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Water Resources Data California Water Year 2000

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

By S.W. Anderson, J.R. Smithson, L.A. Freeman, and G.L. Rockwell

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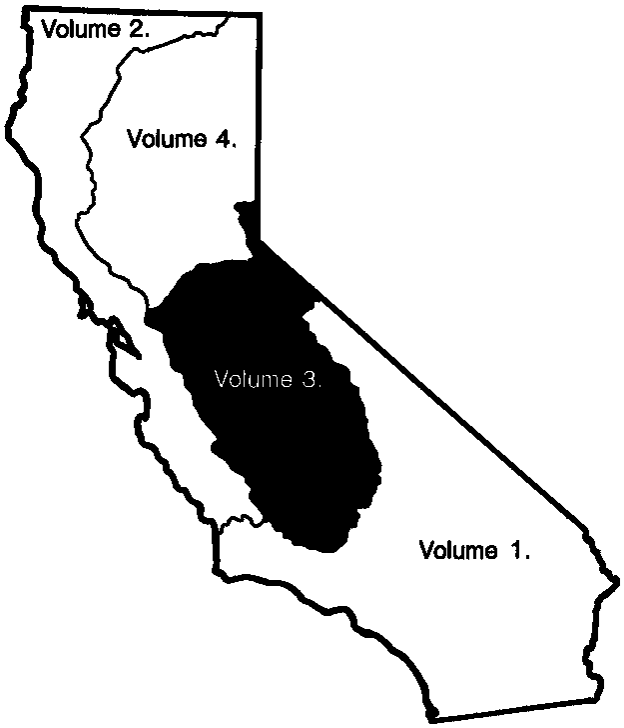

Prepared in cooperation with the
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PREFACE

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

Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin and Pacific Slope Basins from the Tijuana River to Santa Maria River

Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley

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

Volume 4. Northern Central Valley Basins and The Great Basin from Honey Lake Basin to Oregon State Line

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

This report was prepared in cooperation with the California Department of Water Resources and with other agencies, under the general supervision of Michael V. Shulters, District Chief, California.

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13. ABSTRACT *(Maximum 200 words)*

Water-resources data for the 2000 water year for California consist of records of stage, discharge, and water quality of streams, stage and contents in lakes and reservoirs, and water levels and water quality in wells. Volume 3 contains discharge records for 175 gaging stations, stage and contents for 44 lakes and reservoirs, and water quality for 31 stations. Also included are 1 crest-stage partial-record station and 1 miscellaneous partial-record sites. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in California.

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ILLUSTRATIONS

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

DISCONTINUED GAGING STATIONS

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

Station No.	Station name	Drainage area (mi^2)	Period of record
10295200	West Walker River at Leavitt Meadows, near Coleville	73.4	1945–64
10303000	Silver King Creek near Coleville	31.8	1947–51
10303500	East Fork Carson River at Silver King Valley, near Markleeville	—	1947–51
10336593	Grass Lake Creek near Meyers	6.99	1971–74
10336600	Upper Truckee River near Meyers	33.1	1961–86
10336625	Fallen Leaf Lake near Camp Richardson	16.7	1968–92
10336626	Taylor Creek near Camp Richardson	16.7	1968–92
10336686	Carnelian Creek at Carnelian Bay	2.93	1999–2000
10336759	Edgewood Creek near Stateline, NV	320	1983–87
10338100	Summit Creek above Donner Lake, near Truckee	4.96	1997–98
10339419	Truckee River above Prosser Creek, near Truckee	644	1994–98
10341950	Little Truckee River below diversion dam, near Sierraville	36.1	1993–98
10342000	Little Truckee River near Hobart Mills	37.1	1947–72
10343200	Little Truckee River at Highway 89, near Truckee	59.0	1993–94
10345700	Bronco Creek at Floriston	15.4	1993–98
11185000	Grayson Creek near Hookston	1.96	1955–60
11185100	Grayson Creek near Pacheco	4.35	1954–58
11185300	Golden Trout Creek near Cartago	23.6	1957–67, 1969
11185350	Kern River near Quaking Aspen Camp	530	1961–71, 1973–74
11185400	Little Kern River near Quaking Aspen Camp	132	1957–69
11185600	Packsaddle Canyon Creek near Fairview	4.05	1960–66
11186340	Salmon Creek Tributary B near Fairview	.46	1963–69
11186360	Salmon Creek Tributary C near Fairview	.30	1963–69
11186380	Salmon Creek Tributary E near Fairview	.23	1963–69
11186500	Salmon Creek near Kernville	25.8	1922–23
11187000	Kern River at Kernville	1,009	1905–12, 1953–93
11188000	Kern River at Isabella	1,068	1911, 1926–35
11188200	South Fork Kern River near Olancha	146	1956–67, 1969
11189700	Kelso Creek near Weldon	101	1958–66
11190000	South Fork Kern River at Isabella	982	1929–52
11191000	Kern River below Isabella Dam	2,074	1945–90
11193000	Kern River below Kern Canyon Powerhouse, near Bakersfield	2,307	1954–64
11194000	Kern River near Bakersfield	2,407	1894–1976
11194200	Wagon Wheel Creek near Reward	1.38	1966–71
11195500	San Emigdio Creek at San Emigdio Ranchhouse	48.8	1959–81
11195600	Pastoria Creek near Lebec	27.5	1965–71
11196000	Tejon Creek at Tejon Ranchhouse	48.7	1895–96
11196400	Caliente Creek above Tehachapi Creek, near Caliente	165	1962–83
11196420	Tehachapi Creek near Tehachapi	53.2	1963–85
11197250	Avenal Creek near Avenal	57.1	1962–86
11197800	Poso Creek near Oildale	230	1959–85
11199000	White River near Ornia Hot Springs	14.0	1911–13
11200000	Deer Creek at California Hot Springs	16.8	1911–15, 1917–34
11201200	Deer Creek Diversion near Terra Bella	—	1971–87
11201500	Pacific Gas & Electric Co. Conduit near Springville	—	1940–54, 1966–67, 1969–71, 1976–83
11201800	North Fork of Middle Fork Tule River below Hossack Creek, near Springville	33.8	1909–13
11202750	Middle Fork Tule River above Springville	92.4	1979–88
11203000	Bear Creek near Springville	13.5	1911–16
11203100	North Fork Tule River at Springville	97.6	1957–67
11203190	Tule River Diversion Ditch near Springville	—	1968–88
11203200	Tule River near Springville	247	1958–68
11203220	Tule River at Highway 190, near Springville	247	1968–90
11203500	Tule River near Porterville	253	1902–60
11204000	South Fork Tule River near Porterville	80.3	1911–23, 1925, 1928–32
11204500	South Fork Tule River near Success	109	1930–54, 1956–90
11204680	Pioneer Ditch below Success Dam	—	1959–90
11204900	Tule River below Success Dam	393	1953–90
11205000	Tule River at Worth Bridge, near Porterville	395	1954–60
11205680	Frazier Creek near Strathmore	3.05	1974–94
11208500	Middle Fork Kaweah River Tributary near Hammond	1.90	1967–70, 1972–73
11208610	Monarch Creek near Hammond	1.89	1968–73
11208620	East Fork Kaweah River below Mosquito Creek, near Hammond	16.0	1968–73

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11208625	East Fork Kaweah River at Sequoia National Park boundary, near Hammond	23.7	1968–71
11209500	North Fork Kaweah River near Three Rivers	129	1911–60, 1980–81
11209900	Kaweah River at Three Rivers	418	1959–90
11210000	South Fork Kaweah River near Three Rivers	66.5	1912–24
11210100	South Fork Kaweah River at Three Rivers	86.7	1959–90
11210500	Kaweah River near Three Rivers	519	1904–18, 1921–61
11210850	Lemoncove Ditch below Terminus Dam	—	1962–90
11210930	Foothill Ditch below Terminus Dam	—	1962–90
11210950	Kaweah River below Terminus Dam	561	1962–90
11211300	Dry Creek near Lemoncove	75.6	1960–94
11211500	Kaweah River at McKay Point, near Lemoncove	647	1919–21
11211785	Cottonwood Creek above Collier Creek, near Elderwood	52.3	1985–94
11211790	Cottonwood Creek near Elderwood	60.4	1971–85
11212000	Sand Creek near Orange Cove	31.6	1944–54, 1956, 1967, 1969, 1971–84, 1985–94
11212500	South Fork Kings River near Cedar Grove	408	1951–57
11213000	Kings River near Hume	835	1922–36, 1952–58
11213500	Kings River above North Fork, near Trimmer	952	1927–28, 1932–82
11214000	North Fork Kings River below Meadowbrook	37.7	1922–35, 1957–81
11214200	Fleming Creek near Blackcap Mountain	15.0	1957–65
11214400	Post Corral Creek near Blackcap Mountain	27.9	1957–65
11214500	Helms Creek at Sand Meadows	34.7	1923–31, 1956–58
11215500	Rancheria Creek near Smith Meadows	21.3	1925–31
11215800	Teakettle Creek Tributary No. 3 near Dinkey Creek	.86	1958–69, 1977–83
11215810	Teakettle Creek Tributary No. 7 near Patterson Mountain	.11	1958–63
11215820	Teakettle Creek Tributary No. 2 near Dinkey Creek	.85	1958–69, 1977–83
11215830	Teakettle Creek Tributary No. 2a near Dinkey Creek	.27	1958–69, 1977–83
11215840	Teakettle Creek Tributary No. 1 near Dinkey Creek	.77	1958–69, 1977–83
11216000	North Fork Kings River below Rancheria Creek	229	1927–50
11216800	Rock Creek at Dinkey Creek	7.60	1961–70
11217000	Dinkey Creek at Dinkey Meadow, near Shaver Lake	50.7	1922–35, 1977–87
11217500	Deer Creek below east Fork, near Shaver Lake	19.0	1924–31
11218000	Dinkey Creek at mouth, near Trimmer	132	1920–37
11218500	Kings River below North Fork, near Trimmer	1,342	1951–93
11219000	Big Creek near Tollhouse	19.8	1911–13
11220000	Big Creek above Pine Flat Lake, near Trimmer	70.0	1954–73
11220500	Sycamore Creek above Pine Flat Lake, near Trimmer	56.1	1953–73
11221500	Kings River below Pine Flat Dam	1,545	1954–90
11221700	Mill Creek near Piedra	127	1958–94
11222000	Kings River at Piedra	1,693	1896–1959
11225000	Los Gatos Creek near Coalinga	105	1932–41
11226000	North Fork San Joaquin River below Iron Creek	35.5	1922–28, 1959–69
11226500	San Joaquin River at Miller Crossing	249	1921–28, 1951–91
11227000	West Fork Granite Creek near Timber Knob	26.4	1922–25
11227500	Middle Fork Granite Creek near Cattle Mountain	2.25	1922–23
11228000	East Fork Granite Creek near Cattle Mountain	14.6	1922–25
11228500	Granite Creek near Cattle Mountain	47.8	1922–28, 1966–86
11230000	South Fork San Joaquin River near Florence Lake	171	1922–81, 1984
11230560	Chinquapin Creek below diversion dam, near Big Creek	1.65	1986–98
11230600	Camp 62 Creek below diversion dam, near Big Creek	1.97	1986–98
11230650	Bolsillo Creek above diversion dam, near Big Creek	1.3	1986
11232000	South Fork San Joaquin River near Hoffman Meadow	424	1922–28
11232500	Jackass Creek near Bass Lake	12.1	1922–28, 1961–68
11234500	Chiquito Creek near Bass Lake	60.1	1922–28, 1956–70
11235000	San Joaquin River above Big Creek	1,050	1913–15, 1922–62
11236080	Huntington–Shaver Conduit at Huntington Lake	—	1975–83
11238000	Pitman Creek at Big Creek	23.7	1910–16, 1922–27
11239000	Huntington–Shaver Conduit near Shaver Lake	—	1929–85
11242350	Soquel diversion near Sugar Pine	—	1970–77
11243300	Brown's Creek Canal at Bass Lake	—	1987–98
11245000	South Fork Willow Creek near North Fork	39.8	1910–17
11245500	Whiskey Creek near North Fork	11.6	1911–16
11246000	Cascadel Creek near North Fork	3.31	1910–12
11247000	San Joaquin River below Kerckhoff Powerhouse, near Prather	1,480	1910–14, 1937, 1943–82, 1988–89
11247200	Big Sandy Creek Tributary near Tollhouse	.46	1969–71

