	0	0	.02	0	71	502	524	528	459
13	334	.12	0	0	0	.02	0	28	517	523	528	459
14	334	.12	.01	0	0	.02	0	198	526	526	528	458
15	334	.09	0	0	0	0	0	291	525	527	528	457
16	70	.05	0	0	0	.06	0	344	526	526	528	451
17	16	.04	0	0	0	.02	0	397	527	527	528	449
18	16	.29	0	.06	0	.01	0	450	528	527	529	448
19	16	.04	0	.06	0	0	0	478	528	527	529	448
20	16	.01	0	0	0	.06	0	498	527	527	528	448
21	7.4	0	.20	0	0	.07	0	499	527	527	524	448
22	.59	.01	.54	.94	0	.11	0	500	526	528	528	341
23	.47	.02	.06	.08	0	.04	0	498	527	529	529	302
24	.46	.02	0	.38	0	.36	0	499	515	529	529	337
25	.35	.02	0	.01	0	.18	0	501	505	521	527	427
26	.18	.02	0	.08	0	.03	0	500	505	517	527	405
27	.05	.02	0	.59	.10	.02	0	500	505	517	527	398
28	.05	.11	0	.02	.50	.02	.04	499	504	522	527	398
29	.04	.26	0	.37	---	.02	0	499	508	525	524	381
30	.03	.54	0	.01	---	.02	0	497	524	525	508	204
31	.02	---	0	0	---	.02	---	496	---	525	508	---
TOTAL	5162.64	2.37	1.24	2.60	1.67	2.11	0.11	8243	15204	16269	16319	12997
MEAN	167	.079	.040	.084	.060	.068	.004	266	507	525	526	433
MAX	355	.54	.54	.94	.62	.52	.04	501	528	529	529	506
MIN	.02	0	0	0	0	0	0	0	373	517	508	204
AC-FT	10240	4.7	2.5	5.2	3.3	4.2	.2	16350	30160	32270	32370	25780
CAL YR 1982	TOTAL	68513.55	MEAN	188	MAX	527	MIN	0	AC-FT	135900		
WTR YR 1983	TOTAL	74204.74	MEAN	203	MAX	529	MIN	0	AC-FT	147200		

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'06", long 120°38'13", in Rancheria del Rio Estanislao Grant, Calaveras County, Hydrologic Unit 18040010, on right bank 250 ft upstream from Owl Creek, 0.9 mi downstream from Goodwin Dam, and 2.9 mi northeast of Knights Ferry.

DRAINAGE AREA.--986 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1957 to current year. Records equivalent to those published as Stanislaus River at Knights Ferry, 1903-14, and as Stanislaus River near Knights Ferry, 1915-32, if adjusted for diversions in Stanislaus and San Joaquin Water Company's canal and Oakdale and South San Joaquin canals.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 252.83 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by New Melones Reservoir (station 11299000) since 1978 and Tulloch Reservoir (station 11299995). South San Joaquin Canal (station 11300500) and Oakdale Canal (station 11301000) divert at Goodwin Dam 1.0 mi upstream. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--26 years, 788 ft³/s, 570,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,200 ft³/s Dec. 24, 1964, gage height, 28.85 ft in gage well, 31.2 ft outside, from floodmarks, from rating curve extended above 27,000 ft³/s; minimum daily, 0.12 ft³/s Feb. 8, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 37.7 ft, from floodmarks, discharge, 62,900 ft³/s, by computation of flow over Goodwin Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,400 ft³/s Apr. 23, gage height, 13.93 ft; minimum daily, 116 ft³/s Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	1270	1490	124	208	1130	4870	4980	3460	3720	2640	1390
2	1040	1270	1100	124	207	1500	4860	5060	3030	3810	2660	1550
3	1030	1250	1080	123	204	1740	4900	5070	2980	3890	2690	1550
4	1000	1250	1090	124	208	1760	4920	4810	2960	3900	2700	1620
5	894	1240	1090	129	211	1430	4920	4340	2970	3880	2710	1620
6	893	1240	1090	129	218	1420	4880	4090	3010	3890	2690	1650
7	897	1280	1090	450	1160	1430	4910	4060	3060	3990	2670	1630
8	876	1280	1090	908	2680	1430	4880	4020	2880	4000	2700	1630
9	826	1290	1100	1050	1270	1810	4830	4260	2960	4080	2710	1630
10	828	1290	1110	1050	672	2190	4830	4450	2560	4050	2720	1660
11	830	1280	1110	1040	328	2200	4890	4220	2380	4070	2710	1690
12	910	1290	1110	1030	224	2200	4820	4310	2360	4060	2720	1700
13	1030	1290	1120	1210	230	2260	4850	4250	2520	4030	2710	1650
14	1060	1290	1110	1310	222	2190	4920	4030	2720	3910	2690	1590
15	1060	1290	1120	1250	221	2780	5120	4070	2730	3760	2700	1550
16	1010	1290	1080	1250	221	3840	5150	3930	2980	3780	2720	1560
17	978	1270	946	1250	221	3850	5160	3770	3180	3780	2720	1590
18	1150	1220	832	1260	232	3840	5200	3710	3300	3470	2710	1610
19	1280	1070	857	1270	231	3790	5150	3480	3280	3180	2700	1570
20	1280	1070	821	1250	633	3770	5110	3430	3290	3210	2690	1550
21	1280	1070	742	1250	880	3920	5030	3440	3260	3230	2200	1550
22	1300	1070	2550	1700	916	4220	5020	3440	3210	3070	2700	1490
23	1300	1060	1810	2260	928	4060	5130	3500	3250	2930	2710	1540
24	1300	1030	1070	1540	902	3810	5270	3520	3580	2890	2720	1550
25	1310	1030	1070	1100	933	4260	5250	3570	3770	2760	2290	1610
26	1310	1030	1010	481	949	4830	5010	3660	3760	2650	2100	1670
27	1300	1030	958	1440	964	4980	4960	3630	3740	2670	2100	1610
28	1300	1040	706	1320	948	4960	5030	3540	3650	2660	2100	1540
29	1300	1060	130	1070	---	4310	5050	3560	3660	2630	2120	1550
30	1310	1550	116	777	---	4920	5040	3620	3680	2640	2130	1520
31	1240	---	126	369	---	4920	---	3550	---	2640	1770	---
TOTAL	34182	35990	31724	29638	17221	95750	149960	123370	94170	107230	78900	47620
MEAN	1103	1200	1023	956	615	3089	4999	3980	3139	3459	2545	1587
MAX	1310	1550	2550	2260	2680	4980	5270	5070	3770	4080	2720	1700
MIN	826	1030	116	123	204	1130	4820	3430	2360	2630	1770	1390
AC-FT	67800	71390	62920	58790	34160	189900	297400	244700	186800	212700	156500	94450
CAL YR 1982	TOTAL	343261	MEAN	940	MAX	3250	MIN	107	AC-FT	680900		
WTR YR 1983	TOTAL	845755	MEAN	2317	MAX	5270	MIN	116	AC-FT	1678000		

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1966 to current year.

INSTRUMENTATION.--Temperature recorder since February 1966.

REMARKS.--Temperature recorder located 2,300 ft upstream from gaging station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 30.5°C July 25, 1974; minimum recorded, 5.5°C Feb. 3, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 13.5°C Aug. 21; minimum recorded, 8.5°C on several days during January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.0	10.5	11.0	10.5	---	---	---	---	9.0	9.0	10.5	10.0
2	11.5	10.5	11.0	11.0	---	---	---	---	9.0	9.0	10.5	10.5
3	11.5	10.5	11.0	11.0	---	---	---	---	9.0	9.0	11.0	10.5
4	11.5	10.5	11.0	10.5	---	---	---	---	9.5	9.0	11.0	10.5
5	11.5	10.5	11.0	10.5	---	---	---	---	9.0	9.0	11.0	10.5
6	11.0	10.5	11.0	10.5	10.5	10.5	8.5	8.5	9.0	9.0	11.0	10.5
7	11.5	10.5	11.0	10.5	10.5	10.0	8.5	8.5	9.0	9.0	10.5	10.5
8	11.5	11.0	11.0	10.5	10.5	10.0	8.5	8.5	9.5	9.0	10.5	10.5
9	11.5	11.0	10.5	10.5	10.5	10.0	9.0	8.5	9.5	9.5	11.0	10.5
10	11.5	11.0	11.0	10.5	10.5	10.0	9.0	9.0	10.0	9.5	11.5	11.0
11	11.5	11.0	11.0	10.5	10.5	10.0	9.0	9.0	10.0	9.5	11.5	11.0
12	11.5	11.0	11.0	10.5	10.5	9.5	9.0	8.5	10.0	9.5	11.0	11.0
13	11.5	11.0	11.0	10.5	10.0	10.0	8.5	8.5	10.5	10.0	11.0	11.0
14	11.5	11.0	10.5	10.5	10.0	9.5	8.5	8.5	10.0	10.0	11.0	11.0
15	11.5	11.0	10.5	10.5	10.0	9.5	8.5	8.5	10.0	10.0	11.5	10.5
16	11.5	11.0	10.5	10.5	---	---	8.5	8.5	10.5	10.0	12.0	11.0
17	11.5	11.0	10.5	10.5	---	---	8.5	8.5	10.5	10.0	11.5	11.0
18	11.5	11.0	11.0	10.5	---	---	8.5	8.5	10.5	10.0	11.5	11.0
19	11.5	11.0	10.5	10.5	---	---	8.5	8.5	10.5	10.0	11.0	10.5
20	11.5	11.0	10.5	10.5	---	---	8.5	8.5	10.0	10.0	10.5	10.0
21	11.5	11.0	---	---	---	---	8.5	8.5	10.5	10.0	10.5	10.0
22	11.0	11.0	---	---	---	---	8.5	8.5	10.0	10.0	10.5	9.5
23	11.5	11.0	---	---	---	---	9.0	8.5	10.5	10.0	10.0	9.5
24	11.5	11.0	---	---	---	---	9.0	9.0	10.0	10.0	9.5	9.5
25	11.0	11.0	---	---	---	---	9.0	9.0	10.0	10.0	10.0	9.5
26	11.0	11.0	---	---	---	---	9.0	9.0	10.5	10.0	10.0	9.5
27	11.0	10.5	---	---	---	---	9.0	9.0	10.5	10.5	10.0	9.5
28	11.0	11.0	---	---	---	---	9.0	9.0	10.5	10.0	10.0	9.5
29	11.0	11.0	---	---	---	---	9.0	9.0	---	---	9.5	9.5
30	11.0	11.0	---	---	---	---	9.0	9.0	---	---	10.0	9.5
31	11.0	11.0	---	---	---	---	9.0	9.0	---	---	10.0	9.5
MONTH	11.5	10.5	11.0	10.5	10.5	9.5	9.0	8.5	10.5	9.0	12.0	9.5

SAN JOAQUIN RIVER BASIN

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.5	10.0	10.0	11.5	11.5	12.5	11.5	13.0	12.5	12.5	12.0
2	10.0	9.5	10.0	10.0	11.5	11.5	12.5	12.0	13.0	12.5	12.5	12.0
3	10.0	9.5	10.5	10.0	11.5	11.5	12.0	12.0	13.0	12.5	12.5	12.0
4	10.0	9.5	10.0	10.0	12.0	11.5	12.5	12.0	13.0	12.5	13.0	12.0
5	10.0	9.5	10.0	9.5	12.0	11.5	12.0	12.0	13.0	12.5	13.0	12.5
6	9.5	9.5	10.5	9.5	12.0	11.5	12.0	11.5	13.0	12.5	13.0	12.5
7	9.5	9.5	11.0	10.0	12.0	11.5	12.0	11.5	13.0	12.5	13.0	12.5
8	10.0	9.5	11.0	10.5	12.0	11.5	12.0	11.5	13.0	12.5	13.0	12.5
9	10.0	9.5	11.0	10.5	12.0	11.5	12.0	12.0	13.0	12.5	13.0	12.5
10	10.0	9.5	11.5	10.5	12.0	11.5	12.0	12.0	12.5	12.0	13.0	12.5
11	9.5	9.5	11.0	10.5	12.0	11.5	12.0	12.0	13.0	12.0	13.0	12.5
12	9.5	9.5	11.0	11.0	12.0	11.5	12.0	12.0	13.0	12.5	13.0	12.5
13	9.5	9.5	11.0	11.0	12.5	11.5	12.5	12.0	13.0	12.5	13.0	12.5
14	9.5	9.5	11.0	11.0	12.5	12.0	12.0	11.5	13.0	12.5	13.0	12.5
15	10.0	9.5	11.5	11.0	12.5	12.0	12.0	11.5	13.0	12.5	13.0	12.5
16	10.0	9.5	11.5	11.0	12.5	12.0	12.5	11.5	13.0	12.5	13.0	12.5
17	9.5	9.5	11.5	11.0	12.5	12.0	12.0	11.5	13.0	12.5	13.0	12.5
18	9.5	9.5	11.5	11.0	12.0	11.5	12.5	11.5	13.0	12.5	12.5	12.5
19	9.5	9.5	11.5	11.5	12.0	12.0	12.5	12.0	13.0	12.5	13.0	12.5
20	10.0	9.5	11.5	11.0	12.0	11.5	12.5	12.0	13.0	12.0	12.5	12.0
21	10.0	9.5	11.5	11.0	12.0	11.5	12.5	12.0	13.5	12.5	12.5	12.0
22	10.0	10.0	12.0	11.5	12.0	11.5	12.5	12.0	13.0	12.5	12.0	12.0
23	10.0	9.5	12.0	11.5	12.0	11.5	12.5	12.0	13.0	12.0	12.5	12.0
24	9.5	9.5	11.5	11.0	12.5	11.5	12.5	11.5	12.5	12.0	12.5	12.0
25	10.0	9.5	12.0	11.0	12.0	11.5	12.5	11.5	12.5	12.0	12.5	12.0
26	10.0	9.5	12.0	11.0	12.0	11.5	12.5	12.0	12.5	12.0	12.5	12.0
27	9.5	9.5	12.0	11.0	12.0	11.5	12.5	12.0	12.5	12.0	12.5	12.0
28	10.0	9.5	12.0	11.5	12.0	11.5	12.5	12.0	13.0	12.5	12.5	12.0
29	10.5	9.5	12.0	11.5	12.0	11.5	13.0	12.0	13.0	12.5	12.0	12.0
30	10.0	9.5	12.0	11.5	12.0	11.5	13.0	12.0	12.5	12.5	12.0	12.0
31	---	---	12.0	11.5	---	---	13.0	12.5	12.5	12.0	---	---
MONTH	10.5	9.5	12.0	9.5	12.5	11.5	13.0	11.5	13.5	12.0	13.0	12.0

11303000 STANISLAUS RIVER AT RIPON, CA

LOCATION.--Lat 37°43'47", long 121°06'34", in NW 1/4 SE 1/4 sec.29, T.2 S., R.8 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 15 ft downstream from railroad bridge, 1.1 mi southeast of Ripon, and 15 mi upstream from mouth.

DRAINAGE AREA.--1,075 mi².

PERIOD OF RECORD.--October 1940 to current year. April to September 1940 in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 0.72 ft National Geodetic Vertical Datum of 1929. October 1940 to Nov. 17, 1953, at site 100 ft upstream at same datum.

REMARKS.--Records good except those for Oct. 1 to Feb. 25, which are fair. Flow regulated by reservoirs and powerplants above station (see REMARKS for station 11302000). South San Joaquin and Oakdale Canals (stations 11300500, 11301000) divert at Goodwin Dam 34 mi upstream. Diversions for irrigation of 57,250 acres in vicinity of Oakdale. See schematic diagram of Stanislaus River basin.

AVERAGE DISCHARGE.--43 years, 1,034 ft³/s, 749,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,500 ft³/s Dec. 24, 1955, gage height, 63.25 ft; minimum daily, 0.11 ft³/s Aug. 4-6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 12, 1938, reached a stage of 64.4 ft from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,260 ft³/s Apr. 26, gage height, 54.28 ft; minimum daily, 100 ft³/s Jan. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	1300	2050	180	950	1990	4940	5160	3730	3580	2980	2190
2	1350	1300	2150	160	650	2070	4960	5090	3680	3640	2950	2000
3	1450	1300	1450	140	550	2590	4950	5100	3470	3630	2920	2030
4	1550	1300	1250	130	500	2420	4980	5070	3360	3780	2880	2030
5	1500	1300	1200	120	500	2280	4990	4980	3350	3870	2900	2050
6	1400	1300	1200	100	480	2010	4990	4780	3290	3870	2920	2020
7	1150	1300	1200	275	500	1980	5010	4560	3170	3840	2940	2030
8	1250	1350	1400	650	1210	2060	5080	4450	3120	3890	2910	2020
9	1200	1340	1400	650	2210	1970	5020	4410	3040	4000	2830	2020
10	1200	1370	1300	650	2270	2140	5010	4410	3080	4090	2820	1990
11	1150	1400	1300	700	1240	2480	5000	4540	2940	4200	2890	1990
12	1150	1400	1250	750	787	2570	4930	4460	2840	4200	2910	2040
13	1100	1400	1250	1000	568	2710	4870	4420	2840	4090	2880	2030
14	1250	1450	1250	1050	787	3490	4840	4480	2810	4080	2870	2060
15	1300	1450	1200	1200	550	3160	4910	4380	2900	4050	2880	2030
16	1300	1450	1200	1200	474	3090	5080	4330	2940	3960	2850	2010
17	1280	1450	1200	1200	420	3820	5120	4250	3070	3920	2840	2030
18	1150	1450	1200	1200	402	4090	5140	4040	3250	3920	2840	2020
19	1150	1500	1200	1250	402	4110	5130	3900	3330	3780	2860	2010
20	1250	1550	1250	1600	437	4110	5110	3690	3350	3440	2950	1950
21	1300	1420	1300	1350	511	4150	5080	3610	3310	3390	2970	1940
22	1300	1300	1250	1250	966	4340	5090	3550	3290	3450	2810	2060
23	1300	1250	2050	1450	1080	4470	5100	3510	3270	3350	2880	2090
24	1300	1250	2650	3300	1210	4550	5080	3510	3290	3230	2980	2040
25	1350	1250	1450	2650	1210	4480	5180	3570	3420	3210	3010	2060
26	1350	1250	1200	2050	1440	4570	5210	3560	3570	3130	2820	2110
27	1350	1250	1160	1150	1620	4740	5120	3600	3700	3040	2640	2130
28	1300	1280	1100	2200	1970	4930	5080	3610	3620	3030	2560	2080
29	1300	1300	950	2200	---	5020	5180	3650	3530	2960	2570	2030
30	1350	1400	390	2250	---	4810	5230	3690	3510	2990	2430	2130
31	1320	---	240	1600	---	4760	---	3720	---	3020	2370	---
TOTAL	39850	40610	40640	35655	25894	105960	151410	130080	98070	112630	87860	61220
MEAN	1285	1354	1311	1150	925	3418	5047	4196	3269	3633	2834	2041
MAX	1550	1550	2650	3300	2270	5020	5230	5160	3730	4200	3010	2190
MIN	1100	1250	240	100	402	1970	4840	3510	2810	2960	2370	1940
AC-FT	79040	80550	80610	70720	51360	210200	300300	258000	194500	223400	174300	121400

CAL YR 1982 TOTAL 423859 MEAN 1161 MAX 2770 MIN 240 AC-FT 840700
WTR YR 1983 TOTAL 929879 MEAN 2548 MAX 5230 MIN 100 AC-FT 1844000

NOTE.--Equipment malfunction Oct. 1 to Feb. 25.

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA
(National stream-quality accounting network station)

LOCATION.--Lat 37°40'34", long 121°15'55", in El Pescadero Grant, San Joaquin County, Hydrologic Unit 18040003, on left bank 12 ft downstream from Durham Ferry highway bridge, 2.6 mi downstream from Stanislaus River, and 3.2 mi northeast of Vernalis.

DRAINAGE AREA.--13,536 mi², includes about 2,100 mi² in James Bypass.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1922 to current year (1922-23 and 1925-29, low-water records only).

REVISED RECORDS.--WSP 831: 1936. WSP 931: 1940. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. See WSP 2130 for history of changes prior to Nov. 30, 1967.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation; low flows consist mainly of return flow from irrigated areas.

AVERAGE DISCHARGE.--55 years (water years 1924, 1930-83), 4,717 ft³/s, 3,417,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 79,000 ft³/s Dec. 9, 1950, elevation, 32.81 ft present datum, including flow through breaks in levee; maximum elevation, 34.55 ft Jan. 27, 1969; minimum discharge, 19 ft³/s Aug. 10, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,100 ft³/s Mar. 7, elevation, 31.49 ft; maximum elevation, 31.56 ft Mar. 27; minimum daily discharge, 5,230 ft³/s Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8830	8840	10700	21300	36400	29900	41500	36000	30700	23400	9010	11000
2	8910	8870	12600	20900	33900	33700	40800	36000	30900	23400	8860	10900
3	8870	8960	13100	20100	31500	37000	39800	36200	30000	23300	8650	10900
4	8900	9040	13400	19100	29400	41800	38500	36500	28800	23200	8590	10900
5	8760	9080	14100	18100	28200	42000	38200	37000	27900	23200	8670	11100
6	8430	8620	15000	17400	27400	43000	38300	37300	27200	23200	8680	11000
7	8100	7610	15900	16800	27100	44700	37900	37000	27200	23400	8710	11100
8	8090	7280	16400	16400	29400	43800	37300	35900	27300	23800	8730	11400
9	8120	7140	16600	16100	33300	42200	37100	34200	27400	24000	8630	11600
10	8000	7030	16800	16000	34100	41200	36600	33500	27200	24400	8480	11700
11	7960	6190	17200	15700	34700	41000	36100	33000	26900	24900	8320	11600
12	7880	5610	17300	15400	37100	40200	35800	32600	26600	25100	8280	11600
13	7770	5410	17200	15200	37500	38900	35400	32000	26600	24900	8330	11400
14	7830	5280	16900	14800	36400	39200	35300	31500	26600	24600	8340	11200
15	7880	5280	16700	14600	34800	39700	35100	31000	26500	24200	8500	11200
16	7890	5380	16500	14200	34500	39400	34800	30200	26500	23400	8430	11300
17	7860	5310	16200	13800	34100	39200	34600	29700	25600	22400	8320	11300
18	7670	5230	15800	13400	33400	39000	34500	29100	24900	21300	8270	11100
19	7450	5460	15500	13100	32500	39600	34500	28700	24600	20000	8510	10900
20	7390	5710	15300	13300	31400	39300	34300	28400	24400	18400	8940	10900
21	7420	5750	15300	13400	30600	39800	34100	28300	24300	16900	9130	10800
22	7530	5870	15400	13500	30200	38800	34300	28200	24100	15600	9190	11000
23	7850	6100	16000	14700	29700	37900	34700	28100	24000	14200	9170	11600
24	8170	6390	17600	17900	29100	38600	35200	28100	23900	13000	9210	11600
25	8300	6830	17500	20200	27700	40600	35700	28200	23900	12100	9180	11600
26	8370	7320	17200	21600	26800	42800	36300	28800	23700	11300	9750	11500
27	8490	7710	18000	23000	26500	42600	36600	29400	23600	10700	10000	11600
28	8600	8160	19700	28700	27200	42500	36800	29700	23700	10000	10300	11700
29	8640	8650	21500	35100	---	39000	36900	29800	23800	9480	10800	11800
30	8760	9120	22100	38300	---	41400	36400	30100	23700	9170	11000	12000
31	8840	---	21800	39000	---	42300	---	30400	---	9100	11100	---
TOTAL	253560	209230	511300	591100	884900	1241100	1093400	984900	782500	596050	280080	339300
MEAN	8179	6974	16490	19070	31600	40040	36450	31770	26080	19230	9035	11310
MAX	8910	9120	22100	39000	37500	44700	41500	37300	30900	25100	11100	12000
MIN	7390	5230	10700	13100	26500	29900	34100	28100	23600	9100	8270	10800
AC-FT	502900	415000	1014000	1172000	1755000	2462000	2169000	1954000	1552000	1182000	555500	673000
CAL YR 1982	TOTAL	3586760	MEAN	9827	MAX	29600	MIN	2460	AC-FT	7114000		
WTR YR 1983	TOTAL	7767420	MEAN	21280	MAX	44700	MIN	5230	AC-FT	15410000		

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
 CHEMICAL ANALYSES: Water years 1951 to current year.
 BIOLOGICAL DATA: Water years 1974-81.
 SPECIFIC CONDUCTANCE: Water years 1951-63, 1973-81.
 WATER TEMPERATURES: Water years 1951 to current year.
 SEDIMENT RECORDS: Water years 1957 to current year.
 TURBIDITY: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
 CHEMICAL ANALYSES: March 1951 to May 1963.
 SPECIFIC CONDUCTANCE: March 1951 to May 1963, January 1973 to October 1981.
 WATER TEMPERATURES: March 1951 to current year.
 SEDIMENT RECORDS: November 1956 to current year.

INSTRUMENTATION.-- Temperature recorder October 1961 to September 1963, and since December 1972.

REMARKS.--Mean daily specific conductance records January 1973 to October 1981, furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
 WATER TEMPERATURES: Maximum recorded 30.0°C July 7, 1970, July 30, 1977; minimum recorded, 3.0°C Jan. 24, 1962.
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,590 mg/L Dec. 25, 1964; minimum daily mean, 9 mg/L Jan. 4, 1960, Nov. 18, 1961.
 SEDIMENT DISCHARGE: Maximum daily, 54,100 tons Dec. 25, 1964; minimum daily, 2 tons Aug. 10, 1961.

EXTREMES FOR CURRENT YEAR.--
 WATER TEMPERATURES: Maximum recorded, 23.0°C July 13-15; minimum recorded, 7.0°C Jan. 2-4.
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 269 mg/L Jan. 23; minimum daily mean, 17 mg/L Apr. 14.
 SEDIMENT DISCHARGE: Maximum daily, 11,200 tons Mar. 2; minimum daily, 282 tons Nov. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
29...	1400	8680	181	7.4	11.5	740	2.0	10.3	98	K65	K100
FEB											
01...	1230	36400	--	7.4	10.5	760	65	8.2	75	K600	K1000
MAR											
15...	1615	39200	278	7.3	14.0	760	34	7.3	72	K300	K1000
MAY											
09...	1345	34600	158	7.3	15.0	780	13	9.6	93	K1200	--
JUL											
26...	1300	11400	304	7.2	20.0	760	27	5.9	65	--	260
SEP											
23...	1145	11600	137	7.3	20.0	770	22	8.6	94	>1200	>2000

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV											
29...	45	3	11	4.2	16	43	1	1.8	42	17	17
FEB											
01...	59	0	15	5.3	17	37	1	2.6	60	24	14
MAR											
15...	71	14	16	7.5	28	45	1	2.2	57	47	27
MAY											
09...	47	5	11	4.7	15	40	1	1.3	--	15	12
JUL											
26...	72	20	17	7.1	29	46	2	2.0	52	37	30
SEP											
23...	38	0	9.0	3.7	13	42	1	1.3	37	12	13

See footnotes at end of table.

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 29...	<.10	12	108	100	.15	.12	.07	1.4	.18	.04	<.01
FEB 01...	<.10	15	125	130	.17	.41	.23	1.0	.27	.16	.16
MAR 15...	.10	14	171	180	.23	.43	.17	1.1	.22	.15	.12
MAY 09...	<.10	14	--	99	.13	.25	.12	1.4	.11	.07	.05
JUL 26...	<.10	12	165	170	.22	.73	.14	1.2	.15	.06	.04
SEP 23...	<.10	11	81	86	.11	.43	.12	.80	.10	.04	.03

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 29...	1400	20	1	27	<.5	2	<1	<3	2	51	1
FEB 01...	1230	--	2	35	<.5	<1	<1	<3	8	180	<1
MAY 09...	1345	90	6	25	1	1	<1	<3	4	90	4
SEP 23...	1145	50	<1	24	<.5	<1	<1	<3	2	50	2

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 29...	11	23	--	<10	<1	<1	<1	130	<6	14
FEB 01...	15	20	<.1	<10	3	<1	<1	130	<6	--
MAY 09...	8	15	<.1	<10	1	1	<1	110	<6	16
SEP 23...	<4	9	<.1	<10	1	<1	<1	110	<6	6

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

> Actual value is known to be greater than the value shown.

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

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	16.0	14.0	13.5	11.0	11.0	8.0	7.5	10.5	10.5	12.0	11.5
2	16.5	16.0	14.0	13.5	11.0	10.5	7.5	7.0	10.5	10.5	12.5	12.0
3	17.0	16.5	14.0	13.5	10.5	10.5	7.5	7.0	10.5	10.0	12.5	12.0
4	17.0	16.5	14.0	13.5	10.5	10.5	7.5	7.0	10.5	10.0	13.0	12.5
5	16.5	16.0	14.0	13.5	11.0	10.5	7.5	7.5	10.0	10.0	13.0	12.5
6	16.5	16.0	14.0	13.5	10.5	10.5	7.5	7.5	10.0	10.0	13.5	12.5
7	16.0	15.5	13.5	13.0	10.5	10.0	7.5	7.5	10.5	10.0	13.5	13.0
8	15.5	15.0	13.0	12.5	10.0	9.5	7.5	7.5	10.5	10.5	14.0	13.5
9	15.5	15.0	12.5	12.0	9.5	9.0	8.0	7.5	11.0	10.5	15.0	14.0
10	16.0	15.0	12.0	11.5	9.0	8.5	8.0	7.5	11.5	10.5	15.0	15.0
11	16.0	15.5	11.5	11.5	9.0	8.5	8.0	8.0	11.5	11.0	15.5	15.0
12	16.0	15.5	11.5	11.5	9.0	9.0	8.0	8.0	12.0	11.5	15.5	14.5
13	16.0	15.5	12.0	11.0	9.5	9.0	8.0	7.5	12.5	12.0	14.5	14.0
14	16.5	16.0	11.5	11.5	9.5	9.5	7.5	7.5	12.5	12.0	14.0	13.5
15	16.5	16.0	11.5	11.0	10.0	9.5	7.5	7.5	12.5	12.0	14.0	13.5
16	16.5	16.0	11.0	10.5	9.5	9.5	8.0	7.5	12.0	11.5	14.0	13.0
17	16.0	15.5	10.5	10.5	10.0	9.5	8.5	8.0	12.0	11.5	13.0	12.5
18	16.0	15.5	11.0	10.5	10.0	9.5	9.0	8.5	12.0	11.5	13.0	12.5
19	16.0	15.5	11.5	11.0	10.0	9.5	9.0	9.0	12.0	11.5	13.0	12.5
20	16.0	15.5	11.5	11.0	10.0	9.5	9.0	9.0	12.0	11.5	13.0	13.0
21	15.5	15.5	11.5	11.0	10.0	10.0	9.0	9.0	12.5	12.0	13.5	12.5
22	15.5	15.5	11.5	11.5	10.5	10.0	9.0	9.0	12.5	12.0	13.5	12.5
23	16.0	15.5	11.5	11.5	10.5	10.0	9.5	9.0	12.5	12.5	12.5	12.0
24	16.0	16.0	12.0	11.5	10.0	9.5	10.5	9.5	12.5	12.0	12.0	11.5
25	16.0	16.0	12.0	11.5	9.0	8.5	11.0	10.5	12.0	11.5	12.0	11.5
26	16.0	15.5	12.0	11.5	8.5	8.0	11.0	11.0	11.5	11.0	12.5	12.0
27	15.5	15.0	11.5	11.5	8.5	8.0	11.5	11.0	12.0	11.0	12.5	12.0
28	15.0	14.5	11.5	11.5	8.5	8.0	11.5	11.0	11.5	11.5	12.5	12.0
29	14.5	14.0	11.5	11.5	8.5	8.5	11.0	10.5	---	---	13.5	12.5
30	14.0	14.0	12.0	11.5	8.5	8.0	11.0	10.5	---	---	14.0	13.0
31	14.0	13.5	---	---	8.0	8.0	11.0	10.5	---	---	15.0	14.0
MONTH	17.0	13.5	14.0	10.5	11.0	8.0	11.5	7.0	12.5	10.0	15.5	11.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	15.0	15.5	14.5	19.5	19.0	21.0	20.0	22.0	21.0	20.5	20.0
2	15.5	15.0	16.0	15.0	19.5	18.5	21.0	20.0	22.0	21.5	20.5	20.0
3	15.0	14.0	17.0	16.0	19.5	19.0	21.0	20.0	22.0	21.5	21.0	20.5
4	14.0	13.5	16.5	16.5	20.0	19.0	22.0	20.5	21.5	21.0	21.0	20.5
5	13.5	12.5	16.5	15.5	21.0	19.5	22.5	21.5	21.0	20.5	21.5	21.0
6	13.0	12.5	16.0	15.0	21.5	20.5	22.5	22.0	21.0	20.5	22.0	21.0
7	14.0	12.5	16.0	15.5	22.0	21.0	22.0	20.5	22.0	21.0	22.0	21.5
8	14.5	13.5	16.0	15.5	21.5	21.0	20.5	20.0	22.5	21.5	21.5	21.0
9	14.5	14.0	16.0	15.0	21.5	20.5	20.0	19.5	22.0	21.5	21.0	20.5
10	14.5	14.0	15.5	14.5	21.0	20.5	20.0	19.0	22.0	21.0	20.5	20.0
11	14.0	13.5	15.5	14.5	20.5	19.5	21.0	19.5	21.5	21.0	20.5	19.5
12	14.0	13.0	16.0	15.0	20.5	19.5	22.0	21.0	21.5	20.5	21.0	20.0
13	13.5	13.0	16.5	15.5	20.5	19.5	23.0	21.5	22.0	21.0	21.0	20.5
14	14.0	13.0	17.5	16.0	21.0	20.0	23.0	22.5	21.5	21.0	21.5	21.0
15	14.5	13.5	18.0	17.0	21.0	20.0	23.0	22.0	21.5	20.5	21.5	21.0
16	15.0	14.0	17.5	17.0	21.5	20.5	22.5	21.5	22.0	21.0	21.5	21.0
17	15.5	15.0	17.5	16.5	22.0	21.0	21.5	21.0	22.0	21.0	21.5	21.0
18	15.5	14.5	18.0	17.0	21.0	20.5	21.0	20.0	21.5	21.0	21.0	20.5
19	15.0	14.5	18.5	17.5	21.0	20.0	20.0	19.5	21.0	20.5	20.5	20.0
20	15.5	14.5	19.0	18.0	20.5	19.5	20.5	19.0	21.0	20.0	20.0	19.5
21	15.5	14.5	20.0	18.5	21.0	19.5	21.0	19.5	20.5	20.0	20.0	19.5
22	15.5	15.0	20.0	19.0	21.5	20.0	21.0	20.0	20.5	20.0	20.0	20.0
23	15.5	14.5	20.0	19.5	21.0	20.5	21.0	20.0	20.5	20.0	20.5	20.0
24	14.5	14.0	20.0	19.0	21.0	20.0	20.5	20.0	20.5	19.5	20.5	20.0
25	14.5	13.5	20.0	19.0	21.5	20.0	20.5	20.0	20.5	19.5	20.0	20.0
26	14.5	14.0	20.5	19.5	21.5	20.5	20.5	20.0	20.0	19.5	20.0	19.5
27	14.5	14.0	21.0	20.0	21.0	20.0	20.5	19.5	20.5	19.5	20.0	19.5
28	14.5	14.0	20.5	20.0	21.0	20.0	21.0	20.0	20.5	20.0	19.5	19.0
29	15.0	14.5	20.0	19.5	21.0	20.0	21.5	20.5	20.5	20.0	19.5	19.0
30	15.0	14.5	20.0	19.0	21.0	20.0	21.5	20.5	20.5	20.0	19.0	18.5
31	---	---	20.0	19.0	---	---	21.5	21.0	20.5	20.5	---	---
MONTH	16.0	12.5	21.0	14.5	22.0	18.5	23.0	19.0	22.5	19.5	22.0	18.5

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	8830	57	1360	8840	48	1150	10700	52	1500
2	8910	57	1370	8870	44	1050	12600	67	2280
3	8870	59	1410	8960	48	1160	13100	47	1660
4	8900	55	1320	9040	45	1100	13400	47	1700
5	8760	53	1250	9080	47	1150	14100	53	2020
6	8430	50	1140	8620	45	1050	15000	48	1940
7	8100	49	1070	7610	46	945	15900	50	2150
8	8090	47	1030	7280	43	845	16400	47	2080
9	8120	47	1030	7140	37	713	16600	46	2060
10	8000	52	1120	7030	36	683	16800	46	2090
11	7960	49	1050	6190	31	518	17200	41	1900
12	7880	51	1090	5610	29	439	17300	44	2060
13	7770	49	1030	5410	28	409	17200	50	2320
14	7830	45	951	5280	26	371	16900	46	2100
15	7880	47	1000	5280	23	328	16700	49	2210
16	7890	47	1000	5380	24	349	16500	44	1960
17	7860	47	997	5310	22	315	16200	49	2140
18	7670	46	953	5230	20	282	15800	38	1620
19	7450	46	925	5460	25	369	15500	48	2010
20	7390	49	978	5710	32	493	15300	52	2150
21	7420	52	1040	5750	34	528	15300	50	2070
22	7530	52	1060	5870	36	571	15400	50	2080
23	7850	53	1120	6100	35	576	16000	62	2680
24	8170	51	1130	6390	34	587	17600	77	3660
25	8300	50	1120	6830	42	775	17500	63	2980
26	8370	50	1130	7320	38	751	17200	46	2140
27	8490	47	1080	7710	40	833	18000	55	2670
28	8600	47	1090	8160	34	749	19700	46	2450
29	8640	48	1120	8650	42	981	21500	50	2900
30	8760	52	1230	9120	52	1280	22100	44	2630
31	8840	45	1070	---	---	---	21800	38	2240
TOTAL	253560	---	34264	209230	---	21350	511300	---	68450

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	21300	40	2300	36400	88	8650	29900	92	7430
2	20900	33	1860	33900	82	7510	33700	123	11200
3	20100	36	1950	31500	60	5100	37000	101	10100
4	19100	31	1600	29400	54	4290	41800	75	8460
5	18100	39	1910	28200	52	3960	42000	60	6800
6	17400	44	2070	27400	44	3260	43000	70	8130
7	16800	34	1540	27100	41	3000	44700	58	7000
8	16400	38	1680	29400	44	3490	43800	54	6390
9	16100	40	1740	33300	57	5120	42200	45	5130
10	16000	46	1990	34100	52	4790	41200	41	4560
11	15700	46	1950	34700	43	4030	41000	41	4540
12	15400	49	2040	37100	54	5410	40200	38	4120
13	15200	42	1720	37500	54	5470	38900	43	4520
14	14800	45	1800	36400	57	5600	39200	51	5400
15	14600	44	1730	34800	52	4890	39700	49	5250
16	14200	38	1460	34500	52	4840	39400	44	4680
17	13800	48	1790	34100	50	4600	39200	45	4760
18	13400	55	1990	33400	43	3880	39000	40	4210
19	13100	52	1840	32500	42	3690	39600	37	3960
20	13300	68	2440	31400	44	3730	39300	36	3820
21	13400	65	2350	30600	37	3060	39800	35	3760
22	13500	99	3610	30200	36	2940	38800	39	4090
23	14700	269	10700	29700	36	2890	37900	40	4090
24	17900	171	8260	29100	41	3220	38600	43	4480
25	20200	164	8940	27700	44	3290	40600	46	5040
26	21600	128	7460	26800	38	2750	42800	42	4850
27	23000	131	8140	26500	49	3510	42600	42	4830
28	28700	143	11100	27200	87	6390	42500	38	4360
29	35100	101	9570	---	---	---	39000	40	4210
30	38300	94	9720	---	---	---	41400	44	4920
31	39000	89	9370	---	---	---	42300	35	4000
TOTAL	591100	---	126620	884900	---	123360	1241100	---	169090