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11247500	Big Sandy Creek near Auberry	27.3	1947–51
11248000	Fine Gold Creek near Friant	92.7	1937–58
11250500	Cottonwood Creek near Friant	35.6	1942–51
11251500	Little Dry Creek near Friant	57.9	1942–56
11251600	Little Dry Creek at mouth, near Friant	77.4	1957–61
11252500	San Joaquin River at Herndon	1,802	1895–1901
11253000	San Joaquin River near Biola	1,811	1953–61
11255500	Panoche Creek below Silver Creek, near Panoche	293	1950–53, 1959–70
11255550	Little Panoche Creek Tributary No. 1, near Panoche	.33	1959–64
11256000	San Joaquin River near Dos Palos	4,669	1941–54
11257100	Miami Creek near Oakhurst	10.6	1961–80
11257500	Fresno River near Knowles	133	1911–13, 1915–90
11257700	Picayune Creek near Coarsegold	8.17	1965–68
11258000	Fresno River below Hidden Dam, near Daulton	237	1942–90
11258800	East Fork Chowchilla River near Ahwahnee	57.8	1958–67
11258900	West Fork Chowchilla River near Mariposa	33.6	1958–80
11258920	North Fork Chowchilla River near Nippinnawassee	13.6	1959–67
11258960	Chowchilla River above Willow Creek, near Raymond	173	1980–90
11258980	Chowchilla River near Raymond	201	1972–80
11259000	Chowchilla River below Buchanan Dam, near Raymond	236	1922–23, 1931–72, 1976–90
11259300	Chowchilla River below Raynor Creek, near Raymond	254	1973–75
11259900	Chamberlain Slough near El Nido	—	1940–49
11260000	San Joaquin River above Sand Slough, near El Nido	6,447	1940–49
11260000	San Joaquin River near El Nido	6,443	1940–49
11260001	San Joaquin River plus Chamberlain Slough, near El Nido	6,450	1940–49
11260200	Bear Creek near Catheys Valley	24.9	1958–69
11260225	Burns Creek at Hornitos	26.7	1965–69
11260480	Mariposa Creek near Catheys Valley	65.7	1959–80
11261000	Salt Slough near Los Banos	—	1941–68
11261500	San Joaquin River at Fremont Ford Bridge	7,615	1937–70, 1986–89
11262800	Los Banos Creek near Los Banos	159	1959–66
11262890	San Luis Drain, Site A, near South Dos Palos	—	1999
11263000	San Luis Creek near Los Banos	84.6	1950–63
11265000	Tenaya Creek near Yosemite	46.9	1912–58
11265500	Merced River at Yosemite	236	1912–17
11266000	Yosemite Creek at Yosemite	42.7	1912–16, 1918
11267300	South Fork Merced River at Wawona	100	1959–68
11267500	South Fork Merced River near Wawona	132	1912, 1914–15, 1918–21
11268000	South Fork Merced River near El Portal	241	1951–75
11268200	Merced River near Briceburg	691	1966–74
11268500	Merced River at Bagby	911	1923–30, 1932–66
11269300	Maxwell Creek at Coulterville	17	1960–74, 1976–80
11270000	Merced River at Exchequer	1,037	1901–14, 1916–64
11270800	Northside Canal at Merced Falls	—	1987–94
11271320	Dry Creek near Snelling	67.6	1966–92
11271500	Merced River near Livingston	1,259	1922–24, 1926–44
11272500	Merced River near Stevinson	1,273	1941–95
11273000	Merced River Slough near Newman	1,276	1942–72
11274554	Spanish Grant Combined Drain near Patterson	—	1993–95
11274600	Del Puerto Creek Tributary No. 1 near Patterson	.71	1964–69
11274610	Del Puerto Creek Tributary No. 2 near Patterson	.024	1959–63
11274710	Maclure Creek below Maclure Glacier, near Tuolumne Meadows	.37	1967–72
11274800	Tuolumne River at Hetch Hetchy Cabin, near Sequoia	404	1911–16
11275000	Falls Creek near Hetch Hetchy	46	1916–83
11277000	Cherry Creek near Hetch Hetchy	111	1910–55
11277100	Lake Eleanor Diversion Tunnel to Cherry Lake, near Hetch Hetchy	—	1996, 1997–99
11278200	Cherry Creek Canal near Early Intake	—	1956–71, 1987–96
11278500	Jawbone Creek near Tuolumne	19.1	1911
11279500	South Fork Toulumne River at Italian Flat, near Sequoia	64.9	1925–30, 1932–33
11280000	South Fork Tuolumne River near Sequoia	68.3	1914–17
11281500	Middle Tuolumne River near Mather	52.4	1925–29, 1932–33
11282500	South Fork Tuolumne River near Buck Meadows	164	1912, 1914, 1917–21
11283000	Tuolumne River near Buck Meadows	924	1908, 1911–36
11283100	Lily Creek near Pinecrest	11.9	1964–74
11283200	Bell Creek near Pinecrest	9.11	1964–79

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11283250	Clavey River near Long Barn	48.9	1987–94
11283350	Reed Creek near Long Barn	27.2	1987–94
11283500	Clavey River near Buck Meadows	144	1960–84, 1987–94
11284500	Big Creek near Groveland	25	1932–33, 1960–74
11284700	North Fork Tuolumne River near Long Barn	23.1	1962–86
11285000	North Fork Tuolumne River above Dyer Creek, near Tuolumne	69.2	1959–66
11286500	Woods Creek near Jacksonville	97.2	1926–68
11288000	Tuolumne River above La Grange Dam, near La Grange	1,532	1896–1970
11288500	Tuolumne River at La Grange	1,539	1896–1911
11291500	Relief Creek near Baker Station	24.4	1911–18
11292500	Clark Fork Stanislaus River near Dardanelle	67.5	1951–94
11292680	Cascade Creek near Pinecrest	4.97	1963–65
11293000	Middle Fork Stanislaus River at Sand Bar Flat, near Avery	325	1906–66
11293500	North Fork Stanislaus River below Silver Creek	27.8	1953–88
11293650	North Fork Stanislaus River at Camp Wolfesboro, near Big Meadows	47.4	1994–96
11293700	Hobart Creek at North Fork Stanislaus River Diversion Tunnel Outlet, near New Spicer Meadow Dam	1.13	1989–94
11294300	North Fork Stanislaus River below Ganns Dam Site, near Big Meadow	111	1961–67
11294400	North Fork Stanislaus River at Sourgrass Campground, near Dorrington	149	1991–96
11295000	Utica Canal near Avery	—	1970, 1976–89
11295400	Stanislaus River near Hathaway Pines	629	1967–94
11299500	Stanislaus River below Melones Powerhouse, near Sonora	905	1931–67
11300000	Stanislaus River near Knights Ferry	980	1916–33
11300600	South San Joaquin Main Canal below diversion point, near Knights Ferry	—	1983–89
11300700	South San Joaquin Main Canal below Woodward Reservoir, near Oakdale	—	1982–89
11300800	North Main Canal below diversion point, near Knights Ferry	—	1983–89
11304000	Corral Hollow Creek near Tracy	61.6	1959–66
11305000	San Domingo Creek near San Andreas	26.2	1950–62
11305500	San Antonio Creek near San Andreas	48.0	1950–59
11306000	South Fork Calaveras River near San Andreas	118	1950–79
11306500	Calaveritas Creek near San Andreas	53	1950–66
11307000	Esperanza Creek near Mokelumne Hill	16.6	1952–59, 1962–71
11307500	Jesus Maria Creek near Mokelumne Hill	34.6	1950–59
11308000	North Fork Calaveras River near San Andreas	85.2	1950–79
11308300	Eldorado Creek at Mountain Ranch	1.97	1963–73
11308500	Murray Creek near San Andreas	23.6	1950–59
11308900	Calaveras River below New Hogan Dam, near Valley Springs	363	1961–90
11309000	Cosgrove Creek near Valley Springs	21.6	1930–69
11309500	Calaveras River at Jenny Lind	393	1907–66
11310500	Calaveras River near Stockton	—	1926, 1944–50
11311000	Stockton Diverting Canal at Stockton	—	1944–53
11311500	Bear Creek near Clements	42.2	1927
11312000	Bear Creek near Lockeford	47.4	1931–85
11312500	Bear Creek at Harmony School, near Lockeford	51.1	1927–31
11315500	Bear River at Pardoe Camp	33	1928–51
11316000	Bear River near Salt Springs Dam	48	1952–87
11316500	North Fork Mokelumne River near West Point	273	1924–32
11317500	South Fork Mokelumne River near Railroad Flat	38.7	1912–34
11318000	Licking Fork Mokelumne River near Railroad Flat	6.32	1912–13, 1915–16
11321000	Mokelumne River at Lancha Plana	587	1926–63
11321500	Camanche Creek near Camanche	5.19	1933–34
11322000	Rabbit Creek near Camanche	8.55	1932–34
11326300	Dry Creek above Sutter Creek, near Ione	70.9	1960–70
11326500	Sutter Creek near Volcano	29.8	1924–27
11327000	Sutter Creek near Sutter Creek	48.1	1936–41, 1961–80
11327500	Sutter Creek at Sutter Creek	50.7	1922–36
11328000	Dry Creek near Ione	266	1912, 1926–32
11329000	Goose Creek near Elliott	8.26	1928–33
11329500	Dry Creek near Galt	324	1927–33, 1945–87, 1996–98
11330000	North Fork Cosumnes River at Cosumnes Mine	38.7	1949–53
11331000	Camp Creek near Sly Park	8.59	1924
11331500	Camp Creek near Camino	32.4	1949–56
11332500	Sly Park Creek near Pollock Pines	18.2	1947–55
11333500	North Fork Cosumnes River near El Dorado	205	1884, 1912–41, 1949–83, 1985–87
11334200	Middle Fork Cosumnes River near Somerset	107	1958–71

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11334300	South Fork Cosumnes River near River Pines	64.3	1958–80
11334500	Cosumnes River near Plymouth	436	1952–60
11335700	Deer Creek near Sloughhouse	46	1961–66, 1968–77
11336000	Cosumnes River at McConnel	724	1942–82
11336500	Hadselville Creek at Clay	18.1	1931
11337500	Marsh Creek near Byron	42.6	1953–83

DISCONTINUED LAKES AND RESERVOIRS

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

Station No.	Station name	Drainage area (mi^2)	Period of record
10336625	Fallen Leaf Lake near Camp Richardson	16.7	1968–92
10339380	Martis Creek Lake near Truckee	39.6	1972–90
11190500	Isabella Lake near Lake Isabella	2,074	1954–90
11197000	Tulare Lake in Kings County	—	1969–82
11204700	Success Lake near Success	391	1962–90
11210900	Lake Kaweah near Lemoncove	560	1962–90
11221000	Pine Flat Lake near Piedra	1,545	1952–90
11257950	Hensley Lake near Daulton	236	1976–90
11258990	H.V. Eastman Lake near Raymond	235	1976–90
11308700	New Hogan Lake near Valley Springs	362	1964–90
11320000	Pardee Reservoir near Valley Springs	578	1962–93
11322300	Camanche Reservoir near Clements	621	1964–93