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	41500	35	3920	36000	23	2240	30700	40	3320
2	40800	32	3530	36000	23	2240	30900	38	3170
3	39800	34	3650	36200	22	2150	30000	41	3320
4	38500	35	3640	36500	23	2270	28800	43	3340
5	38200	33	3400	37000	25	2500	27900	42	3160
6	38300	32	3310	37300	25	2520	27200	45	3300
7	37900	30	3070	37000	26	2600	27200	43	3160
8	37300	29	2920	35900	27	2620	27300	46	3390
9	37100	27	2700	34200	28	2590	27400	56	4140
10	36600	27	2670	33500	36	3260	27200	49	3600
11	36100	20	1950	33000	35	3120	26900	47	3410
12	35800	22	2130	32600	31	2730	26600	48	3450
13	35400	19	1820	32000	34	2940	26600	47	3380
14	35300	17	1620	31500	32	2720	26600	46	3300
15	35100	23	2180	31000	29	2430	26500	49	3510
16	34800	26	2440	30200	32	2610	26500	49	3510
17	34600	22	2060	29700	30	2410	25600	52	3590
18	34500	24	2240	29100	32	2510	24900	57	3830
19	34500	23	2140	28700	33	2560	24600	52	3450
20	34300	21	1940	28400	30	2300	24400	54	3560
21	34100	22	2030	28300	30	2290	24300	52	3410
22	34300	21	1940	28200	29	2210	24100	53	3450
23	34700	23	2150	28100	28	2120	24000	67	4340
24	35200	23	2190	28100	31	2350	23900	60	3870
25	35700	21	2020	28200	35	2660	23900	57	3680
26	36300	23	2250	28800	34	2640	23700	62	3970
27	36600	23	2270	29400	33	2620	23600	57	3630
28	36800	23	2290	29700	34	2730	23700	62	3970
29	36900	26	2590	29800	39	3140	23800	63	4050
30	36400	23	2260	30100	41	3330	23700	65	4160
31	---	---	---	30400	41	3370	---	---	---
TOTAL	1093400	---	75320	984900	---	80780	782500	---	107420
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	23400	59	3730	9010	69	1680	11000	63	1870
2	23400	64	4040	8860	72	1720	10900	61	1800
3	23300	63	3960	8650	66	1540	10900	61	1800
4	23200	60	3760	8590	62	1440	10900	60	1770
5	23200	58	3630	8670	66	1540	11100	62	1860
6	23200	58	3630	8680	64	1500	11000	63	1870
7	23400	63	3980	8710	65	1530	11100	60	1800
8	23800	62	3980	8730	61	1440	11400	59	1820
9	24000	63	4080	8630	57	1330	11600	60	1880
10	24400	64	4220	8480	57	1310	11700	60	1900
11	24900	60	4030	8320	53	1190	11600	54	1690
12	25100	56	3800	8280	69	1540	11600	52	1630
13	24900	57	3830	8330	66	1480	11400	54	1660
14	24600	58	3850	8340	63	1420	11200	51	1540
15	24200	63	4120	8500	63	1450	11200	49	1480
16	23400	59	3730	8430	60	1370	11300	51	1560
17	22400	60	3630	8320	62	1390	11300	49	1490
18	21300	58	3340	8270	63	1410	11100	49	1470
19	20000	62	3350	8510	69	1590	10900	47	1380
20	18400	63	3130	8940	79	1910	10900	48	1410
21	16900	69	3150	9130	66	1630	10800	45	1310
22	15600	72	3030	9190	67	1660	11000	49	1460
23	14200	77	2950	9170	67	1660	11600	59	1850
24	13000	76	2670	9210	60	1490	11600	49	1530
25	12100	74	2420	9180	61	1510	11600	43	1350
26	11300	72	2200	9750	62	1630	11500	36	1120
27	10700	64	1850	10000	66	1780	11600	45	1410
28	10000	70	1890	10300	66	1840	11700	48	1520
29	9480	76	1950	10800	64	1870	11800	48	1530
30	9170	70	1730	11000	64	1900	12000	53	1720
31	9100	75	1840	11100	63	1890	---	---	---
TOTAL	596050	---	101500	280080	---	48640	339300	---	48480
YEAR	7767420		1005274						

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
OCT					
01...	1835	1170	21.0	58	14
02...	0800	1240	19.5	80	20
03...	0735	1320	20.0	74	17
04...	0900	1730	19.0	94	16
05...	0710	1760	18.5	76	18
06...	0730	1550	18.5	83	18
07...	0800	1330	18.5	72	17
08...	0905	1370	18.5	71	13
09...	0835	1500	18.5	119	--
10...	1030	1480	18.5	79	11
11...	0935	1730	17.5	93	15
12...	1550	1800	18.0	62	12
13...	0700	1720	16.0	62	9
14...	0705	1530	16.0	62	9
15...	1635	1610	17.0	63	4
16...	0705	1750	15.5	66	9
17...	0850	1640	15.5	75	16
18...	0950	1550	16.0	68	18
19...	0710	1420	16.5	61	19
20...	0725	1280	16.5	48	14
21...	0725	1130	16.5	48	12
22...	1250	1080	18.0	51	9
22...	1430	1050	18.0	50	11
23...	0825	1080	17.0	45	13
24...	0825	1070	17.0	38	8
25...	0755	1100	16.5	44	8
26...	0845	1090	16.0	44	9
27...	0800	1090	16.5	36	5
28...	0630	1130	17.0	45	9
29...	0710	1320	16.0	71	9
30...	0715	1340	15.0	44	6
31...	1115	1330	15.0	48	6
NOV					
01...	1010	1260	14.5	46	8
02...	0745	1230	14.5	44	8
03...	1425	1220	16.0	34	6
04...	0900	1260	15.0	56	7
05...	0900	1380	15.0	54	9
06...	0920	1460	15.0	52	7
07...	0915	1380	15.0	40	7
08...	0855	1290	15.0	44	8
09...	0745	1280	14.5	47	7
10...	0740	1270	15.5	44	7
11...	1055	1250	16.0	40	6
12...	1055	1270	15.5	72	7
13...	1140	1400	15.5	45	5
14...	0805	1640	15.5	130	39
15...	0830	1700	15.5	102	28
16...	0810	1800	16.0	88	18
17...	0805	1860	16.0	85	22
18...	0855	1830	15.0	87	21
19...	0900	1810	14.0	68	18
20...	1115	1730	14.0	64	19
21...	0715	1670	14.0	60	17
22...	1405	1590	15.5	65	13
23...	0745	1580	15.5	69	15
24...	1820	1560	15.5	55	14
25...	0855	1550	14.5	58	12
26...	1020	1640	13.5	60	14
27...	0735	1760	12.5	62	11
28...	0855	1830	11.5	56	7
29...	1010	2020	11.0	60	9
30...	1125	2290	10.5	76	18
DEC					
01...	0930	2290	10.0	73	14
02...	0855	2220	10.0	66	16
03...	1255	2120	11.0	66	22
04...	0910	2040	11.0	55	13
05...	0800	1950	11.5	55	13
06...	0910	1880	11.5	55	6
07...	0800	1940	11.5	57	8
08...	1005	1980	11.5	67	16
09...	0910	1950	11.0	76	15
10...	0825	1920	11.0	64	13
11...	0905	1920	10.5	66	12
12...	1400	1900	10.5	57	12
13...	1200	1880	11.5	54	12
14...	0900	1860	12.0	66	16
15...	1245	1840	13.0	62	14
16...	0835	1810	12.5	57	12
17...	1145	1780	12.0	45	11

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)
DEC					
18...	0900	1750	12.0	49	12
19...	1210	1570	13.0	40	13
20...	0935	1460	14.0	51	12
21...	0815	1450	13.5	47	14
21...	1245	1440	14.0	69	--
22...	0910	1480	12.0	47	8
23...	1630	1920	12.0	73	17
24...	1430	1980	11.5	65	17
25...	1510	1950	11.5	55	12
26...	1640	1720	12.0	60	10
27...	1415	1530	12.5	44	8
28...	1630	1460	12.0	30	7
29...	0815	1450	11.5	52	11
30...	0910	1700	11.5	55	13
31...	1220	2850	12.0	188	39
JAN					
01...	1050	2810	11.5	115	23
02...	1630	2680	11.0	104	19
03...	1100	2660	10.0	82	24
04...	1100	2950	9.0	85	21
05...	0830	3570	9.0	176	50
06...	1100	7580	8.5	635	12
07...	1000	8160	9.0	259	50
08...	0915	6860	8.0	200	50
09...	0840	5910	7.5	167	55
10...	1635	5000	8.0	131	36
11...	1135	4310	8.0	108	32
12...	1300	3540	8.0	112	35
13...	1110	3790	8.5	97	27
14...	1025	3810	8.5	88	24
15...	1140	3700	8.5	81	19
16...	1530	3510	9.0	56	12
17...	1645	3230	8.5	53	16
18...	0935	2940	8.5	50	14
18...	1330	2840	9.0	54	11
19...	0925	2420	9.0	46	12
20...	0925	2940	9.0	41	15
21...	0915	3300	9.0	73	14
22...	0835	3620	8.5	74	16
23...	1130	3660	8.5	102	15
24...	1300	3660	8.5	64	16
25...	0930	3280	9.0	62	19
26...	1000	2800	9.5	73	17
27...	1155	3130	10.0	72	13
28...	0910	3390	9.5	75	16
29...	0855	3660	9.0	69	14
30...	1120	3820	9.5	68	15
31...	1310	3810	9.5	63	14
FEB					
01...	0945	3690	9.5	56	6
02...	0845	3490	9.5	57	8
03...	0850	4180	10.0	76	11
04...	0835	4260	10.0	75	14
05...	0920	4370	9.0	67	12
06...	1205	4780	9.5	65	10
07...	1300	4710	9.5	58	11
08...	0825	4370	9.5	60	8
09...	0730	3210	10.0	62	12
10...	1205	4380	10.0	63	13
11...	0900	4860	9.5	64	11
12...	1445	4880	10.5	52	7
13...	0900	5050	10.0	63	12
14...	0645	4950	10.5	56	7
15...	1225	4500	11.5	55	11
16...	1225	3970	13.0	75	13
17...	0825	7310	13.5	232	50
18...	0900	9230	13.5	276	45
19...	0725	8810	13.0	207	40
20...	0805	8940	13.0	189	34
21...	0745	9620	13.0	163	34
22...	1625	10700	12.5	138	25
23...	0920	10800	11.5	82	24
23...	1330	10800	11.5	114	19
23...	1630	10800	11.5	119	22
24...	1410	10700	12.0	110	19
25...	1635	10400	10.5	93	16
26...	0855	10200	10.5	113	15
27...	0820	9880	10.5	125	16
28...	1220	9700	11.0	110	14
MAR					
01...	1630	9480	11.0	102	13

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
MAR					
02...	1645	9440	11.0	89	13
03...	1720	9570	11.0	72	12
04...	1710	9920	11.0	79	12
05...	1600	9840	11.0	86	15
06...	1445	9720	11.0	89	15
07...	1325	9620	11.0	77	13
08...	1615	9420	11.5	72	12
09...	1605	9250	11.5	69	11
10...	1200	9230	12.0	64	12
11...	1610	9140	12.5	75	11
12...	1600	8890	12.5	70	13
13...	0930	8830	12.0	82	13
14...	1620	9050	12.0	89	12
15...	1610	9090	12.0	86	14
16...	1550	9490	12.0	89	12
17...	1425	9930	11.5	98	16
18...	1800	11600	11.0	136	20
19...	0825	11700	11.0	106	28
20...	1200	11500	11.0	105	19
21...	1535	11500	11.5	98	15
22...	1230	11400	12.5	59	16
22...	1620	11400	12.5	87	17
23...	1605	11400	13.0	107	14
24...	1715	11300	13.5	90	14
25...	0815	11300	13.5	77	14
26...	0745	10800	14.0	56	14
27...	1430	10200	14.0	86	13
28...	1135	9740	13.5	69	13
29...	1155	9490	12.5	68	14
30...	1635	9810	11.5	78	16
31...	1235	11000	11.0	102	18
APR					
01...	1620	12500	10.5	277	50
02...	1600	15000	10.5	222	40
03...	1400	15000	11.0	139	32
04...	1715	14200	12.0	87	24
05...	1245	14200	12.0	85	22
06...	0930	14700	12.5	96	20
07...	1750	16300	13.5	119	19
08...	0855	17900	13.0	101	20
09...	0840	21100	13.0	90	17
10...	0810	23900	13.5	60	14
11...	0730	23900	14.0	73	13
12...	0740	22800	14.5	64	14
14...	1700	21500	15.5	44	10
15...	1710	22000	15.5	41	8
16...	1625	24800	15.5	52	11
17...	0845	27300	15.0	56	11
18...	1030	29600	15.5	31	10
19...	0735	29600	15.0	29	10
20...	0735	29200	15.0	28	7
21...	0735	28900	15.5	30	7
22...	0735	28600	16.0	24	7
23...	0740	28300	17.0	29	6
24...	1100	28000	17.5	23	6
25...	1045	27600	17.5	21	6
26...	0730	27300	17.5	26	6
29...	1655	25300	17.5	22	7
30...	0740	24800	16.5	22	7
MAY					
01...	0735	24400	16.5	24	5
02...	0930	24300	16.5	23	8
03...	1445	24800	17.5	22	10
04...	1555	24600	18.0	22	9
05...	0740	24100	17.0	21	9
06...	1750	23700	18.5	22	11
07...	0740	23300	18.0	22	11
08...	1855	22800	19.0	21	11
09...	1100	22900	17.5	22	11
10...	0740	22500	17.5	30	11
11...	0740	22400	16.5	24	12
12...	0740	22200	16.5	24	12
12...	1130	22200	17.0	24	14
12...	1520	22100	17.5	27	13
13...	1700	22100	17.5	25	10
14...	0740	22000	17.0	26	14
15...	0915	21400	18.5	29	13
16...	1115	20400	18.0	25	11
17...	0740	19600	18.5	32	11
18...	1620	18700	18.5	29	12
19...	0740	18300	18.0	32	12

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)
MAY					
20...	1645	17500	19.0	31	11
21...	0745	17000	18.5	36	11
22...	0930	16100	18.5	39	11
23...	1125	15100	19.0	38	12
24...	0740	14200	19.5	47	15
25...	0740	13300	19.5	46	13
26...	0740	12400	19.5	55	18
27...	1810	10900	20.0	58	16
28...	1640	10200	19.5	74	18
29...	0930	9820	18.5	71	19
30...	0915	9390	18.0	80	21
31...	1230	9150	18.5	75	17
JUN					
01...	1555	8980	18.0	71	17
02...	0755	8870	17.5	74	22
03...	1315	8980	18.0	71	19
04...	0915	9100	17.0	86	24
05...	1020	9340	17.0	79	17
06...	0915	9480	17.0	63	16
07...	0835	9470	17.5	65	11
08...	0925	9140	17.5	66	18
09...	0845	9020	18.0	65	16
10...	0945	8720	18.5	70	19
11...	0855	8330	19.0	70	18
12...	0930	8140	18.5	74	18
13...	1020	7780	18.5	72	19
14...	0935	7410	19.0	72	21
15...	1035	6740	20.0	78	19
16...	1250	6280	22.0	71	18
17...	1210	6140	21.0	77	20
18...	1100	6190	20.5	83	19
19...	0930	6190	20.0	82	19
20...	1030	6270	20.0	76	21
21...	1055	6340	20.0	74	18
22...	1115	6070	20.5	64	21
23...	0955	6250	20.0	75	20
24...	0840	6290	20.0	70	20
24...	1118	6290	20.0	74	20
24...	1154	6290	20.0	76	20
25...	1000	6460	19.0	70	19
26...	1015	6600	19.5	72	21
27...	1020	7040	20.0	67	20
28...	1145	7410	19.5	63	17
29...	1330	7410	18.5	62	17
30...	0945	7640	17.5	62	17
JUL					
01...	1505	8180	16.5	59	15
02...	0955	9350	16.0	64	14
03...	0850	10600	16.0	61	17
04...	1005	11200	16.0	48	14
05...	0930	11300	16.0	57	15
06...	0900	11100	17.5	56	15
07...	0850	10100	18.0	58	18
08...	1055	9160	18.5	70	18
09...	1105	8280	19.0	61	19
10...	1110	6870	19.5	79	25
11...	0930	5960	20.0	79	23
12...	1110	5180	21.0	80	25
13...	1040	4660	21.0	76	23
14...	0810	4520	21.5	82	26
15...	1000	4430	22.5	84	25
16...	1600	4370	23.0	83	23
17...	0835	4400	21.5	89	23
18...	1020	4560	21.0	88	29
19...	1540	4450	22.0	82	26
20...	0940	4480	21.0	85	23
21...	1210	4330	21.0	76	23
22...	0950	4240	21.0	77	22
22...	1330	4220	22.0	80	24
22...	1430	4220	22.0	87	25
22...	1445	4220	22.0	80	26
23...	1000	4320	21.0	74	24
24...	0930	4220	21.0	71	23
25...	1005	4390	20.5	79	27
26...	1110	4660	20.5	77	25
27...	1100	4590	20.5	90	27
28...	0800	4540	20.5	74	22
29...	0820	4590	20.5	85	26
30...	1005	4720	20.5	81	25
31...	1020	4430	21.0	79	26

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
AUG					
01...	0950	4450	21.0	78	20
02...	0755	4330	20.5	72	23
03...	0950	3920	20.5	81	27
04...	0940	4240	20.0	90	29
05...	1100	4260	20.5	76	22
06...	1455	4260	21.5	74	22
07...	1150	4420	21.0	80	25
08...	1045	4150	21.0	66	21
09...	1000	4160	21.5	76	24
10...	0945	4010	22.0	75	21
11...	0940	3830	21.0	77	27
12...	1020	3940	21.0	75	24
13...	0955	4000	21.0	71	24
14...	1015	3910	21.0	76	26
15...	1025	4070	21.0	73	24
16...	0955	4110	21.0	71	22
17...	1125	3910	21.5	74	24
18...	1540	3850	23.0	72	22
19...	0855	3970	21.5	65	25
20...	0725	3950	21.5	83	25
21...	1300	3950	22.0	80	26
22...	0825	3940	22.0	78	23
23...	0810	4040	22.0	72	22
24...	0755	3770	22.0	70	24
25...	0810	3770	21.5	71	24
26...	1000	3740	21.0	73	25
27...	0740	3890	21.0	75	25
28...	0755	4050	21.0	68	23
29...	0930	4100	21.0	61	18
30...	1610	4230	22.0	62	17
31...	1100	4110	21.0	62	20
31...	1500	4080	22.0	68	21
31...	1645	4060	22.0	60	18
SEP					
01...	1840	3930	21.5	63	18
02...	1620	3970	22.0	71	19
03...	1645	4180	22.0	70	18
04...	0910	4390	20.0	74	19
05...	0950	4980	20.0	80	18
06...	1815	5260	20.0	70	17
07...	0700	4430	20.5	59	16
08...	0700	4020	21.0	66	17
09...	0700	4820	21.0	69	16
10...	0710	5160	20.5	64	16
11...	0855	5170	19.5	67	16
12...	0800	5510	19.0	64	14
13...	1550	5510	20.0	59	14
14...	0710	5020	19.0	53	16
15...	1600	5550	19.0	61	14
16...	1610	5830	18.5	69	13
17...	1605	6150	18.0	66	13
18...	0835	6450	18.0	61	13
19...	0950	6770	17.5	62	12
20...	0955	7110	17.5	69	14
20...	1120	7290	18.0	65	12
20...	1430	7160	18.5	68	15
21...	0905	7240	18.0	61	12
22...	0840	7200	18.0	63	10
23...	0840	7250	18.0	65	10
24...	0825	7480	18.0	65	12
25...	1700	8300	18.0	63	10
26...	1005	8450	17.5	66	11
27...	1710	8560	17.5	64	11
28...	1610	8520	17.5	66	11
29...	1640	8170	17.5	67	11
30...	1650	8420	16.5	53	10

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

(NOT PREVIOUSLY PUBLISHED)

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT 22...	1430	1050	18.0	34	96	--	--	--
NOV 05...	1130	1420	15.5	40	153	--	--	--
DEC 21...	1245	1440	14.0	41	159	--	--	--
JAN 18...	1330	2840	9.0	41	314	--	--	--
FEB 23...	1330	10800	11.5	136	3970	--	--	--
MAR 22...	1130	11400	12.0	71	2190	--	--	--
APR 19...	1400	29700	15.5	42	3370	--	--	--
MAY 12...	1450	22100	17.5	35	2090	--	--	--
JUN 24...	1215	6290	20.0	64	1090	25	40	53
JUL 22...	1405	4220	22.0	74	843	36	48	60
AUG 31...	1430	4080	21.5	58	639	34	46	56
SEP 20...	1230	7260	18.0	62	1220	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .016 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT 22...	--	--	92	95	100	--	--
NOV 05...	--	--	91	94	97	100	--
DEC 21...	--	--	91	97	99	100	--
JAN 18...	--	--	76	86	94	100	--
FEB 23...	--	--	40	48	68	94	100
MAR 22...	--	--	42	50	73	97	100
APR 19...	--	--	34	41	64	94	100
MAY 12...	--	--	55	64	82	99	100
JUN 24...	66	79	88	95	99	100	--
JUL 22...	73	85	93	97	100	--	--
AUG 31...	68	78	86	92	97	100	--
SEP 20...	--	--	72	83	94	100	--

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV 29...	1335	8680	11.5	38	891	--	--	--
FEB 01...	1230	36400	10.5	87	8550	57	71	77
JUN 09...	1400	27400	20.5	59	4360	--	--	--
09...	1445	27400	20.5	56	4140	--	--	--
24...	1300	24000	20.5	64	4150	--	--	--
24...	1330	24000	20.5	57	3690	--	--	--
JUL 26	1300	11400	20.0	76	2340	--	--	--
SEP 23	1145	11600	20.0	63	1970	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .016 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV 29...	--	--	94	--	--	--	--
FEB 01...	81	82	83	85	90	97	100
JUN 09...	--	--	83	89	97	100	--
09...	--	--	84	88	95	99	100
24...	--	--	84	87	94	100	--
24...	--	--	86	90	96	100	--
JUL 26...	--	--	97	100	--	--	--
SEP 23...	--	--	85	92	97	100	--

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
OCT					
01...	0715	8740	16.0	58	10
02...	1240	8860	16.0	59	11
03...	0950	8840	16.5	59	11
04...	1710	8920	17.0	53	10
05...	1615	8750	16.5	53	10
06...	1700	8380	16.5	47	9
07...	1035	8120	15.5	50	8
08...	1605	8090	15.5	45	7
09...	1630	8100	15.5	48	8
10...	0905	8000	15.0	52	8
11...	1710	7960	16.0	48	9
12...	1015	7930	15.5	52	9
13...	1620	7760	16.0	49	9
14...	1745	7900	16.5	45	8
15...	1545	7910	16.5	48	8
16...	1540	7890	16.5	46	8
17...	0840	7890	15.5	47	9
18...	1545	7670	16.0	42	8
19...	1610	7420	16.0	46	7
20...	0725	7400	15.5	48	8
21...	1015	7400	15.5	53	8
22...	1520	7560	15.5	51	9
23...	1610	7890	16.0	54	9
24...	1310	8190	16.0	50	8
25...	1720	8250	16.0	50	8
26...	1730	8390	16.0	50	8
27...	1640	8500	15.5	47	9
28...	1720	8630	15.0	47	9
29...	1425	8680	14.5	49	9
30...	0940	8760	14.0	53	11
31...	0810	8810	14.0	45	9
NOV					
01...	0930	8840	13.5	53	9
01...	1450	8820	14.5	50	10
01...	1650	8820	14.0	42	10
02...	0710	8860	13.5	42	12
03...	1640	8990	14.0	48	11
04...	1705	9080	14.0	43	10
05...	0700	9080	13.5	46	10
06...	1430	8510	14.0	47	12
07...	1000	7610	13.0	50	12
08...	0715	7300	13.0	52	14
09...	0715	7120	12.0	46	12
10...	0715	7160	11.5	47	14
11...	1600	6010	11.5	41	11
12...	1030	5610	11.5	43	11
13...	0830	5420	11.0	44	11
14...	0755	5290	11.5	42	10
15...	0710	5270	11.0	40	10
16...	1640	5400	11.0	45	11
17...	0710	5360	10.5	44	12
18...	0830	5180	11.0	39	10
19...	0710	5420	11.0	48	12
20...	0930	5700	11.5	65	12
21...	0900	5730	11.0	66	19
22...	1100	5860	11.5	72	16
23...	0710	6060	11.5	72	22
24...	0720	6300	11.5	67	19
25...	1515	6900	12.0	90	25
26...	0905	7250	11.5	77	24
27...	1220	7720	11.5	81	21
28...	0955	8140	11.5	75	20
29...	0705	8540	11.5	81	17
29...	1215	8660	12.0	77	16
29...	1335	8680	12.0	38	16
29...	1415	8680	12.0	76	15
30...	0805	9020	12.0	98	23
DEC					
01...	0720	9950	11.0	88	25
02...	0805	12500	11.0	123	25
03...	0755	13000	10.5	74	15
04...	1055	13400	10.5	68	16
05...	1140	14200	11.0	76	17
06...	0720	14800	10.5	62	16
07...	0655	15700	10.0	62	16
08...	0710	16400	9.5	55	17
09...	0900	16500	9.5	49	18
10...	1540	16800	9.0	46	16
11...	1200	17200	9.0	38	14
12...	1535	17300	9.0	39	13
13...	0925	17200	9.5	42	12
14...	1555	16900	9.5	38	13

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
DEC					
15...	0715	16800	9.5	42	13
16...	0720	16500	9.5	37	12
17...	0905	16200	9.5	42	12
18...	1000	15800	10.0	30	10
19...	1145	15500	9.5	41	11
20...	1415	15300	10.0	44	11
21...	1130	15300	10.0	42	11
22...	1015	15300	10.0	41	15
23...	0920	15800	10.0	49	15
24...	0945	17600	9.5	66	34
25...	1210	17500	8.5	52	21
26...	1000	17100	8.0	38	16
27...	0950	17800	8.0	47	20
28...	0925	19400	8.0	38	23
29...	0835	21400	8.5	42	23
30...	1000	22100	8.0	37	23
31...	1445	21800	8.0	32	25
JAN					
01...	0830	21400	7.5	35	23
02...	1000	20900	7.0	28	20
03...	0720	20300	7.0	30	17
04...	0725	19300	7.0	26	17
05...	0720	18300	7.5	31	15
06...	1005	17600	7.5	34	16
07...	0725	16900	7.5	30	14
08...	1530	16300	7.5	30	15
09...	1000	16100	7.5	33	15
10...	0720	16100	7.5	39	15
11...	0720	15700	8.0	39	15
12...	0720	15400	8.0	41	13
13...	1020	15200	8.0	35	14
14...	1635	14800	7.5	39	13
15...	1040	14600	7.5	37	13
16...	1000	14300	7.5	32	12
17...	1105	13800	8.5	38	13
18...	0715	13500	8.5	47	14
19...	0720	13200	9.0	42	14
20...	1005	13300	9.0	58	20
21...	0720	13500	9.0	53	21
22...	1610	13600	9.0	84	40
23...	1000	14400	9.0	272	140
24...	0855	17600	9.5	141	65
25...	0725	19600	10.5	140	90
26...	0730	21600	11.0	115	65
26...	1130	21700	11.5	102	60
27...	1000	22600	11.0	110	65
28...	0930	27400	11.0	123	75
29...	1130	35200	10.5	80	50
30...	0835	37600	10.5	80	50
31...	0710	39400	10.5	75	55
FEB					
01...	0710	37100	10.5	74	50
01...	1107	36500	10.5	72	55
01...	1230	36400	10.5	87	50
01...	1330	36300	10.5	74	50
02...	0725	34400	10.5	73	50
03...	0745	31900	10.0	54	36
03...	0930	31800	10.5	53	33
03...	1245	31400	10.5	51	31
04...	1550	29100	10.0	49	28
05...	1400	28000	10.0	49	26
06...	1115	27300	10.0	42	22
07...	0730	27200	10.0	41	20
08...	0725	28500	10.5	41	19
09...	0720	33000	10.5	57	27
10...	1045	34100	11.0	52	31
11...	1115	34800	11.5	43	21
12...	0730	36800	12.0	52	31
13...	0725	37800	12.0	54	28
14...	0720	36500	12.0	56	31
14...	0930	36500	12.0	58	28
15...	0715	35300	12.0	52	24
16...	0720	34500	11.5	51	27
17...	1600	33800	12.0	49	27
18...	0720	33400	11.5	44	24
19...	0925	32400	11.5	42	22
20...	0850	31300	11.5	45	20
21...	1120	30200	12.0	37	17
22...	1555	29800	12.5	37	18
23...	0720	29400	12.5	36	16
24...	0820	29200	12.0	39	15
25...	1635	27400	11.5	43	17

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	TUR- BID- ITY (NTU)
FEB					
26...	0935	26800	11.0	38	16
27...	0750	26600	11.0	43	21
28...	0720	26600	11.5	87	40
MAR					
01...	0710	29300	12.0	86	40
02...	0730	33400	12.0	140	80
03...	0655	36100	12.0	105	60
04...	1450	42400	13.0	73	40
05...	1040	42200	12.5	57	34
06...	0830	42800	12.5	72	45
07...	0700	44600	13.0	60	36
08...	0705	44100	13.5	55	32
09...	0710	42600	14.0	47	27
10...	1650	41200	15.0	42	20
11...	0710	41400	15.0	42	19
12...	0840	40200	15.0	38	19
13...	0920	39000	14.0	42	21
14...	0710	38900	13.5	50	21
15...	0710	39600	13.5	51	28
15...	1015	39400	13.5	44	28
15...	1400	39400	13.5	50	20
15...	1430	39400	13.5	52	22
16...	0705	39600	13.0	44	21
17...	0710	39400	12.5	45	22
18...	0700	39000	12.5	40	18
19...	0720	39700	12.5	37	20
20...	0730	39400	13.0	36	17
21...	1625	39900	13.5	34	18
22...	1750	38900	13.0	42	23
23...	0710	38100	12.0	40	22
24...	0710	38700	11.5	42	22
25...	1335	40900	12.0	40	25
25...	1420	41100	12.0	45	25
25...	1715	41400	--	45	24
26...	0850	41500	12.0	42	20
26...	1100	41700	12.5	44	20
27...	1035	42500	12.5	42	22
28...	0720	42600	12.0	39	17
29...	0945	37300	13.0	39	19
30...	0730	39700	13.0	44	18
30...	1020	40000	--	44	18
31...	1330	42600	15.0	34	15
APR					
01...	0925	41400	15.0	35	15
02...	1000	40900	15.0	32	15
03...	0750	40100	15.0	33	13
04...	1705	38200	14.0	34	15
05...	1450	36800	13.5	33	12
06...	1610	38700	13.0	31	12
07...	1620	37800	14.0	30	13
08...	0710	37400	13.5	29	10
09...	1845	36900	14.0	28	11
10...	0900	36700	14.0	27	10
11...	0640	36300	13.5	20	11
12...	0715	35800	13.0	22	11
13...	0710	35400	13.0	20	10
14...	1635	35300	14.0	17	10
15...	0830	35100	13.5	22	10
16...	0730	34800	14.0	26	10
17...	0810	34600	15.0	22	10
18...	1715	34600	15.0	26	10
19...	1540	34500	15.0	21	9
20...	1640	34300	15.0	22	8
21...	1545	34000	15.5	22	9
22...	1615	34400	15.5	21	10
23...	0950	34600	14.5	22	10
24...	1015	35200	14.0	23	11
25...	1635	35800	14.0	21	10
26...	1655	36400	14.0	24	11
27...	1620	36600	14.0	22	10
28...	1640	36900	14.5	25	11
29...	1410	36900	15.0	26	12
30...	1200	36400	14.5	23	11
MAY					
01...	1510	35900	15.0	23	10
02...	1920	36100	16.0	22	9
03...	1640	36200	16.5	23	11
04...	1645	36600	16.5	22	11
05...	1730	37100	15.5	29	11
06...	1545	37300	15.5	23	11
07...	0935	37200	15.5	25	12
08...	0830	36100	15.5	27	12

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)
MAY					
09...	0730	34200	15.0	28	12
09...	1000	34200	15.0	32	12
09...	1000	34200	15.0	28	11
09...	1345	34400	15.0	26	9
09...	1410	34300	15.0	25	12
10...	0725	33700	14.5	34	12
11...	0720	33100	15.0	36	12
12...	1650	32400	16.0	30	12
13...	0715	32100	15.5	33	14
14...	1305	31500	17.0	31	11
15...	0815	31100	17.0	29	9
16...	1545	30000	17.5	33	11
17...	1710	29500	17.5	28	11
18...	0705	29300	17.0	31	10
19...	1710	28500	18.5	32	11
20...	0700	28500	18.0	30	10
21...	0755	28300	18.5	30	12
22...	0730	28200	19.0	29	8
23...	0715	28200	19.5	28	6
24...	0720	28100	19.0	30	12
25...	0730	28100	19.0	35	11
26...	1640	28900	20.5	35	12
27...	0740	29400	20.0	34	11
28...	0850	29500	20.0	33	13
29...	0830	29800	19.5	39	15
30...	0905	30200	19.0	41	15
31...	0725	30400	19.0	42	18
JUN					
01...	0720	30700	19.0	40	14
02...	0710	30900	18.5	39	15
03...	0805	30300	19.0	42	16
04...	1225	28800	19.0	45	17
05...	0755	28300	19.5	44	21
06...	0800	27200	20.5	47	19
07...	0800	27200	21.0	47	19
08...	0725	27300	21.0	48	19
09...	1030	27400	20.5	59	22
09...	1045	27400	20.5	52	22
09...	1400	27400	20.5	59	21
09...	1410	27400	20.5	66	24
09...	1445	27400	20.5	56	20
09...	1500	27400	20.5	59	22
10...	0815	27300	20.5	55	21
11...	0710	27000	19.5	52	21
12...	0720	26700	19.5	52	21
13...	1300	26600	20.0	52	22
14...	0750	26600	20.0	51	20
15...	0700	26500	20.0	54	22
16...	0805	26700	20.5	53	22
17...	0800	25800	21.0	56	21
18...	0920	25000	20.5	61	23
19...	0800	24600	20.0	56	23
20...	0710	24500	19.5	58	23
21...	0805	24400	19.5	55	20
22...	0710	23800	20.0	55	22
22...	1330	23900	21.0	57	28
23...	1235	24000	20.5	61	22
24...	0800	24000	19.5	60	23
24...	1200	24000	20.5	68	24
24...	1300	24000	20.5	64	23
24...	1330	24000	20.5	57	22
24...	1340	24000	20.5	52	24
25...	0715	24000	20.0	50	21
26...	0720	23800	20.5	57	19
27...	0750	23700	20.0	51	20
28...	0755	23600	20.0	56	24
29...	0755	23900	20.0	56	24
30...	0755	23800	20.0	60	25
JUL					
01...	0755	23500	20.0	54	25
02...	1045	23500	20.0	59	25
03...	0800	23400	20.0	58	27
04...	1150	23300	20.5	55	25
05...	0800	23200	21.5	54	21
06...	0800	23200	22.0	53	23
07...	1330	23400	21.0	57	25
08...	0750	23700	20.0	57	26
09...	1140	24000	19.5	57	26
10...	0810	24200	19.0	58	26
11...	1100	24800	19.5	55	24
12...	0910	25200	21.0	51	22
13...	0800	25000	21.5	52	23

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)
JUL					
14...	1040	24700	22.5	53	23
15...	0815	24400	22.0	57	25
16...	0715	23700	21.5	56	25
17...	0715	22700	21.0	57	25
18...	0700	21600	20.0	58	26
19...	0935	20200	19.5	64	27
20...	0915	18600	19.0	68	29
21...	0935	17100	19.5	76	27
22...	0810	15900	20.0	85	30
23...	0715	14500	20.0	91	29
24...	0715	13200	20.0	100	27
25...	0650	12100	20.0	88	24
25...	1100	12300	20.0	98	30
26...	0940	11400	20.0	121	32
26...	1300	11400	20.0	76	26
26...	1450	11400	20.0	93	26
26...	1700	11200	20.5	94	30
27...	1800	10500	20.5	86	26
28...	0730	10100	20.0	92	23
29...	0800	9540	20.5	106	30
30...	1200	9170	21.0	85	30
31...	0940	9080	21.0	97	28
AUG					
01...	1235	8970	21.5	85	24
02...	1350	8810	22.0	91	23
03...	1415	8600	22.0	78	24
04...	1445	8610	21.5	74	21
05...	1020	8670	20.5	79	24
06...	1105	8690	20.5	74	24
07...	0750	8680	20.5	74	22
08...	0905	8760	21.5	70	18
09...	1130	8660	21.5	62	16
10...	0800	8500	21.0	72	21
11...	1310	8300	21.0	66	18
12...	0855	8350	20.5	77	22
13...	0710	8340	21.0	73	20
14...	0720	8340	21.0	67	18
15...	0920	8500	20.5	68	17
16...	0925	8440	21.0	64	17
17...	0745	8340	21.0	66	18
18...	0925	8290	21.0	68	20
19...	1330	8510	20.5	75	20
20...	1010	8940	20.0	86	20
21...	0955	9150	20.0	70	19
22...	0925	9200	20.0	72	17
23...	1600	9210	20.0	72	20
24...	1000	9240	19.5	64	17
25...	0700	9130	19.5	66	16
26...	1630	9870	19.5	66	22
27...	1050	10000	19.5	72	20
28...	0815	10200	20.0	71	18
29...	0640	10700	20.0	68	18
30...	0640	11000	20.0	70	17
31...	1655	11100	20.5	68	20
SEP					
01...	1625	11000	20.0	68	17
02...	1715	10800	20.0	66	19
03...	0720	10900	20.5	66	16
04...	0720	10900	20.5	64	17
05...	0720	11100	21.0	66	17
06...	0705	11000	21.0	68	17
07...	1545	11100	21.5	64	18
08...	0700	11300	21.0	61	16
09...	0700	11600	20.5	65	15
10...	1030	11700	20.0	65	17
11...	1000	11600	19.5	59	16
12...	0700	11600	20.0	55	12
13...	0700	11400	20.5	58	14
14...	0705	11200	21.0	56	14
15...	0700	11200	21.0	53	14
16...	1635	11300	21.0	56	14
17...	0950	11400	21.0	55	15
18...	1000	11100	20.5	53	12
19...	0700	10900	20.0	51	13
20...	0840	10900	19.5	53	12
21...	0855	10800	19.5	49	12
22...	0940	11000	20.0	55	14
22...	1030	11000	20.0	52	13
23...	1110	11600	20.0	66	17
23...	1145	11600	20.0	63	17
23...	1300	11600	20.0	70	18
26...	1625	11500	19.5	38	10

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PERIODIC DETERMINATIONS OF SUSPENDED-SEDIMENT
CONCENTRATION AND TURBIDITY, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	TUR- BID- ITY (NTU)
SEP					
27...	1720	11700	19.5	53	13
28...	1655	11700	19.0	47	9
29...	1730	11800	19.0	53	12
30...	1645	12200	18.5	56	12

11308600 CALAVERAS RIVER ABOVE NEW HOGAN LAKE, NEAR SAN ANDREAS, CA

LOCATION.--Lat 38°11'48", long 120°43'18", in NW 1/4 SW 1/4 sec. 13, T.4 N., R.11 E., Calaveras County, Hydrologic Unit 18040011, on right bank 600 ft below confluence of the North and South Forks of the Calaveras River, and 2.3 mi west of San Andreas.

DRAINAGE AREA.--307 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1970 to current year.

INSTRUMENTATION.--Temperature recorder since October 1970.

REMARKS.--Backwater from New Hogan Lake, Oct. 1 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 31.5°C Aug. 8, 9, 1978; minimum recorded, 2.0°C Jan. 7, 1973, Jan. 4, 1976.

11308700 NEW HOGAN LAKE NEAR VALLEY SPRINGS, CA

LOCATION.--Lat 38°09'01", long 120°48'45", in SW 1/4 SW 1/4 sec.31, T.4 N., R.11 E., Calaveras County, Hydrologic Unit 18040011, in control house at New Hogan Dam on the Calaveras River, 3.0 mi south of Valley Springs.

DRAINAGE AREA.--362 mi².

PERIOD OF RECORD.--December 1963 to current year. Prior to October 1971, published as "New Hogan Reservoir."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam and four earthfill dikes. Storage began Dec. 20, 1963. Total capacity, 317,055 acre-ft between elevations 534.5 ft, invert of outlet valve, and 713.0 ft, top of spillway gates. Elevation of spillway crest is 679.5 ft. No dead storage. The reservoir is operated for flood control according to existing downstream channel conditions. Reservoir releases limited, insofar as possible, to amounts that will not cause flows greater than 6,000 ft³/s at Bellota. Records, including extremes, show contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers, not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 278,798 acre-ft May 15, 16, 1982, elevation, 703.75 ft; minimum since initial season of normal operation, 9,360 acre-ft Oct. 27, 1964, elevation, 576.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 262,263 acre-ft June 5, elevation, 699.50 ft; minimum, 158,285 acre-ft Jan. 5, elevation, 668.33 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

545	588	600	26,851
550	1,117	610	38,252
555	1,892	630	68,795
560	2,960	650	110,300
570	6,149	670	163,134
580	11,013	700	264,177
590	17,835	713	317,123

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	221784	220471	201544	158747	171532	198893	194582	240062	261729	254958	242424	227049
2	221611	220022	191918	158660	170271	204810	196423	242424	261844	254621	241914	226662
3	221403	219643	181585	158574	170331	198404	197948	244360	262035	254284	241369	226312
4	221162	219299	172708	158430	171232	192142	199350	245936	262149	253984	240896	225962
5	220954	218543	165514	158285	172285	186996	200625	247592	262263	253610	240461	225578
6	220816	218027	161354	158430	173948	181058	201807	249626	262149	253161	240026	225158
7	220574	217753	161616	158689	181678	176932	202926	251073	261996	252788	239592	224705
8	220436	217205	161732	158862	186712	173978	203949	252302	261805	252377	239085	224251
9	220298	216624	161674	159035	180717	173009	204976	253385	261653	252004	238580	223903
10	220195	216180	161528	159237	174069	173554	205939	254434	261462	251669	238039	223589
11	220091	215668	161266	159382	170151	175559	206837	255372	261310	251371	237535	223276
12	219988	215259	161063	159526	168538	178496	207704	256237	261158	250999	237103	222964
13	219850	214782	160889	159700	169016	195970	208507	257103	261006	250553	236635	222547
14	219746	214306	160714	159816	168003	196650	209311	257744	260777	250033	236169	222131
15	219609	213526	160540	159902	168003	193135	210083	258350	260549	249626	235774	221680
16	219506	212476	160308	160105	168896	189591	210789	258841	260321	249144	235273	221266
17	219368	211328	160279	160221	170421	187059	211463	259259	260017	248663	234700	220920
18	219264	212747	160250	160889	173464	186680	212171	259637	259713	248182	234128	220574
19	219127	214102	160163	162900	176015	186271	212983	259941	259409	247777	233558	220195
20	219023	212814	160134	163749	177851	186712	213797	260131	259183	247371	233058	219919
21	218920	211059	164895	164307	179389	188734	214544	260359	258955	247003	232560	219540
22	218817	209378	177239	174433	180779	188671	215225	260587	258614	246598	232062	219402
23	218817	207770	175985	175803	182019	187943	216213	260815	258198	246157	231566	219161
24	218714	205939	170991	188766	183108	190036	217891	260968	257782	245715	230998	218955
25	219677	203982	166371	185109	184639	192078	220367	261196	257367	245276	230431	218714
26	220678	202004	161936	180315	187027	191630	221958	261348	256877	244872	229937	218508
27	220816	199905	159353	189464	190068	190641	223241	261500	256463	244505	229442	218268
28	220850	198046	159064	184389	193424	190195	227013	261538	256161	244103	228948	218027
29	220747	200134	158862	185297	---	190418	231884	261577	255709	243664	228454	217822
30	220574	208373	158804	179605	---	191151	236815	261653	255334	243336	227962	217685
31	220678	---	158804	174433	---	192782	---	261653	---	242861	227470	---
MAX	221784	220471	201544	189464	193424	204810	236815	261653	262263	254958	242424	227049
MIN	218714	198046	158804	158285	168003	173009	194582	240062	255334	242861	227470	217685
a	688.05	684.43	668.51	673.79	679.87	679.67	692.63	699.34	697.67	694.30	690.00	687.18
b	-1314	-12305	-49569	+15629	+18991	-642	+44033	+24838	-6319	-12473	-15391	-9785
c	1148	389	244	233	800	484	807	1608	2220	2673	2457	2088

CAL YR 1982 b +28221

WTR YR 1983 b -4307

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CA

LOCATION.--Lat 38°08'53", long 120°49'26", in NW 1/4 NE 1/4 sec.1, T.3 N., R.10 E., Calaveras County, Hydrologic Unit 18040011, on right bank at county road bridge, 0.5 mi upstream from Cosgrove Creek, 0.8 mi downstream from New Hogan Dam, and 3.0 mi south of Valley Springs.

DRAINAGE AREA.--363 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 519.8 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Auxiliary nonrecording gage 300 ft downstream at different datum used May 1, 1962, to Jan. 26, 1963.

REMARKS.--Records good. Flow regulated by New Hogan Lake (station 11308700). Some seepage of North Fork Stanislaus River water enters basin from diversion canals and reservoirs, normally not over 1.5 ft³/s. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--(adjusted for change in contents in and evaporation from New Hogan Lake).--22 years, 256 ft³/s, 185,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s Jan. 22, 1980, gage height, 10.52 ft; no flow many days in 1961-65, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,050 ft³/s Mar. 2, gage height, 9.30 ft; minimum daily, 34 ft³/s Apr. 24, May 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	104	293	5960	306	2550	4560	94	38	147	241	232	236		
2	104	295	5850	306	1570	6630	98	38	131	241	255	214		
3	104	305	5880	300	751	7420	101	36	120	241	270	198		
4	104	308	5000	300	210	5790	89	34	120	236	250	198		
5	104	307	4040	270	61	4490	71	36	144	232	210	198		
6	104	305	2530	131	63	4470	71	38	206	232	210	198		
7	104	305	94	73	1960	4300	65	37	219	241	210	198		
8	85	304	154	73	4890	3080	51	37	202	246	210	186		
9	61	304	202	73	5680	1880	51	37	210	236	246	171		
10	62	304	280	73	5060	1020	51	37	194	227	255	157		
11	62	303	280	73	3230	345	51	37	194	232	255	157		
12	62	303	280	73	2000	97	51	42	206	246	232	168		
13	62	301	265	73	2050	1620	51	48	210	270	214	190		
14	61	301	227	73	2050	3640	51	58	210	255	232	206		
15	59	450	227	73	1250	3930	51	76	223	241	236	214		
16	59	627	227	76	606	3980	52	128	223	241	227	198		
17	60	748	227	76	73	3560	51	150	219	241	270	175		
18	60	764	227	78	76	2470	52	150	219	241	265	168		
19	60	952	227	78	73	1850	52	186	219	232	260	175		
20	60	1230	227	76	73	1550	52	206	202	227	260	159		
21	58	1240	485	76	73	2140	52	179	202	227	250	171		
22	59	1250	3050	111	73	2520	52	147	232	227	250	150		
23	61	1260	4580	2100	73	2510	46	147	270	227	250	126		
24	60	1250	4020	2690	73	2520	34	147	285	236	280	117		
25	61	1250	3310	4470	73	2530	37	147	290	241	265	117		
26	61	1240	2980	4320	580	2530	37	147	280	232	255	117		
27	122	1240	1930	3310	2170	2530	37	147	265	223	250	123		
28	200	1240	658	5350	3310	1910	39	147	265	223	250	126		
29	198	1250	531	3850	---	1290	38	147	255	223	241	123		
30	200	3630	382	4970	---	865	38	147	241	223	236	104		
31	199	---	306	3990	---	376	---	147	---	223	236	---		
TOTAL	2820	23859	54636	37891	40701	88403	1666	3098	6403	7304	7562	5038		
MEAN	91.0	795	1762	1222	1454	2852	55.5	99.9	213	236	244	168		
MAX	200	3630	5960	5350	5680	7420	101	206	290	270	280	236		
MIN	58	293	94	73	61	97	34	34	120	223	210	104		
AC-FT	5590	47320	108400	75160	80730	175300	3300	6140	12700	14490	15000	9990		
CAL YR 1982	TOTAL	228612	MEAN	626	MAX	6880	MIN	18	AC-FT	453500	MEAN a	686	AC-FT a	496500
WTR YR 1983	TOTAL	279381	MEAN	765	MAX	7420	MIN	34	AC-FT	554200	MEAN a	780	AC-FT a	564500

a Adjusted for change in contents in and evaporation from New Hogan Lake.

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-66, 1971 to current year.

CHEMICAL ANALYSES: Water years 1964-66.

WATER TEMPERATURES: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1970 to current year.

INSTRUMENTATION.--Temperature recorder since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 24.0°C Aug. 10, 28, 29, 1977; minimum recorded, 5.5°C Dec. 17, 1971, Jan. 1, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 14.0°C May 3, Sept. 20; minimum recorded, 8.5°C several days during January.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	11.0	12.0	11.5	12.5	12.0	---	---	9.0	9.0	10.5	10.5
2	12.0	11.0	12.0	12.0	12.0	12.0	---	---	9.0	9.0	10.5	10.5
3	12.0	11.0	12.0	12.0	12.0	12.0	9.5	9.0	9.0	9.0	10.5	10.5
4	11.5	11.0	12.0	12.0	12.0	12.0	9.0	9.0	9.5	9.0	11.0	10.5
5	11.5	11.0	12.0	12.0	12.0	12.0	9.0	9.0	9.0	9.0	11.0	11.0
6	11.5	11.0	12.0	12.0	12.0	11.5	9.0	8.5	9.0	9.0	11.0	11.0
7	11.5	11.0	12.0	12.0	11.5	10.5	8.5	8.5	9.5	9.0	11.5	11.0
8	12.0	11.0	12.0	12.0	11.0	10.5	8.5	8.5	9.0	9.0	11.5	11.5
9	12.0	11.0	12.0	12.0	11.0	11.0	9.0	8.5	9.0	9.0	11.5	11.0
10	12.0	11.0	12.0	12.0	11.0	11.0	8.5	8.5	9.0	9.0	11.5	11.0
11	12.0	11.0	12.0	12.0	11.0	11.0	8.5	8.5	9.5	9.0	11.5	11.0
12	12.0	11.0	12.0	12.0	11.0	11.0	8.5	8.5	9.5	9.5	11.5	11.0
13	12.0	11.0	12.0	12.0	11.0	11.0	8.5	8.5	9.5	9.5	12.0	11.0
14	12.0	11.0	12.0	12.0	11.0	11.0	8.5	8.5	9.5	9.5	12.0	11.5
15	12.0	11.0	13.0	12.0	11.0	11.0	8.5	8.5	9.5	9.5	12.5	11.5
16	12.0	11.0	13.0	13.0	11.0	10.5	8.5	8.5	10.0	9.5	12.5	12.0
17	12.0	11.0	13.0	13.0	11.0	10.5	9.0	8.5	10.5	9.5	12.5	12.0
18	12.0	11.0	13.5	13.0	11.0	10.5	8.5	8.5	10.0	9.5	12.0	12.0
19	12.0	11.0	13.0	13.0	10.5	10.5	9.0	8.5	10.5	9.5	12.0	12.0
20	12.0	11.0	13.0	13.0	10.5	10.5	9.0	8.5	10.5	9.5	12.0	12.0
21	11.5	11.0	13.0	13.0	10.5	10.5	8.5	8.5	10.5	9.5	12.0	12.0
22	11.5	11.0	13.0	13.0	10.5	10.5	10.0	8.5	10.5	9.5	12.0	12.0
23	12.0	11.0	13.0	13.0	10.5	10.5	8.5	8.5	10.5	9.5	12.0	11.5
24	12.0	11.0	13.0	13.0	10.5	10.5	9.0	8.5	10.0	9.5	11.5	11.5
25	11.5	11.5	13.0	12.5	10.5	10.5	9.0	9.0	10.0	9.5	11.5	11.5
26	11.5	11.0	12.5	12.5	10.5	10.0	9.0	9.0	10.0	10.0	11.5	11.5
27	12.0	11.0	12.5	12.5	10.0	10.0	9.5	9.0	10.0	10.0	11.5	11.5
28	11.5	11.0	12.5	12.5	10.0	10.0	9.0	9.0	10.5	10.0	11.5	11.5
29	11.5	11.5	12.5	12.5	10.0	10.0	9.0	9.0	---	---	11.5	11.5
30	11.5	11.5	12.5	12.5	10.0	9.5	9.0	9.0	---	---	11.5	11.5
31	12.0	11.5	---	---	9.5	9.5	9.0	9.0	---	---	11.5	11.0
MONTH	12.0	11.0	13.5	11.5	12.5	9.5	10.0	8.5	10.5	9.0	12.5	10.5

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	11.0	13.0	11.0	12.0	12.0	12.5	12.0	13.0	12.0	13.0	12.5
2	12.0	11.0	13.0	11.0	12.5	11.5	13.0	12.5	13.0	12.0	13.0	12.5
3	12.0	10.5	14.0	11.0	13.0	12.0	13.0	12.0	13.0	11.5	13.0	12.5
4	12.0	11.0	12.0	11.0	13.0	12.0	13.0	12.0	13.0	12.0	13.0	12.5
5	12.0	11.0	12.0	11.0	13.0	12.0	13.0	12.0	13.0	11.5	13.0	12.5
6	12.0	11.0	13.5	11.0	12.5	12.0	13.0	12.0	13.0	12.0	13.0	12.5
7	12.0	11.0	13.5	11.0	12.5	12.0	12.5	12.0	13.0	12.5	13.0	12.5
8	12.5	11.0	13.5	11.0	12.5	12.0	13.0	12.0	13.0	12.5	13.0	12.5
9	12.0	11.0	13.5	11.0	12.5	12.0	13.0	12.0	13.0	12.5	13.0	12.5
10	12.0	10.5	13.5	11.0	12.5	12.0	13.0	12.0	13.0	12.0	13.0	12.0
11	12.0	10.5	13.5	11.0	12.5	12.0	13.0	12.0	13.0	12.5	13.0	12.5
12	12.0	10.5	13.0	11.0	12.5	12.0	13.0	12.5	13.0	12.5	13.0	12.5
13	12.5	10.5	13.0	11.5	13.0	12.0	13.0	12.5	13.0	12.0	13.0	12.0
14	12.5	10.5	13.5	11.5	12.5	12.0	13.0	12.5	13.0	11.5	13.0	12.5
15	12.5	11.0	13.0	11.5	12.5	12.0	13.0	12.5	13.0	12.5	13.0	12.5
16	12.5	11.0	12.5	11.5	13.0	12.0	13.0	12.5	13.0	11.5	13.0	12.5
17	12.0	11.0	12.5	11.5	12.5	12.0	13.0	12.0	13.0	12.5	13.0	12.5
18	12.5	11.0	12.5	11.5	12.5	12.0	13.0	12.0	13.0	12.5	13.0	12.5
19	12.5	11.0	12.5	11.5	12.5	12.0	13.0	12.0	13.0	12.5	13.0	12.0
20	12.0	11.0	12.5	12.0	13.0	12.0	13.0	12.0	13.0	12.5	14.0	12.5
21	12.5	11.0	13.0	12.0	13.0	12.0	13.0	12.5	13.0	12.5	13.0	12.5
22	11.5	11.0	13.0	12.0	13.0	12.0	13.0	12.5	13.0	12.5	12.5	12.5
23	11.5	11.0	13.0	12.0	12.5	12.0	13.0	12.5	13.0	12.5	13.0	12.5
24	12.0	11.0	13.0	11.5	12.5	12.0	13.0	12.5	13.0	12.5	13.0	12.5
25	13.0	11.0	13.0	12.0	13.0	12.0	13.0	12.5	13.0	12.5	13.0	12.5
26	12.5	10.5	13.0	12.0	13.0	12.0	13.0	12.5	13.0	12.5	13.0	12.5
27	11.5	11.0	13.0	12.0	13.0	12.0	13.0	12.5	13.0	12.5	13.0	12.5
28	13.0	11.5	13.0	11.5	13.0	12.0	13.0	12.5	13.0	12.5	13.0	12.0
29	13.5	11.0	12.5	11.5	13.0	12.0	13.0	12.0	13.0	12.5	12.5	12.0
30	13.0	11.0	13.0	12.0	13.0	12.0	13.0	12.5	13.0	12.5	12.5	12.5
31	---	---	12.5	12.0	---	---	13.0	12.5	13.0	12.5	---	---
MONTH	13.5	10.5	14.0	11.0	13.0	11.5	13.0	12.0	13.0	11.5	14.0	12.0

11312000 BEAR CREEK NEAR LOCKEFORD, CA

LOCATION.--Lat 38°09'10", long 121°08'17", in NW 1/4 SE 1/4 sec.31, T.4 N., R.8 E., San Joaquin County, Hydrologic Unit 18040005, on right bank 15 ft downstream from county road bridge, and 0.8 mi southeast of Lockeford.

DRAINAGE AREA.--47.4 mi².

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1926 to November 1930 at site 3 mi downstream; records not equivalent.

REVISED RECORDS.--WSP 1635: Drainage area.

GAGE.--Water-stage recorder and low-water concrete control. Datum of gage is 80.68 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records fair. No storage or diversion above station. Occasionally water is released from East Bay Municipal Utility District aqueduct into Bear Creek above station. Summer discharge influenced by return flows from irrigated areas.

AVERAGE DISCHARGE.--53 years, 13.0 ft³/s, 9,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,930 ft³/s Apr. 3, 1958, gage height, 15.13 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	0700	541	9.19	Feb. 8	0545	741	10.67
Nov. 30	0830	1,180	12.87	Feb. 13	0500	544	9.21
Dec. 21	2245	*1,800	14.57	Mar. 1	0500	857	11.38
Jan. 22	2045	1,460	13.76	Mar. 13	1415	1,300	13.28
Jan. 27	1330	1,370	13.49	Mar. 21	0745	831	11.23

Minimum, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.53	201	18	62	588	28	5.0	.48	.68	.59	.07
2	.03	.38	51	14	49	475	23	3.4	.70	.11	1.5	.05
3	.01	.06	31	12	41	271	21	2.9	.35	.21	1.9	.08
4	.01	.01	19	10	34	174	15	2.5	.15	.65	1.1	.10
5	.02	0	11	9.4	30	85	12	2.1	.40	1.1	.89	.05
6	0	0	8.4	8.3	80	71	9.3	3.5	.24	.92	1.4	.06
7	.56	0	6.3	7.7	511	219	8.1	2.0	.54	1.2	1.4	.80
8	.06	0	4.8	7.3	665	107	6.9	1.1	.70	1.4	.90	1.3
9	.01	0	3.6	7.0	214	63	6.1	.70	.27	.61	1.6	.45
10	0	.01	3.0	6.5	84	48	5.5	.50	.05	.87	.34	.22
11	0	.03	2.5	6.1	61	131	5.0	.40	.08	.78	.21	.09
12	0	.03	2.2	6.3	87	151	4.9	.32	.69	.29	1.8	.02
13	0	.01	4.3	6.0	377	917	4.2	.25	.36	.12	1.5	0
14	0	.01	5.4	5.8	94	567	4.9	.23	.36	.83	.84	0
15	0	0	3.7	5.6	60	103	3.7	.21	.91	.94	.40	.06
16	0	0	3.0	6.7	46	72	3.2	.19	.42	.76	.77	.03
17	0	0	2.7	12	38	171	2.6	.18	1.1	.35	.11	.06
18	0	134	2.6	27	49	281	2.5	.17	.92	.16	.38	.02
19	0	376	2.2	267	58	144	3.4	.17	1.0	1.2	1.1	0
20	0	54	2.1	69	39	76	4.1	.30	1.0	.48	.76	.10
21	0	18	979	41	31	626	3.7	1.0	.28	.19	1.0	1.2
22	0	15	1470	537	26	279	2.8	1.3	.16	.06	1.0	1.4
23	0	42	797	880	22	245	2.6	1.0	.97	.56	1.8	1.2
24	0	17	125	913	19	306	6.9	.50	.57	.70	1.4	1.4
25	.02	7.2	62	349	22	319	10	.61	.21	.58	1.1	.57
26	0	3.8	48	99	78	95	8.1	.72	.07	.28	2.1	.04
27	.10	2.5	42	1040	88	81	5.9	.41	.02	.35	2.2	0
28	.38	2.3	31	384	121	77	63	.10	.01	.33	1.1	0
29	.21	149	26	554	---	54	79	.49	0	.16	.64	0
30	1.0	931	22	232	---	42	12	.33	0	.18	.89	.05
31	1.2	---	19	86	---	34	---	.14	---	.77	.21	---
TOTAL	3.74	1752.87	3990.8	5626.7	3086	6872	367.4	32.72	13.01	17.82	32.93	9.42
MEAN	.12	58.4	129	182	110	222	12.2	1.06	.43	.57	1.06	.31
MAX	1.2	931	1470	1040	665	917	79	5.0	1.1	1.4	2.2	1.4
MIN	0	0	2.1	5.6	19	34	2.5	.10	0	.06	.11	0
AC-FT	7.4	3480	7920	11160	6120	13630	729	65	26	35	65	19

CAL YR 1982	TOTAL	18370.57	MEAN	50.3	MAX	1470	MIN	0	AC-FT	36440
WTR YR 1983	TOTAL	21805.41	MEAN	59.7	MAX	1470	MIN	0	AC-FT	43250

11313000 DELTA-MENDOTA CANAL AT TRACY PUMPING PLANT, NEAR TRACY, CA

LOCATION.--Lat 37°47'49", long 121°35'03", in SW 1/4 SW 1/4 sec.31, T.1 S., R.4 E., Alameda County, Hydrologic Unit 18040003, at Tracy pumping plant at intake to canal, 6 mi southeast of Byron, and 10 mi northwest of Tracy.

PERIOD OF RECORD.--June 1951 to current year. Prior to October 1959, published as "near Tracy."

GAGE.--Water-stage recorder on forebay, pressure gages on pump discharge lines, and operating time of pumps. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Discharge computed from records of operation of pumps. Water is diverted from Sacramento-San Joaquin Delta by way of Old River and a dredged channel to the Tracy pumping plant where it is lifted 200 ft into canal. Water, less intermediate diversions, flows into Mendota Pool on San Joaquin River to replace water diverted at Friant Dam. The canal is a part of the Central Valley Project.

COOPERATION.--Records furnished by Bureau of Reclamation, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--32 years, 2,281 ft³/s, 1,653,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,935 ft³/s Aug. 11, 1969; no flow many days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	3260	3380	3810	4010	3220	3970	3420	3300	3340	4720	4110
2	1570	3290	3380	3790	3890	3740	3980	3340	3300	3610	4720	4060
3	1560	3280	3360	3780	3400	4050	3920	3290	3330	3590	4730	3900
4	1560	3280	3360	3830	3960	4040	3950	3420	3310	3600	4740	3910
5	1570	3320	3350	3970	3940	4020	3940	3420	3310	3610	4730	3910
6	2180	3640	3360	4020	3960	4000	3920	3420	3300	3560	4720	3410
7	2480	3640	3360	3950	3940	4010	3940	3430	3330	2440	4730	3280
8	1920	3650	3330	3860	3970	3980	3980	1670	2830	3650	4730	3280
9	1570	3550	3360	3870	3960	3960	3920	947	2570	3660	4740	3260
10	1570	3290	3360	3860	3970	3920	3720	2040	2580	3640	4750	3260
11	1570	3190	3360	3900	3980	3950	3260	2520	2580	3590	4730	3260
12	1570	3280	2500	3860	4010	3930	3500	2550	2570	3540	4690	3230
13	1580	3300	790	3820	4010	3950	3500	2590	2350	3550	4320	3180
14	1580	3390	2730	3960	4000	3970	3490	2660	2540	3550	4070	3240
15	1560	3360	3430	4090	3770	3930	3490	2630	2580	3630	4070	3290
16	1580	3370	3480	4140	4050	3980	3490	2620	2640	3800	3990	3340
17	1570	3360	3420	4180	4030	3950	3490	2630	2640	3780	4070	3330
18	2100	3380	3350	4160	4060	3970	3580	2600	2640	3780	4300	3220
19	2310	3230	3360	4120	4040	3960	3580	2620	2640	3780	4510	3250
20	2860	3190	3330	4060	3980	3940	3560	2630	2640	3770	4050	3240
21	3300	3150	3360	4000	3980	3950	3550	3030	2630	4320	3730	3120
22	3250	3260	2190	3210	4030	3950	3580	3270	3100	4750	3360	2930
23	3250	3320	2090	3220	4030	3940	3590	3300	3350	4750	3570	3240
24	3170	3310	3320	3210	4010	3970	3520	3310	3350	4740	3610	3230
25	2790	3300	3320	3810	4020	3960	3600	3310	3350	4740	3600	3230
26	2540	3300	3340	3850	4000	3950	3590	3310	3350	4720	3820	3170
27	2530	3300	2350	3860	4020	3950	3580	3320	3350	4720	4060	3130
28	2830	3340	3010	3840	3470	3960	3600	3330	3330	4730	4090	3130
29	3280	3360	3300	3890	---	3940	3580	3330	3320	4730	4110	3140
30	3300	3200	3840	3860	---	3980	3590	3330	3300	4710	4100	3120
31	3290	---	3820	3990	---	3970	---	3320	---	4710	4120	---
TOTAL	69280	100090	97290	119770	110490	121990	109960	90607	89410	123090	132280	100400
MEAN	2235	3336	3138	3864	3946	3935	3665	2923	2980	3971	4267	3347
MAX	3300	3650	3840	4180	4060	4050	3980	3430	3350	4750	4750	4110
MIN	1490	3150	790	3210	3400	3220	3260	947	2350	2440	3360	2930
AC-FT	137400	198500	193000	237600	219200	242000	218100	179700	177300	244100	262400	199100
CAL YR 1982	TOTAL	1127713	MEAN	3090	MAX	4710	MIN	790	AC-FT	2237000		
WTR YR 1983	TOTAL	1264657	MEAN	3465	MAX	4750	MIN	790	AC-FT	2508000		

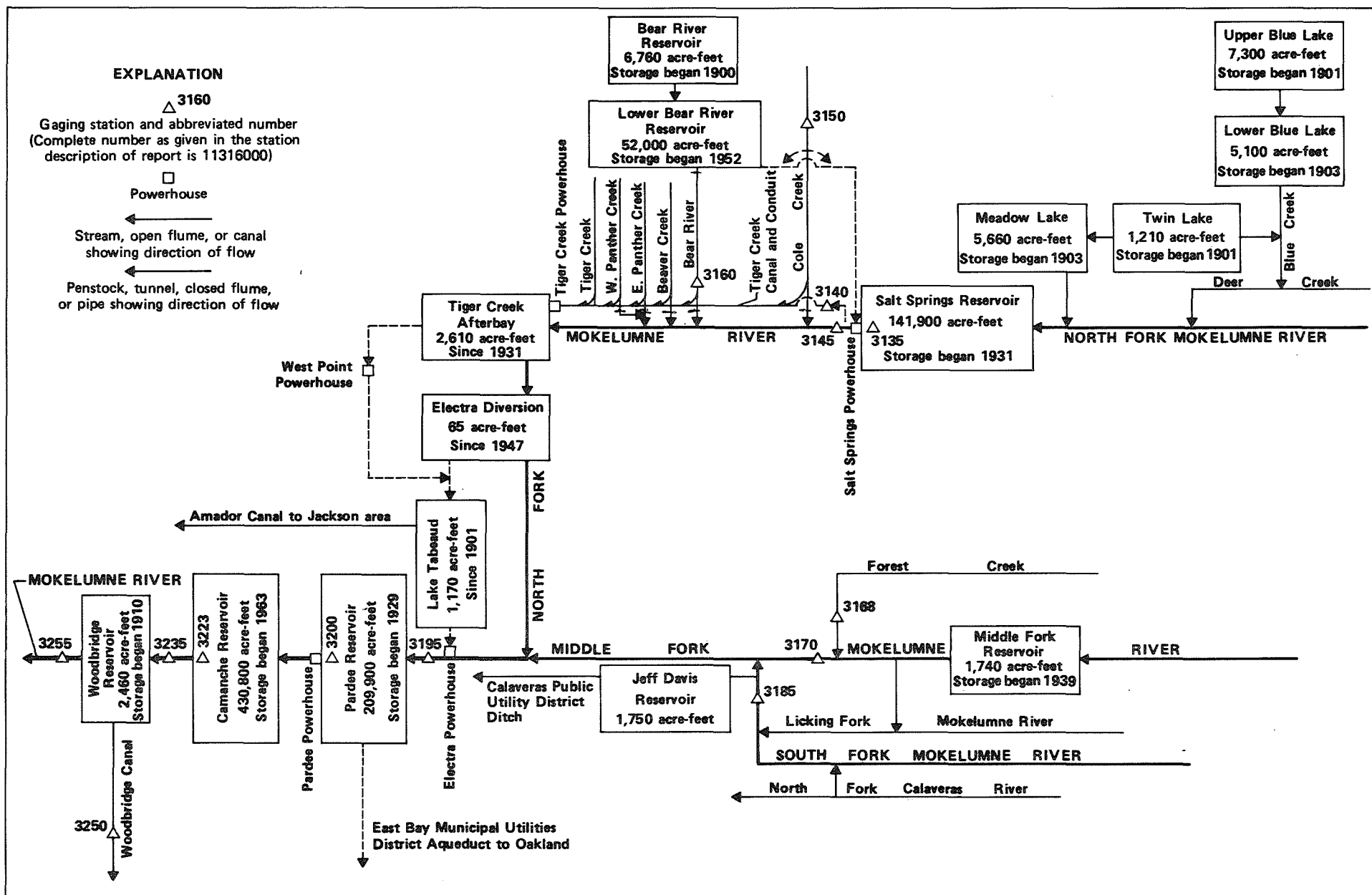


FIGURE 11. — Schematic diagram showing diversions and storage in Mokelumne River basin.

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CA

LOCATION.--Lat 38°30'00", long 120°12'55", in SE 1/4 sec.33, T.8 N., R.16 E., Calaveras County, Hydrologic Unit 18040012, Eldorado National Forest, at right end of Salt Springs Dam on North Fork Mokelumne River, 2 mi upstream from Cole Creek, and 18 mi northeast of West Point.

DRAINAGE AREA.--169 mi².

PERIOD OF RECORD.--March 1931 to current year. Prior to October 1964, records published as usable contents.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--Reservoir is formed by concrete-faced, rockfill dam, completed in 1931; storage began in March 1931. Capacity, 141,857 acre-ft between elevations 3,667.75 ft, outlet drain, and 3,958.0 ft, top of radial gates. Storage of 1,860 acre-ft available for release to river only. Water is released through powerhouse just below dam and discharged into Tiger Creek powerhouse conduit (station 11314000). Figures given herein, including extremes, represent total contents at about 1500 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by Pacific Gas and Electric Co., in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 141,857 acre-ft several days during June or July of most years, elevation, 3,958.0 ft; no contents at times in 1932-33, 1945, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 141,857 acre-ft July 25-28, Aug. 3, elevation, 3,958.0 ft; minimum observed, 53,915 acre-ft Apr. 18, elevation, 3,848.5 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

3,667.75	45	3,740.0	7,324
3,700.0	1,251	3,750.0	9,799
3,705.0	1,679	3,760.0	12,689
3,710.0	2,199	3,780.0	19,632
3,715.0	2,812	3,800.0	28,017
3,720.0	3,519	3,850.0	54,852
3,725.0	4,324	3,900.0	90,786
3,730.0	5,229	3,958.0	141,857
3,735.0	6,230		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 1500

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102224	116904	102475	88807	67326	59089	58892	55797	124268	138601	141376	124723
2	102391	116904	102972	88020	66556	59814	59089	55797	126457	140416	141568	124996
3	102140	116461	100969	83362	65998	60212	59023	55797	128755	138792	141857	124541
4	101889	116293	100137	82366	65443	60013	58826	56306	131350	138601	141665	123905
5	101053	115930	99639	81604	64751	59748	58630	56689	132469	139364	141422	123361
6	100553	115753	99142	80639	64064	59550	58239	56946	132842	139460	140992	122185
7	100220	114870	98482	79636	63379	59352	57914	57074	132936	139746	140068	121193
8	99722	114254	97823	79410	63721	59154	57267	57396	132936	139364	140225	120205
9	99308	113727	97166	78809	63584	59098	56946	58044	132936	139173	139842	119399
10	98812	113114	96430	78209	63243	58892	56689	58499	133029	139269	139460	118505
11	97987	112327	95940	77687	62563	59023	56115	58892	133592	140129	138982	117615
12	97166	111629	95289	77165	62157	59154	56370	59154	133123	140416	138315	116549
13	96103	110934	94640	76571	62563	61415	55671	59748	132936	140416	137650	115664
14	95127	110153	93993	75684	62360	62699	55292	60478	133404	140800	136891	114958
15	94154	109375	93347	74874	62157	63039	54852	61819	134155	140704	136228	114166
16	93187	108512	92704	74214	62021	62970	54414	63721	135755	140704	135661	113377
17	92143	107825	92223	73484	61549	63107	54351	65304	135944	140704	134907	112502
18	91264	107310	91583	72756	61079	62970	53915	67046	136796	140704	133873	111629
19	90786	107911	90946	72032	60544	62834	53977	68951	136039	140704	133029	110760
20	90389	107396	90469	71310	60145	62563	53977	71454	135567	140704	132282	110066
21	89993	106882	90469	70951	59616	62224	54226	75094	135567	140704	131443	109288
22	89834	106396	91264	70952	59220	61751	54476	79410	135755	141280	130513	108599
23	90786	105943	92063	70234	58826	61415	54664	84594	136228	141376	129586	107825
24	92383	105602	92063	70664	58499	61079	55040	90310	137745	141857	128663	107396
25	98482	104923	91583	70305	58239	60745	55229	96430	137840	141857	127742	106882
26	110326	104245	91185	69734	58174	60512	55797	102559	138315	141857	126824	106113
27	112502	103485	90786	69734	57784	59746	55418	106028	138315	141857	126274	105687
28	113201	102811	90389	69306	57525	59418	55229	110240	138315	141857	126274	105177
29	113552	102224	89993	68951	---	58892	55481	114606	138792	141376	125361	104245
30	114958	102643	89597	68455	---	58499	55797	119309	138792	141376	124450	104330
31	116549	---	89202	67889	---	58695	---	121914	---	141376	123633	---
MAX	116549	116904	102972	88807	67326	63107	59089	121914	138792	141857	141857	124996
MIN	89834	102224	89202	67889	57525	58499	53915	55797	124268	138601	123633	104245
a	3930.6	3914.5	3898.5	3869.5	3854.2	3856.0	3851.5	3936.6	3954.8	3957.5	3938.5	3916.5
b	+14325	-13906	-13441	-21313	-10364	+1170	-2898	+66117	+16878	+2584	-17743	-19303

CAL YR 1982 b -3985

WTR YR 1983 b +2106

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

11314000 TIGER CREEK POWERHOUSE CONDUIT BELOW SALT SPRINGS DAM, CA

LOCATION.--Lat 38°29'47", long 120°13'04", in SW 1/4 sec.33, T.8 N., R.16 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on left bank 1,000 ft downstream from Salt Springs Dam and powerhouse.

PERIOD OF RECORD.--June 1931 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,620 ft, from topographic map. Auxiliary nonrecording gages in stilling wells upstream and downstream from control.

REMARKS.--Conduit conveys water of North Fork Mokelumne River from tailrace of Salt Springs powerhouse to forebay of Tiger Creek powerhouse. Since December 1952, records include Bear River diversion to Salt Springs powerhouse. See schematic diagram of Mokeumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--52 years, 360 ft³/s, 260,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 577 ft³/s June 22, 1945; no flow at times in many years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	549	521	541	524	523	510	487	547	547	524	552
2	506	549	541	531	524	520	491	501	547	545	524	552
3	502	549	540	533	524	520	482	502	549	545	524	550
4	516	549	540	533	526	512	488	502	547	545	523	550
5	482	549	540	533	526	501	491	493	547	545	523	550
6	306	547	540	529	524	501	495	1.0	547	545	523	550
7	471	547	539	529	505	501	504	0	547	544	520	550
8	468	547	537	529	468	496	510	.60	547	544	520	550
9	458	547	537	529	468	494	506	3.9	547	544	520	550
10	473	547	540	520	469	507	513	.40	549	544	520	550
11	490	547	539	524	469	517	506	.60	549	544	518	550
12	494	545	540	399	490	517	506	2.7	547	544	518	552
13	533	544	542	537	510	489	503	3.0	549	544	527	544
14	536	544	545	534	492	470	502	1.5	549	544	518	549
15	519	544	545	531	477	479	502	.40	549	541	521	550
16	515	544	542	446	491	470	49	0	549	538	533	547
17	511	538	545	531	502	479	2.2	241	549	539	514	542
18	493	538	542	531	508	479	409	533	550	536	515	536
19	474	536	542	531	512	488	499	526	541	539	515	521
20	477	548	544	529	519	497	499	526	549	538	521	535
21	483	546	539	529	520	502	499	526	550	538	512	527
22	196	547	445	529	521	514	499	529	553	538	509	523
23	16	539	439	527	521	521	509	533	550	535	509	520
24	177	445	513	490	521	513	526	541	549	532	506	147
25	545	545	532	450	520	504	529	545	549	532	505	550
26	535	544	537	471	521	503	529	550	550	542	505	550
27	547	544	534	497	519	504	529	552	550	538	144	550
28	549	545	534	497	520	502	517	550	550	533	186	549
29	547	547	539	497	---	501	474	550	550	532	544	550
30	549	483	539	517	---	505	492	549	550	532	550	550
31	549	---	542	530	---	511	---	547	---	527	550	---
TOTAL	14427	16193	16494	15934	14191	15540	14070.2	10297.1	16456	16734	15441	15946
MEAN	465	540	532	514	507	501	469	332	549	540	498	532
MAX	549	549	545	541	526	523	529	552	553	547	550	552
MIN	16	445	439	399	468	470	2.2	0	541	527	144	147
AC-FT	28620	32120	32720	31610	28150	30820	27910	20420	32640	33190	30630	31630
CAL YR 1982	TOTAL	171068	MEAN	469	MAX	553	MIN	16	AC-FT	339300		
WTR YR 1983	TOTAL	181723.3	MEAN	498	MAX	553	MIN	0	AC-FT	360400		

11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CA

LOCATION.--Lat 38°29'37", long 120°13'12", in NE 1/4 NW 1/4 sec.4, T.7 N., R.6 E., Calaveras County, Hydrologic Unit 18040012, Stanislaus National Forest, on left bank 0.3 mi downstream from Salt Springs Dam, and 1.3 mi upstream from Cole Creek.

DRAINAGE AREA.--170 mi².

PERIOD OF RECORD.--September 1926 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "above Moore Creek" 1926-30.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,590 ft, from topographic map. Prior to Sept. 12, 1928, at site 100 ft upstream and Sept. 12, 1928, to Sept. 23, 1940, at present site at datum 2.0 ft higher.

REMARKS.--Flow regulated since 1931 by Salt Springs Reservoir (station 11313500) 0.3 mi upstream. Diversion from Bear River and Cole Creek to Salt Springs powerhouse averaged 206 ft³/s during current year. Diversion above station through Tiger Creek powerhouse conduit (station 11314000). See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (combined flow of North Fork Mokelumne River and Tiger Creek powerhouse conduit minus Bear River-Cole Creek diversion).--57 years, 483 ft³/s, 349,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s, Nov. 21, 1950, gage height, 17.20 ft, from rating curve extended above 3,900 ft³/s on basis of computations of flow over dam and discharge through powerhouse; minimum daily, 0.3 ft³/s Mar. 31, Apr. 1, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,010 ft³/s June 15, gage height, 12.43 ft; minimum daily, 9.1 ft³/s Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	319	328	287	249	235	251	254	2220	2430	570	340
2	9.1	320	305	281	255	235	271	237	1380	3680	457	340
3	11	319	304	282	249	235	271	237	1340	3990	435	237
4	15	319	302	283	249	235	260	238	1460	3110	454	253
5	14	319	300	281	249	251	262	242	3040	3590	413	251
6	11	318	299	281	249	251	253	635	3460	3980	408	156
7	12	317	301	280	249	251	241	758	3700	3650	410	115
8	12	317	286	278	298	251	236	759	3280	2930	411	112
9	12	316	294	278	298	251	235	760	3180	2200	410	112
10	13	316	302	113	298	241	232	763	3930	1510	410	111
11	13	315	301	125	298	239	237	762	5230	1510	409	233
12	13	314	299	153	264	241	236	763	3830	1940	408	304
13	13	313	295	152	257	301	236	765	3080	2290	409	261
14	13	313	292	115	293	314	234	767	2940	2190	410	236
15	13	311	291	93	274	296	233	772	3580	2220	409	254
16	13	310	271	196	262	308	711	780	3990	1400	407	279
17	13	301	293	265	248	308	523	492	4160	1610	405	281
18	13	322	293	264	248	308	311	518	4620	1120	402	286
19	14	325	291	263	233	274	230	732	3670	1280	399	314
20	13	308	292	261	233	271	231	745	3070	1110	397	315
21	13	309	303	259	229	260	231	759	3010	796	399	314
22	109	307	392	264	229	251	232	775	3370	763	398	317
23	154	297	409	254	229	242	224	785	3440	1000	396	319
24	144	250	329	315	229	242	211	782	3520	803	397	322
25	15	303	301	331	229	253	208	1060	3450	867	397	240
26	16	302	295	314	231	253	206	2120	3530	836	395	226
27	185	301	293	296	229	253	205	2830	3380	738	382	272
28	313	299	292	290	231	253	220	2840	3050	723	361	269
29	313	302	291	289	---	251	268	2880	3020	892	349	253
30	317	373	290	265	---	240	250	2920	3090	831	341	229
31	318	---	288	251	---	242	---	2930	---	730	338	---
TOTAL	2146.5	9355	9422	7659	7089	8036	7949	32660	98020	56719	12586	7551
MEAN	69.2	312	304	247	253	259	265	1054	3267	1830	406	252
MAX	318	373	409	331	298	314	711	2930	5230	3990	570	340
MIN	9.1	250	271	93	229	235	205	237	1340	723	338	111
AC-FT	4260	18560	18690	15190	14060	15940	15770	64780	194400	112500	24960	14980
CAL YR 1982	TOTAL	225983.9	MEAN	619	MAX	4250	MIN	9.1	AC-FT	448200		
WTR YR 1983	TOTAL	259192.5	MEAN	710	MAX	5230	MIN	9.1	AC-FT	514100		

SAN JOAQUIN RIVER BASIN

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CA

LOCATION.--Lat 38°31'09", long 120°12'41", in NE 1/4 sec.28, T.8 N., R.16 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on left bank 200 ft downstream from bridge, 1.4 mi north of Salt Springs Dam, 3.2 mi upstream from mouth, and 6.5 mi southwest of Mokelumne Peak.