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS

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

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
10336593	Grass Lake Creek near Meyers	6.99	T,S	1972–74
10336610	Upper Truckee River at South Lake Tahoe	54.9	C,T,S	1972–74, 1978, 1980–92
10336630	Eagle Creek near Camp Richardson	6.38	T,S	1972–74
10336640	Meeks Creek at Meeks Bay	8.08	T,S	1971–74
10336645	General Creek near Meeks Bay	7.44	C,T,S	1981–92
10336650	Quail Lake Creek at Homewood	.95	T,S	1972–74
10336655	Madden Creek near Homewood	1.40	T,S	1972–74
10336658	Madden Creek at Homewood	2.06	T,S	1972–73
10336670	Ward Creek near Tahoe Pines	2.03	T,S	1973–76
10336672	Ward Creek Tributary near Tahoe Pines	.91	T,S	1973–76
10336684	Dollar Creek near Tahoe City	1.07	T,S	1972–74
10336689	Snow Creek at Tahoe Vista	4.43	C,T,S	1981–85
10336740	Logan House Creek near Glenbrook, NV	2.08	S	1984–87
10336759	Edgewood Creek near Stateline, NV	3.20	S	1983–87
10336780	Trout Creek near Tahoe Valley	36.7	C,T,S	1971–74, 1978, 1980–85, 1987–88
10337000	Lake Tahoe at Tahoe City	506	WQ	1969, 1978–79
10337500	Truckee River at Tahoe City	507	WQ,T	1978–81, 1993–94
10338000	Truckee River near Truckee	553	WQ,C,T	1951–66, 1977–94
10338700	Donner Creek at Highway 89, near Truckee	29.1	T	1993–94
10339250	Martis Creek at State Highway 267, near Truckee	25.8	WQ,T,S	1975–95
10339380	Martis Creek Lake near Truckee	39.6	WQ,S	1975–95
10339400	Martis Creek near Truckee	—	WQ,S	1975–95
10339419	Truckee River above Prosser Creek, near Truckee	644	C,T	1994–98
10340500	Prosser Creek below Prosser Creek Dam, near Truckee	52.9	T	1993–98
10341950	Little Truckee River below Diversion Dam, near Sierraville	36.1	T	1993–94
10343200	Little Truckee River at Highway 89, near Truckee	59.0	T	1993–94

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
10343500	Sagehen Creek near Truckee	10.5	WQ,T,S	1968–75, 1981–96
10344500	Little Truckee River below Boca Dam, near Truckee	173	T	1993–98
10346000	Truckee River at Farad	932	WQ,B,C, T,S	1951–61, 1964–81, 1993–98
10345700	Bronco Creek at Floriston	15.4	T	1993–94
10345900	Truckee River at Floriston	932	T	1968–71
10346000	Truckee River at Farad	932	WQ,B,S	1951–61, 1964–81
11185350	Kern River near Quaking Aspen Camp	530	T	1966–74
11187000	Kern River at Kernville	1,009	WQ,B,T,S	1962–93
11191000	Kern River below Isabella Dam	2,074	WQ,T	1956–66, 1971–94
11204900	Tule River below Success Dam	393	WQ,T	1962–69, 1971–94
11206500	Middle Fork Kaweah River near Potwisha Camp	102	WQ,C,T	1958–63, 1972, 1980–81
11208000	Marble Fork Kaweah River at Potwisha Camp	51.4	WQ,C,T	1980–81
11208610	Monarch Creek near Hammond	1.89	T	1969–73
11208620	East Fork Kaweah River below Mosquito Creek, near Hammond	16.0	T	1968–73
11208625	East Fork Kaweah River at Sequoia National Park boundary, near Hammond	23.7	T	1968–71
11208730	East Fork Kaweah River near Three Rivers	85.8	WQ,T,S	1968–76
11209500	North Fork Kaweah River near Three Rivers	129	T	1980–81
11209900	Kaweah River at Three Rivers	418	T	1966, 1968–88
11210950	Kaweah River below Terminus Dam	561	WQ,T	1962–94
11213500	Kings River above North Fork, near Trimmer	952	T	1966–79
11216500	North Fork Kings River above Dinkey Creek, at Balch Camp	250	T	1968–79
11218500	Kings River below North Fork, near Trimmer	1,342	WQ,B,T,S	1956–93
11221500	Kings River below Pine Flat Dam	1,545	WQ,T	1956–66, 1970–94
11230000	South Fork San Joaquin River near Florence Lake	171	T	1961
11235000	San Joaquin River above Big Creek	1050	T	1961–62
11237000	Big Creek below Huntington Lake	81.1	T	1961–70
11245000	South Fork Willow Creek near North Fork	39.8	T	1961
11246500	Willow Creek at mouth, near Auberry	130	T	1961–72
11247000	San Joaquin River below Kerckhoff Powerhouse, near Prather	1,480	T	1961–68, 1970–74
11253500	James Bypass near San Joaquin	—	T	1969–71
11257500	Fresno River near Knowles	133	T	1971–88
11258000	Fresno River below Hidden Dam, near Daulton	237	T	1976–90
11258960	Chowchilla River above Willow Creek, near Raymond	173	T	1980–88
11258980	Chowchilla River near Raymond	201	T	1971–80
11259000	Chowchilla River below Buchanan Dam, near Raymond	236	WQ,T	1958–65, 1976–94
11260815	San Joaquin River near Stevinson	7,388	C,T	1989–96
11261100	Salt Slough at Highway 165, near Stevinson	—	WQ,S	1983–88, 1993–94
11262890	San Luis, Site A, near South Dos Palos	—	C,T	1999
11262900	Mud Slough near Gustine	—	WQ,S	1985–94, 1999
11264500	Merced River at Happy Isles Bridge, near Yosemite	181	WQ,B,T,S	1966–96
11266500	Merced River at Pohono Bridge, near Yosemite	321	WQ,T,S	1971–72, 1981–82, 1994, 1995
11268000	South Fork Merced River near El Portal	241	T	1975–78
11268200	Merced River near Briceburg	691	T	1976–77
11272500	Merced River near Stevinson	1,273	C,T	1989–92
11274000	San Joaquin River near Newman	9,520	WQ,C,T,S	1989, 1992–95
11274554	Spanish Grant Combined Drain near Patterson	—	WQ,C,T,S	1993–95
11274560	Turlock Irrigation District Lateral No. 5 near Crows Landing	—	C,T,S	1992–95, 1999
11274570	San Joaquin River at Patterson Bridge, near Patterson	9,760	C,T,S	1989–95
11283100	Lily Creek near Pinecrest	11.9	T	1965–74
11290000	Tuolumne River at Modesto	1,884	WQ,C,T,S	1989–95
11292700	Middle Fork Stanislaus River at Hells Half Acre Bridge, near Pinecrest	287	T	1966–71, 1973–78
11294500	North Fork Stanislaus River near Avery	163	T	1990–98
11295400	Stanislaus River near Hathaway Pines	629	T	1970–83
11303000	Stanislaus River at Ripon	1,075	WQ,S	1985–88, 1994
11303500	San Joaquin River near Vernalis	13,536	B	1974–81
11306000	South Fork Calaveras River near San Andreas	118	T	1974–79
11308000	North Fork Calaveras River near San Andreas	85.2	T	1974–79
11308600	Calaveras River above New Hogan Reservoir, near San Andreas	307	T	1970–82, 1984–88
11308900	Calaveras River below New Hogan Dam, near Valley Springs	363	WQ,T	1964–66, 1971–94
11312000	Bear Creek near Lockeford	47.4	C	1976
11313010	Delta–Mendota Canal below Tracy Pump Plant, near Tracy	—	T	1960–66
11319500	Mokelumne River near Mokelumne Hill	544	WQ,T	1961–80

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11323500	Mokelumne River below Camanche Dam	621	WQ,T,S	1906–07, 1956–76
11325500	Mokelumne River at Woodbridge	661	WQ,C,T,S	1951–94
11335000	Cosumnes River at Michigan Bar	536	WQ,T,S	1953–80

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2000
VOLUME 3—SOUTHERN CENTRAL VALLEY BASINS AND THE GREAT BASIN FROM WALKER RIVER TO TRUCKEE RIVER

By S.W. Anderson, J.R. Smithson, L.A. Freeman, *and* G.L. Rockwell

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and Federal agencies, obtains a large amount of data pertaining to the water resources of California each water year. These data, accumulated during many water years, constitute a valuable database for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled "Water Resources Data—California."

This volume of the report includes records on surface water in the State. Specifically, it contains: (1) discharge records for 175 streamflow-gaging stations and 2 partial-record stations; (2) stage and content records for 44 lakes and reservoirs; and (3) water-quality records for 31 streamflow-gaging stations. Records included for stream stages are only a small fraction of those obtained during the water year.

The series of annual reports for California began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format changed to include data on quantities of surface water, quality of surface and ground water, and ground-water levels. From the 1985 through the 1993 water years, a separate volume for ground-water levels and quality was published for California.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for California were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10 and 11." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." These Water-Supply Papers may be consulted in public libraries of principal cities of the United States, or if not out of print, they may be purchased from U.S. Geological Survey, Information Services, Box 25286, Denver Federal Center, Denver, CO 80225-0046.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. Each report has an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-00-3." For archiving and general distribution, the reports for 1971–74 water years also are identified as water-data reports. These water-data reports are for sale, in paper copy or on microfiche, by the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. For further ordering information, the Customer Inquiries telephone number is (703) 487-4650, between 8:30 a.m. and 5:30 p.m. Eastern Standard Time.

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

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, Thomas M. Hannigan, Director.

California State Water Resources Control Board, Winston H. Hickox, Secretary for Environmental Protection.

California Tahoe Conservancy, Dennis T. Machida, Executive Officer.

East Bay Municipal Utility District, Michael J. Wallis, Director of Operations and Maintenance.

Madera Irrigation District, Stephen H. Ottemoeller, General Manager.

Sacramento County Department of Public Works, Warren H. Harada, Administrator.

San Luis and Delta–Mendota Water Authority, Daniel G. Nelson, Executive Director.

San Francisco, city and county, Hetch-Hetchy Water and Power, Lawrence T. Klein, General Manager.

Tulare County Resource Management Agency, Douglas Wilson, Director.

Turlock Irrigation District, Chris L. Kiriakou, Assistant General Manager–Energy Resources.

Woodbridge Irrigation District, Anders Christensen, Manager.

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

The following organizations aided in collecting records: Calaveras County Water District, Olcese Water District, Pacific Gas & Electric Co., Southern California Edison Co., Merced and Oakdale–South San Joaquin Irrigation Districts, Northern California Power Agency, and Utica Power Authority.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins—the Mississippi, the Columbia, the Colorado, and the Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to accomplish the following objectives: (1) provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites; (2) provide the mechanism to evaluate the effectiveness of the significant reduction in SO_2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred; (3) provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO_2 and NO_x scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostate.edu/NADP

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

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 2000 water year that began October 1, 1999, and ended September 30, 2000. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and contents data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station-Identification Numbers

Each streamsite data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream-order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations in California where only miscellaneous measurements are made.

Downstream-Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports has been 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 first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 11238600, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "238600." The part number designates the major river basin; for example, part "11" is the Pacific Slope Basins in California.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description (fig. 1).