DRAINAGE AREA.--21.0 mi².

PERIOD OF RECORD.--July 1927 to November 1942, October 1943 to current year. Prior to October 1958, published as Cold Creek near Mokelumne Peak. October 1958 to September 1960, published as "near Mokelumne Peak."

REVISED RECORDS.--WSP 1515: 1928, 1930-31, 1938(M), 1944, 1947. WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 30, 1974. Altitude of gage is 5,900 ft, from topographic map. Prior to Oct. 30, 1974, at site 0.4 mi upstream at different datum.

REMARKS.--Occasional pumping for domestic use in summer-home tract began in September 1961. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--55 years, 65.9 ft³/s, 47,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,140 ft³/s Dec. 23, 1964, gage height, 10.21 ft site and datum then in use, from rating curve extended above 900 ft³/s on basis of slope-area measurement at gage height 9.69 ft site and datum then in use; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 26	0200	*2,150	4.97
Oct. 30	1015	829	3.76
May 29	1845	1,510	4.56

Minimum daily, 1.0 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	71	47	25	24	46	119	44	461	358	81	171
2	5.5	51	36	24	24	42	94	46	395	718	72	45
3	4.4	41	34	24	23	35	72	86	445	432	64	24
4	3.7	36	38	25	22	32	56	127	517	538	55	15
5	3.2	31	42	29	22	31	48	81	681	559	47	11
6	2.7	31	37	31	21	31	44	63	697	549	43	8.5
7	3.3	30	31	31	22	35	44	80	611	389	41	6.8
8	3.9	26	29	36	30	41	51	121	500	283	38	5.7
9	3.7	22	31	33	28	50	65	127	562	237	32	5.2
10	2.8	21	33	32	25	62	61	124	701	248	30	4.6
11	2.3	20	33	33	26	77	50	104	869	294	27	3.9
12	2.0	18	35	35	30	75	46	136	536	323	23	3.3
13	1.7	19	31	41	50	190	44	148	563	329	21	3.0
14	1.6	20	28	34	53	163	39	180	683	309	19	2.6
15	1.5	19	29	32	38	82	38	230	684	250	23	2.4
16	1.4	20	28	31	33	64	43	236	655	212	17	2.2
17	1.3	21	26	30	32	55	51	231	769	199	14	2.0
18	1.1	64	27	30	33	49	51	292	605	189	12	1.8
19	1.1	82	28	29	34	45	62	404	477	179	17	1.6
20	1.0	49	33	28	32	43	85	476	464	156	16	1.5
21	1.1	44	35	28	31	41	70	553	499	162	12	1.3
22	3.3	38	42	26	31	38	81	610	611	166	11	1.6
23	123	39	51	27	38	36	90	665	604	147	9.9	1.8
24	195	34	45	30	43	34	67	710	537	142	8.5	2.8
25	884	30	39	29	38	33	61	801	543	135	7.3	3.5
26	679	29	31	27	33	34	48	810	493	116	6.3	2.6
27	112	31	30	25	31	31	45	847	462	111	5.3	2.7
28	73	40	26	27	31	31	45	867	457	111	4.4	3.3
29	61	40	26	24	---	30	48	958	442	109	3.9	41
30	421	33	25	24	---	34	47	721	406	105	3.6	85
31	129	---	26	24	---	112	---	666	---	92	16	---
TOTAL	2736.3	1050	1031	904	878	1702	1765	11544	16929	8147	780.2	466.7
MEAN	88.3	35.0	33.3	29.2	31.4	54.9	58.8	372	564	263	25.2	15.6
MAX	884	82	51	41	53	190	119	958	869	718	81	171
MIN	1.0	18	25	24	21	30	38	44	395	92	3.6	1.3
AC-FT	5430	2080	2040	1790	1740	3380	3500	22900	33580	16160	1550	926
CAL YR 1982	TOTAL	41005.95	MEAN 112	MAX 2050	MIN .20	AC-FT 81340						
WTR YR 1983	TOTAL	47933.20	MEAN 131	MAX 958	MIN 1.0	AC-FT 95080						

11316000 BEAR RIVER NEAR SALT SPRINGS DAM, CA

LOCATION.--Lat 38°29'37", long 120°17'18", in NE 1/4 NW 1/4 sec.2, T.7 N., R.15 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on right bank 200 ft upstream from diversion to Tiger Creek powerhouse conduit and highway bridge, 1.5 mi upstream from mouth, and 4 mi west of Salt Springs Dam.

DRAINAGE AREA.--48.0 mi².

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 3,730 ft, from photogrammetric map.

REMARKS.--Flow regulated since 1900 by Bear River Reservoir, capacity, 6,760 acre-ft, and since December 1952 by Lower Bear River Reservoir 4 mi upstream, capacity, 49,100 acre-ft. Water diverted for power since December 1952 from Lower Bear River Reservoir through tunnel to Salt Springs powerhouse on North Fork Mokelumne River. Water diverted occasionally from Cole Creek into Lower Bear River Reservoir. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--32 years, 56.5 ft³/s, 40,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s Dec. 24, 1964, gage height, 10.11 ft in gage well, 11.8 ft from flood profile, from rating curve extended above 560 ft³/s on basis of slope-area measurement of maximum flow; minimum daily, 0.53 ft³/s Sept. 7, 13, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1950 reached a stage of 11.2 ft, from floodmarks, discharge, 10,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft³/s June 15, gage height, 3.63 ft; minimum daily, 4.1 ft³/s Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	18	51	36	45	172	80	96	693	561	27	19
2	6.0	15	40	34	42	156	101	96	612	550	25	8.5
3	6.0	14	41	32	39	131	90	106	586	552	24	7.6
4	5.9	12	42	31	37	117	79	100	580	546	22	7.2
5	5.9	11	37	31	35	108	74	95	624	552	20	7.0
6	5.9	8.9	35	30	40	105	70	98	748	558	19	6.9
7	7.0	8.5	31	31	94	128	72	104	753	581	18	6.8
8	6.0	9.4	28	31	101	126	75	105	650	561	16	6.7
9	5.9	9.0	28	31	76	119	74	104	618	531	15	6.7
10	5.9	9.7	27	30	69	122	67	97	237	470	14	6.6
11	5.9	8.9	26	31	66	138	63	101	354	398	12	6.6
12	5.9	8.6	27	31	90	144	60	104	643	343	11	6.6
13	5.8	8.1	29	31	120	400	57	106	608	252	8.8	6.5
14	5.5	8.0	25	31	91	200	57	116	716	92	6.7	6.5
15	4.1	7.8	24	31	81	137	58	127	878	392	6.2	6.5
16	4.9	7.6	23	34	73	121	60	124	772	411	6.1	6.5
17	5.0	8.3	48	32	69	108	61	130	800	352	6.0	6.4
18	5.0	73	34	35	76	101	68	142	787	316	6.0	6.4
19	5.1	65	30	35	71	64	97	150	649	296	6.4	6.4
20	5.1	35	47	31	67	58	90	160	604	209	7.3	6.4
21	5.4	27	87	29	62	90	90	173	566	40	6.2	6.4
22	6.1	43	174	66	63	110	95	179	553	96	6.1	7.4
23	12	36	140	57	68	96	93	186	633	289	6.1	6.7
24	12	29	97	120	68	98	87	188	669	269	6.0	6.6
25	49	26	78	79	70	86	80	193	639	242	5.9	6.5
26	76	23	68	73	72	70	77	192	628	168	6.0	6.5
27	18	22	60	78	74	62	90	194	602	94	6.9	6.5
28	12	48	54	62	98	60	116	369	599	81	6.8	6.5
29	10	74	48	58	---	58	114	529	587	38	6.8	11
30	60	75	43	53	---	56	101	626	576	27	6.6	10
31	26	---	39	49	---	60	---	740	---	27	8.8	---
TOTAL	399.4	748.8	1561	1363	1957	3601	2396	5830	18964	9894	348.7	221.9
MEAN	12.9	25.0	50.4	44.0	69.9	116	79.9	188	632	319	11.2	7.40
MAX	76	75	174	120	120	400	116	740	878	581	27	19
MIN	4.1	7.6	23	29	35	56	57	95	237	27	5.9	6.4
AC-FT	792	1490	3100	2700	3880	7140	4750	11560	37620	19620	692	440
CAL YR 1982	TOTAL	47667.9	MEAN 131	MAX 865	MIN 4.1	AC-FT 94550						
WTR YR 1983	TOTAL	47284.8	MEAN 130	MAX 878	MIN 4.1	AC-FT 93790						

SAN JOAQUIN RIVER BASIN

11316800 FOREST CREEK NEAR WILSEYVILLE, CA

LOCATION.--Lat 38°24'12", long 120°26'45", in SW 1/4 NW 1/4 sec.4, T.6 N., R.14 E., Calaveras County, Hydrologic Unit 18040012, on left bank 1.0 mi downstream from Lion Creek, 1.8 mi upstream from mouth, and 4 mi northeast of Wilseyville.

DRAINAGE AREA.--20.8 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft, from topographic map.

REMARKS.--Records fair. No regulation. Minor diversions above station for irrigation and domestic use. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--23 years, 25.4 ft³/s, 18,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s Dec. 24, 1964, gage height, 7.68 ft, from rating curve extended above 500 ft³/s on basis of slope-area measurement at gage height 7.41 ft; minimum daily, 0.11 ft³/s Aug. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0900	259	4.49	Feb. 13	0215	275	4.53
Dec. 22	2015	551	5.25	Mar. 1	2045	525	5.27
Jan. 24	0645	462	5.04	Mar. 13	1145	*877	6.14
Jan. 27	0200	382	4.86	Apr. 29	2100	234	4.38
Feb. 7	2300	365	4.80				

Minimum daily, 5.3 ft³/s Oct. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	19	77	44	90	430	127	161	79	26	12	15
2	6.6	16	52	41	80	398	128	145	70	26	12	14
3	6.4	14	44	40	71	320	117	138	62	25	12	11
4	6.2	13	41	38	64	281	108	135	58	24	12	10
5	6.0	13	38	37	60	240	100	135	56	24	11	9.2
6	6.2	12	36	36	77	211	93	132	55	23	11	8.8
7	7.5	12	34	35	213	221	87	121	58	22	11	8.5
8	6.4	12	32	34	253	200	84	117	60	21	11	8.2
9	6.0	12	31	33	178	175	82	111	55	20	10	7.7
10	5.6	13	30	33	142	167	81	107	54	19	10	8.0
11	5.6	12	29	32	126	182	77	100	56	18	11	8.0
12	5.5	12	28	32	138	185	74	98	54	17	11	7.9
13	5.4	12	31	31	216	541	70	101	50	16	10	7.7
14	5.4	11	28	31	159	338	66	96	48	16	10	7.7
15	5.3	11	28	30	140	261	61	97	47	15	11	7.4
16	5.3	10	27	32	126	226	59	99	47	15	11	7.2
17	5.4	11	37	31	114	220	58	98	46	15	11	6.9
18	5.4	77	33	34	151	202	59	102	45	14	10	6.9
19	5.8	66	31	38	141	172	63	104	41	14	11	6.9
20	5.8	35	39	34	123	155	78	110	39	14	11	6.9
21	6.0	27	123	33	108	147	71	120	37	14	11	6.7
22	6.9	31	381	96	100	137	68	129	36	14	11	7.3
23	10	31	250	75	96	130	91	131	35	14	11	8.2
24	11	26	124	295	92	132	116	130	34	14	9.8	8.2
25	37	24	97	163	108	125	129	128	33	13	9.1	8.0
26	59	22	79	141	149	113	99	128	32	13	9.5	7.7
27	21	21	68	259	171	118	95	122	30	13	9.5	7.6
28	16	26	60	159	217	109	147	115	29	13	9.1	7.4
29	14	64	55	146	---	100	211	107	28	13	9.1	7.4
30	44	185	51	124	---	98	193	98	27	13	9.1	8.5
31	26	---	47	105	---	154	---	87	---	13	9.1	---
TOTAL	369.5	850	2061	2292	3703	6488	2892	3602	1401	531	326.3	250.9
MEAN	11.9	28.3	66.5	73.9	132	209	96.4	116	46.7	17.1	10.5	8.36
MAX	59	185	381	295	253	541	211	161	79	26	12	15
MIN	5.3	10	27	30	60	98	58	87	27	13	9.1	6.7
AC-FT	733	1690	4090	4550	7340	12870	5740	7140	2780	1050	647	498
CAL YR 1982	TOTAL	19122.0	MEAN	52.4	MAX	826	MIN	3.1	AC-FT	37930		
WTR YR 1983	TOTAL	24766.7	MEAN	67.9	MAX	541	MIN	5.3	AC-FT	49120		

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CA

LOCATION.--Lat 38°23'23", long 120°31'32", in SE 1/4 NE 1/4 sec.10, T.6 N., R.13 E., Calaveras County, Hydrologic Unit 18040012, on right bank 200 ft downstream from highway bridge, 0.6 mi south of West Point, and 4.5 mi upstream from South Fork Mokelumne River.

DRAINAGE AREA.--68.4 mi².

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for October 1911, published in WSP 1315-A.

REVISED RECORDS.--WSP 1515: 1919-20, 1927-28(M), 1936(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,450 ft, from topographic map. Prior to Oct. 6, 1926, nonrecording gage at site 1,200 ft upstream at different datum. Oct. 6, 1926, to Aug. 18, 1928, nonrecording gage at present site and datum.

REMARKS.--Records good prior to July, fair thereafter. Flow slightly regulated by Middle Fork Reservoir, capacity, 1,740 acre-ft, 6 mi above station, since January 1940. Several small diversions above station. At times water diverted 4 mi above station to South Fork Mokelumne River via Middle Fork ditch, capacity, 10 ft³/s and Licking Fork Mokelumne River. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--72 years, 64.4 ft³/s, 46,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft³/s Feb. 16, 1982, gage height, 8.67 ft; maximum gage-height, 8.98 ft Dec. 23, 1955; no flow many days in 1931, and Sept. 9, 1934.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	2030	542	3.71	Feb. 13	0330	773	4.23
Nov. 30	1130	849	4.57	Mar. 1	2100	1,660	5.84
Dec. 22	2115	1,600	5.94	Mar. 13	1245	*2,350	6.87
Jan. 24	0715	1,530	5.84	Mar. 31	0745	545	3.65
Jan. 27	0230	1,060	5.05	Apr. 29	2115	834	4.37
Feb. 7	2400	1,190	5.04	May 26	0015	450	3.37

Minimum daily, 17 ft³/s on several days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	63	299	128	263	1400	408	512	297	102	52	71
2	18	51	165	120	234	1260	409	452	259	100	50	54
3	18	44	130	113	211	949	383	418	237	97	48	43
4	18	39	117	108	193	818	355	410	231	93	48	38
5	18	38	106	103	180	686	331	410	230	92	48	36
6	19	38	97	100	232	593	310	411	236	89	39	30
7	23	38	91	97	632	630	295	375	238	86	35	25
8	21	37	84	95	868	573	284	363	223	83	36	25
9	19	37	81	93	547	508	280	352	212	79	36	24
10	18	40	78	90	424	481	276	339	214	75	36	25
11	18	36	73	87	361	533	264	317	224	70	38	23
12	18	34	73	86	381	537	254	313	201	67	37	25
13	17	33	82	84	641	1630	248	318	184	65	37	27
14	17	32	74	82	467	1090	236	311	182	63	38	26
15	17	31	71	81	401	808	225	314	181	62	39	25
16	17	30	68	85	357	693	218	319	177	59	36	25
17	17	31	96	85	319	670	215	315	175	55	35	24
18	17	229	92	94	426	621	217	322	170	55	34	25
19	17	274	81	133	410	541	228	337	158	57	38	24
20	17	120	99	101	345	496	286	353	148	60	44	24
21	17	85	377	94	307	493	253	378	142	58	42	24
22	19	90	1150	339	284	459	243	397	139	58	42	29
23	29	101	811	305	273	438	307	406	137	57	41	29
24	32	82	431	931	263	475	401	411	133	56	37	28
25	116	72	310	498	318	464	437	412	127	50	33	27
26	202	66	252	386	444	417	342	418	124	46	33	26
27	69	61	216	788	537	425	323	410	118	58	32	26
28	47	74	186	487	688	395	486	397	113	56	30	25
29	40	236	166	465	---	358	711	381	110	54	30	26
30	131	670	151	370	---	346	634	348	107	54	30	35
31	96	---	138	308	---	470	---	324	---	54	34	---
TOTAL	1161	2812	6245	6936	11006	20257	9859	11543	5427	2110	1188	894
MEAN	37.5	93.7	201	224	393	653	329	372	181	68.1	38.3	29.8
MAX	202	670	1150	931	868	1630	711	512	297	102	52	71
MIN	17	30	68	81	180	346	215	311	107	46	30	23
AC-FT	2300	5580	12390	13760	21830	40180	19560	22900	10760	4190	2360	1770
CAL YR 1982	TOTAL	63353	MEAN	174	MAX	2510	MIN	11	AC-FT	125700		
WTR YR 1983	TOTAL	79438	MEAN	218	MAX	1630	MIN	17	AC-FT	157600		

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CA

LOCATION.--Lat 38°22'06", long 120°32'40", in SE 1/4 SE 1/4 sec.16, T.6 N., R.13 E., Calaveras County, Hydrologic Unit 18040012, on right bank 500 ft upstream from highway bridge, 2.4 mi southwest of West Point, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--75.1 mi².

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 1315-A: 1934(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft, from topographic map. October 1933 to Sept. 19, 1957, at site 1,100 ft downstream at different datum.

REMARKS.--Records good except those for July 30 to Sept. 22, which are poor. Several small diversions above station for domestic use and for irrigation of about 100 acres. Diversions into South Fork Mokelumne River basin above station at times from North Fork Calaveras River and from Middle Fork Mokelumne River for use below station. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--50 years, 87.3 ft³/s, 63,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,920 ft³/s Dec. 23, 1955, gage height, 14.8 ft from floodmarks, site and datum then in use, from rating curve extended above 2,700 ft³/s on basis of slope-area measurement of peak flow; no flow Aug. 6, 7, Aug. 12 to Sept. 26, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	1930	757	5.42	Feb. 8	0030	1,790	7.18
Nov. 30	0815	1,140	6.17	Feb. 13	0345	978	5.86
Dec. 22	1915	2,600	8.20	Mar. 1	2100	2,260	7.80
Jan. 24	0745	2,160	7.68	Mar. 13	1300	*3,720	9.29
Jan. 27	0230	1,460	6.69	Apr. 29	2100	1,100	6.08

Minimum daily, 19 ft³/s Oct. 16-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	59	423	153	365	1820	482	699	287	87	45	60
2	22	49	240	140	326	1730	490	599	262	88	45	46
3	22	43	180	130	295	1270	464	543	245	85	42	41
4	21	40	156	122	267	1040	431	522	236	81	41	37
5	21	38	140	115	249	869	402	513	230	79	38	35
6	22	36	124	108	302	750	379	504	226	74	37	33
7	26	35	112	102	758	773	362	462	220	72	37	31
8	23	37	100	99	1240	700	350	448	212	71	36	30
9	22	37	92	97	761	638	343	432	203	70	34	30
10	21	44	84	93	589	605	336	412	196	69	33	29
11	21	39	79	89	487	646	322	388	198	67	34	29
12	22	37	76	86	500	655	309	381	182	64	34	29
13	21	36	84	84	817	2280	300	372	171	64	32	29
14	21	35	74	81	630	1350	286	365	162	65	32	28
15	20	34	72	80	536	972	274	370	155	64	33	28
16	19	33	70	85	469	831	267	372	147	63	33	27
17	19	33	109	86	421	770	266	368	141	62	33	27
18	19	232	100	104	542	724	270	374	135	60	31	27
19	19	328	88	160	504	641	278	385	131	59	32	26
20	19	143	115	112	444	592	337	397	125	59	34	26
21	20	94	448	100	404	602	312	412	121	56	33	26
22	22	106	1720	470	376	561	302	418	116	53	32	33
23	31	126	1160	423	363	529	375	418	110	52	31	29
24	33	93	619	1380	349	612	465	415	107	51	28	28
25	156	80	434	721	400	627	544	406	104	50	26	27
26	235	71	348	541	513	548	439	403	99	49	27	30
27	68	66	290	1070	690	538	412	388	96	49	27	29
28	48	86	242	668	954	493	632	371	94	48	27	35
29	41	348	211	647	---	451	913	355	91	47	26	33
30	122	930	186	516	---	430	854	332	89	47	26	29
31	92	---	168	426	---	532	---	311	---	46	26	---
TOTAL	1290	3368	8344	9088	14548	25579	12196	13137	4891	1951	1025	947
MEAN	41.6	112	269	293	520	825	407	424	163	62.9	33.1	31.6
MAX	235	930	1720	1380	1240	2280	913	699	287	88	45	60
MIN	19	33	70	80	249	430	266	311	89	46	26	26
AC-FT	2560	6680	16550	18030	28860	50740	24190	26260	9700	3870	2030	1880

CAL YR 1982 TOTAL 77900.7 MEAN 213 MAX 3570 MIN 9.7 AC-FT 154500
WTR YR 1983 TOTAL 96364.0 MEAN 264 MAX 2280 MIN 19 AC-FT 191100

NOTE.--No gage-height record July 30 to Sept. 22.

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CA

LOCATION.--Lat 38°18'46", long 120°43'09", in SW 1/4 SW 1/4 sec.1, T.5 N., R.11 E., Calaveras County, Hydrologic Unit 18040012, on downstream side of bridge 1.2 mi northwest of Mokelumne Hill, and 8 mi downstream from confluence of North and South Forks of Mokelumne River.

DRAINAGE AREA.--544 mi².

PERIOD OF RECORD.--January to June 1901, May 1903 to December 1904, October 1927 to current year. Yearly estimate only for water year 1928 (incomplete), published in WSP 1315-A. Published as "at Electra" 1901, 1903-4.

REVISED RECORDS.--WSP 1445: 1903-4, 1928(M), 1936(M), 1938(M), 1940(M), 1943(M), 1945(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 584.88 ft National Geodetic Vertical Datum of 1929 (levels by California Division of Highways). Jan. 1 to June 30, 1901, and May 11, 1903, to Dec. 31, 1904, nonrecording gage at site 3 mi upstream at different datum. Nov. 10, 1927, to Aug. 26, 1952, water stage recorder at site 40 ft upstream at datum 5.00 ft higher. Aug. 27, 1952, to Oct. 14, 1977, at present site at datum 5.00 ft higher.

REMARKS.--Records good. Flow regulated by Salt Springs Reservoir (station 11313500) beginning in 1931, several smaller reservoirs, and four powerplants. Diversion above station for irrigation and domestic use. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--57 years (water years 1904, 1928-83), 1,009 ft³/s, 731,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft³/s Dec. 3, 1950, gage height, 23.5 ft, present datum; minimum observed, 5 ft³/s Aug. 13-15, 17, 18, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,600 ft³/s Mar. 13, gage height, 17.73 ft; minimum daily, 400 ft³/s Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	680	1320	2560	1500	2190	6810	2790	3130	6130	5210	1490	1230
2	640	1200	1870	1570	2060	7240	2840	2920	4450	5450	1300	1150
3	620	1160	1670	1440	1970	5380	2740	2680	4280	6740	1280	1140
4	570	1150	1590	1350	1840	4630	2600	2640	4230	5450	1230	1070
5	779	1120	1510	1470	1800	4020	2450	2670	5770	5970	1220	1140
6	445	1070	1460	1360	1960	3580	2360	2590	6950	6310	1160	1030
7	631	1110	1450	1380	3430	3650	2260	2580	7350	6240	1170	1030
8	577	1130	1370	1330	5330	3530	2200	2480	6580	5220	1140	1050
9	592	1080	1340	1370	3600	3260	2230	2380	6080	4440	1070	1080
10	556	1140	1340	1320	3020	3070	2180	2380	6810	3370	1180	1010
11	556	1110	1310	1170	2660	3270	2120	2250	8000	3180	1190	1040
12	631	1120	1290	1110	2730	3270	2050	2190	7420	3580	1160	1090
13	661	1100	1350	1020	3570	9810	2070	2330	5930	3600	1070	982
14	662	1030	1300	1060	3040	6360	2000	2230	5990	3230	1120	968
15	595	1090	1280	1130	2820	4610	1870	2280	7010	3620	1140	855
16	644	879	1260	1120	2560	4090	1810	2350	7180	3090	1120	930
17	623	1140	1450	1130	2430	3830	1850	2240	7460	2880	1030	900
18	607	1840	1430	1240	2770	3640	1780	2500	8150	2580	1170	962
19	642	2540	1330	1630	2750	3320	1880	2870	6820	2610	1100	789
20	593	1600	1380	1390	2540	3130	2200	3000	5800	2350	1130	879
21	556	1410	2560	1320	2320	3230	1980	3170	5600	1950	1090	778
22	577	1420	6930	2280	2260	3000	2020	3470	5900	1620	1120	847
23	500	1550	5390	2440	2210	2920	2230	3610	6400	2200	1070	973
24	400	1420	3190	5480	2110	3110	2510	3530	6170	1940	1150	718
25	418	1180	2490	3360	2370	3190	2660	3870	6190	2060	1070	661
26	2280	1180	2190	2690	2640	2930	2350	4780	6210	1880	1100	781
27	1170	1260	2030	4630	3180	2910	2250	6280	5960	1600	968	818
28	1070	1260	1850	3190	3710	2760	2800	6360	5530	1630	680	812
29	1120	2120	1790	3270	---	2600	3750	6670	5420	1710	829	815
30	1710	4060	1660	2720	---	2410	3630	6760	5520	1670	1000	944
31	1490	---	1640	2350	---	2900	---	6650	---	1510	1080	---
TOTAL	23595	41789	61260	59820	75870	122460	70460	105840	187290	104890	34627	28472
MEAN	761	1393	1976	1930	2710	3950	2349	3414	6243	3384	1117	949
MAX	2280	4060	6930	5480	5330	9810	3750	6760	8150	6740	1490	1230
MIN	400	879	1260	1020	1800	2410	1780	2190	4230	1510	680	661
AC-FT	46800	82890	121500	118700	150500	242900	139800	209900	371500	208000	68680	56470

CAL YR 1982 TOTAL 790961 MEAN 2167 MAX 17700 MIN 400 AC-FT 1569000
WTR YR 1983 TOTAL 916373 MEAN 2511 MAX 9810 MIN 400 AC-FT 1818000

11320000 PARDEE RESERVOIR NEAR VALLEY SPRINGS, CA

LOCATION.--Lat 38°15'25", long 120°50'59", in NW 1/4 SW 1/4 sec.26, T.5 N., R.10 E., Amador County, Hydrologic Unit 18040012, at Pardee Dam on the Mokelumne River, 4.5 mi north of Valley Springs.

DRAINAGE AREA.--578 mi².

PERIOD OF RECORD.--October 1961 to current year. March 1929 to September 1930 (lake elevation only), October 1930 to September 1933, published in reports of the Geological Survey. October 1933 to September 1961 in files of East Bay Municipal Utility District.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by East Bay Municipal Utility District).

REMARKS.--Reservoir is formed by a curved concrete gravity dam, completed in 1929. Storage began Mar. 9, 1929. Usable capacity, 194,100 acre-ft between elevations 393.50 ft diversion tunnel invert, and 567.65 ft spillway crest. Dead storage, 15,800 acre-ft. Water is released from reservoir for municipal use in the area on the east side of San Francisco Bay. Small intermittent diversions are made to Jackson Valley Irrigation District. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by East Bay Municipal Utility District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 219,300 acre-ft Dec. 23, 1955, elevation, 571.72 ft; minimum, 47,000 acre-ft Mar. 25, 1977, elevation, 454.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 214,400 acre-ft Mar. 13, elevation, 569.61 ft; minimum, 162,600 acre-ft Apr. 25, May 20, elevation, 544.75 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

450	43,400	520	120,400
460	50,900	530	136,500
470	59,500	540	153,800
480	69,200	550	172,700
490	80,100	560	193,200
500	92,900	570	215,300
510	105,700	580	239,100

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187600	184500	198500	184900	187800	191100	199800	164100	200300	211300	210300	187600
2	188300	184700	198900	182500	186700	198900	198700	162900	201800	212400	210100	187400
3	189000	184800	196700	181400	186500	202800	197200	163300	203200	212400	209600	187300
4	189200	184900	193800	181200	187200	205300	195700	163100	204200	211800	209000	187000
5	189000	185000	193300	181800	187100	206500	193900	162900	208200	212100	208500	188400
6	188200	184900	193200	182300	187400	206800	191800	162700	212300	212200	207800	189200
7	187300	184900	193100	182900	188800	207400	189300	163400	212800	212000	207200	190100
8	186200	184900	192800	183400	193000	207600	186700	162800	212300	211600	206500	190400
9	185700	185000	192500	183900	193500	207200	184200	162800	212000	211000	205800	190600
10	186100	185100	192200	184400	192600	206800	181400	162900	212200	210400	205200	190600
11	185400	185100	191800	184600	190800	206500	178700	162800	212900	211300	204600	191200
12	184500	185100	191400	184700	189300	206500	175700	163000	212300	211800	203000	191300
13	183500	185100	191100	184600	189600	214400	173500	163500	211800	211900	203100	191200
14	182600	184900	190800	184600	188700	212500	170700	163300	211700	211700	202300	191200
15	181500	185300	190300	184700	187400	211600	167700	163300	212200	211900	201600	190900
16	181000	185300	189800	184900	185600	211400	165000	163300	212600	211400	200900	190800
17	181600	185500	189800	185000	183900	211100	162900	163300	212600	211600	200000	190600
18	180900	187300	189600	185500	184200	210500	163000	163500	212800	211100	199400	191100
19	179900	190600	189200	186600	183500	210400	163300	163200	212200	211200	198600	190700
20	178900	191600	189000	187300	183300	210000	163500	162600	211800	210900	197900	190400
21	177800	192200	190300	187800	183400	209900	162900	163800	211900	210800	197200	189900
22	176600	193000	197700	189400	183500	209300	163200	163800	212200	210600	196500	189700
23	175600	194000	201400	187300	183400	208700	163300	163900	212200	211200	195600	189600
24	175600	194600	200700	192100	183500	208500	162800	164300	212300	211000	195000	189100
25	177200	194800	198500	191800	184300	208300	162600	165100	212200	211000	194100	189100
26	179600	195000	195700	190500	184200	207300	163500	167500	212300	210900	193300	188700
27	179800	195300	193000	194000	184000	206400	162800	172800	212200	210600	192300	188300
28	179600	195800	190900	193900	184500	205200	163800	178200	211800	210400	190700	187800
29	179700	198300	190900	194000	---	203700	164400	184100	211700	210600	189400	187500
30	181400	200600	189900	192500	---	202100	164900	190000	211700	210600	188400	187400
31	183700	---	187600	190200	---	201100	---	195600	---	210400	187700	---
MAX	189200	200600	210400	194000	193500	214400	199800	195600	212900	212400	210300	191300
MIN	175600	184500	187600	181200	183300	191100	162600	162600	200300	210400	187700	187000
a	555.48	563.43	557.34	558.58	555.86	563.66	545.96	561.16	568.42	567.83	557.40	557.27
b	-3200	+16900	-13000	+2600	-5700	+16600	-36200	+30700	+16100	-1300	-22700	-300
c	427	161	107	149	133	292	422	885	1330	1492	1278	826
d	16898	13825	13761	13858	9199	8517	11749	15675	20007	20428	19719	17958

CAL YR 1982 b +6100

WTR YR 1983 b +500

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

d Diversion, in acre-feet, from Pardee Reservoir to East Bay Municipal Utility District and to Jackson Valley Irrigation District.

11322300 CAMANCHE RESERVOIR NEAR CLEMENTS, CA

LOCATION.--Lat 38°13'31", long 121°01'17", in NE 1/4 SE 1/4 sec.6, T.4 N., R.9 E., San Joaquin County, Hydrologic Unit 18040005, at Camanche Dam on the Mokelumne River, 4.3 mi northeast of Clements.

DRAINAGE AREA.--621 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by East Bay Municipal Utility District).

REMARKS.--Reservoir is formed by earthfill dam. Storage began Dec. 18, 1963. Usable capacity, 430,300 acre-ft between elevations 104.00 ft invert of emergency valve release, and 235.50 ft spillway crest. Dead storage, 534 acre-ft. Camanche Reservoir provides holdover storage to meet downstream water requirements and flood control on the Mokelumne River. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Mokelumne River basin.

COOPERATION.--Records furnished by East Bay Municipal Utility District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 430,300 acre-ft June 6, 1979, elevation, 235.42 ft; minimum since reservoir first filled, 251,400 acre-ft May 18, 1983, elevation, 208.73 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 424,500 acre-ft July 8, elevation, 234.66 ft; minimum, 251,400 acre-ft May 18, elevation, 208.73 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)

120	4,970	120	82,600
130	13,600	190	156,200
140	25,000	220	320,900
150	38,900	235.5	430,900
160	57,100		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	348400	310100	268500	264100	288500	297400	304500	259200	266400	405000	413200	396000
2	346400	310100	268800	263100	288600	298000	303400	260900	267000	406600	412300	395100
3	344000	307000	266400	261600	288200	298900	302200	260700	267400	412000	411800	394200
4	341600	305500	268500	259900	287000	299000	300800	260800	268000	415400	411200	393300
5	339600	303100	267200	259400	286200	299000	299400	260700	268600	418300	410600	390900
6	338200	300800	264700	259400	286200	298900	298000	261400	271200	421000	410300	388600
7	337200	300900	262200	260000	289300	299300	296700	260400	277800	423300	409700	386400
8	336400	298200	259200	260800	292200	298900	295700	260600	284200	424500	409000	385000
9	335100	296600	257300	261700	294100	298200	294300	260100	289400	424100	408300	383400
10	332700	295000	257600	262300	294900	298200	293100	259100	295400	421700	407700	382200
11	331400	294100	257000	263600	295500	297800	291900	258400	302700	417800	407100	380400
12	330700	293200	256400	264400	297300	298300	290600	257100	310400	416300	407100	379100
13	330100	291700	256000	265500	298100	305100	289500	255700	315400	415900	406300	377900
14	329900	289600	255600	266700	299000	312000	287500	254900	320100	415400	405700	376600
15	329700	288300	255600	267200	300000	314200	285900	253900	325800	415600	405200	375200
16	329700	285800	255600	267300	300400	315400	284100	253000	332100	416200	404700	373800
17	329200	284300	255600	267700	300800	316000	281800	252000	339200	416300	404000	372400
18	329200	283400	255600	267200	300200	316600	277000	251400	346900	417600	403300	370500
19	329500	282100	255600	267400	300200	316000	272700	251800	353200	417800	402700	369000
20	329500	280600	255600	266400	299400	315900	268600	252900	357900	418000	402300	367600
21	329200	279900	259600	266000	297500	315300	264700	252500	361800	417600	401700	366300
22	328200	277900	263800	269200	296000	314800	261000	253900	366100	416700	401200	365100
23	327200	276500	266900	273400	295100	313600	257800	255500	371400	416400	400600	363700
24	323700	275000	267200	277400	293800	313500	256700	256700	376200	416200	400000	362300
25	322000	273000	267600	279000	292600	312700	255800	258200	381400	416100	399300	360300
26	320600	270600	267900	280800	292700	311700	253200	259700	386300	415900	398700	358900
27	319300	267600	268100	282100	294300	310800	253300	261300	391000	415700	398600	357400
28	317900	265500	267700	283300	296000	309500	253300	262400	395100	415100	398200	356000
29	316500	263400	266300	285700	---	308200	255500	263300	398700	414500	397700	354600
30	315200	265800	265100	286800	---	306700	257500	264500	402100	414100	397100	353200
31	313400	---	264600	287600	---	305600	---	265500	---	413800	396800	---
MAX	348400	310100	268800	287600	300800	316600	304500	265500	402100	424500	413200	396000
MIN	313400	263400	255600	259400	286200	297400	253200	251400	266400	405000	396800	353200
a	218.85	211.20	210.99	214.79	216.13	217.64	209.78	211.15	231.66	233.24	230.94	224.80
b	-37100	-47600	-1,200	+23,000	+8,400	+9,600	-48,100	+8,000	+136,600	+11,700	-17,000	-43,600
c	2,180	1,200	874	631	892	1,387	1,965	3,169	4,879	6,399	5,759	4,125

CAL YR 1982 b -9500

WTR YR 1983 b +2700

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA

LOCATION.--Lat 38°13'14", long 121°02'19", in NW 1/4 NW 1/4 sec.7, T.4 N., R.9 E., San Joaquin County, Hydrologic Unit 18040005, on left bank 0.7 mi downstream from Murphy Creek, 1.0 mi downstream from Camanche Dam, and 3.4 mi northeast of Clements.

DRAINAGE AREA.--627 mi².

PERIOD OF RECORD.--October 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A, and 1735. Prior to October 1961, published as "near Clements."

REVISED RECORDS.--WSP 751: Drainage area. WSP 881: 1905-9 (yearly summaries only). WSP 1445: 1911, 1917(M), 1925(M).

GAGE.--Water-stage recorder. Datum of gage is 82.71 ft National Geodetic Vertical Datum of 1929. See WSP 1930 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good. Flow regulated by Camanche Reservoir (station 11322300) 1 mi upstream beginning December 1963, Salt Springs Reservoir (station 11313500) beginning March 1931, Pardee Reservoir (station 11320000) beginning March 1929, several small reservoirs, and four powerplants. East Bay Municipal Utility District aqueducts are the largest of several diversions above the station. Maximum capacity is 511 ft³/s with Pardee Reservoir full. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--24 years (water years 1905-28), 1,111 ft³/s, 804,300 acre-ft/yr; 55 years (water years 1929-83), 838 ft³/s, 607,100 acre-ft/yr, adjusted for change in contents in and evaporation from Camanche Reservoir since 1963. Storage and diversion by East Bay Municipal Utility District began in March 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft³/s Nov. 21, 1950, gage height, 24.40 ft site and datum then in use; no flow on several days in 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,640 ft³/s July 7, gage height, 9.85 ft; minimum daily, 285 ft³/s Jan. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	1700	2380	3110	2990	3190	4020	2630	3030	3460	1510	1380
2	1230	1710	2400	3110	2530	3450	4010	2640	3130	3560	1440	1370
3	1230	1710	2530	2720	2330	3640	4010	2660	3140	3550	1320	1370
4	1230	1710	2650	1890	2230	3640	4010	2640	3140	3660	1410	1370
5	1240	1710	2650	1140	2140	3630	4010	2630	3150	3830	1420	1370
6	1250	1710	2650	627	2150	3630	4000	2630	3150	4220	1410	1380
7	1250	1710	2640	502	2210	3740	4000	2630	3160	4480	1410	1370
8	1330	1710	2560	502	2520	3840	4000	2630	3170	4500	1410	1340
9	1380	1710	2100	444	2790	3830	4000	2630	3190	4480	1440	1350
10	1380	1700	1680	285	3110	3840	3990	2630	3200	4480	1430	1350
11	1380	1700	1610	285	3110	3850	3990	2630	3210	4250	1410	1350
12	1380	1700	1610	285	3140	3880	3990	2630	3230	3770	1420	1350
13	1040	1700	1400	285	3170	4130	3980	2630	3240	3320	1410	1350
14	481	1690	1280	440	3120	4090	3980	2630	3250	3000	1420	1360
15	460	1710	1290	613	3120	4080	3970	2620	3260	2750	1420	1360
16	461	1720	1290	616	3120	4100	3970	2620	3270	2410	1420	1360
17	483	1720	1290	837	3120	4110	3960	2620	3280	2210	1420	1370
18	461	1780	1290	1290	3120	4080	3960	2620	3300	1980	1410	1370
19	706	1740	1290	1440	3120	4050	3950	2620	3310	1930	1430	1380
20	1040	1720	1290	1180	3120	4070	4020	2620	3260	1930	1390	1370
21	1290	1720	1760	1070	3110	4140	4060	2620	3150	1910	1410	1370
22	1570	1720	2340	1350	2970	4110	3980	2620	3150	1860	1390	1380
23	1720	1800	2830	1910	2710	4080	3770	2630	3160	1840	1410	1380
24	1720	2080	3120	2550	2710	4080	3440	2630	3160	1840	1410	1380
25	1720	2140	3130	2930	2710	4050	3170	2630	3170	1760	1400	1390
26	1720	2140	3130	3150	2710	4040	2940	2640	3180	1650	1400	1410
27	1710	2140	3130	3250	2730	4040	2700	2710	3180	1620	1410	1420
28	1710	2140	3130	3140	2880	4030	2630	2860	3190	1630	1370	1440
29	1710	2200	3120	3230	---	4030	2630	2860	3190	1570	1410	1450
30	1710	2400	3120	3170	---	4030	2630	2860	3310	1490	1400	1430
31	1700	---	3110	3130	---	4020	---	2860	---	1490	1410	---
TOTAL	38882	54740	69800	50481	78790	121520	111770	82510	95910	86430	43770	41320
MEAN	1254	1825	2252	1628	2814	3920	3726	2662	3197	2788	1412	1377
MAX	1720	2400	3130	3250	3170	4140	4060	2860	3310	4500	1510	1450
MIN	460	1690	1280	285	2140	3190	2630	2620	3030	1490	1320	1340
AC-FT	77120	108600	138400	100100	156300	241000	221700	163700	190200	171400	86820	81960
CAL YR 1982	TOTAL	750323	MEAN	2056	MAX	4070	MIN	460	AC-FT	1488000	MEAN a	2088
WTR YR 1983	TOTAL	875923	MEAN	2400	MAX	4500	MIN	285	AC-FT	1737000	MEAN a	2449
											AC-FT a	1512000
												1773000

a Adjusted for change in contents and evaporation from Camanche Reservoir.