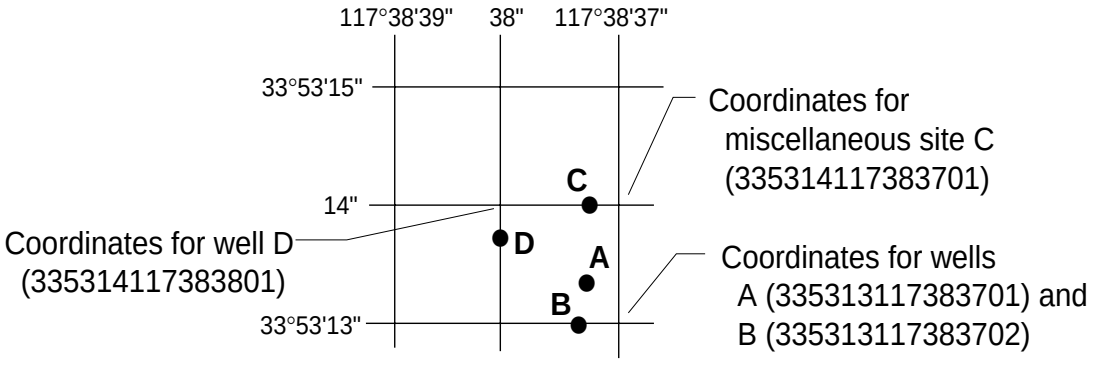

Figure 1. System for numbering miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake and reservoir contents, similarly, are those for which stage or contents may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-Stage Partial Records" or "Low-Flow Partial Records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown, by county, in figures 2 through 21.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relation between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relation between stage and lake contents. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with digital recorders, data-collection platforms, or data loggers that sample stage values at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in U.S. Geological Survey Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapters A1 through A19, and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge are prepared for any stage within the range of the measurements. If it is necessary to define extremes of discharge outside the range of current-meter measurements, the curves are extended using (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dam or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes or observations, and records for other stations in the same or nearby basins for comparable periods.

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 gaging stations, acoustic-velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross-section area. Discharge is computed by multiplying path velocity by the appropriate stage-related coefficient and area.

In computing records of lake or reservoir contents, it is necessary to have available surveys, curves, or tables defining the relation of stage and contents. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. When this is done, the contents computed may become increasingly in error as time increases since the last survey. Discharges over lake or reservoir spillways are computed from stage-discharge relations in the same manner as other stream discharges are computed.

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 from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison

with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following records, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments follow to clarify information presented under the various headings of the station description.

LOCATION.—Information on locations is obtained from the most accurate maps available. The location of the gaging station is given with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council, or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.—This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time when the present station was not, and whose location was such that records from it reasonably can be considered equivalent with records from the present station.

REVISED RECORDS.—Published records, because of new information, occasionally are incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report is given in which the most recently revised figure was published.

GAGE.—The type of gage currently in use, the datum of the current gage referred to sea level (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.—All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and possibly to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified.

EXTREMES FOR PERIOD OF RECORD.—Extremes may include maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.—Included is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.—Extremes given are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year that are greater than a selected base discharge are presented under this heading. The peaks greater than the base

discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

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

Occasionally the records of a discontinued gaging station may need revision. Because for these stations there would be no current or, possible, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office to determine if the published records were revised after the station was discontinued. If the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream-gaging stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments follow to clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.—The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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

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

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

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

INSTANTANEOUS PEAK FLOW.—The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.—The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

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

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

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

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

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

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements generally are made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing the table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage and discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second (ft^3/s) for values less than 1 ft^3/s, to the nearest tenth between 1.0 and 10 ft^3/s, to whole numbers between 10 and 1,000 ft^3/s, and to three significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges 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, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the measured discharge.

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 20192, maintains an index of sites as well as an index of records of discharge collected by other agencies but not published by the U.S. Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge measurement notes, gage-height records, temperature measurements, and rating tables are on file in the District Office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District Office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve various types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape or stored electronically in a data logger. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 2 through 21.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is the assurance that the data obtained represent the insitu quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, are made onsite when samples are taken. To assure that measurements made in the laboratory also represent the insitu water, carefully prescribed procedures are followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in "Techniques of Water-Resources Investigations," Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. All these references are listed in the section "Publications on Techniques of Water-Resources Investigations." Also, detailed information on collecting, treating, and shipping samples may be obtained from the District Office.

One sample can adequately define 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. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values for each constituent measured and are based on 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.

Historical and current (2000) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter (ng/L). If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter (µg/L) and could reflect contamination introduced during some phase of the procedure.

Water Temperature

Water temperatures are measured at 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 diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District Office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may 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 those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations measured immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with the ASTM standards and generally follow ISO standards.

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 observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of suspended sediment, bed material, and bed load are included for some stations.

Estimates of bed-load and total-sediment discharge are included for some stations. Computations of monthly bed-load discharges are based on the relation between instantaneous water discharge and corresponding bed-load discharge for the station. Values of bed-load discharge used in defining this relation are based on samples obtained by use of the Helley-Smith or BL 84 bed-load samplers or by modified-Einstein or Meyer-Peter Muller computation procedures. Application of the bed-load-transport relation at a station was made on a daily basis or subdivided-day basis. The bed-load samplers are designed to collect time-weighted samples for the sediment moving within 0.25 ft of the streambed. Sediment moving in this portion of the flow cannot be sampled with standard suspended-sediment samplers. Calibration of the bed-load samplers has not been completed, and a trap efficiency of 1.0 has been assumed applicable to these devices. 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 bed-load discharge must be used with caution. They are estimates, at best, and are subject to revision.

Cross-Sectional Data

Cross-sectional surveys of water temperature, pH, specific conductance, dissolved oxygen, and suspended sediment are done at all NASQAN, NAWQA, and Hydrologic Benchmark Stations during various seasons and surface-water discharges. Documentation of cross-section variation of water quality is essential in order to determine how many samples in a cross section are necessary to ensure a representative composite sample.

Laboratory Measurements

Sediment samples, biochemical-oxygen-demand (BOD) samples, indicator-bacteria samples, and daily specific-conductance samples are analyzed locally. All other samples are analyzed in the U.S. Geological Survey's National Water-Quality Laboratory in Arvada, Colorado. Methods used to analyze sediment samples and to compute sediment records are described in the Techniques of Water-Resources Investigations, Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental-sample data cannot be interpreted adequately because the errors associated with the sample data are unknown. The various types of QC samples collected by this

District are described in the following section. Procedures have been established for the storage of water quality-control data within the U. S. Geological Survey. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

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

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

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

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

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

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

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

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

Reference Samples

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

Replicate Samples

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

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

Split sample is a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

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

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and other data obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.—See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.—This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the individual parameters.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor, temperature recorder, sediment-pumping sampler, or other sampling device is in operation at a station.

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

COOPERATION.—Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—If errors in water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, National Water Information System (NWIS), and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

ACCESS TO USGS WATER DATA

The U.S. Geological Survey provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at

http://water.usgs.gov.

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of additional data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices. (See address on the back of the title page.)

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DEFINITION OF TERMS

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

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

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, 325,851 gallons, or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

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

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

Annual runoff is the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inch (IN., in.) as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it.

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

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, while others perform an essential role in nature in the recycling of materials; for example, by 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. This group includes coliforms that inhabit the intestines of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35°C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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. In the laboratory, they are defined as all the organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°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 the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41°C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants.

Escherichia coli (E. coli) are bacteria present in the intestine and feces of warm-blooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5˚C on mTEC medium. Their concentrations are expressed as number of colonies per 100 mL of sample.

Base flow is flow in a channel sustained by ground-water discharge in the absence of direct runoff.

Bed load is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

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

Benthic organisms (invertebrates) are the group of animals inhabiting 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. They are useful as indicators of water quality.

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. Ash mass of zooplankton and phytoplankton is 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 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass is 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. 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.

Biomass pigment ratio is an indicator of the total proportion of periphyton which are autotrophic (plants). This is also called the Autotrophic Index.

Bottom material: See Bed material.

Cells/volume (cells per volume) refers to the number of plankton cells or natural units counted using a microscope and grid or counting cell. Results are generally reported as cells or units per milliliter.

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell numbers of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements on cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere} \quad 4/3\ \pi r^3 \qquad \text{cone} \quad 1/3\ \pi r^3 h \qquad \text{cylinder} \quad \pi r^3 h.$$

From cell volume, total algal biomass expressed as biovolume ($\mu m^3/mL$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

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 BOD 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 green pigments in plants.

Colloid is any substance with particles in such a fine state of subdivision dispersed in a medium (for example, water) that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site that meets either of the following conditions:

1. Stage or streamflow are recorded at some interval on a continuous basis. The recording interval is usually 15 minutes, but may be less or more frequent.

2. Water-quality, sediment, or other hydrologic measurements are recorded at least daily.

Control designates a feature in the channel downstream from a gaging station that physically influences the water-surface elevation and thereby determines the stage-discharge relation at the station. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, 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 saltwater.

Cubic foot per second (CFS, cfs, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Cubic foot per second per day (CFS-DAY, cfs-day, cfs/d, or [(ft^3/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, 646,317 gallons, or 2,447 cubic meters.

Daily record is a summary of streamflow, sediment, or water-quality values computed from data collected with sufficient frequency to obtain reliable estimates of daily mean values.

Daily record station is a site for which daily records of streamflow, sediment, or water-quality values are computed.

Datum, as used in this report, is an elevation above mean sea level to which all gage height readings are referenced.

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the volume of water (or more broadly, volume of fluid including solid- and dissolved-phase material), that passes a given point in a given period of time.

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

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

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

Dissolved refers to 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.

Dissolved oxygen (DO) content of water in equilibrium with air is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During that analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

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

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n} \quad ,$$

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 site on a stream is that area, measured in a horizontal plane, that has a common outlet at the site for its surface runoff. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that is occupied by a drainage system with a common outlet for its surface runoff (see "Drainage area").

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65˚C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue.

Extractable-organic halides (EOX) are organic compounds which contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried stream-bottom sediments. The ethyl-acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the stream-bottom sediments.

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to sea level (see "Datum"). This elevation is established by a system of levels from known benchmarks, by approximation from topographic maps, or by geographical positioning system.

Gage height (G.H.) is the water-surface elevation referenced to the 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 site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

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

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site:*

http://www.co-ops.nos.noaa.gov/tideglos.html

Hydrologic benchmark 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 benchmark station may be used to separate effects of natural from human-induced changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped benchmark basin.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the U.S. Geological Survey. Each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

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

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

where I_o 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

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

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site:*

http://www.co-ops.nos.noaa.gov/tideglos.html

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.

Mean high tide is the average of all high tides over a specified period.

Mean lower low water (MLLW) is the average of the lower low water height of each tidal day observed over the National Tidal Datum Epoch. The National Tidal Datum Epoch is the specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values.

Mean low tide is the average of all low tides over a specified period.

Mean water level is the average of all tides over a specified period.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental 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-adult or egg-nymph-adult.

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

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, µg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Microsiemens per centimeter (US/CM, µS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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

Miscellaneous site, or miscellaneous station, is a site where streamflow, sediment, and/or water-quality data are collected once, or more often on a random or discontinuous basis.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic-invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) 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. *See NOAA web site:*

http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88

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

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), suspended organic carbon (SOC), or total organic carbon (TOC).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area of habitat, usually square meter (m^2), 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.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, Sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation 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	.004–.062	Sedimentation
Sand	.062–2.0	Sedimentation/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. Chemical dispersion is not used for native-water analysis.

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.

Periodic station is a site where stage, discharge, sediment, chemical, or other hydrologic measurements are made one or more times during a year, but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they 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 organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

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 radioactive nuclide represented by a curie (Ci). A curie is the quantity of any radioactive nuclide that yields 3.7×10^{-10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 0.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to 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 (*Cyanophyta*) are a group of 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 per milliliter (cells/mL) of sample.

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark.

Fire algae (*Pyrrhophyta*) are a group of algae that are free-swimming unicells characterized by a red pigment spot.

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

Zooplankton is 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 (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCN's) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCB's) and have been identified in commercial PCB preparations.

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 oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. Carbon method defines 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.

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. Oxygen method defines 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.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

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 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.

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or non-exceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the non-exceedances of the $7Q_{10}$ occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

River mile is the distance of a point on a river measured in miles from the river’s mouth along the low-water channel.

River mileage is the linear distance along the meandering path of a stream channel determined in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council.

Runoff in inches (IN., in.) is the depth, in inches, to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929. *See*:

http://www.co-ops.nos.noaa.gov/glossary/gloss_n.html#NGVD

Sediment is solid material that is transported by, suspended in, or deposited from water. It originates mostly from disintegrated rocks; it also includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the 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.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along or very close to the bed. In this report, bed load is considered to consist of particles in transit from the bed to an elevation equal to the top of the bed-load sampler nozzle (usually within 0.25 ft of the streambed).

Bed-load discharge (tons per day) is the quantity of sediment moving as bed load, reported as dry weight, that passes a cross section in a given time.

Suspended sediment is the sediment that 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 above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The entire sample is used for the analysis.

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

Suspended-sediment discharge (tons/day) is the quantity of sediment moving in suspension, reported as dry weight, that passes a cross section in a given time. It is calculated in units of tons per day as follows:

$$\text{concentration (mg/L)} \times \text{discharge (ft}^3\text{/s)} \times 0.0027.$$

Suspended-sediment load is a term that refers to material in suspension. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration.

Suspended total residue at 105°C concentration is the concentration of suspended sediment in the sampled zone expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). A small aliquot of the sample is used for the analysis.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, reported as dry weight, that passes a cross section in a given time.

Total sediment load or total load is a term that refers to the total sediment (bed load plus suspended-sediment load) that is in transport. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with total sediment discharge.

Seven-day 10-year low flow (7Q10, $7Q_{10}$) is the minimum flow averaged over 7 consecutive days that is expected to occur on average, once in any 10-year period. The 7Q10 has a 10-percent chance of occurring in any given year.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Water ranges 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 that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MILL/MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific waters, to evaluate mixing of different waters, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage: See "Gage height."

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

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" as 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.

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.

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

Surface area of a lake or impoundment is that area encompassed by the boundary of the lake or impoundment as shown on U.S. Geological Survey topographic maps, or on other available maps or photographs. The computed surface areas reflect the water levels of the lakes or impoundments at the times when the information for the maps or photographs was obtained.

Surficial bed material is the top 0.1 to 0.2 ft of the bed material that is sampled 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. It is associated with 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 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 are 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 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. 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.

Synoptic Studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial 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..... Insecta
Order ..... Ephemeroptera
Family ..... Ephemeridae
Genus ..... *Hexagenia*
Species ..... *Hexagenia 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.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

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

Tons per day (T/DAY, tons/d) is the rate representing a mass of 1 ton of a constituent in streamflow passing a cross section in 1 day. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the total amount of a given constituent in a representative 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 both the dissolved and suspended phases of the sample. 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." (Note that the word "total" does double duty here, indicating both that the sample consists of a suspended-sediment mixture and that the analytical method determined all the constituent in the sample.)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

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. 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.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total, recoverable is the amount of a given constituent that is in solution after a representative 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 sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Turbidity is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.

Ultraviolet (UV) absorption at 254 or 280 nanometers (UV absorption units per centimeter of pathlength of UV light through a sample) is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds.

Volatile organic compounds (VOC's) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOC's are manmade chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

Water level is the water-surface elevation or stage of the free surface of a body of water above or below any datum (see "Gage height"), or the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

Water table is the surface of a ground-water body at which the water is at atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which is found the water table.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2000, is called the "2000 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

Wet weight refers to the weight of animal tissue or other substance including its contained water.

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

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting 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) pertains to 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, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the "U.S. Geological Survey." Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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 p.

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 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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 p.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI Book 2, Chapter D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

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 p.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI Book 2, Chapter E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI Book 2, Chapter F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

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 p.

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 p.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI Book 3, Chapter A3. 1968. 60 p.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI Book 3, Chapter A4. 1967. 44 p.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI Book 3. Chapter A5. 1967. 29 p.

3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI Book 3, Chapter A6. 1968. 13 p.

3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI Book 3, Chapter A7. 1968. 28 p.

3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI Book 3, Chapter A8. 1969. 65 p.

3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI Book 3, Chapter A9. 1989. 27 p.

3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A10. 1984. 59 p.

3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI Book 3, Chapter A11. 1969. 22 p.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI Book 3, Chapter A12. 1986. 34 p.

3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A13. 1983. 53 p.

3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI Book 3, Chapter A14. 1983. 46 p.

3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI Book 3, Chapter A15. 1984. 48 p.

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI Book 3, Chapter A16. 1985. 52 p.

3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI Book 3, Chapter A17. 1985. 38 p.

3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI Book 3, Chapter A18. 1989. 52 p.

3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A19. 1990. 31 p.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI Book 3, Chapter A20. 1993. 38 p.

3-A21 *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI Book 3, Chapter A21. 1995. 56 p.

Section B. Ground-Water Techniques

3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI Book 3, Chapter B1. 1971. 26 p.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI Book 3, Chapter B2. 1976. 172 p.

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 p.

3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI Book 3, Chapter B4. 1990. 232 p.

3-B4. *Supplement 1. Regression modeling of ground-water flow—Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI Book 3, Chapter B4. 1993. 8 p.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI Book 3, Chapter B5. 1987. 15 p.

3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI Book 3, Chapter B6. 1987. 28 p.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI Book 3, Chapter B7. 1992. 190 p.

Section C. Sedimentation and Erosion Techniques

3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI Book 3, Chapter C1. 1970. 55 p.

3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI Book 3, Chapter C2. 1999. 89 p.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI Book 3, Chapter C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI Book 4, Chapter A1. 1968. 39 p.

4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI Book 4, Chapter A2. 1968. 15 p.

Section B. Surface Water

4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI Book 4, Chapter B1. 1972. 18 p.

4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI Book 4, Chapter B2. 1973. 20 p.

4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI Book 4, Chapter B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

4-D1. *Computation of rate and volume of stream depletion by wells,* by C.T. Jenkins: USGS–TWRI Book 4, Chapter D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI Book 5, Chapter A1. 1989. 545 p.

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 p.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI Book 5, Chapter A3. 1987. 80 p.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L.J. Britton and P.E. Greeson, editors: USGS–TWRI Book 5, Chapter A4. 1989. 363 p.

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 p.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L.C. Friedman and D.E. Erdmann: USGS–TWRI Book 5, Chapter A6. 1982. 181 p.

Section C. Sediment Analysis

5-C1. *Laboratory theory and methods for sediment analysis,* by H.P. Guy: USGS–TWRI Book 5, Chapter C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M.G. McDonald and A.W. Harbaugh: USGS–TWRI Book 6, Chapter A1. 1988. 586 p.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI Book 6, Chapter A2. 1991. 68 p.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI Book 6, Chapter A3. 1993. 136 p.

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI Book 6, Chapter A4. 1992. 108 p.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI Book 6, Chapter A5. 1993. 243 p.

6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction,* by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI Book 6, Chapter A6. 1996. 125 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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 p.

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 p.

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 p.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

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 p.

8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J.D. Craig: USGS–TWRI Book 8, Chapter A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

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 p.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling,* by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A1. 1998. 47 p.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A2. 1998. 94 p.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A3. 1998. 75 p.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A4. 1999. 156 p.

9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A5. 1999. 149 p.

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements,* edited by F.D. Wilde and D.B. Radtke: USGS–TWRI Book 9, Chapter A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators,* edited by D.N. Myers and F.D. Wilde: USGS–TWRI Book 9, Chapter A7. 1997 and 1999. Variously paginated.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-Material Samples,* by D.B. Radtke: USGS–TWRI Book 9, Chapter A8. 1998. 48 p.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities,* by S.L. Lane and R.G. Fay: USGS–TWRI Book 9, Chapter A9. 1998. 60 p.

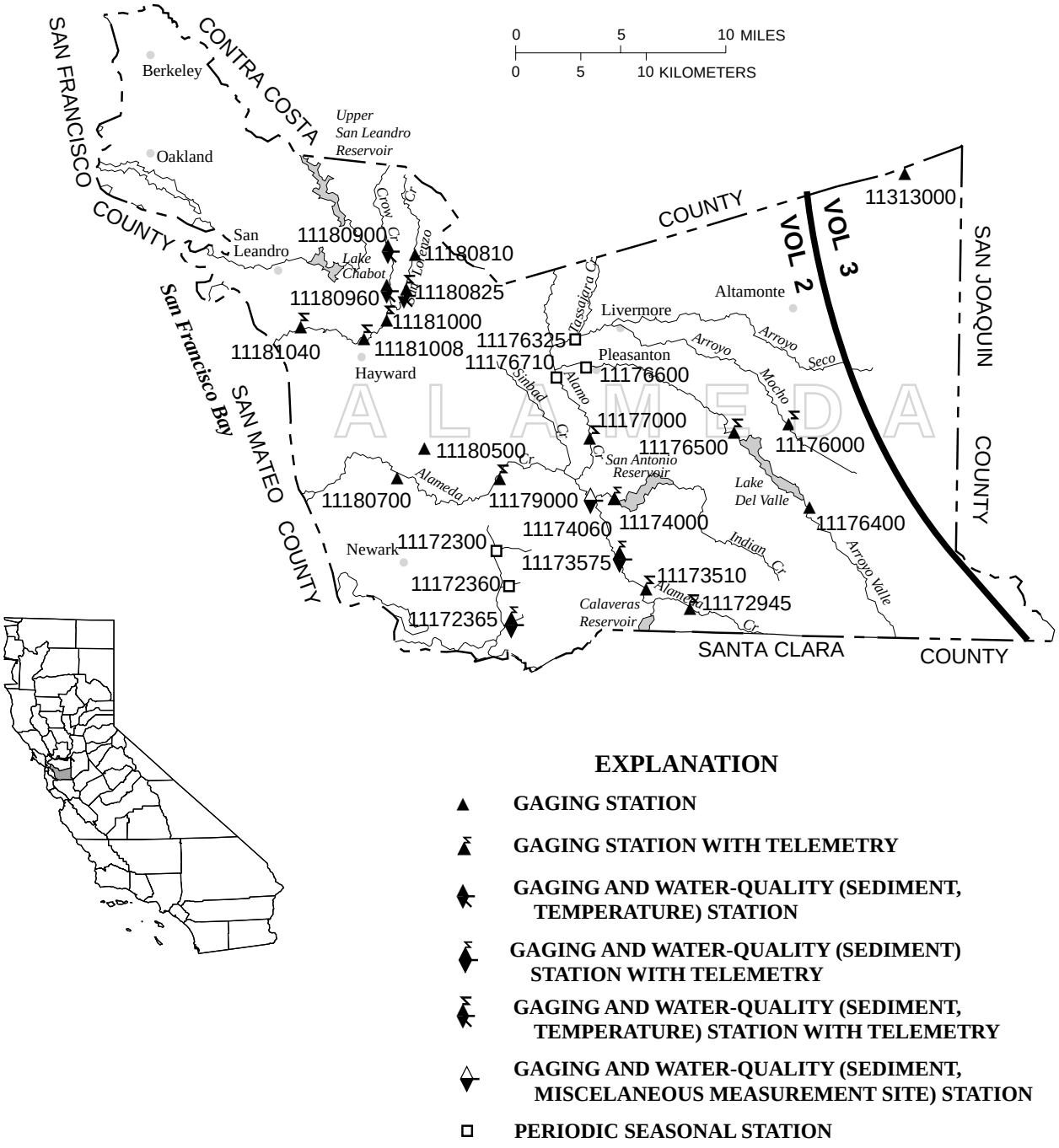

Figure 2. Location of discharge and water-quality stations in Alameda County.
(NOTE: Records for stations 11172945 through 11181040 published in volume 2.)