11325000 WOODBRIDGE CANAL AT WOODBRIDGE, CA

LOCATION.--Lat 38°09'07", long 121°18'00", in NE 1/4 SE 1/4 sec.34, T.4 N., R.6 E., San Joaquin County, Hydrologic Unit 18040005, on right bank at Woodbridge, at point of diversion from Woodbridge Reservoir.

PERIOD OF RECORD.--April 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.18 ft National Geodetic Vertical Datum of 1929 (levels by East Bay Municipal Utility District). Prior to Mar. 15, 1931, water-stage recorder at site 0.2 mi downstream at different datum.

REMARKS.--Records fair. Discharge computed from records of gate openings and effective head as shown by differential recorder. Canal diverts from Woodbridge Reservoir on Mokelumne River for irrigation south and west of Woodbridge. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE.--57 years, 132 ft³/s, 95,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 482 ft³/s July 8, 1953; no flow at times in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59						0	32	141	231	267	185
2	59						0	36	163	208	240	173
3	64						0	36	165	165	267	160
4	64						0	30	164	165	254	142
5	68						0	36	147	149	277	142
6	68						0	41	147	172	274	156
7	72						0	30	165	192	265	168
8	72						0	30	168	230	271	170
9	77						0	32	164	224	279	158
10	86						0	39	157	210	274	150
11	90						0	45	151	218	263	145
12	97						0	65	140	232	243	145
13	100						0	64	147	256	234	162
14	100						0	69	153	254	237	158
15	97						0	74	158	234	234	154
16	104						0	90	180	226	252	150
17	107						0	112	210	212	263	145
18	107						0	111	198	201	268	140
19	110						44	110	179	208	265	124
20	124						57	112	197	228	248	127
21	114						45	112	198	251	229	131
22	107						56	106	204	259	218	108
23	104						48	112	209	256	206	100
24	90						36	128	226	252	192	100
25	77						40	149	231	270	193	101
26	86						41	163	216	286	206	99
27	42						39	171	218	299	206	91
28	0						30	167	236	310	200	91
29	0						29	137	244	314	198	96
30	0						27	122	248	290	216	87
31	0						---	112	---	286	210	---
TOTAL	2345	0	0	0	0	0	492	2673	5524	7288	7449	4058
MEAN	75.6	0	0	0	0	0	16.4	86.2	184	235	240	135
MAX	124	0	0	0	0	0	57	171	248	314	279	185
MIN	0	0	0	0	0	0	0	30	140	149	192	87
AC-FT	4650	0	0	0	0	0	976	5300	10960	14460	14780	8050
CAL YR 1982	TOTAL	35533	MEAN	97.4	MAX	316	MIN	0	AC-FT	70480		
WTR YR 1983	TOTAL	29829	MEAN	81.7	MAX	314	MIN	0	AC-FT	59170		

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 38°09'31", long 121°18'09", in NW 1/4 NE 1/4 sec.34, T.4 N., R.6 E., San Joaquin County, Hydrologic Unit 18040005, on right bank at Woodbridge, 0.4 mi downstream from county highway bridge, and 0.5 mi downstream from dam and canal intake of Woodbridge Irrigation District.

DRAINAGE AREA.--661 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1924 to current year (low-water records only 1924-25).

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.9 ft National Geodetic Vertical Datum of 1929 (levels by East Bay Municipal Utility District). See WSP 2130 for history of changes prior to July 26, 1968.

REMARKS.--Records good. Concerning regulation and diversions see REMARKS for Mokelumne River below Camanche Dam (station 11323500). Between Woodbridge and Camanche Dam there are many additional diversions for irrigation, including Woodbridge Canal (station 11325000). Nearest diversion is 0.5 mi upstream. See schematic diagram of Mokelumne River basin.

AVERAGE DISCHARGE (since start of diversion through East Bay Municipal Utility District aqueduct).--54 years (water years 1929-83), 627 ft³/s, 454,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft³/s Nov. 22, 1950, gage height, 29.58 ft, from rating curve extended above 6,200 ft³/s on basis of contracted-opening measurement of maximum flow; minimum daily, 0.23 ft³/s Nov. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,120 ft³/s Mar. 17, gage height, 22.00 ft; minimum daily, 409 ft³/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	920	1500	2110	2850	2950	2900	3920	2550	2510	2890	1020	1060
2	1010	1510	2120	2850	2720	3100	3940	2510	2600	2910	998	1030
3	1030	1510	2210	2830	2260	3240	3950	2490	2660	2960	915	1010
4	1040	1510	2270	2340	2130	3380	3960	2590	2700	3050	870	1030
5	1040	1520	2350	1610	2100	3400	3940	2510	2710	3180	900	1030
6	1040	1530	2340	1100	2110	3390	3940	2400	2720	3300	915	1020
7	1040	1560	2360	993	2180	3420	3940	2430	2720	3580	935	1010
8	1040	1560	2390	1010	2300	3500	3930	2440	2720	3900	944	1010
9	1120	1580	2240	930	2550	3630	3920	2440	2730	3820	927	1030
10	1140	1590	1810	830	2800	3640	3900	2420	2760	3930	969	1050
11	1130	1570	1570	756	2950	3740	3880	2420	2770	3970	977	1040
12	1130	1590	1530	756	3000	3740	3820	2370	2800	3910	982	1040
13	1100	1580	1490	755	3020	3820	3800	2380	2820	3490	1010	1020
14	646	1560	1300	741	2990	4030	3750	2370	2810	3030	1000	1020
15	433	1560	1260	780	2980	4050	3720	2360	2800	2660	1010	1030
16	413	1580	1260	842	2980	4050	3720	2310	2790	2320	975	1030
17	409	1630	1260	930	2980	4080	3740	2310	2780	2060	965	1030
18	411	1710	1250	1030	2970	4090	3740	2310	2800	1810	973	1040
19	412	1730	1250	1300	2990	4050	3730	2310	2810	1600	977	1050
20	725	1650	1250	1260	2980	4040	3760	2290	2800	1520	1010	1050
21	978	1610	1390	1120	2960	4060	3820	2290	2780	1490	1000	1060
22	1120	1610	1770	1170	2810	4040	3870	2280	2760	1440	1020	1140
23	1330	1620	2300	1500	2610	4020	3820	2270	2740	1390	1020	1130
24	1400	1700	2620	1970	2600	4020	3650	2270	2730	1380	1020	1110
25	1440	1910	2810	2300	2610	3990	3260	2220	2720	1360	1030	1110
26	1730	1940	2840	2690	2620	3820	3060	2230	2740	1220	1020	1120
27	1610	1950	2850	2930	2640	3860	2860	2200	2710	1110	1020	1160
28	1540	1990	2850	3010	2730	3860	2700	2340	2700	1090	1000	1170
29	1540	2040	2860	3010	---	3880	2610	2460	2690	1080	1020	1180
30	1560	2130	2860	3050	---	3900	2570	2500	2690	1060	1010	1210
31	1520	---	2850	2990	---	3910	---	2500	---	1030	1010	---
TOTAL	32997	50030	63620	52233	75520	116650	109220	73770	82070	73540	30442	32020
MEAN	1064	1668	2052	1685	2697	3763	3641	2380	2736	2372	982	1067
MAX	1730	2130	2860	3050	3020	4090	3960	2590	2820	3970	1030	1210
MIN	409	1500	1250	741	2100	2900	2570	2200	2510	1030	870	1010
AC-FT	65450	99230	126200	103600	149800	231400	216600	146300	162800	145900	60380	63510
CAL YR 1982	TOTAL	654082	MEAN	1792	MAX	3730	MIN	195	AC-FT	1297000		
WTR YR 1983	TOTAL	792112	MEAN	2170	MAX	4090	MIN	409	AC-FT	1571000		

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

CHEMICAL ANALYSES: Water years 1951 to current year.

BIOLOGICAL DATA: Water years 1975-81.

SPECIFIC CONDUCTANCE: Water Years 1952-58, 1975-77.

WATER TEMPERATURES: Water years 1951-58, 1961 to current year.

SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: March 1951 to September 1958.

SPECIFIC CONDUCTANCE: March 1951 to September 1958, October 1974 to September 1977.

WATER TEMPERATURES: March 1951 to September 1958, November 1960 to current year.

INSTRUMENTATION.--Temperature recorder since November 1960.

REMARKS.--Unpublished records of specific conductance of daily samples available in files of district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.5°C July 17, 1951; minimum recorded, 1.5°C Jan. 29, 30, 1954.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 20.0°C Aug. 16; minimum recorded, 9.5°C several days during January, February, and March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC 15...	1055	1260	--	7.2	13.5	775	2.0	10.8	96	K21	170
MAR 02...	1045	2920	42	6.7	10.0	745	13	11.4	107	300	K1100
JUN 07...	1000	2660	69	5.6	14.0	765	2.3	10.6	105	48	54
SEP 20...	0915	1070	32	7.3	18.0	770	2.1	10.0	105	>500	>1000

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 15...	14	0	3.7	1.2	2.1	23	.3	.80	16	<5.0	1.2
MAR 02...	17	0	4.4	1.4	2.3	22	.3	.90	18	4.3	1.3
JUN 07...	21	17	5.5	1.7	2.5	20	.2	1.0	4	1.5	--
SEP 20...	12	0	3.3	1.0	1.5	19	.2	1.2	15	1.8	1.4

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
DEC 15...	<.10	9.5	30	--	.04	<.10	<.06	.20	.04	.04	<.01
MAR 02...	<.10	11	34	37	.05	<.10	<.06	.50	.07	.02	<.01
JUN 07...	<.10	14	64	--	.09	<.10	<.06	.40	.06	.01	<.01
SEP 20...	<.10	9.0	27	28	.04	<.10	.05	.40	<.01	<.01	.02

See footnotes at end of table.

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
DEC 15...	1055	40	<1	17	<.5	<1	<1	<3	2	25	<1
MAR 02...	1045	40	1	19	1	<1	<1	<3	3	77	<1
JUN 07...	1000	30	3	21	.5	2	<1	<3	4	60	1
SEP 20...	0915	20	<1	17	<.5	<1	<1	<3	2	--	1

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	HOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 15...	<4	4	<.1	20	<1	<1	<1	38	<6	17
MAR 02...	--	4	<.1	<10	--	<1	<1	45	<6	16
JUN 07...	<4	6	.7	<10	1	<1	<1	54	<6	16
SEP 20...	<4	5	.6	<10	<1	<1	<1	35	<6	8

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

> Actual value is known to be greater than the value shown.

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	15.5	16.0	15.0	14.0	13.5	12.0	11.5	10.0	9.5	10.0	10.0
2	16.5	15.5	16.0	15.0	13.5	13.5	12.0	11.5	10.0	9.5	10.0	9.5
3	16.5	16.0	15.5	15.5	14.0	13.5	12.0	11.5	10.0	9.5	10.0	10.0
4	16.5	16.0	15.5	15.5	14.0	14.0	11.5	11.5	10.0	9.5	10.0	10.0
5	16.5	15.5	15.5	15.0	14.0	14.0	12.0	11.5	10.0	10.0	10.0	10.0
6	16.5	15.5	15.5	15.5	14.0	14.0	12.0	11.5	10.0	10.0	10.0	10.0
7	16.0	15.5	15.5	15.5	14.0	13.5	12.0	12.0	10.0	10.0	10.0	10.0
8	16.0	15.0	15.5	15.0	14.0	13.5	12.0	12.0	10.0	10.0	10.0	10.0
9	16.5	15.5	15.5	15.0	14.0	13.5	12.5	12.0	10.0	10.0	10.0	10.0
10	16.5	15.5	15.0	15.0	13.5	13.5	12.5	12.0	10.0	10.0	10.0	10.0
11	16.5	16.0	15.0	15.0	13.5	13.5	12.5	12.0	10.0	9.5	10.0	10.0
12	16.5	16.0	15.0	14.5	14.0	13.5	12.5	12.0	10.0	9.5	10.0	10.0
13	16.5	16.0	15.0	14.5	14.0	13.5	12.0	12.0	10.0	9.5	10.0	10.0
14	17.0	16.0	15.0	14.5	13.5	13.5	12.0	12.0	10.0	9.5	10.0	10.0
15	17.0	16.5	15.0	14.5	13.5	13.5	12.0	12.0	10.0	9.5	10.0	10.0
16	17.0	16.5	15.0	14.5	13.5	13.5	12.0	11.5	10.0	9.5	10.0	10.0
17	16.5	16.0	15.0	14.5	13.5	13.5	12.0	11.5	10.0	9.5	10.0	10.0
18	16.5	16.0	14.5	14.5	13.5	13.5	12.0	11.5	10.0	9.5	10.5	10.0
19	16.5	16.0	14.5	14.5	13.5	13.0	11.5	11.0	10.0	9.5	10.5	10.0
20	17.0	16.0	14.5	14.5	13.5	13.0	11.0	10.5	10.0	9.5	10.0	10.0
21	17.0	16.0	14.5	14.0	13.5	13.0	11.0	10.5	10.0	9.5	10.5	10.0
22	16.5	16.0	14.5	14.0	13.5	13.0	11.0	10.5	10.0	10.0	10.0	10.0
23	16.5	16.0	14.5	14.0	13.0	12.5	11.0	10.5	10.0	10.0	10.5	10.0
24	16.5	16.5	14.5	14.0	13.0	12.5	10.5	10.0	10.0	9.5	10.5	10.0
25	16.5	16.0	14.0	14.0	12.5	12.0	10.0	10.0	10.0	9.5	10.0	10.0
26	16.5	15.5	14.0	14.0	12.5	12.0	10.0	10.0	10.0	9.5	10.5	10.0
27	16.0	15.0	14.0	14.0	12.0	12.0	10.0	9.5	10.0	10.0	10.5	10.0
28	15.5	15.0	14.0	13.5	12.0	12.0	10.0	9.5	10.0	10.0	10.5	10.0
29	16.0	15.5	14.0	13.5	12.0	12.0	10.0	9.5	---	---	10.5	10.0
30	15.5	15.5	14.0	13.5	12.0	11.5	10.0	9.5	---	---	10.5	10.0
31	15.5	15.0	---	---	12.0	11.5	10.0	9.5	---	---	10.5	10.0
MONTH	17.0	15.0	16.0	13.5	14.0	11.5	12.5	9.5	10.0	9.5	10.5	9.5

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	10.0	12.0	11.0	13.0	12.5	16.0	15.5	16.5	16.5	18.5	18.0
2	10.5	10.0	12.0	11.0	13.5	12.5	16.5	15.0	16.5	16.5	18.5	18.0
3	10.5	10.0	12.0	11.0	13.5	13.0	16.5	15.5	17.0	16.5	18.5	18.0
4	11.0	10.0	12.0	11.0	14.0	13.0	16.5	15.5	17.0	16.5	18.5	18.0
5	11.5	10.0	11.0	10.5	14.5	13.5	16.5	16.0	17.5	17.0	19.0	18.0
6	11.5	10.5	12.0	10.5	14.5	13.5	16.5	15.5	18.5	17.5	18.5	18.0
7	11.5	10.5	12.0	11.0	14.0	13.5	16.0	15.5	19.5	18.5	18.5	18.0
8	12.0	10.0	12.0	11.0	14.5	13.5	16.5	15.5	19.5	19.0	18.5	17.5
9	11.5	10.5	12.0	11.0	14.5	13.5	16.5	15.5	19.5	19.0	18.0	17.5
10	11.5	10.5	12.0	11.0	14.5	13.5	16.5	15.5	19.5	19.0	18.0	17.5
11	11.0	10.5	12.5	11.0	14.5	13.5	17.0	16.0	19.5	18.5	18.5	17.5
12	11.0	10.0	12.5	11.5	14.5	13.5	17.5	16.5	19.5	18.5	18.5	18.0
13	11.5	10.0	12.5	11.5	15.0	13.5	17.5	16.5	19.5	19.0	19.0	18.0
14	11.5	10.5	13.0	11.5	15.0	14.5	17.5	16.5	19.5	18.5	18.5	18.0
15	11.5	10.5	13.0	12.0	15.5	14.0	17.5	14.5	19.5	18.5	18.5	18.0
16	11.5	11.0	13.0	12.0	15.5	14.5	16.5	16.5	20.0	19.0	18.5	18.0
17	11.5	11.0	13.0	12.0	15.5	14.5	16.5	16.0	19.5	19.0	18.5	18.0
18	11.5	11.0	13.0	12.0	15.5	14.5	16.5	16.0	19.5	18.5	18.5	17.5
19	12.0	11.0	13.5	12.5	15.5	14.5	16.5	16.0	19.0	18.5	18.5	17.5
20	11.5	11.0	13.5	12.5	15.5	14.5	16.5	16.0	19.0	18.0	18.0	17.5
21	11.5	11.0	13.5	12.5	16.0	15.0	16.5	16.0	19.0	18.5	18.0	17.5
22	11.5	11.0	13.5	12.5	16.0	15.0	16.0	16.0	18.5	18.0	18.0	18.0
23	11.5	11.0	13.5	12.5	15.5	15.0	16.5	16.0	19.0	18.0	18.0	17.5
24	11.0	10.5	13.5	12.5	15.5	15.0	16.5	16.0	19.0	18.0	18.0	17.5
25	11.5	11.0	13.5	12.5	16.0	15.0	16.5	16.0	19.0	18.0	18.0	17.5
26	11.5	11.0	13.5	12.5	16.0	15.0	16.5	16.0	18.5	18.0	18.0	17.5
27	11.5	11.0	14.0	12.5	16.0	15.0	16.5	16.0	18.5	18.0	18.0	17.0
28	12.0	11.0	13.5	13.0	16.0	15.0	16.5	16.0	19.0	18.0	17.0	16.5
29	12.0	11.5	13.5	12.5	16.0	15.0	16.5	16.0	18.5	18.0	17.0	16.5
30	11.5	11.0	14.0	12.5	16.0	15.5	16.5	16.0	18.5	18.0	17.0	16.0
31	---	---	13.5	12.5	---	---	16.5	16.0	18.5	18.0	---	---
MONTH	12.0	10.0	14.0	10.5	16.0	12.5	17.5	14.5	20.0	16.5	19.0	16.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM
NOV					
25...	1000	89	10	2.4	83
MAR					
02...	1110	940	58	147	42
MAY					
18...	1030	3640	19	187	54
JUL					
20...	1000	824	7	16	40

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. TOTAL, SIEVE DIAM. % FINER THAN .062 MM
DEC					
15...	1055	1260	52	177	73
MAR					
02...	1045	2920	145	1140	20
JUN					
07...	1000	2660	74	531	--
SEP					
20...	0915	1070	4	12	85

11329500 DRY CREEK NEAR GALT, CA

LOCATION.--Lat 38°14'53", long 121°13'33", in NE 1/4 NE 1/4 sec.32, T.5 N., R.7 E., San Joaquin County, Hydrologic Unit 18040005, on left bank of main channel 35 ft downstream from county road bridge, 2 mi downstream from Coyote Creek, and 4 mi east of Galt.

DRAINAGE AREA.--324 mi².

PERIOD OF RECORD.--October 1926 to September 1933, October 1944 to current year. Monthly figures only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WDR CA-78-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 42.83 ft National Geodetic Vertical Datum of 1929 (levels by East Bay Municipal Utility District). Dec. 4, 1926, to Sept. 30, 1933, at site 4 mi downstream at different datum. Oct. 1, 1944, to Sept. 30, 1945, on left bank at datum 13.00 ft higher. Oct. 1, 1945, to June 14, 1966, on right bank and June 15, 1966, to Dec. 4, 1978, on left bank both at datum 10.00 ft higher.

REMARKS.--Records fair. Many small diversions above station for irrigation. Total storage of many small reservoirs, 1,000 acre-ft.

AVERAGE DISCHARGE.--46 years, 133 ft³/s, 96,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s Apr. 3, 1958, gage height, 25.28 ft site then in use, present datum; maximum gage height, 25.74 ft Apr. 1, 1982; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 19	0345	2,390	19.82	Feb. 8	1200	8,330	24.68
Nov. 30	1500	8,410	24.69	Mar. 2	2015	5,480	24.06
Dec. 22	0915	12,000	25.06	Mar. 14	0100	*19,200	25.56
Jan. 27	1715	10,100	24.88	Mar. 21	1100	3,790	22.56

Minimum, no flow several days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	25	2360	506	1330	3290	903	1470	114	39	31	37
2	1.8	16	841	469	1130	4310	900	1060	126	40	23	44
3	1.3	11	520	439	979	2840	845	838	116	55	19	37
4	.45	8.2	392	410	854	2270	789	771	108	54	25	38
5	.60	6.6	327	389	783	1560	756	764	96	47	22	28
6	.04	5.9	281	367	899	1400	678	1010	92	53	49	24
7	0	5.8	249	346	2600	2020	605	788	87	56	42	26
8	0	8.0	204	330	6340	1530	549	650	96	62	34	40
9	.61	18	165	317	2530	1180	523	576	100	59	30	50
10	.91	23	152	300	1470	1020	510	509	93	49	28	69
11	.19	36	130	287	1180	1430	491	462	96	45	22	55
12	.68	32	116	276	1120	1430	475	419	96	39	23	65
13	0	26	147	267	2490	8510	418	402	96	39	23	57
14	0	22	144	257	1430	7870	388	375	90	44	23	36
15	0	21	119	249	1100	1880	381	353	92	36	24	35
16	0	17	106	257	999	1460	368	327	89	44	22	31
17	0	15	122	273	902	1920	360	279	82	30	25	31
18	0	346	222	276	1020	2050	294	255	80	21	23	30
19	0	1600	158	969	1040	1460	275	247	56	33	26	29
20	0	499	146	674	857	1250	362	230	64	46	28	26
21	0	234	5210	467	803	2810	347	205	60	36	21	22
22	0	174	10300	1990	758	2020	264	188	67	43	26	21
23	0	303	8310	3860	708	2020	247	177	49	46	22	16
24	0	204	1850	6600	642	2160	591	154	44	41	17	18
25	0	139	1250	3790	631	2680	745	135	33	40	16	24
26	90	103	1010	1480	1200	1690	529	139	33	37	20	34
27	41	87	874	7400	1280	1450	418	124	37	37	38	30
28	9.2	78	777	3700	1830	1310	1010	123	41	40	22	28
29	1.4	621	683	3790	---	1130	1560	114	38	37	31	31
30	3.9	6590	602	4310	---	1010	1500	113	35	37	45	34
31	48	---	554	1750	---	994	---	113	---	31	33	---
TOTAL	203.68	11274.5	38321	46795	38905	69954	18081	13370	2306	1316	833	1046
MEAN	6.57	376	1236	1510	1389	2257	603	431	76.9	42.5	26.9	34.9
MAX	90	6590	10300	7400	6340	8510	1560	1470	126	62	49	69
MIN	0	5.8	106	249	631	994	247	113	33	21	16	16
AC-FT	404	22360	76010	92820	77170	138800	35860	26520	4570	2610	1650	2070

CAL YR 1982 TOTAL 200102.49 MEAN 548 MAX 13400 MIN 0 AC-FT 396900
WTR YR 1983 TOTAL 242405.18 MEAN 664 MAX 10300 MIN 0 AC-FT 480800

11333000 CAMP CREEK NEAR SOMERSET, CA

LOCATION.--Lat 38°39'26", long 120°39'46", in SW 1/4 SW 1/4 sec.4, T.9 N., R.12 E., El Dorado County, Hydrologic Unit 18040013, on right bank 0.2 mi upstream from mouth, 1.3 mi northeast of Somerset, and 5.6 mi south of Camino.

DRAINAGE AREA.--62.6 mi².

PERIOD OF RECORD.--February to May 1924 (published as "near Pleasant Valley"), October 1954 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft, from topographic map. Feb. 1 to May 31, 1924, nonrecording gage at site 0.2 mi upstream at different datum.

REMARKS.--Records excellent. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft. Water is released from Jenkinson Lake through Camino conduit for irrigation and domestic supply in North Fork Cosumnes and South Fork American river basins. Some water is released from Jenkinson Lake for irrigation downstream from station.

AVERAGE DISCHARGE (adjusted for change in contents, evaporation, and diversion from Jenkinson Lake).--29 years (water years 1955-83), 88.1 ft³/s, 63,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,680 ft³/s Feb. 16, 1982, gage height, 14.50 ft; no flow Aug. 7-18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,640 ft³/s Mar. 13, gage height, 10.36 ft; minimum daily, 6.3 ft³/s Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	17	19	103	155	326	1240	520	662	290	36	8.4	8.9		
2	16	16	52	139	277	1450	520	553	255	38	8.3	8.5		
3	16	14	37	127	249	1130	483	475	232	40	8.3	7.9		
4	15	13	30	116	229	926	436	441	214	38	8.3	7.7		
5	15	13	26	109	212	765	387	438	210	32	8.2	7.5		
6	15	13	23	102	213	684	347	426	209	28	8.2	7.4		
7	22	13	23	97	699	702	319	372	210	23	8.1	7.2		
8	18	14	21	93	1270	674	295	350	204	18	8.0	7.2		
9	16	14	20	91	897	606	279	335	196	14	8.0	7.2		
10	15	15	19	90	709	576	268	321	194	13	8.0	7.2		
11	15	14	18	88	586	620	254	297	217	12	8.1	6.9		
12	15	13	18	84	543	625	242	285	206	11	8.0	6.9		
13	14	13	22	82	781	2400	229	275	175	11	7.9	6.7		
14	14	12	18	81	666	1790	216	271	160	11	7.8	6.7		
15	14	12	17	80	577	1140	204	269	161	11	8.7	6.5		
16	14	12	16	89	491	857	194	274	155	10	8.6	6.4		
17	14	12	26	93	417	761	188	271	148	13	8.2	6.4		
18	14	45	22	96	484	673	186	274	144	19	8.0	6.4		
19	14	47	20	157	487	564	196	288	123	19	8.5	6.4		
20	14	26	25	122	416	494	233	307	104	19	9.1	6.4		
21	14	18	132	104	373	468	230	334	92	17	8.7	6.3		
22	14	21	557	200	341	431	222	361	84	16	8.6	7.1		
23	21	27	1130	339	322	410	267	380	78	16	8.4	8.3		
24	23	21	770	946	310	443	357	388	74	13	8.2	7.7		
25	70	18	517	762	346	429	403	389	67	9.2	7.9	7.9		
26	188	17	379	592	455	383	326	398	63	9.0	7.7	7.2		
27	66	16	277	878	520	383	306	396	56	9.0	7.5	7.0		
28	45	20	224	651	654	346	411	393	51	8.8	7.3	6.9		
29	38	54	219	607	---	293	672	380	46	8.6	7.1	6.9		
30	141	233	197	494	---	309	746	357	41	8.5	7.0	7.9		
31	92	---	177	388	---	515	---	317	---	8.4	7.8	---		
TOTAL	1019	795	5135	8052	13850	23087	9936	11277	4459	539.5	250.9	215.6		
MEAN	32.9	26.5	166	260	495	745	331	364	149	17.4	8.09	7.19		
MAX	188	233	1130	946	1270	2400	746	662	290	40	9.1	8.9		
MIN	14	12	16	80	212	293	186	269	41	8.4	7.0	6.3		
AC-FT	2020	1580	10190	15970	27470	45790	19710	22370	8840	1070	498	428		
a	-840	+3910	+8420	-70	+240	+160	+80	-190	-220	-2230	-4450	-3430		
b	796	428	470	506	448	492	580	1339	3691	4866	5153	3862		
c	78	16	10	14	14	0	0	0	0	268	236	176		
CAL YR 1982	TOTAL	68598.1	MEAN	188	MAX	5180	MIN	9.7	AC-FT	136100	MEAN	d 216	AC-FT	d 156200
WTR YR 1983	TOTAL	78616.0	MEAN	215	MAX	2400	MIN	6.3	AC-FT	155900	MEAN	d 250	AC-FT	d 180700

a Change in contents, in acre-feet, in Jenkinson Lake, furnished by Bureau of Reclamation.

b Diversion, in acre-feet, from Jenkinson Lake, furnished by Bureau of Reclamation.

c Evaporation, in acre-feet, from Jenkinson Lake, furnished by Bureau of Reclamation.

d Adjusted for change in contents, evaporation, and diversion from Jenkinson Lake.

11333500 NORTH FORK COSUMNES RIVER NEAR EL DORADO, CA

LOCATION.--Lat 38°35'20", long 120°50'38", in NE 1/4 SW 1/4 sec.35, T.9 N., R.10 E., El Dorado County, Hydrologic Unit 18040013, on downstream side of left abutment of county road bridge, 0.8 mi north of Nashville, 2.6 mi upstream from mouth, and 6 mi south of El Dorado.

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--August 1911 to December 1941, October 1948 to current year.

REVISED RECORDS.--WSP 1315-A: 1914(M), 1925(M), 1928(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft, from topographic map. Prior to October 1933, nonrecording gage at site 1.5 mi upstream at different datum. October 1933 to December 1941, water-stage recorder at site 1,000 ft upstream at different datum.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft. Camino conduit above the station diverts water out of the basin. See REMARKS for Camp Creek near Somerset (station 11333000). Numerous small diversions above station for irrigation and domestic use.

AVERAGE DISCHARGE.--65 years, 210 ft³/s, 152,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s Dec. 23, 1955, gage height, 14.8 ft, from rating curve extended above 7,500 ft³/s on basis of slope-area measurement of peak flow; no flow for part of 1924, 1926, 1931, 1933-34, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1100	3,100	8.46	Mar. 2	0100	3,470	8.78
Dec. 22	2215	6,940	10.73	Mar. 13	1300	*9,180	11.71
Jan. 27	0345	4,260	9.33	Apr. 30	0200	2,190	7.48
Feb. 8	0330	5,340	9.94				

Minimum daily, 30 ft³/s Sept. 18-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	156	1040	442	1050	2830	1330	1780	815	224	62	54
2	42	112	503	401	889	3260	1370	1490	722	236	59	83
3	40	92	364	370	772	2600	1260	1300	658	242	57	60
4	39	81	308	343	688	2340	1150	1220	607	219	58	51
5	38	73	272	322	628	1910	1040	1220	598	215	53	47
6	38	68	243	302	679	1730	947	1270	597	203	52	45
7	51	64	223	288	2170	1860	875	1070	602	193	50	44
8	50	66	203	278	3520	1740	818	998	577	174	49	43
9	42	71	188	270	2170	1560	782	950	562	152	47	43
10	39	73	175	263	1720	1480	755	906	551	142	46	41
11	37	73	162	257	1450	1710	718	845	604	136	47	41
12	36	66	158	251	1470	1740	686	811	577	132	47	43
13	36	64	194	246	2350	6570	659	787	512	130	45	36
14	35	61	164	242	1710	3940	624	766	484	127	44	33
15	34	59	153	237	1460	2570	587	764	486	125	51	32
16	34	58	142	244	1270	2130	560	783	475	118	51	31
17	35	58	257	270	1110	2020	547	771	458	112	46	31
18	35	448	255	262	1340	1930	540	778	457	103	45	30
19	36	743	217	479	1300	1630	550	813	414	100	46	30
20	36	306	264	359	1110	1460	849	859	372	97	53	30
21	36	211	2630	306	995	1520	731	924	349	92	55	30
22	39	221	4170	740	913	1390	664	994	332	87	52	35
23	49	289	3660	1070	864	1330	821	1030	331	84	51	47
24	64	214	1990	3190	836	1670	1250	1050	323	80	49	47
25	154	182	1400	2020	963	1660	1410	1060	305	78	47	44
26	738	158	1080	1510	1310	1380	1020	1080	293	76	45	43
27	247	143	855	3260	1510	1310	918	1070	277	76	45	40
28	136	152	656	1840	2030	1200	1400	1050	265	73	43	39
29	105	662	609	2040	---	999	1970	1020	251	68	42	39
30	394	2400	545	1950	---	964	2040	969	239	67	41	45
31	401	---	492	1310	---	1450	---	869	---	65	43	---
TOTAL	3139	7424	23572	25362	38277	61883	28871	31297	14093	4026	1521	1257
MEAN	101	247	760	818	1367	1996	962	1010	470	130	49.1	41.9
MAX	738	2400	4170	3260	3520	6570	2040	1780	815	242	62	83
MIN	34	58	142	237	628	964	540	764	239	65	41	30
AC-FT	6230	14730	46760	50310	75920	122700	57270	62080	27950	7990	3020	2490
CAL YR 1982	TOTAL	209485	MEAN	574	MAX	10300	MIN	20	AC-FT	415500		
WTR YR 1983	TOTAL	240722	MEAN	660	MAX	6570	MIN	30	AC-FT	477500		

11335000 COSUMNES RIVER AT MICHIGAN BAR, CA

LOCATION.--Lat 38°30'01", long 121°02'39", in NW 1/4 SE 1/4 sec.36, T.8 N., R.8 E., Sacramento County, Hydrologic Unit 18040013, on downstream side of midstream pier of highway bridge at Michigan Bar, 5.5 mi southwest of Latrobe, and 12 mi downstream from confluence of North and Middle Forks of Cosumnes River.

DRAINAGE AREA.--536 mi².

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 331: 1911-12. WSP 1315-A: 1908-9, 1911(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 168.09 ft National Geodetic Vertical Datum of 1929. Prior to July 10, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft. Camino conduit above the station diverts water out of the basin. See REMARKS for Camp Creek near Somerset (station 11333000). Numerous small diversions above station for irrigation and domestic use.

AVERAGE DISCHARGE.--76 years, 503 ft³/s, 364,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,000 ft³/s Dec. 23, 1955, gage height, 14.59 ft; no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1907 reached a stage of 16.3 ft, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	2400	4,320	6.61	Feb. 13	0515	7,840	7.83
Nov. 30	1200	9,440	8.28	Mar. 2	1145	11,000	8.66
Dec. 22	2345	18,800	10.37	Mar. 13	1300	*26,100	11.76
Jan. 24	0745	16,600	9.92	Mar. 24	2345	6,000	7.25
Jan. 27	0515	13,900	9.34	Apr. 30	0245	6,000	7.25
Feb. 8	0500	14,300	9.43				

Minimum daily, 62 ft³/s Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	470	3360	1010	2680	8020	2940	4650	1810	596	166	86
2	78	310	1580	927	2230	9700	3090	3490	1590	569	158	124
3	76	248	1110	867	1910	7150	2790	2940	1430	601	151	148
4	75	215	917	814	1700	6410	2520	2670	1310	575	145	111
5	75	191	809	773	1540	4910	2270	2630	1310	555	142	101
6	73	174	725	735	1770	4260	2040	3030	1320	546	132	94
7	82	162	662	703	5830	5050	1880	2400	1350	526	128	89
8	97	159	608	686	10200	4260	1770	2190	1270	490	124	84
9	86	170	569	670	5660	3610	1680	2060	1230	438	121	81
10	77	183	531	645	4100	3350	1640	1950	1230	393	117	80
11	72	191	490	626	3280	4130	1560	1840	1370	366	115	78
12	70	169	468	611	3430	4530	1500	1760	1310	354	113	77
13	68	160	562	597	6500	18400	1410	1710	1130	347	110	76
14	67	153	501	581	4100	10300	1370	1660	1070	338	103	72
15	65	147	461	571	3300	6440	1260	1660	1090	333	102	68
16	63	143	432	576	2830	5190	1190	1700	1060	317	112	66
17	64	145	579	633	2440	5210	1140	1670	1030	299	109	65
18	65	1460	725	642	3020	4990	1130	1680	1030	287	102	63
19	66	2670	607	1220	2970	3890	1150	1750	929	272	99	63
20	66	1020	730	868	2450	3520	1750	1820	844	259	100	63
21	66	668	11200	734	2180	4450	1610	1940	803	248	109	62
22	69	663	13800	2550	2000	3710	1430	2080	781	234	111	63
23	78	870	10700	3180	1880	3590	1570	2140	792	225	108	69
24	106	648	4920	11500	1810	4910	2730	2200	780	215	106	87
25	141	540	3250	5600	2110	4790	3180	2210	751	208	102	89
26	1390	469	2500	3800	3310	3610	2220	2270	729	205	99	85
27	653	419	2020	10900	3710	3380	1930	2270	709	199	96	83
28	323	432	1620	5110	6100	3020	3830	2240	679	191	93	79
29	235	2130	1440	6720	---	2560	5410	2180	650	185	89	77
30	734	8000	1270	6550	---	2350	5470	2090	625	177	87	77
31	1010	---	1130	3490	---	3210	---	1890	---	171	85	---
TOTAL	6273	23379	70276	74889	95040	162900	65460	68770	32012	10719	3534	2460
MEAN	202	779	2267	2416	3394	5255	2182	2218	1067	346	114	82.0
MAX	1390	8000	13800	11500	10200	18400	5470	4650	1810	601	166	148
MIN	63	143	432	571	1540	2350	1130	1660	625	171	85	62
AC-FT	12440	46370	139400	148500	188500	323100	129800	136400	63500	21260	7010	4880
CAL YR 1982	TOTAL	523851	MEAN	1435	MAX	25400	MIN	36	AC-FT	1039000		
WTR YR 1983	TOTAL	615712	MEAN	1687	MAX	18400	MIN	62	AC-FT	1221000		

SAN JOAQUIN RIVER BASIN

11336580 MORRISON CREEK NEAR SACRAMENTO, CA

LOCATION.--Lat 38°29'55", long 121°27'06", in SW 1/4 SE 1/4 sec.32, T.8 N., R.5 E., Sacramento County, Hydrologic Unit 18020109, on right bank 750 ft upstream from Florin Road, 1.6 mi upstream from Elder Creek, and 3.8 mi south of State Capitol Building in Sacramento.

DRAINAGE AREA.--53.4 mi².

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

REVISED RECORDS.--WDR CA-72-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.60 ft National Geodetic Vertical Datum of 1929. Prior to June 29, 1960, at site 650 ft downstream at datum 1.55 ft higher. June 29, 1960, to Sept. 12, 1965, at site 475 ft upstream at datum 2.71 ft higher.

REMARKS.--Records fair. No regulation or diversion above station. Summer flow is sustained by waste water from domestic and industrial use.