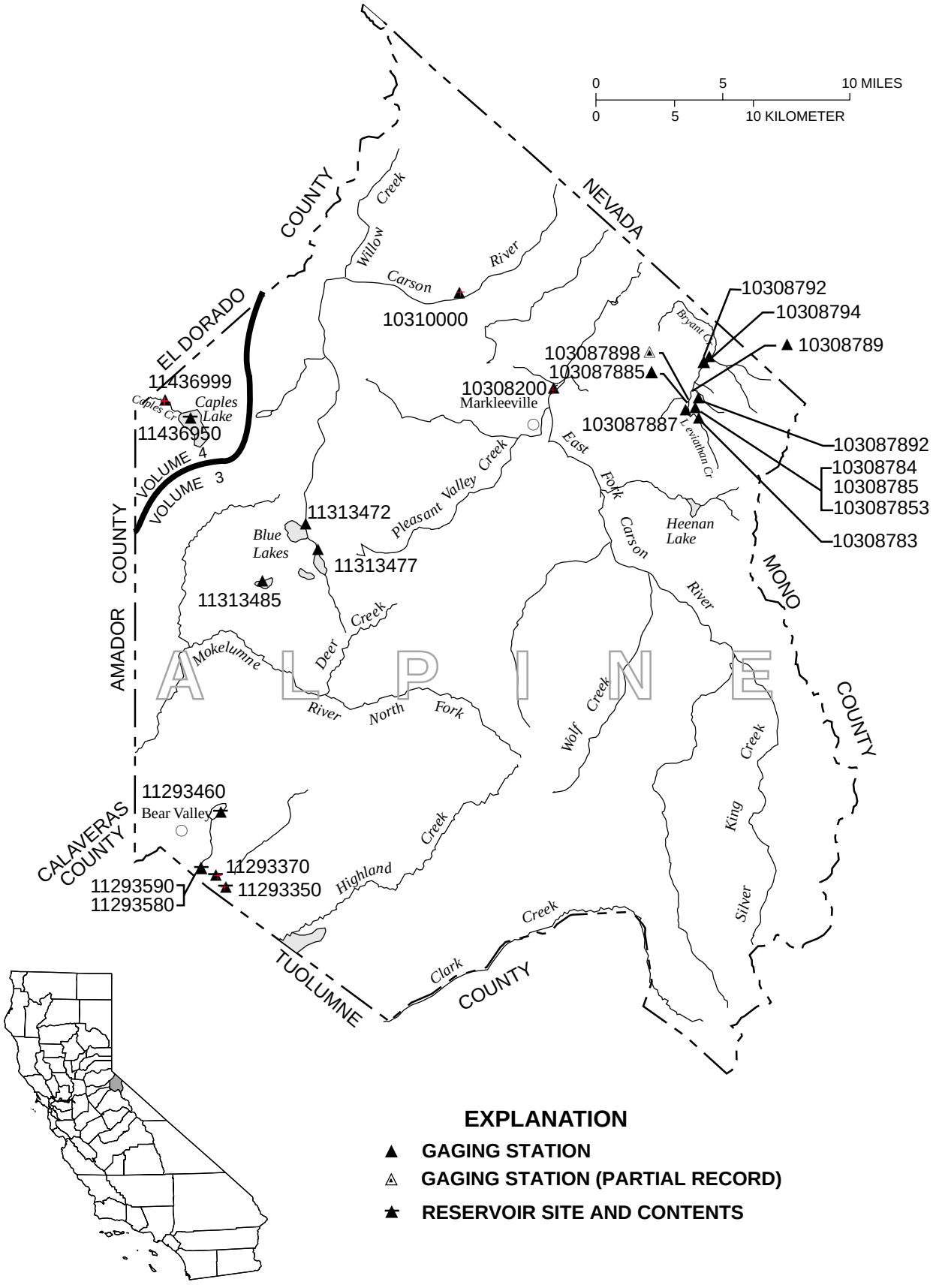

Figure 3. Location of discharge stations in Alpine County.
(NOTE: Station 10297000 in Douglas County, Nevada, shown on Mono County map.
Record for stations 11436950 and 11436999 published in volume 4.)

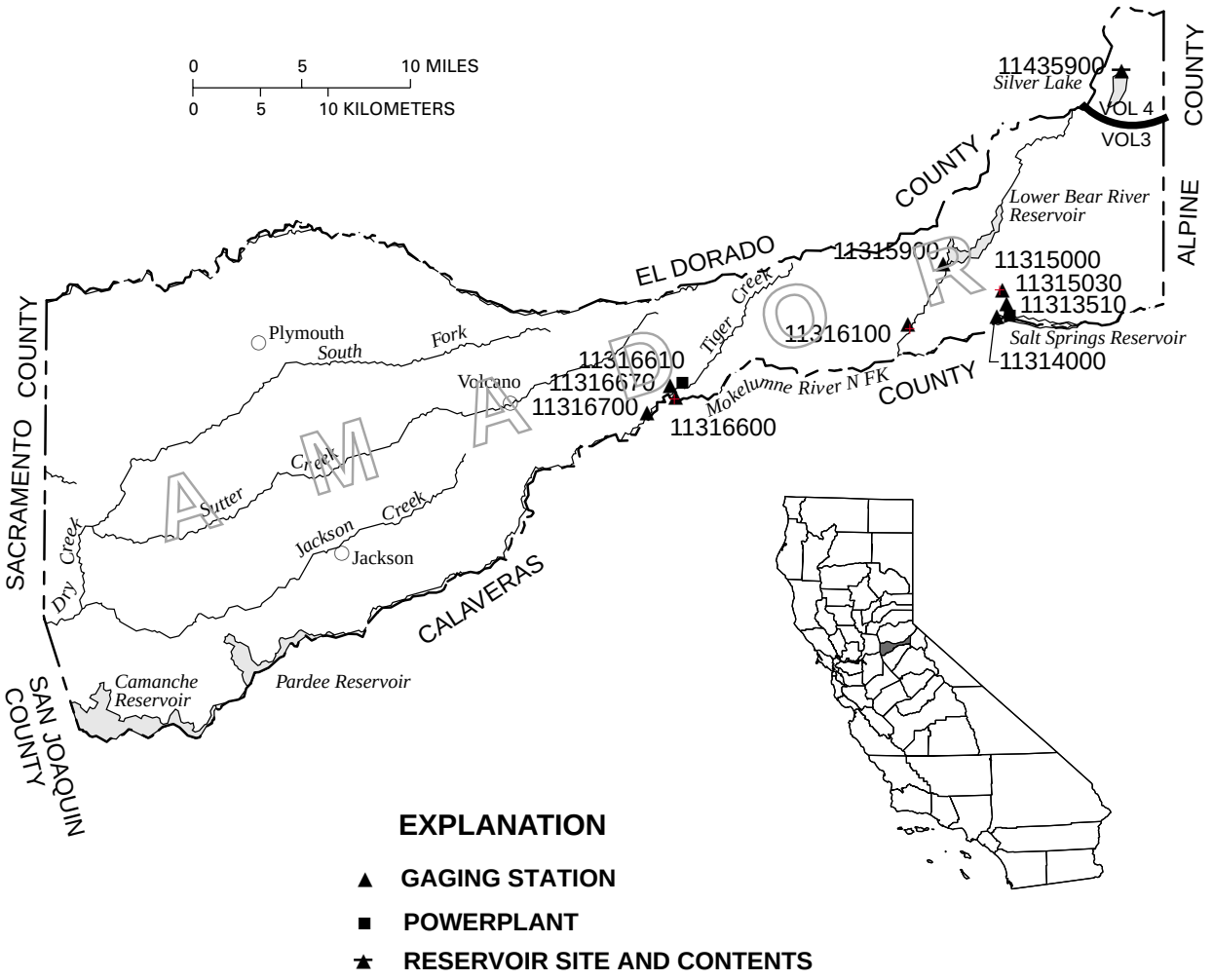

Figure 4. Location of discharge stations in Amador County.
(NOTE: Record for station 11435900 published in volume 4.)

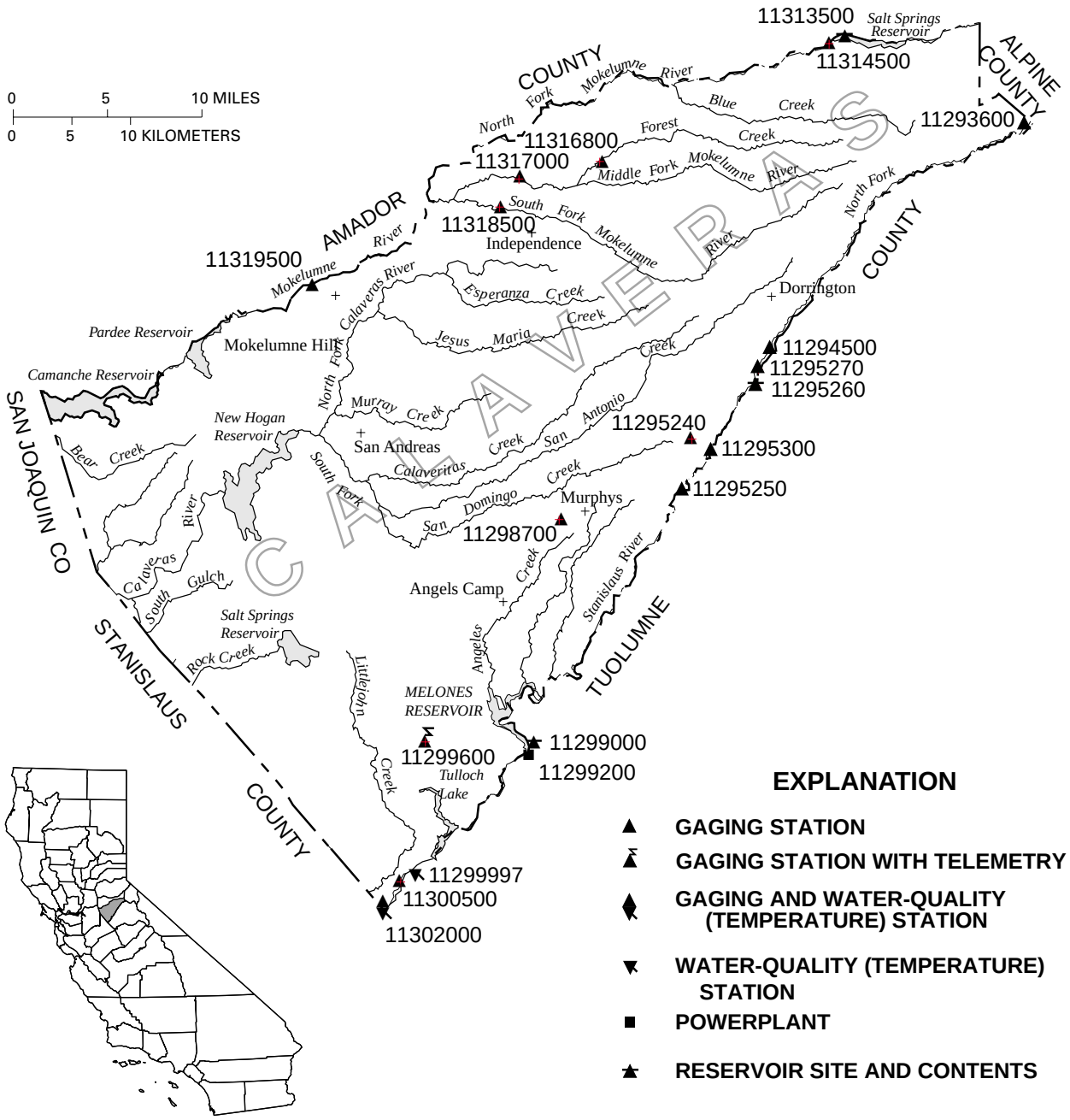

Figure 5. Location of discharge and water-quality stations in Calaveras County.