AVERAGE DISCHARGE.--24 years, 21.1 ft³/s, 15,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,520 ft³/s Jan. 5, 1982, gage height, 9.93 ft; no flow at times in 1960, 1962, 1965.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 25	2300	521	4.36	Feb. 13	0445	652	4.83
Nov. 18	1045	1,270	6.72	Feb. 27	0130	852	5.47
Nov. 30	0315	1,180	6.47	Mar. 7	0115	441	4.04
Dec. 21	1745	1,610	7.62	Mar. 13	0645	*1,840	8.21
Jan. 18	2015	406	3.89	Mar. 20	2200	670	4.89
Jan. 26	2130	1,150	6.30	Apr. 28	1615	1,010	5.96
Feb. 7	1715	1,260	6.66				

Minimum daily, 1.1 ft³/s Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	16	121	7.0	126	487	12	72	16	10	6.1	5.6
2	4.5	9.2	42	7.6	86	407	14	32	4.7	9.6	6.4	5.9
3	4.1	8.0	24	7.5	56	181	12	17	3.8	8.0	6.7	2.4
4	4.3	6.5	16	8.2	32	135	9.7	12	4.9	5.5	6.9	1.7
5	5.2	5.9	13	7.5	33	90	8.6	19	4.5	4.5	6.9	2.1
6	5.2	5.6	11	7.2	91	75	7.2	11	4.9	4.1	5.0	4.0
7	5.4	4.9	9.7	7.0	433	247	6.8	8.5	5.7	3.4	4.8	5.0
8	5.0	6.8	8.7	6.3	376	109	6.7	7.0	5.3	2.9	3.3	5.6
9	5.6	13	8.0	5.9	122	52	5.9	6.4	5.1	3.8	3.2	5.3
10	5.1	34	7.0	6.2	58	76	5.8	5.0	3.5	3.8	3.8	6.4
11	3.0	11	6.5	5.8	36	104	5.1	4.3	3.2	3.0	3.2	12
12	3.4	6.7	15	5.8	138	306	4.8	4.1	3.1	3.5	4.3	20
13	2.8	5.2	13	5.8	437	1380	5.3	6.3	3.9	4.6	3.9	21
14	3.0	4.6	11	5.5	97	435	4.7	5.5	7.7	4.5	4.1	21
15	1.8	5.7	8.7	5.8	45	188	4.9	4.9	7.8	5.0	5.9	22
16	1.5	5.8	7.3	15	30	168	4.4	4.7	8.5	4.1	6.8	22
17	1.1	70	12	7.9	26	175	5.1	5.0	8.6	2.5	6.6	23
18	2.1	457	7.2	77	62	170	46	5.4	9.1	3.3	5.9	21
19	2.5	130	7.1	123	29	126	10	5.3	9.3	3.9	5.9	22
20	2.1	27	63	44	18	184	6.9	5.5	10	6.4	4.5	22
21	2.5	14	654	23	13	264	4.4	6.1	11	7.6	4.8	23
22	3.0	63	978	260	13	253	3.4	5.0	10	6.5	5.3	23
23	7.5	85	614	227	14	260	44	4.8	9.3	5.9	5.9	5.9
24	6.6	30	139	661	12	261	35	5.1	9.9	5.5	5.9	4.3
25	91	12	84	180	87	143	14	5.3	9.1	5.9	6.1	3.8
26	91	8.3	57	249	105	83	7.8	5.8	9.6	5.5	6.4	3.6
27	20	8.9	36	700	231	98	28	5.7	9.7	6.1	6.1	3.0
28	12	35	20	230	283	58	507	3.1	10	6.4	6.1	2.7
29	15	218	13	416	---	34	405	2.5	10	6.8	6.4	10
30	164	684	12	389	---	23	177	3.2	10	6.2	6.1	55
31	37	---	8.1	175	---	17	---	4.5	---	6.1	5.6	---
TOTAL	521.7	1991.1	3026.3	3876.0	3089	6589	1411.5	292.0	228.2	164.9	168.9	384.3
MEAN	16.8	66.4	97.6	125	110	213	47.0	9.42	7.61	5.32	5.45	12.8
MAX	164	684	978	700	437	1380	507	72	16	10	6.9	55
MIN	1.1	4.6	6.5	5.5	12	17	3.4	2.5	3.1	2.5	3.2	1.7
AC-FT	1030	3950	6000	7690	6130	13070	2800	579	453	327	335	762

CAL YR 1982	TOTAL	17124.2	MEAN	46.9	MAX	1940	MIN	1.1	AC-FT	33970
WTR YR 1983	TOTAL	21742.9	MEAN	59.6	MAX	1380	MIN	1.1	AC-FT	43130

11337000 CONTRA COSTA CANAL NEAR OAKLEY, CA

LOCATION.--Lat 37°59'44", long 121°42'03", in NW 1/4 NE 1/4 sec.25, T.2 N., R.2 E., Contra Costa County, Hydrologic Unit 18040003, at pumping plant No. 1, 0.7 mi east of Oakley, and 2.6 mi northwest of Knightsen.

PERIOD OF RECORD.--February 1950 to current year.

GAGE.--Recording flowmeters on pumps. Prior to Jan. 1, 1953, water-stage recorder at site 3.2 mi downstream at datum 121.72 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Water is diverted from Sacramento-San Joaquin Delta by way of Old River, Rock Slough, and a dredged channel. A series of four pumps lift the water 115 ft into the canal. Water is used for municipal, agricultural, and industrial purposes. The canal is a part of the Central Valley Project.

COOPERATION.--Records of daily discharge furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--33 years, 101 ft³/s, 73,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 281 ft³/s June 20, 21, 1981; minimum daily, 1.0 ft³/s Jan. 19, 26, 1983.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	76	72	50	53	134	61	46	146	176	154	153
2	73	77	79	50	20	135	54	51	146	175	161	148
3	76	77	73	56	36	235	52	56	150	179	163	151
4	82	63	60	54	52	237	58	69	147	183	161	153
5	84	49	71	53	48	240	61	67	151	183	155	149
6	82	45	77	53	46	244	64	68	162	184	151	149
7	84	52	74	50	48	239	66	69	164	175	149	152
8	79	55	76	47	45	237	66	64	178	173	150	156
9	75	53	70	50	47	240	59	75	182	169	155	149
10	83	75	58	49	48	242	67	72	182	167	172	141
11	86	81	59	49	47	189	61	74	176	172	179	150
12	86	77	54	49	36	190	69	73	176	186	180	165
13	92	73	61	53	43	182	62	75	152	190	178	162
14	101	66	60	53	54	197	63	72	145	189	180	165
15	94	71	59	49	53	183	63	72	176	189	187	169
16	85	74	61	51	36	217	62	81	188	183	188	163
17	79	67	57	59	5.0	228	61	92	184	173	191	154
18	89	66	53	20	164	122	59	96	180	176	190	153
19	92	69	55	1.0	251	58	64	114	176	169	187	155
20	90	71	60	10	253	62	60	122	183	173	182	154
21	85	71	58	34	211	39	61	121	183	169	182	155
22	83	73	53	47	142	10	59	116	182	165	176	154
23	83	77	58	47	137	11	55	123	182	163	181	156
24	79	71	59	41	137	8.0	49	125	177	162	185	147
25	84	71	53	21	133	7.0	57	137	175	155	183	148
26	80	72	54	1.0	135	6.0	59	130	167	156	183	159
27	80	71	63	10	134	105	55	142	175	158	180	160
28	80	74	56	20	134	170	55	136	183	155	175	158
29	81	74	60	27	---	166	53	140	178	154	186	148
30	74	73	56	26	---	189	50	139	178	156	182	137
31	73	---	47	46	---	128	---	136	---	158	162	---
TOTAL	2568	2064	1906	1226.0	2548.0	4650.0	1785	2953	5124	5315	5388	4613
MEAN	82.8	68.8	61.5	39.5	91.0	150	59.5	95.3	171	171	174	154
MAX	101	81	79	59	253	244	69	142	188	190	191	169
MIN	73	45	47	1.0	5.0	6.0	49	46	145	154	149	137
AC-FT	5090	4090	3780	2430	5050	9220	3540	5860	10160	10540	10690	9150
CAL YR 1982	TOTAL	36235	MEAN	99.3	MAX	211	MIN	25	AC-FT	71870		
WTR YR 1983	TOTAL	40140.0	MEAN	110	MAX	253	MIN	1.0	AC-FT	79620		

SAN JOAQUIN RIVER BASIN

11337500 MARSH CREEK NEAR BYRON, CA

LOCATION.--Lat 37°52'24", long 121°43'34", in Los Meganos Grant, Contra Costa County, Hydrologic Unit 18040003, on right bank 40 ft downstream from highway bridge on Marsh Creek Road, 1.2 mi upstream from Marsh Creek Dam, and 5.0 mi west of Byron.

DRAINAGE AREA.--42.6 mi².

PERIOD OF RECORD.--February 1953 to September 1983 (discontinued).

REVISED RECORDS.--WSP 1635: 1955.

GAGE.--Water-stage recorder and concrete control (control ineffective since 1972 due to gravel fill). Datum of gage is 177.87 ft National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--30 years, 11.1 ft³/s, 8,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,920 ft³/s Jan. 5, 1982 from slope-area measurement; gage height, 15.35 ft Jan. 5, 1982 (backwater from Marsh Creek Dam); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0500	630	6.98	Feb. 18	0900	327	6.21
Dec. 22	1630	2,070	9.52	Feb. 25	1615	827	7.38
Jan. 23	1830	1,150	8.01	Mar. 1	0600	1,520	8.66
Jan. 26	1500	1,500	8.63	Mar. 13	0745	*2,460	10.13
Feb. 7	2230	1,010	7.75	Mar. 23	1945	818	7.36
Feb. 13	0215	244	5.95	Apr. 28	0700	502	6.69

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.48	40	7.8	74	676	102	62	13	5.2	1.9	1.5
2	0	.41	19	7.2	63	624	89	48	13	6.0	1.9	1.5
3	0	.34	13	6.7	51	347	80	45	13	5.5	1.8	1.4
4	0	.35	11	6.2	42	285	71	42	12	4.3	1.7	1.3
5	0	.31	9.2	5.9	63	219	62	44	12	4.0	1.7	1.3
6	0	.26	7.8	5.5	151	181	56	39	11	4.1	1.9	1.2
7	0	.20	6.6	5.2	593	220	51	31	10	4.1	1.9	1.3
8	0	.29	5.4	4.9	455	157	46	28	9.4	4.1	1.4	1.4
9	0	.72	5.1	4.6	214	136	43	26	9.6	3.6	1.4	1.3
10	0	2.5	4.7	4.4	140	164	40	24	9.1	3.8	1.3	1.2
11	0	.89	4.2	4.3	99	145	36	24	8.8	3.5	1.5	1.2
12	0	.58	4.0	4.2	117	207	33	26	9.1	3.2	1.4	1.2
13	0	.51	4.0	4.1	135	980	31	26	8.5	2.6	1.3	1.1
14	0	.47	3.6	4.0	82	389	28	24	8.0	2.6	1.3	1.1
15	0	.45	3.4	4.9	71	253	26	23	7.7	2.8	1.3	1.0
16	0	.48	3.2	4.9	62	242	24	22	7.7	2.4	1.2	.97
17	0	.58	4.1	4.1	52	331	23	21	7.3	2.8	1.1	.94
18	0	44	3.6	42	137	223	23	21	6.6	3.0	1.1	.99
19	0	30	3.1	11	66	180	22	20	5.7	2.6	1.5	1.0
20	0	12	3.5	7.3	55	224	24	19	7.0	2.6	1.7	.87
21	0	7.8	162	10	49	219	18	18	6.4	2.6	1.5	.75
22	0	8.3	642	339	45	329	16	17	5.9	2.1	1.4	.89
23	0	8.5	222	354	80	332	32	17	5.6	2.5	1.5	1.2
24	0	6.3	65	189	84	466	26	16	5.2	2.7	1.5	1.3
25	.01	5.2	34	68	294	309	32	15	5.4	2.6	1.5	1.3
26	2.3	4.5	23	464	180	242	16	15	5.3	2.4	1.6	1.2
27	.49	4.2	17	349	281	243	17	14	5.7	2.2	1.6	1.2
28	.25	4.4	13	236	415	184	229	13	5.5	2.2	1.5	1.3
29	.25	14	11	219	---	155	112	13	6.1	2.0	1.5	1.4
30	1.2	223	9.9	131	---	133	104	13	6.0	2.1	1.5	2.0
31	.85	---	8.7	93	---	116	---	13	---	2.0	1.5	---
TOTAL	5.35	382.02	1366.1	2601.2	4150	8911	1512	779	245.6	98.2	46.9	36.31
MEAN	.17	12.7	44.1	83.9	148	287	50.4	25.1	8.19	3.17	1.51	1.21
MAX	2.3	223	642	464	593	980	229	62	13	6.0	1.9	2.0
MIN	0	.20	3.1	4.0	42	116	16	13	5.2	2.0	1.1	.75
AC-FT	11	758	2710	5160	8230	17670	3000	1550	487	195	93	72

CAL YR 1982	TOTAL	16648.53	MEAN	45.7	MAX	2800	MIN	0	AC-FT	33020
WTR YR 1983	TOTAL	20133.68	MEAN	55.2	MAX	980	MIN	0	AC-FT	39940

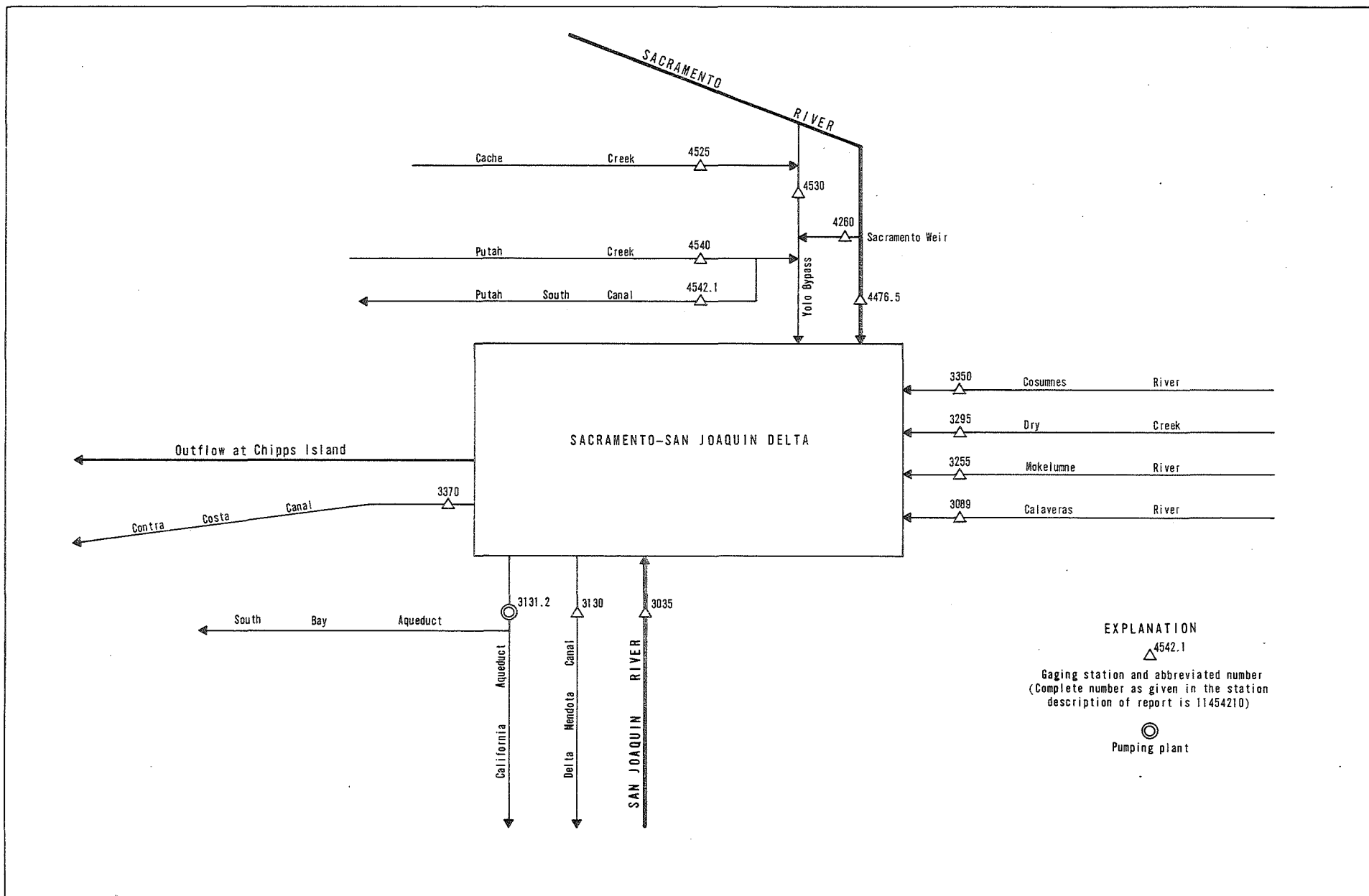


FIGURE 12. — Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin.

LOCATION.--See schematic diagram of inflows and diversions, Sacramento-San Joaquin Delta.

DRAINAGE AREA.--Total drainage area of inflow streams tabulated below is 39,511 mi².

PERIOD OF RECORD.--October 1971 to current year. Data for periods prior to October 1971, can be obtained from published records for stations tabulated below.

COOPERATION.--Records for Delta-Mendota, Contra Costa, and Putah South Canals furnished by Bureau of Reclamation, California Aqueduct by California Department of Water Resources.

SUMMARY OF PRINCIPAL INFLOWS AND DIVERSIONS IN THE
SACRAMENTO-SAN JOAQUIN DELTA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Inflows, in thousands of acre-feet												
Month												
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water Year
11303500 SAN JOAQUIN RIVER NEAR VERNALIS												
502.9	415.0	1014	1172	1755	2462	2169	1954	1552	1182	555.2	673.0	15410
11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM												
5.59	47.32	108.4	75.16	80.73	175.3	3.30	6.14	12.70	14.49	15.00	9.99	554.1
11325500 MOKELUMNE RIVER AT WOODBRIDGE												
64.45	99.23	126.2	103.6	149.8	231.4	216.6	146.3	162.8	145.9	60.38	63.51	1570
11329500 DRY CREEK NEAR GALT												
.40	22.36	76.01	92.82	77.17	138.8	35.86	26.52	4.57	2.61	1.65	2.07	480.8
11335000 COSUMNES RIVER AT MICHIGAN BAR												
12.44	46.37	139.4	148.5	188.5	323.1	129.8	136.4	63.50	21.26	7.01	4.88	1221
11426000 SACRAMENTO WEIR SPILL												
0	0	10.87	12.02	79.67	1096	118.7	4.86	0	0	0	0	1322
11447650 SACRAMENTO RIVER AT FREEPORT												
1182	1876	3548	2921	4390	4814	3601	3830	2879	1906	1540	1465	33950
11453000 YOLO BYPASS NEAR WOODLAND ¹												
0	12.25	373.9	618.2	1550	3309	446.4	89.68	31.05	0	0	0	6430
11454000 PUTAH CREEK NEAR WINTERS												
12.18	3.68	3.83	96.33	252.7	479.1	95.33	62.58	37.94	37.44	36.08	26.54	1144
TOTAL												
1780	2522	5401	5240	8524	13030	6816	6257	4744	3310	2216	2245	62080
Diversions, in thousands of acre-feet												
Month												
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water Year
11313000 DELTA-MENDOTA CANAL												
137.7	198.5	193.0	237.6	219.2	242.0	217.9	179.7	177.3	244.2	262.4	199.1	2509
11313120 CALIFORNIA AQUEDUCT (DELTA PUMPING PLANT)												
185.1	154.4	322.6	376.7	348.2	82.72	7.27	23.78	108.2	70.42	167.7	39.98	1887
11337000 COSTRA COSTA CANAL												
5.10	4.09	3.78	2.43	5.05	9.22	3.54	5.86	10.16	10.54	10.69	9.15	79.61
11454210 PUTAH SOUTH CANAL												
11.39	1.86	1.97	1.75	1.56	1.56	7.03	14.69	33.41	32.17	31.50	23.79	162.7
TOTAL												
339.3	358.8	521.4	618.5	574.0	335.5	235.7	224.0	329.1	357.3	472.3	272.0	4638

1. Flow not computed below 1,000 ft³/s.

NOTE.--Minor inflow streams and diversions are not included.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been obtained.

Annual maximum discharge at crest-stage partial-record stations during water year 1983

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft ³ /s)
Tulare Lake basin							
11205680	Frazier Creek near Strathmore, CA	Lat 36°08'33", long 118°57'17", in NE 1/4 SE 1/4 sec.32, T.20 S., R.28 E., Tulare County, Hydrologic Unit 18030012, at culvert on county road No. J28, 5.9 mi east of Strathmore.	3.05	1974-83	1-22-83	9.72	216
11205690	Lewis Creek near Lindsay, CA	Lat 36°11'11", long 118°59'46", in NW 1/4 NE 1/4 sec.13, T.20 S., R.27 E., Tulare County, Hydrologic Unit 18030012, at culvert on Road 258, 0.2 mi downstream from unnamed tributary, and 7.0 mi southeast of Lindsay.	21.5	1969a, 1974-83	1-22-83	25.17	811
11210970	Antelope Creek at Woodlake, CA	Lat 36°25'42", long 119°06'22", in SE 1/4 SE 1/4 sec.24 T.17 S., R.26 E., Tulare County Hydrologic Unit 18030012, at culverts on two separate channels at Cajon Avenue, and 1.1 mi northwest of town of Woodlake.	19.2	1969a, 1974-83	1-27-83	13.72	275d
San Joaquin River basin							
11336030	Badger Creek at Riley Road, near Galt, CA	Lat 38°20'21", long 121°17'48", in San Jon de Los Moquelumnes Land Grant, T.6 N., R.6 E., Sacramento County, Hydrologic Unit 18040005, at bridge on Riley Road, 2.3 mi upstream from U.S. Highway 99, and 5.9 mi north of Galt.	13.0	1972-83	12-22-82	39.44	360
11336040	North Fork Badger Creek at Riley Road, near Galt, CA	Lat 38°21'06", long 121°17'48", in San Jon de Los Moquelumnes Land Grant, T.6 N., R.6 E., Sacramento County, Hydrologic Unit 18040005, at bridge on Riley Road, 2.4 mi upstream from U.S. Highway 99, and 6.8 mi north of Galt.	12.6	1972-83	12-22-82	39.84	588
11336050	Willow Creek at McKenzie Road, near Galt, CA	Lat 39°19'08", long 121°18'01", in San Jon de Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, Hydrologic Unit 18040005, at bridge on McKenzie Road, 1.5 mi upstream from U.S. Highway 99, and 4.5 mi north of Galt.	2.95	1972-83	12-22-82	39.12	100
11336070	Cosumnes River at State Highway 104, near Galt, CA	Lat 38°17'27", long 121°22'45", in San Jon de Los Moquelumnes Land Grant, T.5 N., R.5 E., Sacramento County, Hydrologic Unit 18040005, at State Highway 104 crossing and 5.0 mi northwest of Galt.	Not determined	1972-83	--	*	--

DISCHARGE AT PARTIAL RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations during water year 1983--Continued

Station No.	Station name	Location	Drain- age area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Discharge (ft ³ /s)
San Joaquin River basin--Continued.							
11336530	Laguna Creek at McKenzie Road, near Galt, CA	Lat 38°18'46", long 121°18'01" in San Jon de Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, Hydrologic Unit 18040005, at bridge on McKenzie Road, 1.2 mi upstream from U.S. Highway 99, and 4.1 mi north of Galt.	117	1972-83	12-22-82	39.58	7220
11336550	Skunk Creek at McKenzie Road, near Galt, CA	Lat 38°17'57", long 121°18'01", in San Jon de Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, Hydrologic Unit 18040005, at bridge on McKenzie Road, 1.6 mi upstream from U.S. Highway 99, and 3.1 mi north of Galt.	11.7	1972-83	12-22-82	39.34	--
11336555	Laguna Creek at State Highway 104, near Galt, CA	Lat 38°17'27", long 121°22'29", in San Jon de Los Moquelumnes Land Grant, T.5 N., R.5 E., Sacramento County, Hydrologic Unit 18040005, at bridge on State Highway 104, 4.8 mi northwest of Galt.	Not deter- mined	1972-83	--	*	--
11336560	Deadman Gulch at Christen- son Road, near Galt, CA	Lat 38°16'44", long 121°21'11", in San Jon de Los Moquelumnes Land Grant, T.5 N., R.6 E., Sacramento County, Hydrologic Unit 18040005, at bridge on Christenson Road, 2.6 mi downstream from U.S. Highway 99, and 2.6 mi northwest of Galt.	8.82	1972-83	--	25.31	370

d Estimated.

a Published as a miscellaneous measurement.

* Destroyed due to construction of new road bridges.

FRESNO COUNTY

San Joaquin County (5-22)

WELL 012S012E16H05M

SITE NUMBER 365325120391504

1.4 MI SOUTHWEST OF SOUTH DOS PALOS. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 4 IN, DEPTH 720 FT, PERFORATED 670-712 FT. ALTITUDE OF LSD 165 FT. RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 109.1 FEET BELOW LAND SURFACE DATUM JAN 03, 1983.

LOWEST WATER LEVEL 133.4 FEET BELOW LAND SURFACE DATUM OCT 23, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
CT 25, 1982	109.8	JAN 03, 1983	109.1

WELL 012S012E16H06M

SITE NUMBER 365325120391505

1.4 MI SOUTHWEST OF SOUTH DOS PALOS. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 8 IN, DEPTH 926 FT, PERFORATED 770-926 FT. ALTITUDE OF LSD 165 FT. RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 129.3 FEET BELOW LAND SURFACE DATUM JAN 03, 1983.

LOWEST WATER LEVEL 207.5 FEET BELOW LAND SURFACE DATUM SEP 13, 1960.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
CT 25, 1982	129.8	JAN 03, 1983	128.3

WELL 013S015E35D03M

SITE NUMBER 364535120184701

1.2 MI EAST OF MENDOTA. UNUSED ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 1 IN, DEPTH 735 FT, PERFORATED 460-735 FT. ALTITUDE OF LSD 166 FT. RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.3 FEET BELOW LAND SURFACE DATUM FEB 04, 1981.

LOWEST WATER LEVEL 129.2 FEET BELOW LAND SURFACE DATUM OCT 16, 1962.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
CT 06, 1982	92.1	FEB 11, 1983	76.4

FRESNO COUNTY--Continued

San Joaquin County (5-22)

WELL 013S015E35D05H

SITE NUMBER 364536120184301

4.4 MI EAST OF MENDOTA. OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 4 IN, DEPTH 433 FT, PERFORATED 373-433 FT. ALTITUDE OF LSD 165 FT. RECORDS AVAILABLE AUG. 1960 TO JAN. 1983. RECORDER INSTALLED 1970 TO JAN. 1983.

HIGHEST WATER LEVEL 29. FEET BELOW LAND SURFACE DATUM FEB 11, 1970.

LOWEST WATER LEVEL 100.1 FEET BELOW LAND SURFACE DATUM SEP 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	50.1	OCT 20, 1982	45.3	NOV 07, 1982	38.4	DEC 02, 1982	34.5
02	50.1	23	45.2	08	38.2	03	34.3
03	49.2	24	45.1	09	38.1	06	34.2
04	48.4	25	44.2	10	37.4	07	33.7
05	47.6	26	44.2	11	37.2	08	33.7
06	47.2	27	43.9	12	37.2	09	33.4
07	46.7	28	43.0	13	36.7	14	33.3
08	46.5	29	42.2	14	36.3	21	33.2
09	46.4	30	42.1	17	36.2	22	33.1
10	46.3	31	41.3	19	36.1	23	32.8
11	46.1	NOV 01	41.0	23	36.0	26	32.7
12	45.3	02	40.3	24	35.4	27	32.4
13	45.1	03	40.2	25	35.3	JAN 03, 1983	31.7
14	44.9	04	39.8	29	35.2		
15	45.1	05	39.2	30	35.0		
18	45.2	06	38.6	DEC 01	34.8		

WELL 013S017E22B01H

SITE NUMBER 364734120060101

1.1 MI WEST OF BIOLA. IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM 10 IN, DEPTH 90 FT. ALTITUDE OF LSD 221 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1944 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.6 FEET BELOW LAND SURFACE DATUM APR 15, 1947.

LOWEST WATER LEVEL 56.5 FEET BELOW LAND SURFACE DATUM DEC 03, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	38.4	FEB 01, 1983	38.4

WELL 014S012E12H01H

SITE NUMBER 364340120361201

12.8 MI WEST OF MENDOTA. OBSERVATION ARTESIAN WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 936 FT, PERFORATED 740-936 FT. ALTITUDE OF LSD 338 FT. RECORDS AVAILABLE 1965 TO CURRENT YEAR. RECORDER INSTALLED 1965 TO JAN. 1983. BEGINNING APR. 7, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 103.3 FEET BELOW LAND SURFACE DATUM OCT 12, 1979.

LOWEST WATER LEVEL 609.9 FEET BELOW LAND SURFACE DATUM JUL 29, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09, 1982	372.0	DEC 01, 1982	370.7	DEC 21, 1982	369.2	JAN 03, 1983	369.3
15	372.1	02	370.4	23	369.3	04	370.9
16	371.7	06	370.3	25	369.4	APR 07	355.02
17	371.7	13	370.2	26	369.5	MAY 18	353.13
18	371.2	17	370.1	27	369.6	JUL 08	350.93
27	371.3	18	370.0	29	369.7	SEP 08	348.43
29	371.2	19	369.9	30	369.5		
30	370.6	20	369.4	JAN 02, 1983	369.4		

FRESNO COUNTY--Continued

San Joaquin Valley (5-22)

WELL 014S013E11D06H

SITE NUMBER 364358120314906

7.6 MI WEST OF MENDOTA. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 8 IN, DEPTH 1358 FT, PERFORATED 1133-1196 FT. ALTITUDE OF LSD 284 FT. RECORDS AVAILABLE 1961 TO CURRENT YEAR. RECORDER INSTALLED 1961 TO JAN. 1983. BEGINNING APR. 7, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 278.87 FEET BELOW LAND SURFACE DATUM SEPT. 08, 1983.

LOWEST WATER LEVEL 514.4 FEET BELOW LAND SURFACE DATUM AUG 01, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	296.4	NOV 05, 1982	292.8	DEC 01, 1982	291.5	DEC 22, 1982	290.1
02	296.3	06	292.7	02	291.5	25	290.0
06	296.2	08	292.6	03	291.2	30	289.9
26	293.8	09	292.9	05	291.1	JAN 01, 1983	290.0
27	294.4	10	292.6	07	291.0	02	289.9
28	294.4	12	292.7	08	290.8	04	291.3
29	294.2	16	292.6	09	290.7	APR 07	283.49
30	294.1	17	292.5	11	290.6	MAY 19	283.79
31	294.0	18	292.4	15	290.7	JUL 08	281.09
NOV 01	293.6	19	292.0	16	290.6	SEP 08	278.87
02	293.3	20	292.2	17	290.4		
03	293.2	21	292.0	19	290.3		
04	293.0	30	292.0	20	290.2		

WELL 015S013E11D02H

SITE NUMBER 363851120313901

10.4 MI SOUTHWEST OF MENDOTA. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 6 IN, DEPTH 960 FT, PERFORATED 900-960 FT. ALTITUDE OF LSD 346 FT. RECORDS AVAILABLE NOV. 1964 TO CURRENT YEAR. RECORDER INSTALLED NOV. 1964 TO JAN. 1983. BEGINNING APR. 2, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 341.58 FEET BELOW LAND SURFACE DATUM SEPT. 08, 1983.

LOWEST WATER LEVEL 652.3 FEET BELOW LAND SURFACE DATUM AUG 02, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	358.1	OCT 26, 1982	356.0	NOV 20, 1982	355.0	DEC 18, 1982	353.3
05	358.0	28	355.9	25	354.9	19	353.2
07	357.9	29	355.8	29	354.8	20	353.1
08	357.7	30	356.0	30	354.5	27	353.0
09	357.5	31	356.0	DEC 01	354.3	JAN 01, 1983	352.9
10	357.4	NOV 01	355.7	02	354.4	04	351.4
11	357.0	03	355.6	03	354.3	APR 02	347.75
12	356.8	05	355.5	04	354.2	MAY 19	344.34
13	356.7	06	355.4	06	354.1	JUL 11	342.90
14	356.5	07	355.5	08	354.0	SEP 08	341.58
17	356.6	08	355.3	09	353.9		
19	356.5	11	355.2	10	353.5		
23	356.6	15	355.1	17	353.4		

WELL 015S016E31N03H

SITE NUMBER 363425120164202

4.8 MI SOUTHWEST OF SAN JOAQUIN. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 595 FT, PERFORATED 497-537 FT. ALTITUDE OF LSD 188 FT. RECORDS AVAILABLE MAR. 1967 TO CURRENT YEAR. RECORDER INSTALLED 1967 TO JAN. 1983. BEGINNING SEPT. 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 76.10 FEET BELOW LAND SURFACE DATUM SEP 13, 1983.

LOWEST WATER LEVEL 159.3 FEET BELOW LAND SURFACE DATUM AUG 27, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	80.5	OCT 19, 1982	79.6	NOV 14, 1982	78.7	DEC 13, 1982	77.9
03	80.4	21	79.5	17	78.6	19	77.8
05	80.3	25	79.4	19	78.5	22	77.7
07	80.2	27	79.3	23	78.4	31	77.7
09	80.1	29	79.2	27	78.3	JAN 03, 1983	77.7
11	80.0	31	79.1	29	78.2	SEP 13	76.10
13	79.9	NOV 03	79.0	30	78.1		
15	79.8	06	78.9	DEC 03	78.1		
17	79.7	09	78.8	08	78.0		

FRESNO COUNTY--Continued

San Joaquin Valley (5-22)

WELL 015S022E14A01M

SITE NUMBER 363801119321701

0.7 MI SOUTHEAST OF DEL REY. UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH 63.3 FT. ALTITUDE OF LSD 348 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1946 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.2 FEET BELOW LAND SURFACE DATUM JUN 01, 1946.

LOWEST WATER LEVEL 57.9 FEET BELOW LAND SURFACE DATUM OCT 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1982	33.6	FEB 1983	33.4

WELL 016S015E34N04M

SITE NUMBER 362913120195701

1.2 MI SOUTHWEST OF CANTUA CREEK. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 8 IN, DEPTH 1130 FT, PERFORATED 1052-1112 FT. ALTITUDE OF LSD 334 FT. RECORDS AVAILABLE AUG. 1960 TO CURRENT YEAR. RECORDER INSTALLED 1960 TO JAN. 1983. BEGINNING APR. 2, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 285.48 FEET BELOW LAND SURFACE DATUM SEPT. 15, 1983.

LOWEST WATER LEVEL 617.7 FEET BELOW LAND SURFACE DATUM AUG 29, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	306.2	OCT 28, 1982	303.3	NOV 17, 1982	302.0	DEC 16, 1982	301.0
04	306.1	29	303.1	18	301.6	17	300.9
05	305.9	30	303.5	19	301.5	18	300.8
07	305.8	31	303.6	21	301.4	19	300.9
08	305.7	NOV 01	303.3	22	301.5	20	300.1
09	305.4	02	302.9	24	301.6	21	300.0
10	305.3	04	302.8	25	301.8	30	299.9
11	305.1	05	302.6	29	301.7	JAN 01, 1983	300.0
12	304.8	07	302.5	30	300.9	02	299.9
13	304.7	08	302.4	DEC 04	301.0	03	299.7
14	304.6	09	302.6	06	301.1	04	298.0
18	304.5	10	302.3	07	300.9	APR 02	291.98
19	304.3	11	302.6	12	301.0	MAY 19	289.87
23	304.2	13	302.5	13	300.9	JUL 17	287.31
26	303.2	15	302.4	14	301.4	SEP 15	285.48
27	303.6	16	302.3	15	301.3		

WELL 016S015E34N05M

SITE NUMBER 362913120195601

1.2 MI SOUTHWEST OF CANTUA CREEK. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 4 IN, DEPTH 300 FT, PERFORATED 240-300 FT. ALTITUDE OF LSD 334 FT. RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 157.37 FEET BELOW LAND SURFACE DATUM SEPT. 12, 1983.

LOWEST WATER LEVEL 196.3 FEET BELOW LAND SURFACE DATUM JUN 03, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1982	160.56	APR 02, 1983	159.20	JUL 17, 1983	158.11	SEP 15, 1983	157.52
JAN 04, 1983	159.88	MAY 19	157.91	SEP 12	157.37		

FRESNO COUNTY--Continued

San Joaquin Valley (5-22)

WELL 017S015E14Q01H

SITE NUMBER 362645120183401

3.8 MI SOUTH OF CANTUA CREEK. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 10 IN, DEPTH 2315 FT, PERFORATED 1064-1094 FT. ALTITUDE OF LSD 342 FT. RECORDS AVAILABLE 1969 TO CURRENT YEAR. RECORDER INSTALLED 1969 TO JAN. 1983. BEGINNING APR. 2, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 291.48 FEET BELOW LAND SURFACE DATUM SEPT. 26, 1983.

LOWEST WATER LEVEL 605.3 FEET BELOW LAND SURFACE DATUM JUL 01, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	304.0	NOV 01, 1982	311.2	NOV 29, 1982	314.3	DEC 20, 1982	309.2
02	303.6	03	311.1	30	315.2	21	309.1
03	303.4	04	310.9	DEC 01	312.4	22	309.0
04	303.3	05	310.8	02	315.2	23	308.7
07	303.2	07	310.7	03	316.1	24	308.8
08	303.0	09	310.6	04	316.7	27	308.7
09	302.6	11	310.5	05	317.1	28	308.6
10	302.3	13	310.4	06	317.2	29	308.5
11	302.2	14	310.3	07	317.3	30	309.2
12	301.9	15	310.2	08	317.7	31	309.1
13	301.7	16	311.1	10	317.9	JAN 01, 1983	309.6
14	301.4	17	310.7	11	317.9	02	309.8
15	301.2	19	309.7	12	318.1	03	309.9
18	301.3	20	309.3	13	318.2	04	306.0
19	300.8	23	309.4	14	318.3	APR 02	299.66
22	300.9	24	313.2	15	314.2	MAY 19	296.77
26	311.3	25	312.0	16	312.7	JUL 16	294.18
27	311.6	26	310.8	17	311.3	SEP 26	291.48
28	311.5	27	310.5	18	310.7		
29	311.3	28	314.0	19	309.7		

WELL 018S016E33A01H

SITE NUMBER 361935120134501

7.2 MI NORTHEAST OF OILFIELD. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 8 IN, DEPTH 1070 FT, PERFORATED 858-1070 FT. ALTITUDE OF LSD 320 FT. RECORDS AVAILABLE 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 292.34 FEET BELOW LAND SURFACE DATUM SEPT. 15, 1983.

LOWEST WATER LEVEL 466.1 FEET BELOW LAND SURFACE DATUM JUL 30, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1982	305.6	APR 02, 1983	299.95	JUL 16, 1983	293.40	SEP 15, 1983	292.34
JAN 04, 1983	302.5	MAY 19	295.31				

WELL 020S018E06D01H

SITE NUMBER 361334120035101

2.8 MI NORTHEAST OF HURON. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 6 IN, DEPTH 1007 FT, PERFORATED 720-1007 FT. ALTITUDE OF LSD 324 FT. RECORDS AVAILABLE LE DEC. 1964 TO CURRENT YEAR. RECORDER INSTALLED 1964 TO JAN. 1983. BEGINNING APR. 1, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 251.84 FEET BELOW LAND SURFACE DATUM SEPT. 15, 1983.

LOWEST WATER LEVEL 596.3 FEET BELOW LAND SURFACE DATUM FEB 13, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	300.2	OCT 22, 1982	292.7	NOV 12, 1982	291.2	DEC 03, 1982	286.2
02	300.2	23	292.7	13	291.2	04	286.2
03	300.2	24	292.7	14	289.7	05	286.2
04	298.7	25	292.7	15	289.7	06	285.7
05	298.7	26	291.2	16	289.7	07	285.7
06	297.7	27	291.2	17	289.2	08	284.7
07	297.2	28	291.7	18	289.2	09	285.2
08	297.2	29	291.2	19	289.2	10	289.2
09	297.2	30	291.2	20	289.2	11	297.2
10	296.7	31	291.7	21	289.2	12	297.7
11	295.7	NOV 01	291.7	22	288.2	13	297.7
12	295.2	02	291.7	23	288.2	14	300.2
13	295.2	03	291.2	24	288.2	15	305.7
14	293.7	04	291.2	25	288.2	16	311.2
15	293.2	05	291.2	26	287.7	JAN 04, 1983	288.4
16	293.2	06	291.2	27	287.7	APR 01	267.70
17	293.2	07	291.2	28	287.7	MAY 19	262.04
18	293.2	08	291.2	29	287.7	JUL 12	256.20
19	293.2	09	291.2	30	287.2	SEP 15	251.84
20	293.2	10	291.2	DEC 01	287.2		
21	293.2	11	290.7	02	286.7		

GROUND WATER

FRESNO COUNTY--Continued

San Joaquin Valley (5-22)

WELL 020S018E11Q01M

SITE NUMBER 361156119585501

2.0 MI SOUTHEAST OF WESTHAVEN. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 4 IN, DEPTH 710 FT, PERFORATED 650-710 FT. ALTITUDE OF LSD 268 FT. RECORDS AVAILABLE SEPT. 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 204.4 FEET BELOW LAND SURFACE DATUM JAN. 03, 1983.

LOWEST WATER LEVEL 494.8 FEET BELOW LAND SURFACE DATUM JUL 31, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1982	214.8	JAN 03, 1983	204.4

WELL 020S018E11Q03M

SITE NUMBER 361156119585503

2.0 MI SOUTHEAST OF WESTHAVEN. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 4 IN, DEPTH 1930 FT, PERFORATED 1885-1925 FT. ALTITUDE OF LSD 268 FT. RECORDS AVAILABLE APR. 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 173.2 FEET BELOW LAND SURFACE DATUM MAR 16, 1982.