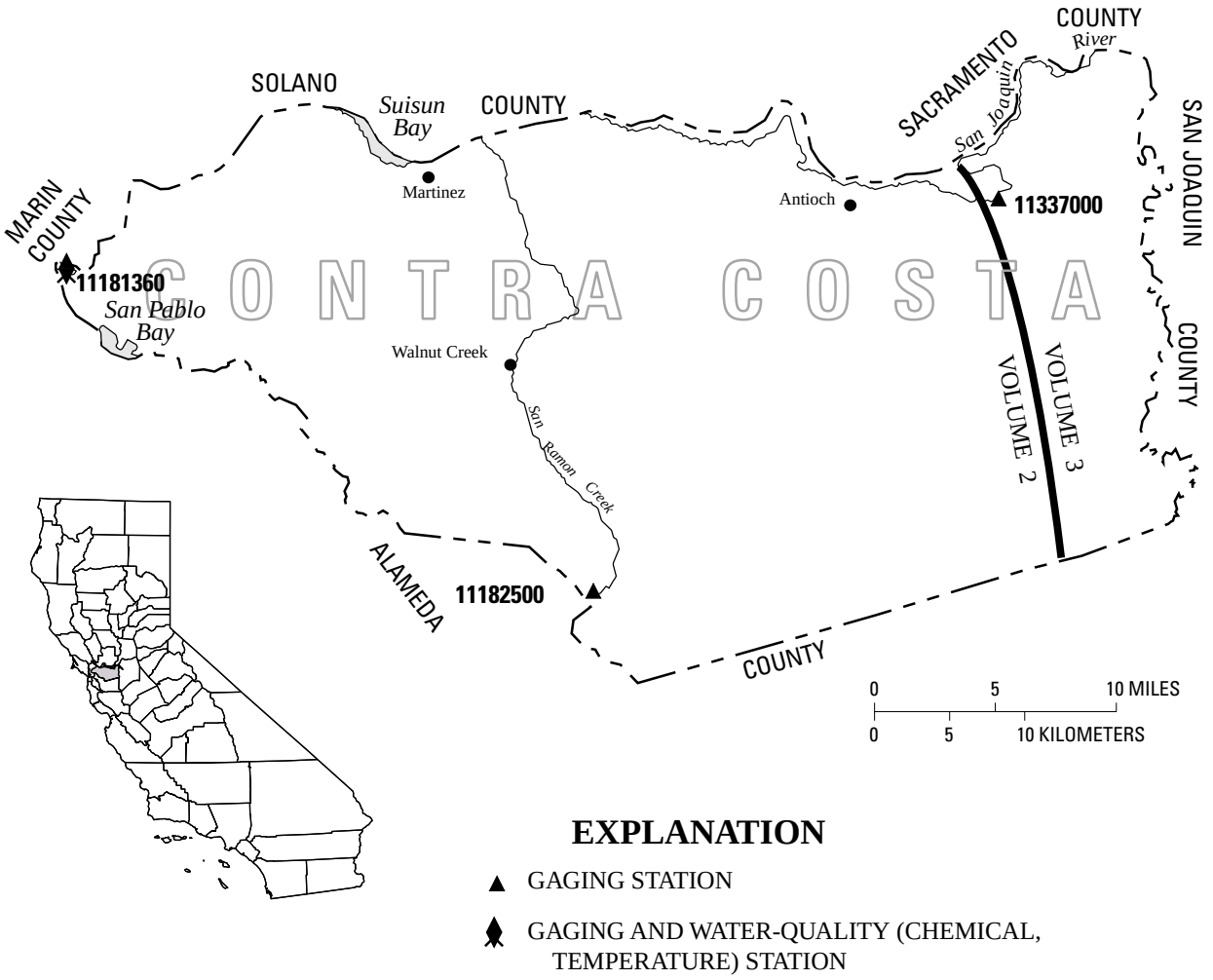

Figure 6. Location of discharge and water-quality stations in Contra Costa County. (NOTE: Records for stations 11181360 and 11182500 published in volume 2.)

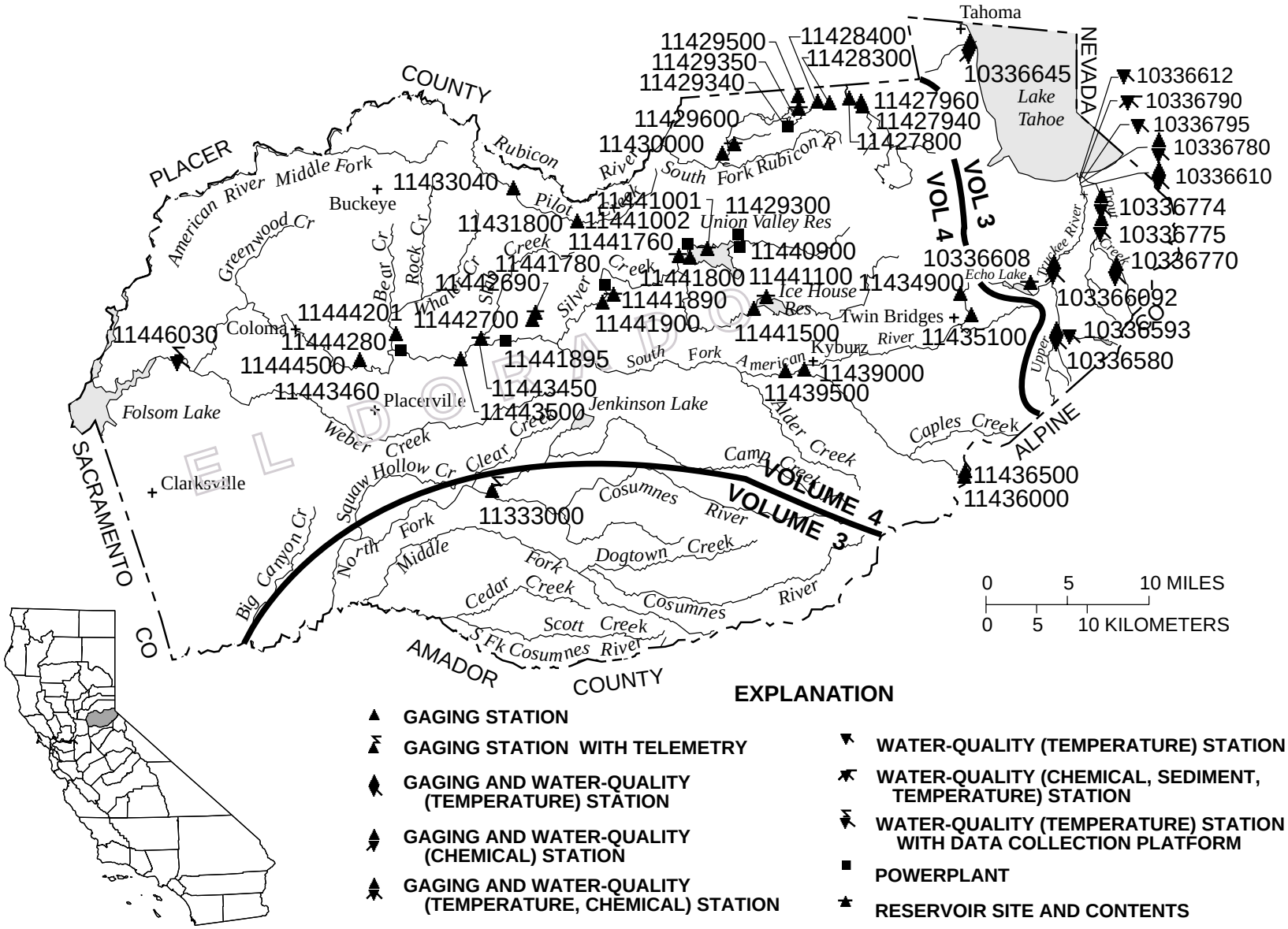

Figure 7. Location of discharge and water-quality stations in El Dorado County.
(NOTE: Records for stations 11427800 through 11446030 published in volume 4.)

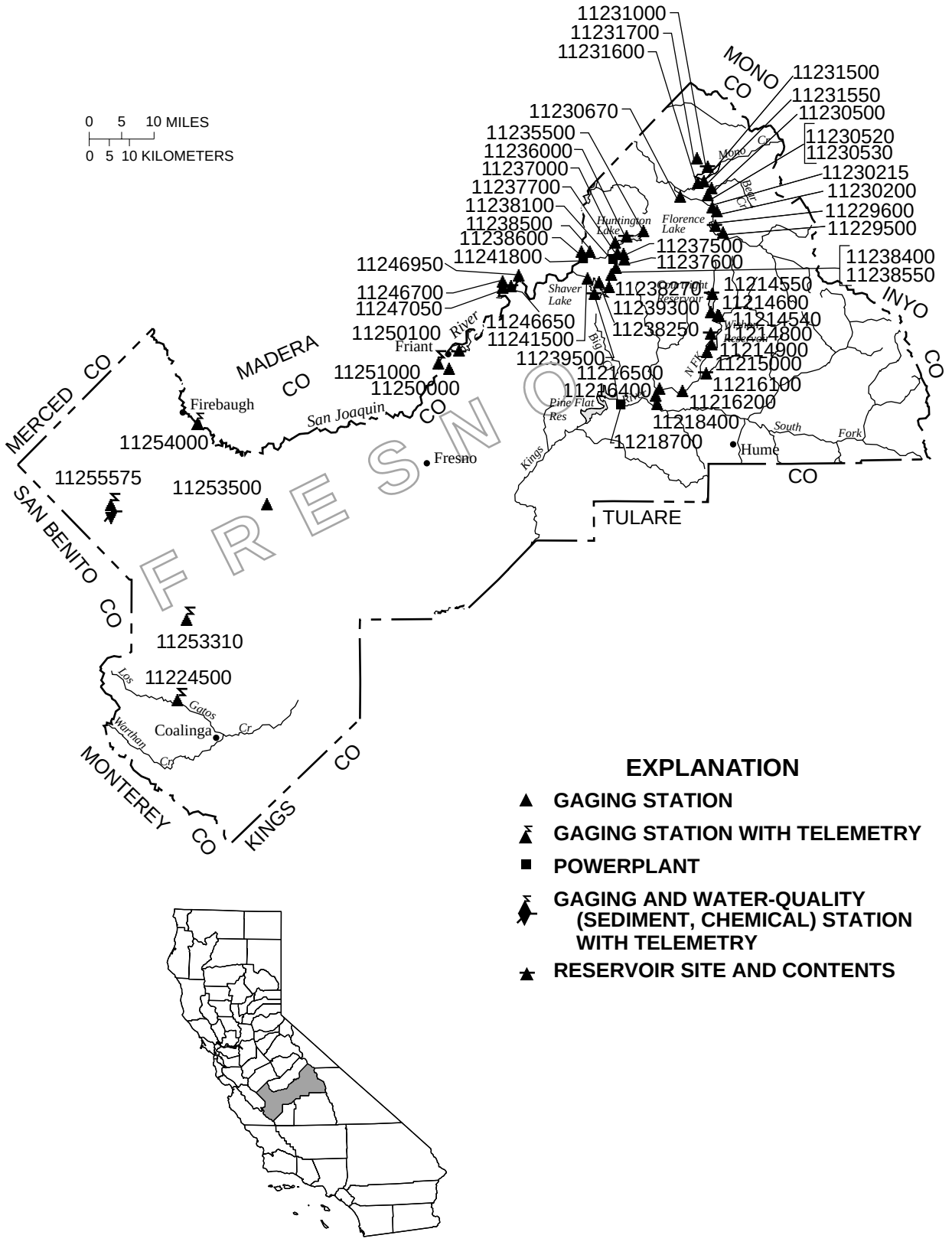

Figure 8. Location of discharge and water-quality stations in Fresno County.