LOWEST WATER LEVEL 461. FEET BELOW LAND SURFACE DATUM SEP 24, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1982	193.1	JAN 03, 1983	193.7

KERN COUNTY

San Joaquin Valley (5-22)

WELL 011N021W03B01S

SITE NUMBER 350436119061901

9.6 MI NORTHWEST OF WHEELER RIDGE. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 8 IN, DEPTH 1477 FT, PERFORATED 1037-1237 FT. ALTITUDE OF LSD 435 FT. RECORDS AVAILABLE APR. 1963 TO JAN. 1983. RECORDER INSTALLED 1963 TO JAN. 1983

HIGHEST WATER LEVEL 251.7 FEET BELOW LAND SURFACE DATUM JAN 20, 1982.

LOWEST WATER LEVEL 539.5 FEET BELOW LAND SURFACE DATUM JUN 29, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	349.3	OCT 28, 1982	347.5	NOV 22, 1982	347.5	DEC 09, 1982	347.3
03	349.2	NOV 01	347.7	23	348.0	16	347.2
07	349.1	05	347.6	27	347.9	27	347.1
09	349.2	07	347.5	DEC 02	347.8	JAN 06, 1983	345.7
25	349.1	09	347.4	03	347.7		
26	349.2	12	347.3	06	347.6		
27	350.1	18	347.4	08	347.5		

KERN COUNTY--Continued

San Joaquin Valley (5-22)

WELL 026S023E16H02H

SITE NUMBER 35400119293601

11 MI SOUTHWEST OF POND. OBSERVATION WELL. DIAM 6.62 IN, DEPTH 978 FT. ALTITUDE OF LSD 230 FT.
RECORDS AVAILABLE 1974 TO JAN. 1983.

HIGHEST WATER LEVEL 118.3 FEET BELOW LAND SURFACE DATUM APR 07, 1982.

LOWEST WATER LEVEL 287.9 FEET BELOW LAND SURFACE DATUM AUG 18, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	249.9	OCT 25, 1982	231.9	NOV 18, 1982	215.8	DEC 12, 1982	204.0
02	248.9	26	231.1	19	214.4	13	203.2
03	247.8	27	231.0	20	214.0	14	203.1
04	246.0	28	232.7	21	213.4	15	202.4
05	245.6	29	232.5	22	212.4	16	202.0
06	244.9	30	232.1	23	212.0	17	201.3
07	244.2	31	231.3	24	211.4	18	201.1
08	243.8	NOV 01	230.5	25	211.1	19	200.6
09	242.9	02	230.0	26	211.1	20	200.1
10	241.9	03	229.1	27	210.9	21	199.9
11	240.8	04	228.4	28	210.6	22	199.4
12	240.0	05	227.6	29	210.2	23	199.1
13	239.9	06	226.0	30	210.0	25	199.0
14	238.9	07	225.1	DEC 01	209.3	26	198.2
15	237.9	08	224.0	02	208.8	27	198.1
16	237.0	09	223.1	03	208.3	28	197.1
17	236.9	10	222.0	04	208.1	29	197.6
18	236.1	11	221.1	05	207.9	30	198.1
19	235.2	12	220.2	06	207.3	31	198.2
20	234.7	13	219.2	07	206.9	JAN 01, 1983	198.1
21	234.0	14	218.6	08	206.1	02	198.8
22	233.3	15	218.0	09	205.3	03	198.0
23	232.9	16	217.1	10	205.0	04	197.1
24	232.1	17	216.4	11	204.2	05	195.3

WELL 026S023E16H03H

SITE NUMBER 35400119293602

11 MI SOUTHWEST OF POND. OBSERVATION WELL. DIAM 6.62 IN, DEPTH 335 FT. ALTITUDE OF LSD 230 FT.
RECORDS AVAILABLE 1974 TO JAN. 1983.

HIGHEST WATER LEVEL 192.2 FEET BELOW LAND SURFACE DATUM DEC 29, 1982.

LOWEST WATER LEVEL 289.4 FEET BELOW LAND SURFACE DATUM AUG 25, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1982	231.0	NOV 20, 1982	209.4	DEC 06, 1982	201.7	DEC 22, 1982	194.2
NOV 05	224.0	21	209.0	07	201.1	23	194.1
06	222.9	22	208.1	08	201.0	25	194.0
07	221.8	23	207.6	09	200.6	26	193.5
08	220.8	24	206.9	10	200.0	27	193.0
09	219.1	25	206.2	11	199.2	28	192.5
10	218.0	26	205.9	12	199.0	29	192.2
11	217.0	27	205.2	13	198.3	30	192.7
12	216.1	28	205.1	14	198.0	31	193.0
13	215.1	29	205.0	15	197.7	JAN 01, 1983	193.1
14	214.3	30	204.3	16	197.0	02	193.2
15	213.1	DEC 01	204.1	17	196.8	03	193.1
16	212.4	02	203.8	18	196.1	04	192.6
17	211.8	03	203.0	19	195.9	05	196.8
18	211.0	04	202.9	20	195.1		
19	210.0	05	202.1	21	194.9		

WELL 028S023E16K01H

SITE NUMBER 352935119294701

2 MI NORTHWEST OF BUTTONWILLOW. IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN,
DEPTH 550 FT, PERFORATED 200-350 FT. ALTITUDE OF LSD 285 FT. RECORDS AVAILABLE 1971 TO
CURRENT YEAR.

HIGHEST WATER LEVEL 105.0 FEET BELOW LAND SURFACE DATUM FEB 08, 1983.

LOWEST WATER LEVEL 270.0 FEET BELOW LAND SURFACE DATUM OCT 09, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1982	262.0	FEB 08, 1983	105.0

KERN COUNTY--Continued.

San Joaquin Valley (5-22)

WELL 028S026E21H01M

SITE NUMBER 352841119101301

0.4 MI NORTHEAST OF DOW. HYDRAULIC ROTARY UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH 580 FT. ALTITUDE OF LSD 391 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 111.7 FEET BELOW LAND SURFACE DATUM MAR 31, 1954.

LOWEST WATER LEVEL 241.5 FEET BELOW LAND SURFACE DATUM AUG 22, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 17, 1983	142.5

WELL 028S026E21H03M

SITE NUMBER 352841119101303

0.4 MI NORTHEAST OF DOW. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 1 IN, DEPTH 800 FT, OPEN END. ALTITUDE OF LSD 391 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 106.8 FEET BELOW LAND SURFACE DATUM MAR 02, 1953.

LOWEST WATER LEVEL 327. FEET BELOW LAND SURFACE DATUM AUG 16, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 17, 1983	219.5

WELL 029S023E27H01M

SITE NUMBER 352228119295201

0.4 MI SOUTHWEST OF BUTTONWILLOW. IRRIGATION WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 300 FT, PERFORATED 108-162, 169-300 FT. ALTITUDE OF LSD 270 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1953 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.2 FEET BELOW LAND SURFACE DATUM FEB 01, 1953.

LOWEST WATER LEVEL 72.5 FEET BELOW LAND SURFACE DATUM OCT 12, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1982	56.0	JAN 31, 1983	60.5

WELL 029S025E12H03M

SITE NUMBER 352511119145701

1.4 MI NORTHEAST OF ROSEDALE. HYDRAULIC ROTARY OBSERVATION WELL IN ALLUVIUM. DIAM 1 IN, DEPTH 670 FT, PERFORATED 480-670 FT. ALTITUDE OF LSD 331 FT. RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 87.5 FEET BELOW LAND SURFACE DATUM FEB 05, 1976.

LOWEST WATER LEVEL 212.5 FEET BELOW LAND SURFACE DATUM AUG 23, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1982	209.5	FEB 04, 1983	195.5

KERN COUNTY--Continued

San Joaquin Valley (5-22)

WELL 031S025E26A01M

SITE NUMBER 351237119151501

3 MI NORTHEAST OF FORD CITY. HYDRAULIC ROTARY IRRIGATION WELL IN ALLUVIUM. DIAM 16-12 IN, DEPTH 1474 FT, 16-IN CSG 0-206 FT, 14-IN CSG 206-606 FT, 12-IN CSG 606-1474 FT, PERFORATED 206-1474 FT. ALTITUDE OF LSD 289 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1965 TO CURRENT YEAR.

HIGHEST WATER LEVEL 38.5 FEET BELOW LAND SURFACE DATUM JAN 23, 1968.

LOWEST WATER LEVEL 129.5 FEET BELOW LAND SURFACE DATUM OCT 17, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1982	84.0	FEB 01, 1983	75.0

WELL 032S028E23R01M

SITE NUMBER 350720118532401

1.7 MI SOUTH OF NEED PATCH, HYDRAULIC ROTARY IRRIGATION WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH 815 FT. ALTITUDE OF LSD 387 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1945 TO CURRENT YEAR.

HIGHEST WATER LEVEL 58.1 FEET BELOW LAND SURFACE DATUM DEC 07, 1945.

LOWEST WATER LEVEL 305. FEET BELOW LAND SURFACE DATUM OCT 01, 1962.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
EB 17, 1983	200.5

KINGS COUNTY

San Joaquin Valley (5-22)

WELL 018S019E20P01M

SITE NUMBER 362036119555301

6 MI SOUTH OF LANARE. HYDRAULIC ROTARY OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 6 IN, DEPTH 695 FT, PERFORATED 647-687 FT. ALTITUDE OF LSD 222 FT. RECORDS AVAILABLE MAR. 1967 TO CURRENT YEAR. RECORDER INSTALLED MAR. 1967 TO JAN. 1983. BEGINNING SEPT. 13, 1983, RECORDS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.

HIGHEST WATER LEVEL 110.91 FEET BELOW LAND SURFACE DATUM SEP 13, 1983.

LOWEST WATER LEVEL 218.9 FEET BELOW LAND SURFACE DATUM SEP 24, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
CT 01, 1982	122.4	NOV 08, 1982	119.1	NOV 28, 1982	119.0	DEC 16, 1982	116.2
02	122.1	09	118.9	29	118.8	17	116.1
03	121.8	12	118.8	30	118.5	18	116.0
04	121.6	13	119.0	DEC 01	118.4	19	115.9
05	121.3	14	119.3	02	118.3	20	115.7
25	120.4	15	119.5	03	118.1	21	115.6
27	120.4	16	119.7	04	117.9	22	115.4
28	120.2	17	119.9	05	117.8	23	115.4
29	120.1	18	120.1	06	117.6	24	115.3
30	120.0	19	120.3	07	117.4	26	115.2
31	119.9	20	120.5	08	117.3	28	115.1
OV 01	119.8	21	120.6	09	117.1	29	115.0
02	119.7	22	120.4	10	117.0	31	114.9
03	119.6	23	120.2	11	116.9	JAN 03, 1983	114.8
04	119.5	24	119.9	12	116.8	SEP 13	110.91
05	119.4	25	119.7	13	116.6		
06	119.3	26	119.5	14	116.5		
07	119.2	27	119.2	15	116.4		

GROUND WATER

KINGS COUNTY--Continued

San Joaquin Valley (5-22)

WELL 018S019E20P02M

SITE NUMBER 362036119555302

6 MI SOUTH OF LANARE. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 577 FT. PERFORATED 497-537 FT. ALTITUDE OF LSD 222 FT. RECORDS AVAILABLE MAR. 1967 TO CURRENT YEAR. RECORDER INSTALLED MAR. 1967 TO JAN. 1983.

HIGHEST WATER LEVEL 111.0 FEET BELOW LAND SURFACE DATUM DEC 20, 1982.

LOWEST WATER LEVEL 229.5 FEET BELOW LAND SURFACE DATUM AUG 25, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	118.7	OCT 24, 1982	116.7	NOV 17, 1982	114.1	DEC 12, 1982	111.5
02	118.4	25	116.9	18	113.9	13	111.4
03	118.2	26	117.0	19	113.8	15	111.3
04	118.0	27	116.9	20	113.7	16	111.2
05	117.9	28	116.7	21	113.6	18	111.1
06	117.7	29	116.6	22	113.5	20	111.0
07	117.6	30	116.4	23	113.4	21	111.5
08	117.4	31	116.3	24	113.3	22	112.2
09	117.3	NOV 01	116.2	25	113.2	23	112.4
10	117.1	02	116.0	26	113.1	24	112.8
11	116.9	03	115.9	27	112.9	25	113.2
12	116.8	04	115.7	28	112.8	26	113.5
13	116.7	05	115.6	29	112.7	27	113.1
14	116.6	06	115.4	30	112.5	28	112.6
15	116.5	07	115.2	DEC 02	112.4	29	112.3
16	116.3	08	115.1	03	112.3	30	112.0
17	116.2	09	115.0	04	112.2	31	111.8
18	116.2	11	114.9	05	112.1	JAN 01, 1983	111.7
19	116.2	12	114.7	06	112.0	02	111.6
20	116.3	13	114.6	07	111.9	03	111.5
21	116.4	14	114.5	08	111.8		
22	116.5	15	114.3	09	111.7		
23	116.6	16	114.2	11	111.6		

WELL 018S019E20P03M

SITE NUMBER 362035119555203

6 MI SOUTH OF LANARE. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 4 IN, DEPTH 222 FT. PERFORATED 200-222 FT. ALTITUDE OF LSD 222 FT. RECORDS AVAILABLE OCT. 1972 TO CURRENT YEAR. RECORDER INSTALLED SEPT. 1972 TO JAN. 1983.

HIGHEST WATER LEVEL 107.2 FEET BELOW LAND SURFACE DATUM JAN 03, 1983.

LOWEST WATER LEVEL 155.3 FEET BELOW LAND SURFACE DATUM SEP 29, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1982	110.0	OCT 08, 1982	109.7	OCT 15, 1982	109.4	OCT 25, 1982	109.2
04	109.9	11	109.6	17	109.3	DEC 28	115.9
05	109.8	12	109.5	23	109.3	JAN 03, 1983	107.2

WELL 019S022E04B01M

SITE NUMBER 361847119352401

0.7 MI SOUTHEAST OF HANFORD. HYDRAULIC ROTARY IRRIGATION WELL IN ALLUVIUM. DIAM 12 IN, DEPTH 173 FT. ALTITUDE OF LSD 245 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 72.2 FEET BELOW LAND SURFACE DATUM APR 03, 1961.

LOWEST WATER LEVEL 144.6 FEET BELOW LAND SURFACE DATUM JUL 22, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 15, 1983	79.4

KINGS COUNTY--Continued

San Joaquin Valley (5-22)

WELL 022S019E18P02M

SITE NUMBER 360027119574201

IN KETTLEMAN CITY, NEAR INTERSECTION OF SIXTH STREET AND GEN. PET STREET. HYDRAULIC ROTARY
PUBLIC SUPPLY WATER-TABLE WELL IN ALLUVIUM. DIAM 10 IN, DEPTH 410 FT, PERFORATED 309-329, 356-
377 FT. ALTITUDE OF LSD 255 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER
RESOURCES. RECORDS AVAILABLE 1950 TO CURRENT YEAR.

HIGHEST WATER LEVEL 110.2 FEET BELOW LAND SURFACE DATUM JAN 15, 1950.

LOWEST WATER LEVEL 210. FEET BELOW LAND SURFACE DATUM JUL 03, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 11, 1983	161.0	MAY 03, 1983	167.0

MERCED COUNTY

San Joaquin Valley (5-22)

WELL 005S012E22P01M

SITE NUMBER 372842120382601

5 MI SOUTHEAST OF MONTPELIER. STOCK ALTITUDE OF LSD 206 FT. RECORDS AVAILABLE 1978 TO
CURRENT YEAR.

HIGHEST WATER LEVEL 118.85 FEET BELOW LAND SURFACE DATUM MAR 15, 1978.

LOWEST WATER LEVEL 128.02 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	128.02	JUL 26, 1983	126.45 R

WELL 005S012E31N02M

SITE NUMBER 372709120415901

IN BALLICO. DOMESTIC WELL. ALTITUDE OF LSD 155 FT. RECORDS AVAILABLE 1978, OCT 1981 TO
SEPT 1982.

HIGHEST WATER LEVEL 67.90 FEET BELOW LAND SURFACE DATUM MAR 28, 1978.

LOWEST WATER LEVEL 105.95 FEET BELOW LAND SURFACE DATUM JUN 29, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	69.07	JUL 27, 1983	100.77

WELL 005S013E14P01M

SITE NUMBER 372935120305601

1 MI EAST OF HOPETON. DOMESTIC WELL. ALTITUDE OF LSD 190 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.
YEAR.

HIGHEST WATER LEVEL 23.15 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

LOWEST WATER LEVEL 31.21 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	23.15	JUL 26, 1983	31.21

R Recently pumped.

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 005S014E05D01M

SITE NUMBER 373203120274401

1.6 MI NORTHWEST OF SNELLING. STOCK WELL. ALTITUDE OF LSD 310 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 110.10 FEET BELOW LAND SURFACE DATUM APR 28, 1981.

LOWEST WATER LEVEL 134.00 FEET BELOW LAND SURFACE DATUM JUL 26, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	118.80	JUL 26, 1983	134.00

WELL 006S009E24J01M

SITE NUMBER 372343120552101

4 MI WEST OF IRWIN. DOMESTIC WELL. ALTITUDE OF LSD 70 FT. RECORDS AVAILABLE 1982 TO SEPT 1983. (DISCONTINUED).

HIGHEST WATER LEVEL 5.82 FEET BELOW LAND SURFACE DATUM JUL 27, 1983.

LOWEST WATER LEVEL 7.62 FEET BELOW LAND SURFACE DATUM JAN 25, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUL 27, 1983	5.82

WELL 006S010E02P02M

SITE NUMBER 372602120503201

1.7 MI NORTH OF HILMAR. DOMESTIC WELL. ALTITUDE OF LSD 95 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.61 FEET BELOW LAND SURFACE DATUM JUL 27, 1983.

LOWEST WATER LEVEL 14.80 FEET BELOW LAND SURFACE DATUM MAY 02, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	8.35	JUL 27, 1983	7.61

WELL 006S010E20R02M

SITE NUMBER 372329120532401

2.3 MI SOUTHWEST OF IRWIN. IRRIGATION WELL. ALTITUDE OF LSD 80 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.83 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

LOWEST WATER LEVEL 40.53 FEET BELOW LAND SURFACE DATUM AUG 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	10.83	JUL 27, 1983	21.15

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 006S011E06H01M

SITE NUMBER 372622120484201

2 MI NORTHWEST OF DELHI. IRRIGATION WELL. ALTITUDE OF LSD 105 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.25 FEET BELOW LAND SURFACE DATUM AUG 21, 1980.

LOWEST WATER LEVEL 9.80 FEET BELOW LAND SURFACE DATUM DEC 31, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
EB 01, 1983	6.26	JUL 27, 1983	6.20

WELL 006S011E19J01M

SITE NUMBER 372338120474401

2.8 MI SOUTHWEST OF DELHI. DOMESTIC WELL . ALTITUDE OF LSD 110 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.92 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

LOWEST WATER LEVEL 30.32 FEET BELOW LAND SURFACE DATUM JUN 30, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
EB 01, 1983	24.92	JUL 27, 1983	28.29 R

WELL 006S011E34F01M

SITE NUMBER 372209120451201

2.2 MI SOUTHWEST OF LIVINGSTON. IRRIGATION WELL. ALTITUDE OF LSD 117 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.25 FEET BELOW LAND SURFACE DATUM OCT 27, 1980.

LOWEST WATER LEVEL 24.99 FEET BELOW LAND SURFACE DATUM JAN 25, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
EB 01, 1983	22.92

WELL 006S012E27B01M

SITE NUMBER 372318120381601

1.4 MI WEST OF WINTON. IRRIGATION WELL. ALTITUDE OF LSD 158 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.77 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 55.17 FEET BELOW LAND SURFACE DATUM AUG 21, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
EB 03, 1983	41.77	JUL 26, 1983	44.45

R Recently pumped.

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 006S012E34D01M

SITE NUMBER 372217120384501

2.3 MI SOUTHWEST OF WINTON. IRRIGATION WELL. ALTITUDE OF LSD 155 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.47 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 36.55 FEET BELOW LAND SURFACE DATUM FEB 26, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	26.47	JUL 25, 1983	27.55

WELL 006S012E35K01M

SITE NUMBER 372151120370301

1.3 MI NORTH OF ATWATER. DOMESTIC WELL. ALTITUDE OF LSD 155 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 29.30 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 47.22 FEET BELOW LAND SURFACE DATUM AUG 21, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	29.30	JUL 26, 1983	34.45

WELL 006S013E19B01M

SITE NUMBER 372407120345701

1.8 MI NORTHEAST OF WINTON. IRRIGATION WELL. ALTITUDE OF LSD 199 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 64.22 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 80.90 FEET BELOW LAND SURFACE DATUM AUG 21, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	64.22	JUL 26, 1983	69.99

WELL 006S013E28A01M

SITE NUMBER 372323120323401

3.8 MI WEST OF WINTON. IRRIGATION WELL. ALTITUDE OF LSD 195 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 54.21 FEET BELOW LAND SURFACE DATUM JAN 28, 1982.

LOWEST WATER LEVEL 75.10 FEET BELOW LAND SURFACE DATUM OCT 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUL 27, 1983	66.01

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 006S013E31N01M

SITE NUMBER 372145120352501

1 MI NORTHWEST OF ATWATER. IRRIGATION WELL. ALTITUDE OF LSD 163 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.26 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

LOWEST WATER LEVEL 44.83 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	44.83	JUL 26, 1983	34.26

WELL 006S013E36L01M

SITE NUMBER 372201120295001

4.4 MI NORTHWEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 180 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 34.40 FEET BELOW LAND SURFACE DATUM FEB 26, 1981.

LOWEST WATER LEVEL 61.92 FEET BELOW LAND SURFACE DATUM AUG 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	36.14	JUL 26, 1983	49.45

WELL 006S014E32B01M

SITE NUMBER 372225120272101

3.2 MI NORTHWEST OF MERCED. DOMESTIC WELL. ALTITUDE OF LSD 220 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.65 FEET BELOW LAND SURFACE DATUM SEP 18, 1980.

LOWEST WATER LEVEL 77.68 FEET BELOW LAND SURFACE DATUM JUL 05, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	68.48	JUL 26, 1983	68.35

WELL 007S009E012H01M

SITE NUMBER 372032120552301

4.1 MI NORTHWEST OF STEVINSON. IRRIGATION WELL. ALTITUDE OF LSD 71 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.06 FEET BELOW LAND SURFACE DATUM JUL 28, 1983.

LOWEST WATER LEVEL 9.46 FEET BELOW LAND SURFACE DATUM JAN 25, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUL 28, 1983	4.06

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 007S010E04Q01H

SITE NUMBER 372251120522501

1.9 MI NORTHWEST OF STEVINSON. IRRIGATION WELL. ALTITUDE OF LSD 82 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.00 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

LOWEST WATER LEVEL 14.58 FEET BELOW LAND SURFACE DATUM JAN 25, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	11.00	JUL 27, 1983	11.55

WELL 007S010E23K03H

SITE NUMBER 371626120501201

1.6 MI SOUTHEAST OF STEVINSON. IRRIGATION WELL. ALTITUDE OF LSD 81 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.43 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

LOWEST WATER LEVEL 6.62 FEET BELOW LAND SURFACE DATUM SEP 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 01, 1983	1.43

WELL 007S012E06R01H

SITE NUMBER 372058120411001

3.2 MI WEST OF LIVINGSTON. IRRIGATION WELL. ALTITUDE OF LSD 126 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.99 FEET BELOW LAND SURFACE DATUM JAN 31, 1980.

LOWEST WATER LEVEL 27.60 FEET BELOW LAND SURFACE DATUM AUG 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	22.46	JUL 27, 1983	27.01

WELL 007S012E10F02H

SITE NUMBER 372020120383501

0.1 MI SOUTHWEST OF ATHWATER. CABLE TOOL IRRIGATION WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH 55 FT. ALTITUDE OF LSD 145 FT. RECORDS AVAILABLE 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.11 FEET BELOW LAND SURFACE DATUM FEB 01, 1983.

LOWEST WATER LEVEL 48.4 FEET BELOW LAND SURFACE DATUM JUN 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	24.11	JUL 27, 1983	24.12

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 007S012E24J01H

SITE NUMBER 371830120354401

2.7 MI SOUTH OF ATHWATER. IRRIGATION ARTESIAN WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 232 FT.
ALTITUDE OF LSD 136 FT. RECORDS AVAILABLE 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.55 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 29.00 FEET BELOW LAND SURFACE DATUM MAY 30, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	10.55	JUL 27, 1983	13.45

WELL 007S013E03D01H

SITE NUMBER 372128120322001

3.5 MI WEST OF ATHWATER. IRRIGATION WELL. ALTITUDE OF LSD 171 FT. RECORDS AVAILABLE 1977 TO
CURRENT YEAR.

HIGHEST WATER LEVEL 37.05 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 48.42 FEET BELOW LAND SURFACE DATUM APR 28, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	37.05	JUL 27, 1983	38.76 R

WELL 007S013E12E01H

SITE NUMBER 372033120295801

2.9 MI NORTHWEST OF MERCED. DOMESTIC WELL. ALTITUDE OF LSD 167 FT. RECORDS AVAILABLE 1977
TO CURRENT YEAR.

HIGHEST WATER LEVEL 29.54 FEET BELOW LAND SURFACE DATUM FEB 03, 1983.

LOWEST WATER LEVEL 38.66 FEET BELOW LAND SURFACE DATUM AUG 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	29.54	JUL 26, 1983	30.98

WELL 007S013E16N01H

SITE NUMBER 371914120331901

4.3 MI NORTHWEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 149 FT. RECORDS AVAILABLE 1977
TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.61 FEET BELOW LAND SURFACE DATUM JUL 25, 1983.

LOWEST WATER LEVEL 18.67 FEET BELOW LAND SURFACE DATUM FEB 10, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	10.22	JUL 25, 1983	9.61

R Recently pumped.

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 007S013E18E01M

SITE NUMBER 371927120354201

1.9 MI SOUTH OF ATWATER. IRRIGATION WELL. ALTITUDE OF LSD 145 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.69 FEET BELOW LAND SURFACE DATUM JUL 27, 1983.

LOWEST WATER LEVEL 19.11 FEET BELOW LAND SURFACE DATUM FEB 10, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 01, 1983	15.74	JUL 27, 1983	10.69

WELL 007S013E22R01M

SITE NUMBER 371918120312201

2.3 MI WEST OF MERCED. UNUSED WELL. ALTITUDE OF LSD 156 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.09 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 32.10 FEET BELOW LAND SURFACE DATUM DEC 29, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	17.09	JUL 27, 1983	22.10

WELL 007S013E29G01M

SITE NUMBER 371745120340401

4.7 MI WEST OF MERCED. UNUSED WELL. ALTITUDE OF LSD 140 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.56 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 17.26 FEET BELOW LAND SURFACE DATUM JUL 02, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	10.56	JUL 27, 1983	13.40

WELL 007S014E09R01M

SITE NUMBER 372002120261001

3.4 MI NORTHEAST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 185 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.25 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

LOWEST WATER LEVEL 30.26 FEET BELOW LAND SURFACE DATUM MAY 20, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	21.5	JUL 26, 1983	19.25

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 007S014E22F01M

SITE NUMBER 371639120252401

3.4 MI WEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 191 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 18.68 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

LOWEST WATER LEVEL 33.06 FEET BELOW LAND SURFACE DATUM FEB 13, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	20.74	JUL 26, 1983	18.68

WELL 007S014E26H01M

SITE NUMBER 371753120234601

4.8 MI WEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 195 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.91 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

LOWEST WATER LEVEL 27.05 FEET BELOW LAND SURFACE DATUM JAN 28, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1983	14.38	JUL 26, 1983	9.91

WELL 007S014E27R01M

SITE NUMBER 371729120245301

3.8 MI WEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 186 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.13 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 26.00 FEET BELOW LAND SURFACE DATUM MAY 20, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	17.13	JUL 27, 1983	24.9

WELL 007S014E31J01M

SITE NUMBER 371649120280901

1.7 MI SOUTH OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 165 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.18 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 50.08 FEET BELOW LAND SURFACE DATUM JUL 06, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	11.18	JUL 25, 1983	17.00

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 007S015E18K01M

SITE NUMBER 371919120215801

6.5 MI WEST OF MERCED. UNUSED WELL. ALTITUDE OF LSD 212 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.8 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

LOWEST WATER LEVEL 29.47 FEET BELOW LAND SURFACE DATUM JAN 28, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	26.88	JUL 26, 1983	25.8

WELL 008S009E08E01M

SITE NUMBER 371523121002801

0.2 MI SOUTH OF GUSTINE. DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH 60 FT. ALTITUDE OF LSD 105 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.5 FEET BELOW LAND SURFACE DATUM APR 20, 1983.

LOWEST WATER LEVEL 17.5 FEET BELOW LAND SURFACE DATUM MAR 17, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 20, 1983	8.5

WELL 008S012E03P01M

SITE NUMBER 371538120383001

9.3 MI SOUTHWEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 109 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.59 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 12.46 FEET BELOW LAND SURFACE DATUM FEB 10, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 02, 1983	3.59

WELL 008S012E34L01M

SITE NUMBER 371126120384101

9.3 MI NORTHWEST OF EL NIDO. DOMESTIC WELL. ALTITUDE OF LSD 100 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.62 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 10.94 FEET BELOW LAND SURFACE DATUM FEB 10, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	2.62	JUL 25, 1983	12.52 P

P Pumping.

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 008S013E19H01M

SITE NUMBER 371320120344301

7.6 MI SOUTHWEST OF MERCED. DOMESTIC WELL. ALTITUDE OF LSD 121 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.19 FEET BELOW LAND SURFACE DATUM JAN 26, 1982.

LOWEST WATER LEVEL 25.19 FEET BELOW LAND SURFACE DATUM JAN 26, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUL 25, 1983	31.13 P

WELL 008S013E19H02M

SITE NUMBER 371326120344201

7.7 MI SOUTHWEST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 121 FT. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 12.19 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 36.60 FEET BELOW LAND SURFACE DATUM DEC 27, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	12.19	JUL 25, 1983	20.57

WELL 008S014E11K01M

SITE NUMBER 371503120240901

5.7 MI SOUTHEAST OF MERCED. IRRIGATION WELL. ALTITUDE OF LSD 186 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.48 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 59.31 FEET BELOW LAND SURFACE DATUM AUG 18, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	28.48	JUL 26, 1983	35.96

WELL 008S015E16J01M

SITE NUMBER 371411120194001

0.3 MI NORTHWEST OF PLAINSBURG. IRRIGATION WELL. ALTITUDE OF LSD 216 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 90.39 FEET BELOW LAND SURFACE DATUM FEB 02, 1982.

LOWEST WATER LEVEL 104.38 FEET BELOW LAND SURFACE DATUM JUL 02, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 02, 1983	90.39

P Pumping.

GROUND WATER

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 008S016E21A01M

SITE NUMBER 371342120132901

2 MI EAST OF LEGRAND. IRRIGATION WELL. ALTITUDE OF LSD 265 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 53.37 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 65.85 FEET BELOW LAND SURFACE DATUM JAN 28, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	53.37	JUL 26, 1983	58.50

WELL 009S009E14N01M

SITE NUMBER 371047120570901

1 MI NORTHWEST OF VOLTA. IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 500 FT, PERFORATED 100-220, 360-500 FT. ALTITUDE OF LSD 96 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1958 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.4 FEET BELOW LAND SURFACE DATUM OCT 13, 1976.

LOWEST WATER LEVEL 158.3 FEET BELOW LAND SURFACE DATUM NOV 07, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
NOV 03, 1982	58.3

WELL 009S012E02G01M

SITE NUMBER 371050120373101

8 MI NORTHWEST OF EL NIDO. IRRIGATION WELL. ALTITUDE OF LSD 105 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.26 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 11.11 FEET BELOW LAND SURFACE DATUM FEB 10, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	2.26	JUL 25, 1983	9.52

WELL 009S014E01J01M

SITE NUMBER 371034120225601

2.6 MI SOUTHWEST OF ATHLONE. IRRIGATION WELL. ALTITUDE OF LSD 147 FT. RECORDS AVAILABLE JULY TO SEPT 1983.

HIGHEST WATER LEVEL 69.3 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 97.71 FEET BELOW LAND SURFACE DATUM APR 13, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	69.3	JUL 28, 1983	76.52

MERCED COUNTY--Continued

San Joaquin Valley (5-22)

WELL 009S014E19D01M

SITE NUMBER 370831120291201

0.6 MI NORTH OF EL NIDO. IRRIGATION WELL. ALTITUDE OF LSD 143 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 68.91 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 183.94 FEET BELOW LAND SURFACE DATUM JUL 03, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	68.91	JUL 25, 1983	78.11

WELL 009S015E29F01M

SITE NUMBER 370713120212401

5.2 MI WEST OF CHOWCHILLA. IRRIGATION WELL. ALTITUDE OF LSD 196 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 80.32 FEET BELOW LAND SURFACE DATUM JUL 26, 1983.

LOWEST WATER LEVEL 146.81 FEET BELOW LAND SURFACE DATUM SEP 03, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	82.28	JUL 26, 1983	80.32

WELL 009S016E18D01M

SITE NUMBER 370915120162301

2.5 MI NORTH OF CHOWCHILLA. DOMESTIC WELL. ALTITUDE OF LSD 239 FT. RECORDS AVAILABLE 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 135.76 FEET BELOW LAND SURFACE DATUM FEB 02, 1983.

LOWEST WATER LEVEL 151.09 FEET BELOW LAND SURFACE DATUM DEC 10, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 02, 1983	135.76	JUL 26, 1983	136.00

WELL 010S012E09P01M

SITE NUMBER 370413120394301

1.6 MI SOUTHEAST OF DOS PALOS. IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 180 FT, PERFORATED 7-150 FT. ALTITUDE OF LSD 105 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1959 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.8 FEET BELOW LAND SURFACE DATUM MAR 01, 1970.

LOWEST WATER LEVEL 17.5 FEET BELOW LAND SURFACE DATUM NOV 29, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18, 1982	6.5	FEB 17, 1983	3.5

SAN JOAQUIN COUNTY

San Joaquin Valley (5-22)

WELL 001S007E21G01M

SITE NUMBER 375003121121901

1 MI SOUTH OF TURNER. HYDRAULIC ROTARY DOMESTIC WATER-TABLE WELL IN ALLUVIUM.

DIAM 5 IN, DEPTH 95 FT, CASED TO 95 FT. ALTITUDE OF LSD 44 FT.

MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19. FEET BELOW LAND SURFACE DATUM OCT 03, 1973.

LOWEST WATER LEVEL 43.2 FEET BELOW LAND SURFACE DATUM OCT 04, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1982	25.3	APR 07, 1983	19.9

WELL 002S005E28P01M

SITE NUMBER 374335121253301

0.3 MI WEST OF TRACY. HYDRAULIC ROTARY DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 6.5 IN, DEPTH 119 FT, PERFORATED 109-119 FT. ALTITUDE OF LSD 72 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 16.5 FEET BELOW LAND SURFACE DATUM APR 08, 1983.

LOWEST WATER LEVEL 25.5 FEET BELOW LAND SURFACE DATUM MAR 22, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 08, 1983	16.5

WELL 003N007E10L04M

SITE NUMBER 380717121114501

0.8 MI SOUTHEAST OF VICTOR. DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 12-10 IN, DEPTH 190 FT, 12-IN CSG 0-121 FT, 10-IN CSG 121-190 FT. ALTITUDE OF LSD 73 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1935 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.51 FEET BELOW LAND SURFACE DATUM JAN 11, 1943.

LOWEST WATER LEVEL 98.74 FEET BELOW LAND SURFACE DATUM AUG 01, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1982	84.8	JAN 17, 1983	80.7	APR 08, 1983	77.1	AUG 03, 1983	85.2
NOV 15	83.2	FEB 17	79.6	MAY 16	75.2	SEP 06	79.4
DEC 07	82.1	MAR 08	78.9	JUN 06	75.6		

WELL 003S005E04H01M

SITE NUMBER 374223121250601

2 MI NORTHWEST OF CARBONA. HYDRAULIC ROTARY DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 140 FT, SCREENED 120-140 FT. ALTITUDE OF LSD 118 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 43.0 FEET BELOW LAND SURFACE DATUM APR 08, 1983.

LOWEST WATER LEVEL 55.5 FEET BELOW LAND SURFACE DATUM MAR 31, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 08, 1983	43.0

STANISLAUS COUNTY

San Joaquin Valley (5-22)

WELL 003S007E13A01M

SITE NUMBER 374040121083701

3.3 MI SOUTHWEST OF RIPON. DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 198 FT. ALTITUDE OF LSD 41 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1937 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.2 FEET BELOW LAND SURFACE DATUM MAR 03, 1969.

LOWEST WATER LEVEL 9.7 FEET BELOW LAND SURFACE DATUM NOV 01, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1982	9.7	MAR 1983	45.0 P

WELL 007S008E12D01M

SITE NUMBER 372040121024501

0.4 MI NORTHWEST OF NENMAN. HYDRAULIC ROTARY IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 425 FT. ALTITUDE OF LSD 106 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.0 FEET BELOW LAND SURFACE DATUM MAR 09, 1983.

LOWEST WATER LEVEL 67. FEET BELOW LAND SURFACE DATUM OCT 17, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1982	33.0	MAR 09, 1983	26.0

TULARE COUNTY

San Joaquin Valley (5-22)

WELL 018S025E12Q01M

SITE NUMBER 362215119124001

1 MI SOUTH OF IVANHOE. UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH UNKNOWN. ALTITUDE OF LSD 363 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1924 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20. FEET BELOW LAND SURFACE DATUM APR 09, 1925.

LOWEST WATER LEVEL 134.6 FEET BELOW LAND SURFACE DATUM OCT 11, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	46.5	JAN 24, 1983	40.5

WELL 020S024E27C01M

SITE NUMBER 361002119212601

0.7 MI NORTHWEST OF OCTOL. IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH UNKNOWN. ALTITUDE OF LSD 265 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.0 FEET BELOW LAND SURFACE DATUM FEB 09, 1983.

LOWEST WATER LEVEL 108.5 FEET BELOW LAND SURFACE DATUM OCT 06, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1982	54.0	FEB 09, 1983	51.0

P Pumping.

GROUND WATER

TULARE COUNTY--Continued

San Joaquin Valley (5-22)

WELL 020S024E28L01M

SITE NUMBER 360931119223401

0.8 MI NORTHWEST OF OCTOL. IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH UNKNOWN.
 ALTITUDE OF LSD 257.5 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES.
 RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.0 FEET BELOW LAND SURFACE DATUM FEB 09, 1983.

LOWEST WATER LEVEL 112.5 FEET BELOW LAND SURFACE DATUM OCT 08, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1982	53.0	FEB 09, 1983	52.0

WELL 022S027E30D02M

SITE NUMBER 355933119062001

3.6 MI NORTHWEST OF TERRA BELLA. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM.
 DIAM 10.75 IN, DEPTH 1246 FT, PERFORATED 1083-1207 FT. ALTITUDE OF LSD 407 FT. RECORDS AVAILABLE
 1970 TO CURRENT YEAR. RECORDER INSTALLED 1970 TO JAN. 1983. BEGINNING JAN. 5, 1983, RECORDS
 FURNISHED BY U.S. BUREAU OF RECLAMATION.

HIGHEST WATER LEVEL 210.3 FEET BELOW LAND SURFACE DATUM MAR 09, 1971.

LOWEST WATER LEVEL 357.5 FEET BELOW LAND SURFACE DATUM JUL 31, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	280.7	OCT 26, 1982	261.3	NOV 21, 1982	246.5	DEC 16, 1982	236.7
02	279.5	27	260.9	22	246.1	17	236.3
03	278.3	28	260.4	23	245.6	18	236.0
04	277.1	29	259.7	24	245.0	19	235.6
05	276.1	30	259.1	25	244.6	20	235.2
06	275.1	31	258.7	26	244.0	21	234.9
07	274.2	NOV 01	258.2	27	243.7	22	234.7
08	273.2	02	257.7	28	243.4	23	234.4
09	272.4	03	257.3	29	243.1	24	234.1
10	271.5	04	256.9	30	242.6	25	233.7
11	270.6	05	256.5	DEC 01	242.2	26	233.4
12	269.8	06	256.1	02	241.8	27	233.1
13	269.0	07	255.8	03	241.3	28	232.8
14	268.3	08	255.4	04	240.9	29	232.4
15	267.6	09	255.1	05	240.5	30	232.2
16	266.8	10	254.7	06	240.1	31	231.9
17	266.0	11	254.3	07	239.8	JAN 01, 1983	231.6
18	265.4	12	254.0	08	239.5	02	231.3
19	264.7	14	249.7	09	239.2	03	231.0
20	264.2	15	249.3	10	238.8	04	230.7
21	263.7	16	248.9	11	238.4	05	230.6
22	263.3	17	248.3	12	238.1	MAR 10	213.15
23	262.8	18	247.9	13	237.7	MAY 10	211.44
24	262.3	19	247.4	14	237.3	JUL 05	287.41
25	261.9	20	246.9	15	237.0	SEP 07	286.97

TULARE COUNTY--Continued

San Joaquin Valley (5-22)

WELL 023S025E16N03H

SITE NUMBER 355523119170602

2.4 MI SOUTH OF PIXLEY. OBSERVATION ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 8 IN, DEPTH 430 FT, PERFORATED 360-420 FT. ALTITUDE OF LSD 267 FT. RECORDS AVAILABLE JUNE 1959 TO CURRENT YEAR. RECORDER INSTALLED 1959 TO JAN. 1983. BEGINNING MAR. 10, 1983, RECORDS FURNISHED BY U.S. BUREAU OF RECLAMATION.

HIGHEST WATER LEVEL 112.6 FEET BELOW LAND SURFACE DATUM MAR. 10, 1983.

LOWEST WATER LEVEL 288.5 FEET BELOW LAND SURFACE DATUM JUL 31, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	160.2	OCT 25, 1982	142.1	NOV 22, 1982	134.2	DEC 16, 1982	128.0
02	158.1	26	142.5	23	133.8	17	127.7
03	156.4	27	141.7	24	133.7	18	127.1
04	154.9	29	141.8	25	133.3	19	126.8
05	153.4	30	141.9	26	133.3	20	126.7
06	152.5	31	141.7	27	132.9	21	126.5
07	152.3	NOV 01	141.6	28	132.7	22	126.0
08	151.4	02	141.0	29	132.5	23	125.9
09	150.4	03	140.7	30	131.9	24	125.8
10	149.7	06	140.6	DEC 01	131.8	25	125.7
11	149.4	07	140.2	02	131.7	26	125.6
12	148.5	08	139.6	03	131.6	27	125.0
13	147.7	09	139.0	04	131.3	28	124.8
14	147.0	10	138.6	05	130.9	29	124.7
15	146.4	11	138.3	06	130.7	31	124.6
16	146.3	12	137.7	07	130.5	JAN 01, 1983	124.5
17	145.5	13	136.9	08	130.5	02	124.2
18	145.3	14	136.6	09	129.9	03	123.7
19	144.5	15	136.4	10	129.7	04	123.7
20	144.3	16	135.7	11	129.5	05	121.9
21	143.6	17	135.5	12	129.1	MAR 10	112.6
22	143.4	18	135.0	13	128.8	MAY 10	128.4
23	142.7	19	134.7	14	128.6	JUL 05	136.4
24	142.7	21	134.6	15	128.0	SEP 07	142.6

WELL 023S025E16N04H

SITE NUMBER 355523119170603

2.4 MI SOUTH OF PIXLEY. ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 8 IN, DEPTH 250 FT, PERFORATED 200-240 FT. RECORDS AVAILABLE JUNE 1959 TO CURRENT YEAR. RECORDER INSTALLED 1959.

HIGHEST WATER LEVEL 72.2 FEET BELOW LAND SURFACE DATUM SEPT. 07, 1983.

LOWEST WATER LEVEL 122.9 FEET BELOW LAND SURFACE DATUM AUG 17, 1961.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	78.3	OCT 31, 1982	76.9	NOV 27, 1982	75.8	DEC 23, 1982	75.1
02	78.0	NOV 01	76.8	28	75.7	24	75.3
05	77.9	02	76.7	29	75.6	25	75.2
06	77.7	05	76.6	30	75.2	26	75.0
08	77.8	06	76.5	DEC 01	75.7	27	74.9
09	77.7	08	76.4	02	75.8	28	75.0
11	77.6	09	76.3	03	75.9	29	74.8
12	77.5	10	76.5	04	75.7	31	74.9
16	77.4	11	76.6	06	75.6	JAN 01, 1983	75.0
18	77.3	12	76.5	07	75.4	02	74.9
21	77.2	13	76.3	10	75.4	03	74.8
23	77.1	15	76.2	11	75.6	05	74.7
25	77.0	16	76.1	12	75.4	MAR 10	74.19
26	76.9	18	76.0	15	75.4	MAY 10	72.87
27	77.1	19	76.1	18	75.3	JUL 05	73.05
28	76.9	21	76.1	19	75.1	SEP 07	72.2
29	76.8	22	75.9	21	75.0		
30	76.7	25	75.9	22	74.8		

WELL 024S025E17P01H

SITE NUMBER 355003119173901

0.8 MI SOUTHWEST OF EARLIMART. HYDRAULIC ROTARY WATER-TABLE WELL IN ALLUVIUM. DIAM 14 IN, DEPTH 500 FT, PERFORATED 240-500 FT. ALTITUDE OF LSD 268 FT. MEASUREMENTS FURNISHED BY U.S. BUREAU OF RECLAMATION. RECORDS AVAILABLE 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 69.1 FEET BELOW LAND SURFACE DATUM FEB 09, 1983.

LOWEST WATER LEVEL 153.3 FEET BELOW LAND SURFACE DATUM AUG 23, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 09, 1983	69.1

GROUND WATER

TULARE COUNTY--Continued

San Joaquin Valley (5-22)

WELL 024S026E32G01M

SITE NUMBER 354805119105701

0.3 MI WEST OF JOVISTA. CABLE TOOL UNUSED ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 16 IN, DEPTH 470 FT. ALTITUDE OF LSD 397 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES. RECORDS AVAILABLE 1932 TO CURRENT YEAR.

HIGHEST WATER LEVEL 104. FEET BELOW LAND SURFACE DATUM JAN 27, 1972.

LOWEST WATER LEVEL 329.7 FEET BELOW LAND SURFACE DATUM OCT 15, 1946.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 02, 1983	118.0

WELL 024S026E34F01M

SITE NUMBER 354800119090501

0.8 MI EAST OF JOVISTA. HYDRAULIC ROTARY OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 1522 FT, PERFORATED 400-1522 FT. ALTITUDE OF LSD 445 FT. RECORDS AVAILABLE 1959 TO CURRENT YEAR. RECORDER INSTALLED 1957 TO JAN. 1983. BEGINNING MAR. 10, 1983, RECORDS FURNISHED BY U.S. BUREAU OF RECLAMATION.

HIGHEST WATER LEVEL 18.52 FEET BELOW LAND SURFACE DATUM OCT 24, 1982.

LOWEST WATER LEVEL 327.5 FEET BELOW LAND SURFACE DATUM JUL 20, 1961.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1982	188.4	OCT 27, 1982	185.5	NOV 22, 1982	181.6	DEC 18, 1982	180.0
02	187.9	28	185.6	23	181.6	19	179.4
03	187.2	29	185.3	24	181.7	20	179.4
04	187.0	30	184.6	25	181.4	21	179.4
05	187.2	31	184.6	26	181.4	22	179.2
06	187.0	NOV 01	184.4	27	181.0	23	178.9
07	187.2	02	184.8	28	180.8	24	179.0
08	187.3	03	184.6	29	181.2	25	179.2
09	187.4	04	184.4	30	181.0	26	178.8
10	187.0	05	184.0	DEC 01	181.0	27	179.0
11	186.6	06	183.6	02	181.0	28	179.0
12	186.8	07	183.0	03	181.0	29	178.9
13	187.0	08	183.4	04	180.7	30	178.9
14	187.2	09	183.4	05	180.6	31	178.6
15	187.1	10	183.2	06	180.6	JAN 01, 1983	178.5
16	186.7	11	183.2	07	180.6	02	178.8
17	186.4	12	183.1	08	180.5	03	178.8
18	186.6	13	182.6	09	180.4	04	178.6
19	186.8	14	182.3	10	180.3	05	178.3
20	186.6	15	182.4	11	180.3	MAR 10	175.10
21	186.2	16	182.4	12	180.1	MAY 10	174.23
22	186.0	17	182.1	13	180.2	JUL 05	178.86
23	185.9	18	182.1	14	180.2	SEP 07	176.39
24	185.2	19	186.8	15	180.1		
25	185.1	20	182.0	16	180.0		
26	185.4	21	181.5	17	179.9		

TUOLUMNE COUNTY

San Joaquin Valley (5-22)

WELL 011S012E07E02M

SITE NUMBER 365926120422201

1 MI WEST OF DOS PALOS. HYDRAULIC ROTARY INDUSTRIAL ARTESIAN WELL IN ALLUVIUM BELOW THE CORCORAN CLAY MEMBER OF THE TULARE FORMATION. DIAM 10 IN, DEPTH 488 FT, PERFORATED 388-488 FT. ALTITUDE OF LSD 109 FT. MEASUREMENTS FURNISHED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES, U.S. BUREAU OF RECLAMATION. RECORDS AVAILABLE 1960 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.2 FEET ABOVE LAND SURFACE DATUM MAR 13, 1964.

LOWEST WATER LEVEL 5.1 FEET BELOW LAND SURFACE DATUM JUN 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 02, 1982	0.1	APR 20, 1983	0.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MERCED COUNTY

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
372904120415501	005S012E19M01M	83-07-27	214	8.1	21.5	16	3.4	23	2.3
372847120375401	005S012E22R01M	83-07-26	192	8.0	21.5	16	3.8	18	1.6
372935120305601	005S013E14F01M	83-07-26	95	8.2	20.5	7.6	2.6	7.0	1.1
373113120234401	005S014E11A01M	83-07-26	165	7.1	21.5	13	6.0	9.3	2.8
372343120552101	006S009E24J01M	83-07-27	1170	7.6	20.0	50	9.4	180	2.1
372543120501001	006S010E11G01M	83-07-27	500	7.2	22.0	50	16	25	3.3
372329120532401	006S010E20R02M	83-07-27	6490	7.8	22.5	290	49	920	8.8
372627120482301	006S011E06L01M	83-07-27	644	7.7	19.0	62	21	35	2.3
372338120474401	006S011E19J01M	83-07-27	353	7.9	20.5	21	5.8	43	1.8
372209120451201	006S011E34F01M	83-07-25	416	7.2	20.0	32	9.7	34	4.5
372318120381601	006S012E27B01M	83-07-26	261	7.6	20.0	19	6.9	21	3.3
372217120384501	006S012E34D01M	83-07-25	648	7.0	20.5	60	21	36	3.6
372151120370301	006S012E35K01M	83-07-27	320	7.2	20.5	28	9.6	25	2.8
372216120354101	006S012E36H01M	83-07-26	392	7.7	19.5	32	11	29	2.8
372147120341701	006S013E32N02M	83-07-25	293	7.9	22.0	25	6.0	24	7.9
372201120295001	006S013E36L01M	83-07-26	210	7.6	22.0	13	5.5	20	4.9
372225120272101	006S014E32B01M	83-07-26	289	7.5	21.0	22	8.1	24	2.9
372032120552301	007S009E12H01M	83-07-28	784	7.3	20.0	60	22	72	4.1
372114120542001	007S010E06H01M	83-07-27	617	7.2	19.0	57	18	49	2.7
371848120543701	007S010E19G01M	83-07-28	886	7.7	20.0	2.8	1.3	210	.70
371626120501201	007S010E23K03M	83-07-28	1710	7.5	19.0	50	8.7	310	4.8
372111120383401	007S012E03F01M	83-07-25	298	7.1	20.0	25	8.5	19	2.1
372058120411001	007S012E06R01M	83-07-25	743	7.8	20.5	50	17	47	5.4
371859120373401	007S012E23C01M	83-07-25	492	7.2	19.0	50	16	25	4.0
372128120322001	007S013E03D01M	83-07-27	288	7.5	21.0	24	8.0	23	4.8
372001120322201	007S013E10N01M	83-07-25	478	7.4	19.5	49	16	23	3.4
371914120331901	007S013E16N01M	83-07-25	475	7.4	19.0	52	20	19	2.7
371927120354201	007S013E18E01M	83-07-25	223	7.0	19.5	27	6.5	10	1.2
372002120261001	007S014E09R01M	83-07-26	327	7.4	19.5	25	12	25	2.8
371730120255801	007S014E28R01M	83-07-26	447	7.5	20.0	40	17	28	4.7
371704120260501	007S014E33H01M	83-07-26	381	7.8	21.0	30	7.9	32	10
371711120221001	007S015E31B01M	83-07-26	298	7.8	24.0	20	8.3	25	7.6
371538120383001	008S012E03P01M	83-07-26	438	7.6	19.0	50	16	18	3.1
371126120384101	008S012E34L01M	83-07-25	410	7.8	21.0	34	20	28	.90
371326120344201	008S013E19H02M	83-07-25	658	7.5	21.0	56	27	47	1.1
371446120260001	008S014E09R01M	83-07-26	217	8.0	22.0	22	5.4	27	4.1
371411120194001	008S015E16J01M	83-07-26	306	7.5	21.5	25	11	19	6.0
371342120132901	008S016E21A01M	83-07-26	611	7.3	20.0	57	28	27	1.8
371050120373101	009S012E02G01M	83-07-25	951	7.4	18.5	75	47	61	1.2
370857120264301	009S014E16F01M	83-07-25	236	7.9	26.0	6.4	1.6	37	9.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MERCED COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI0 ₂)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO ₂ +NO ₃ DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
372904120415501	83-07-27	5.0	8.9	.20	32	130	4.70	.020	3	5	1
372847120375401	83-07-26	3.6	6.0	.20	27	120	2.00	.050	3	4	1
372935120305601	83-07-26	2.5	2.9	.20	29	77	1.20	.020	1	6	2
373113120234401	83-07-26	4.0	7.1	.20	81	160	1.80	.060	1	19	<1
372343120552101	83-07-27	19	250	.20	33	670	<.100	.020	2	330	350
372543120501001	83-07-27	36	20	.30	57	280	17.0	.120	3	17	1
372329120532401	83-07-27	140	2000	.10	15	3500	<.100	<.010	2	400	300
372627120482301	83-07-27	58	27	.40	66	350	24.0	.100	2	11	1
372338120474401	83-07-27	8.5	27	.20	62	230	7.30	.020	6	27	6
372209120451201	83-07-25	43	12	.30	56	250	13.0	.050	2	4	<1
372318120381601	83-07-26	21	4.7	.20	59	180	5.40	.040	3	5	<1
372217120384501	83-07-25	68	16	.20	69	350	27.0	.040	1	21	17
372151120370301	83-07-27	28	6.6	.20	67	230	6.10	.050	2	13	1
372216120354101	83-07-26	33	4.8	.20	62	250	11.0	.040	4	11	<1
372147120341701	83-07-25	10	12	.20	55	200	4.90	.020	2	5	<1
372201120295001	83-07-26	9.5	6.7	.20	71	180	2.80	.050	4	31	4
372225120272101	83-07-26	9.2	13	.20	45	190	3.00	.080	1	24	3
372032120552301	83-07-28	61	68	.20	25	470	.280	.040	2	390	400
372114120542001	83-07-27	29	34	.10	38	390	<.100	.010	<1	260	940
371848120543701	83-07-28	31	43	.20	31	560	<.100	.230	1	1000	32
371626120501201	83-07-28	140	250	.70	24	1000	8.50	.220	9	19	150
372111120383401	83-07-25	23	5.9	.30	68	200	9.60	.060	2	4	<1
372058120411001	83-07-25	50	25	.30	69	360	19.0	.060	2	310	4
371859120373401	83-07-25	28	13	.20	64	290	16.0	.090	3	9	<1
372128120322001	83-07-27	7.4	16	.20	64	200	5.50	.010	2	21	17
372001120322201	83-07-25	22	12	.20	62	290	12.0	.030	2	7	<1
371914120331901	83-07-25	14	14	.20	64	310	4.10	.050	1	11	1
371927120354201	83-07-25	6.9	3.4	.30	59	170	2.80	.090	1	20	9
372002120261001	83-07-26	8.6	11	.20	61	230	2.90	.110	4	21	1
371730120255801	83-07-26	14	14	.20	61	290	4.40	.030	4	4	<1
371704120260501	83-07-26	13	15	.20	66	260	3.30	.020	6	<3	<1
371711120221001	83-07-26	14	11	.20	65	220	1.80	.040	5	5	<1
371538120383001	83-07-26	17	8.5	.20	59	290	1.70	<.010	3	9	<1
371126120384101	83-07-25	17	11	.30	53	280	1.40	.030	4	13	38
371326120344201	83-07-25	36	19	.30	54	410	1.40	.020	3	9	2
371446120260001	83-07-26	12	6.7	.20	23	170	.430	.020	10	6	8
371411120194001	83-07-26	11	9.8	.20	69	220	3.30	.060	5	8	<1
371342120132901	83-07-26	18	34	.20	42	360	3.50	.040	4	26	1
371050120373101	83-07-25	100	60	.30	51	600	.820	.030	2	29	70
370857120264301	83-07-25	.8	25	.30	77	200	.120	.040	2	61	57

See footnote at end of table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MERCED COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
372904120415501	83-07-27	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372847120375401	83-07-26	--	--	--	--	--	--	--	--	--	--
372935120305601	83-07-26	--	--	--	--	--	--	--	--	--	--
373113120234401	83-07-26	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372343120552101	83-07-27	--	--	--	--	--	--	--	--	--	--
372543120501001	83-07-27	--	--	--	--	--	--	--	--	--	--
372329120532401	83-07-27	--	--	--	--	--	--	--	--	--	--
372627120482301	83-07-27	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372338120474401	83-07-27	--	--	--	--	--	--	--	--	--	--
372209120451201	83-07-25	--	--	--	--	--	<.01	--	<.01	<.01	--
372318120381601	83-07-26	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372217120384501	83-07-25	--	--	--	--	--	--	--	--	--	--
372151120370301	83-07-27	--	--	--	--	--	--	--	--	--	--
372216120354101	83-07-26	--	--	--	--	--	--	--	--	--	--
372147120341701	83-07-25	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372201120295001	83-07-26	--	--	--	--	--	--	--	--	--	--
372225120272101	83-07-26	--	--	--	--	--	--	--	--	--	--
372032120552301	83-07-28	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372114120542001	83-07-27	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
371848120543701	83-07-28	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
371626120501201	83-07-28	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372111120383401	83-07-25	--	--	--	--	--	--	--	--	--	--
372058120411001	83-07-25	--	--	--	--	--	--	--	--	--	--
371859120373401	83-07-25	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
372128120322001	83-07-27	--	--	--	--	--	--	--	--	--	--
372001120322201	83-07-25	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
371914120331901	83-07-25	--	--	--	--	--	--	--	--	--	--
371927120354201	83-07-25	--	--	--	--	--	--	--	--	--	--
372002120261001	83-07-26	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
371730120255801	83-07-26	--	--	--	--	--	--	--	--	--	--
371704120260501	83-07-26	--	--	--	--	--	--	--	--	--	--
371711120221001	83-07-26	--	--	--	--	--	--	--	--	--	--
371538120383001	83-07-26	--	--	--	--	--	--	--	--	--	--
371126120384101	83-07-25	--	--	--	--	--	--	--	--	--	--
371326120344201	83-07-25	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
371446120260001	83-07-26	--	--	--	--	--	--	--	--	--	--
371411120194001	83-07-26	--	--	--	--	--	--	--	--	--	--
371342120132901	83-07-26	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
371050120373101	83-07-25	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
370857120264301	83-07-25	--	--	--	--	--	--	--	--	--	--

See footnote at end of table.

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MERCED COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRIETHION (UG/L)
372904120415501	83-07-27	<.01	<.1	<1	<.01
372847120375401	83-07-26	--	--	--	--
372935120305601	83-07-26	--	--	--	--
373113120234401	83-07-26	<.01	<.1	<1	<.01
372343120552101	83-07-27	--	--	--	--
372543120501001	83-07-27	--	--	--	--
372329120532401	83-07-27	--	--	--	--
372627120482301	83-07-27	<.01	<.1	<1	<.01
372338120474401	83-07-27	--	--	--	--
372209120451201	83-07-25	<.01	--	--	<.01
372318120381601	83-07-26	<.01	<.1	<1	<.01
372217120384501	83-07-25	--	--	--	--
372151120370301	83-07-27	--	--	--	--
372216120354101	83-07-26	--	--	--	--
372147120341701	83-07-25	<.01	<.1	<1	<.01
372201120295001	83-07-26	--	--	--	--
372225120272101	83-07-26	--	--	--	--
372032120552301	83-07-28	<.01	<.1	<1	<.01
372114120542001	83-07-27	<.01	<.1	<1	<.01
371848120543701	83-07-28	<.01	<.1	<1	<.01
371626120501201	83-07-28	<.01	<.1	<1	<.01
372111120383401	83-07-25	--	--	--	--
372058120411001	83-07-25	--	--	--	--
371859120373401	83-07-25	<.01	<.1	<1	<.01
372128120322001	83-07-27	--	--	--	--
372001120322201	83-07-25	<.01	<.1	<1	<.01
371914120331901	83-07-25	--	--	--	--
371927120354201	83-07-25	--	--	--	--
372002120261001	83-07-26	<.01	<.1	<1	<.01
371730120255801	83-07-26	--	--	--	--
371704120260501	83-07-26	--	--	--	--
371711120221001	83-07-26	--	--	--	--
371538120383001	83-07-26	--	--	--	--
371126120384101	83-07-25	--	--	--	--
371326120344201	83-07-25	<.01	<.1	<1	<.01
371446120260001	83-07-26	--	--	--	--
371411120194001	83-07-26	--	--	--	--
371342120132901	83-07-26	<.01	<.1	<1	<.01
371050120373101	83-07-25	<.01	<.1	<1	<.01
370857120264301	83-07-25	--	--	--	--

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

STATION NUMBER	LOCAL IDENTIFIER	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
370713120212401	009S015E29F01M	83-07-27	228	7.8	20.0	20	6.1	17	3.1
370915120162301	009S016E18D01M	83-07-26	179	7.6	20.0	13	4.5	15	2.0
370528120311501	010S013E02F02M	83-07-25	314	8.3	22.5	15	2.3	49	1.6

STATION NUMBER	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC, DIS-SOLVED (UG/L AS AS)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
370713120212401	83-07-27	3.0	21	.10	66	180	1.10	<.010	3	31	3
370915120162301	83-07-26	2.5	16	.20	65	160	1.00	.050	3	45	4
370528120311501	83-07-25	4.9	22	.30	37	200	.200	.020	28	7	2

See footnote at end of table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

MERCED COUNTY--Continued

STATION	NUMBER	DATE OF SAMPLE	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
370713120212401		83-07-27	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
370915120162301		83-07-26	--	--	--	--	--	--	--	--	--	--
370528120311501		83-07-25	<.1	<.10	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01

STATION	NUMBER	DATE OF SAMPLE	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
370713120212401		83-07-27	<.01	<.1	<1	<.01
370915120162301		83-07-26	--	--	--	--
370528120311501		83-07-25	<.01	<.1	<1	<.01

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

INDEX

	Page		Page
Accuracy of field data and computed results....	23	Data, field, accuracy and computed results.....	23
Acre-foot, definition of.....	5	explanation of, ground-water level records...	27
Algae, definition of.....	5	stage and water-discharge records.....	20
Analysis, water.....	24	water-quality records.....	24
Antelope Creek (Tulare Lake basin) at		other data available.....	24
Woodlake.....	355	Deadman Gulch at Christenson Road, near Galt...	356
Aquifer, definition of.....	5		
Artesian, definition of.....	5	Deer Creek (tributary to Tulare Lake basin),	
Avenal Creek near Avenal.....	131	diversion near Terra Bella.....	135
		near Fountain Springs.....	134
Bacteria, definition of.....	5	Definition of terms.....	5
Badger Creek, at Riley Road, near Galt.....	355	Del Puerto Creek near Patterson.....	244
North Fork at Riley Road, near Galt.....	355	Delta-Mendota Canal at Tracy pumping plant,	
Bass Lake near Bass Lake.....	208	near Tracy.....	327,354
Bear Creek (tributary to San Joaquin River)		Dinke Creek at Dinkey Meadow, near Shaver Lake	176
near Lockeford.....	326	Discharge, at crest-stage partial-record	
Bear Creek (tributary to South Fork San Joaquin		stations.....	355
River) near Lake Thomas A. Edison.....	195	definition of.....	9
Bear Creek (tributary to North Fork Mokelumne		Dissolved, definition of.....	9
River) near Salt Springs Dam.....	333	Diversity index, definition of.....	9
Beardsley Lake near Strawberry.....	275	Don Pedro Reservoir near La Grange.....	262
Bed material, definition of.....	7	Donnell Lake near Dardanelle.....	273
Benthic organisms, definition of.....	7	Donner Creek at Donner Lake, near Truckee.....	92
Big Creek (tributary to Tuolumne River) above		Downstream order and station number.....	16
Whites Gulch, near Groveland.....	260	Drainage area, definition of.....	9
Biochemical oxygen demand, definition of.....	7	Drainage basin, definition of.....	9
Biomass, definition of.....	7	Dry Creek (tributary to Kaweah River) near	
Black Creek near Copperopolis.....	288	Lemoncove.....	163
Blackwood Creek near Tahoe City.....	53	Dry Creek (tributary to Merced River) near	
Boca Reservoir near Truckee.....	110	Snelling.....	240
Borel Canal below Isabella Dam.....	120	Dry Creek (tributary to Mokelumne River basin)	
Bridgeport Reservoir near Bridgeport.....	30	near Galt.....	346,354
Buena Vista Lake basin, station records in....	114		
		East Walker River near Bridgeport.....	31
Calaveras River, above New Hogan Lake, near		Eastman, H. V., Lake, near Raymond.....	228
San Andreas.....	321	Edgewood Creek near Stateline, NV.....	79
below New Hogan Dam, near Valley Springs....	323,354	Eleanor Creek near Hetch Hetchy.....	254
Caliente Creek above Tehachapi Creek, near		Eleanor, Lake near Hetch Hetchy.....	253
Caliente.....	128	Explanation of, ground-water level records....	27
California Aqueduct at Delta pumping plant,		stage and water-discharge records.....	20
near Byron.....	354	water-quality records.....	24
Camanche Reservoir near Clements.....	339		
Camp Creek near Somerset.....	347	Fallen Leaf Lake near Camp Richardson.....	45
Cantua Creek near Cantua Creek.....	216	Falls Creek near Hetch Hetchy.....	246
Carson River, East Fork, below Markleeville		Florence Lake near Big Creek.....	193
Creek, near Markleeville.....	36	Foothill Ditch below Terminus Dam.....	159
West Fork, at Woodfords.....	37	Forest Creek near Wilseyville.....	334
Carson River basin, station records in.....	36	Frazier Creek near Strathmore.....	355
Cells/volume, definition of.....	8	Fresno River, below Hidden Dam, near Daulton...	222
Cfs-day, definition of.....	8	near Knowles.....	218
Chemical oxygen demand, definition of.....	8	Friant-Kern Canal at Friant.....	213
Cherry Creek, below Cherry Valley Dam, near		Ft ³ /s, definition of.....	8
Hetch Hetchy.....	252		
below Dion R. Holm powerhouse, near Mather...	256	Gage height, definition of.....	9
near Early Intake.....	255	Gaging station, definition of.....	9
Cherry Lake near Hetch Hetchy.....	251	Gaging-station and water-quality records.....	29
Chlorophyll, definition of.....	8	General Creek near Meeks Bay.....	47
Chowchilla River, above Willow Creek, near		Granite Creek near Cattle Mountain.....	191
Raymond.....	225	Ground water, collection of the data.....	27
below Buchanan Dam, near Raymond.....	229	quality of, by county.....	385
Clavey River near Buck Meadows.....	259	well levels, by county.....	357
Cole Creek near Salt Springs Dam.....	332	Fresno County.....	357
Collection and computation of data, surface		Kern County.....	362
water.....	20	Kings County.....	365
Collection and examination of data, water-		Merced County.....	367
quality records.....	24	San Joaquin County.....	380
Collection of the data, ground-water levels....	27	Stanislaus County.....	381
Color unit, definition of.....	8	Tulare County.....	381
Contents, definition of.....	8	Tuolumne County.....	384
Contra Costa Canal near Oakley.....	351,354		
Control, definition of.....	8	Hardness, definition of.....	9
Control structure, definition of.....	8	Helms Creek below Courtright Dam.....	168
Cooperation.....	2	Hensley Lake near Daulton.....	221
Cosumnes River, at State Highway 104, near		Hetch Hetchy Reservoir at Hetch Hetchy.....	247
Galt.....	355	Highland Creek (San Joaquin River basin) below	
at Michigan Bar.....	349,354	Spicer Meadows Reservoir.....	278
North Fork near El Dorado.....	348	Huntington Lake near Big Creek.....	201
Cottonwood Creek (Tulare Lake basin) near		Huntington-Shaver conduit outlet near Shaver	
Elderwood.....	164	Lake.....	203
Courtright Reservoir near Nelson Mountain.....	167	Hydrologic bench-mark station.....	19
Crest-stage partial-record stations.....	355	Hydrologic conditions.....	3
Cubic foot per second, definition of.....	8	Hydrologic unit, definition of.....	9

	Page		Page
Independence Creek near Truckee.....	104	Madera Canal at Friant.....	212
Introduction.....	1	Mammoth Pool Reservoir near Big Creek.....	198
Isabella Lake near Lake Isabella.....	122	Marlette Creek near Carson City, NV.....	78
		Marlette Lake near Carson City, NV.....	77
James Bypass near San Joaquin.....	217	Marsh Creek near Byron.....	352
Kaweah, Lake, near Lemoncove.....	158	Martis Creek, at State Highway 267, near Truckee.....	93
Kaweah River, at Three Rivers.....	153	near Truckee.....	98
below Terminus Dam.....	160	Martis Creek Lake near Truckee.....	96
Marble Fork, at Potwisha Camp.....	151	McClure, Lake, at Exchequer.....	237
Middle Fork, near Potwisha Camp.....	149	Merced River, at Happy Isles Bridge, near Yosemite.....	232
South Fork, at Three Rivers.....	156	at Pohono Bridge, near Yosemite.....	236
Kaweah River basin, schematic diagram of.....	148	at Shaffer Bridge, near Cressey.....	239
Kern River at Kernville.....	116	below Merced Falls Dam, near Snelling.....	238
Kern River, below Isabella Dam.....	123	near Stevinson.....	241
near Democrat Springs.....	126	Metamorphic stage, definitioin of.....	10
near Kernville.....	114	Methylene blue active substance, definition of.....	10
South Fork, near Onyx.....	121	Micrograms, per gram, definition of.....	10
Kern River basin, schematic diagram of.....	113	per liter, definition of.....	10
Kings River, below North Fork, near Trimmer....	178	Middle Tuolumne River at Oakland Recreation Camp.....	258
below Pine Flat Dam.....	184	Mill Creek (Tulare Lake basin) near Piedra.....	187
North Fork, above Dinky Creek, at Balch Camp	175	Millerton Lake at Friant.....	214
below Dinky Creek, near Balch Camp.....	177	Milligrams per liter, definition of.....	10
near Cliff Camp.....	170	Modesto Canal near La Grange.....	263
Kings River basin, schematic diagram of.....	166	Mokelumne River, at Woodbridge.....	342, 354
Laguna Creek, at McKenzie Road, near Galt.....	356	below Camanche Dam.....	340
at State Highway 104, near Galt.....	356	Middle Fork at West Point.....	335
Lakes and reservoirs:		near Mokelumne Hill.....	337
Bass Lake near Bass Lake.....	208	North Fork, below Salt Springs Dam.....	331
Beardsley Lake near Strawberry.....	275	South Fork, near West Point.....	336
Boca Reservoir near Truckee.....	110	Mokelumne River basin, schematic diagram of....	328
Bridgeport Reservoir near Bridgeport.....	30	Mono Creek below Lake Thomas A. Edison.....	197
Camanche Reservoir near Clements.....	339	Morrison Creek near Sacramento.....	350
Cherry Lake near Hetch Hetchy.....	351		
Courtright Reservoir near Nelson Mountain....	167	National Geodetic Vertical Datum of 1929, definition of.....	10
Don Pedro Reservoir near La Grange.....	263	National stream-quality accounting network....	19
Donnell Lake near Dardanelle.....	273	Nekton, definition of.....	10
Eastman, H. V., Lake, near Raymond.....	228	New Hogan Lake near Valley Springs.....	322
Eleanor, Lake near Hetch Hetchy.....	253	New Melones Reservoir near Sonora.....	287
Fallen Leaf Lake near Camp Richardson.....	45	North Main Canal below Diversion Point near Knights Ferry.....	296
Florence Lake near Big Creek.....	193	Numbering system for wells and miscellaneous sites.....	17
Hensley Lake near Daulton.....	221	Oakdale Canal near Knights Ferry.....	297
Hetch Hetchy Reservoir at Hetch Hetchy.....	247	Orestimba Creek near Newman.....	243
Huntington Lake near Big Creek.....	201	Organism, definition of.....	10
Isabella Lake near Lake Isabella.....	122	Other data available.....	24
Kaweah, Lake, near Lemoncove.....	158		
Lower Twin Lake near Bridgeport.....	29	Pacific Gas and Electric Co. conduit No. 3 near Bass Lake.....	209
Mammoth Pool Reservoir near Big Creek.....	198	Pardee Reservoir near Valley Springs.....	334
Marlette Lake near Carson City, NV.....	77	Partial-record stations, crest-stage.....	355
Martis Creek Lake near Truckee.....	96	definition of.....	11
McClure, Lake, at Exchequer.....	237	discharge at.....	355
Millerton Lake at Friant.....	214	Particle-size, definition of.....	11
New Hogan Lake near Valley Springs.....	322	Particle-size classification, definition of....	11
New Melones Reservoir near Sonora.....	287	Percent composition or percent of total, definition of.....	11
Pardee Reservoir near Valley Springs.....	238	Periphyton, definition of.....	11
Pine Flat Lake near Piedra.....	183	Pesticide program.....	20
Prosser Creek Reservoir near Truckee.....	102	Pesticides, definition of.....	11
Redinger Lake near Auberry.....	205	pH.....	25
Salt Springs Reservoir near West Point.....	329	pH, definition of.....	12
Shaver Lake near Big Creek.....	204	Philadelphia Canal near Strawberry.....	284
Stampede Reservoir near Truckee.....	108	Picocurie, definition of.....	12
Success Lake near Success.....	144	Pine Flat Lake near Piedra.....	183
Tahoe, Lake, at Tahoe City.....	90	Pioneer ditch below Success Dam.....	143
Thomas A. Edison, Lake, near Big Creek.....	196	Pitman Creek below Tamarack Creek.....	202
Topaz Lake near Topaz.....	35	Plankton, definition of.....	12
Tulare Lake in Kings County.....	130	Polychlorinated biphenyls, definition of.....	12
Tulloch Reservoir near Knights Ferry.....	289	Poso Creek near Oildale.....	132
Upper Twin Lake near Bridgeport.....	29	Primary productivity, definition of.....	12
Wishon Reservoir near Cliff Camp.....	169	Prosser Creek below Prosser Creek Dam, near Truckee.....	103
Lemoncove ditch below Terminus Dam.....	157	Prosser Creek Reservoir near Truckee.....	102
Lewis Creek near Lindsay.....	355	Publications of techniques of water-resources investigations.....	28
Light-attenuation coefficient, definition of...	10	Putah Creek near Winters.....	354
Little Truckee River, above Boca Reservoir, near Truckee.....	109		
below Boca Dam, near Truckee.....	111		
Little Walker River near Bridgeport.....	32		
Local well numbers.....	18		
Los Gatos Creek (Tulare Lake basin) above Nunez Canyon, near Colainga.....	188		
Lower Twin Lake near Bridgeport.....	29		
Macrophytes, definition of.....	10		

	Page		Page
Putah South Canal at intake, near Winters.....	354	Teakettle Creek, at site No. 3, near Dinkey Creek.....	171
Pyramid and Winnemucca Lakes basin, station records in.....	38	tributary No. 1 near Dinkey Creek.....	174
Radiochemical program.....	20	tributary No. 2 near Dinkey Creek.....	172
Records of discharge collected by agencies other than the Geological Survey.....	24	tributary No. 2A near Dinkey Creek.....	173
Redinger Lake near Auberry.....	205	Tehachapi Creek near Tehachapi.....	129
Reservoirs. <u>See</u> lakes and reservoirs.		Temperature, water, collection and examination of.....	25
Runoff map.....	6	Thermograph, definition of.....	15
Sacramento River at Freeport.....	354	Third Creek near Crystal Bay, NV.....	71
Sacramento-San Joaquin Delta, inflows and diversions.....	354	Thomas A. Edison, Lake, near Big Creek.....	196
schematic diagram of.....	353	Tiger Creek powerhouse conduit below Salt Springs Dam.....	330
Sacramento Weir spill to Yolo Bypass near Sacramento.....	354	Tons per acre-foot, definition of.....	16
Sagehen Creek near Truckee.....	105	Tons per day, definition of.....	16
Salt Springs Reservoir near West Point.....	329	Topaz Lake near Topaz.....	35
San Joaquin River, above Shakeflat Creek, near Big Creek.....	199	Total, definition of.....	16
above Willow Creek, near Auberry.....	206	Total, recoverable, definition of.....	16
at Miller Crossing.....	190	Total load, definition of.....	16
below Friant.....	215	Trout Creek near Tahoe Valley.....	84
near Newman.....	242	Truckee River, at Farad.....	112
San Joaquin River, near Vernalis.....	302, 357	at Tahoe City.....	91
South Fork, below Hooper Creek, near Florence Lake.....	194	Tulare Lake in Kings County.....	130
San Joaquin River basin, crest-stage partial-record stations in.....	355	Tulare Lake basin, crest-stage partial-records stations in.....	355
schematic diagram of.....	189	Tulare Lake basin, station records in.....	130
station records in.....	190	Tule River, below Success Dam.....	145
Sand Creek near Orange Cove.....	165	near Springville.....	139
Sediment, collection and examination of.....	26	North Fork, of Middle Fork, near Springville.....	137
definition of.....	13	South Fork, near Success.....	142
Shaver Lake near Big Creek.....	204	Tule River basin, schematic diagram of.....	136
Skunk Creek at McKenzie Road, near Galt.....	356	Tulloch Reservoir near Knights Ferry.....	289
Snow Creek at Tahoe Vista.....	65	Tuolumne Canal near Long Barn.....	285
Sodium-adsorption ratio, definition of.....	14	Tuolumne River, above Early Intake, near Mather.....	249
Solute, definition of.....	14	at Modesto.....	269
South San Joaquin Canal near Knights Ferry.....	292	below Early Intake, near Mather.....	250
South San Joaquin Canal below Diversion Point, near Knights Ferry.....	293	below La Grange Dam, near La Grange.....	265
South San Joaquin Canal below Woodward Reservoir, near Oakdale.....	294	near Hetch Hetchy.....	248
Special networks and programs.....	19	North Fork, near Long Barn.....	261
Specific conductance, definition of.....	14	South Fork, near Oakland Recreation Camp.....	257
Stage-discharge relation, definition of.....	14	Tuolumne River basin, schematic diagram of.....	245
Stampede Reservoir near Truckee.....	108	Turbidity, collection of.....	27
Stanislaus River, at Ripon.....	301	definition of.....	16
below Goodwin Dam, near Knights Ferry.....	298	Turlock Canal near La Grange.....	264
below Tulloch powerplant, near Knights Ferry.	290	Upper Truckee River, at South Lake Tahoe.....	39
Clark Fork, near Dardanelle.....	272	near Meyers.....	38
Middle Fork, at Hells Half Acre Bridge, near Pinecrest.....	274	Upper Twin Lake near Bridgeport.....	29
at Kennedy Meadows, near Dardanelle.....	271	Walker Lake basin, station records in.....	29
below Beardsley Dam.....	276	Ward Creek at State Highway 89, near Tahoe Pines.....	59
near Hathaway Pines.....	280	Ward tunnel intake at Florence Lake.....	192
North Fork, below Silver Creek.....	277	Ward tunnel outlet at Huntington Lake.....	200
near Avery.....	279	Water, analysis.....	24
South Fork, at Strawberry.....	283	temperature.....	25
near Long Barn.....	286	WDR, definition of.....	16
Stanislaus River basin, schematic diagram of...	270	Well levels, by county.....	357
Streamflow, definition of.....	14	West Walker River, below Little Walker River, near Coleville.....	33
Substrate, definition of.....	14	near Coleville.....	34
Success Lake near Success.....	144	White River near Ducor.....	133
Surface area, definition of.....	14	Willow Creek (tributary to San Joaquin River), at McKenzie Road, near Galt.....	355
Surficial bed material, definition of.....	14	at mouth, near Auberry.....	211
Suspended, definition of.....	15	North Fork, near Bass Lake.....	210
Tahoe, Lake, at Tahoe City.....	90	near Sugar Pine.....	207
Taxonomy, definition of.....	15	Wishon Reservoir near Cliff Camp.....	169
Taylor Creek near Camp Richardson.....	46	Woodbridge Canal at Woodbridge.....	341
		WSP, definition of.....	16
		Yolo Bypass near Woodland.....	354

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

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

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

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