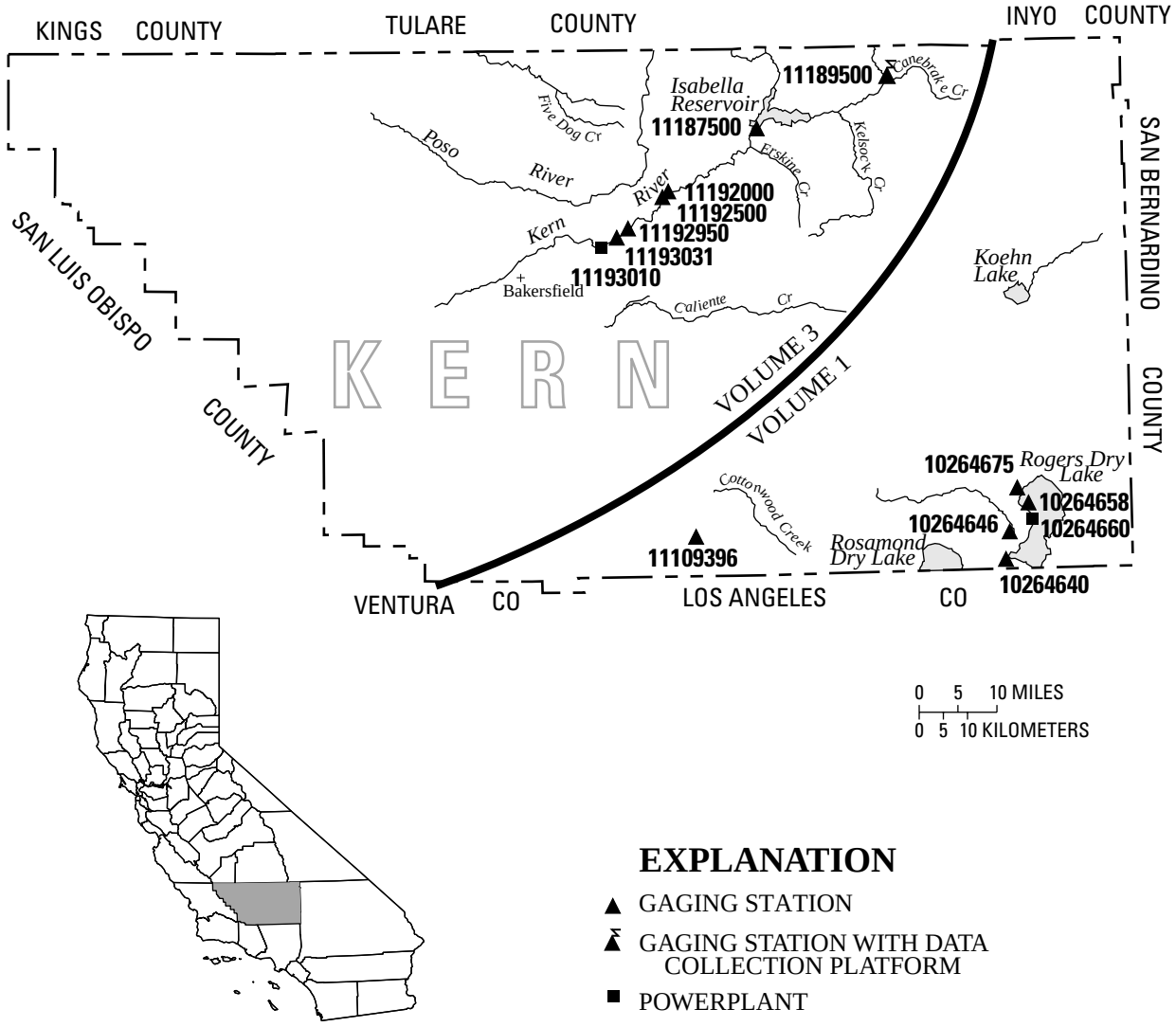

Figure 9. Location of discharge stations in Kern County.
(NOTE: Records for stations10264640 through 10264675, and 11109396 published in volume 1.)

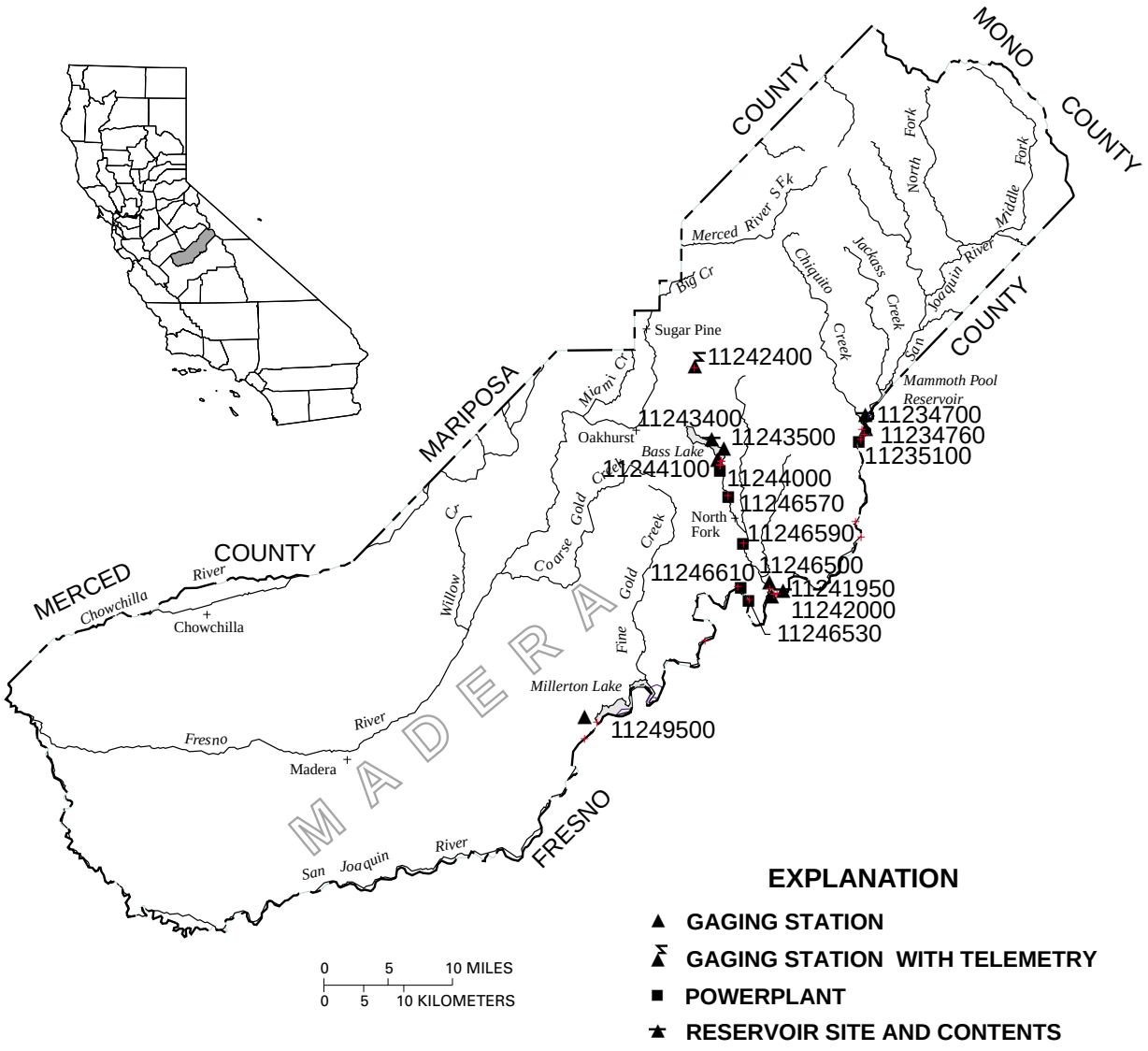

Figure 10. Location of discharge stations in Madera County.

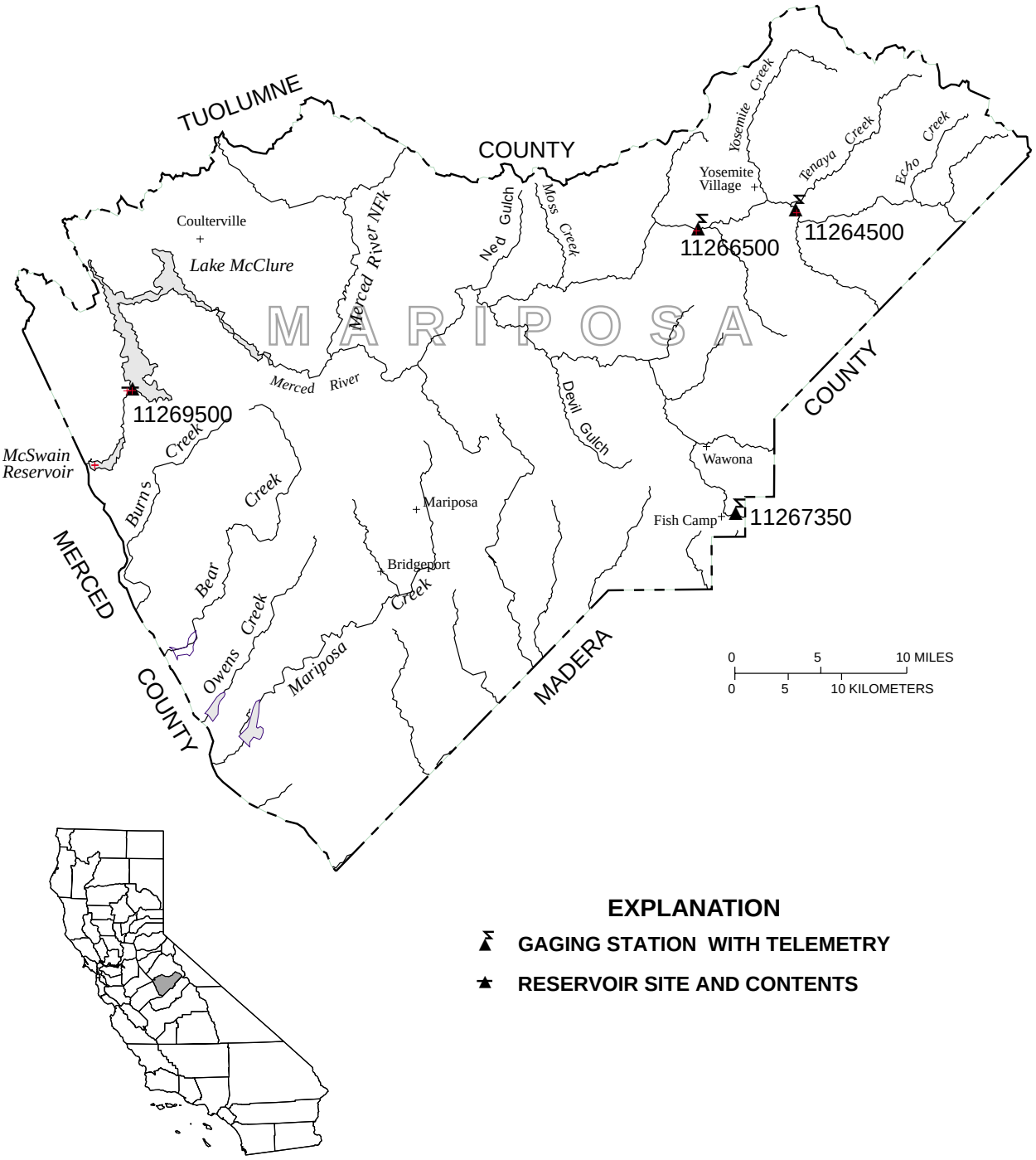

Figure 11. Location of discharge stations in Mariposa County.

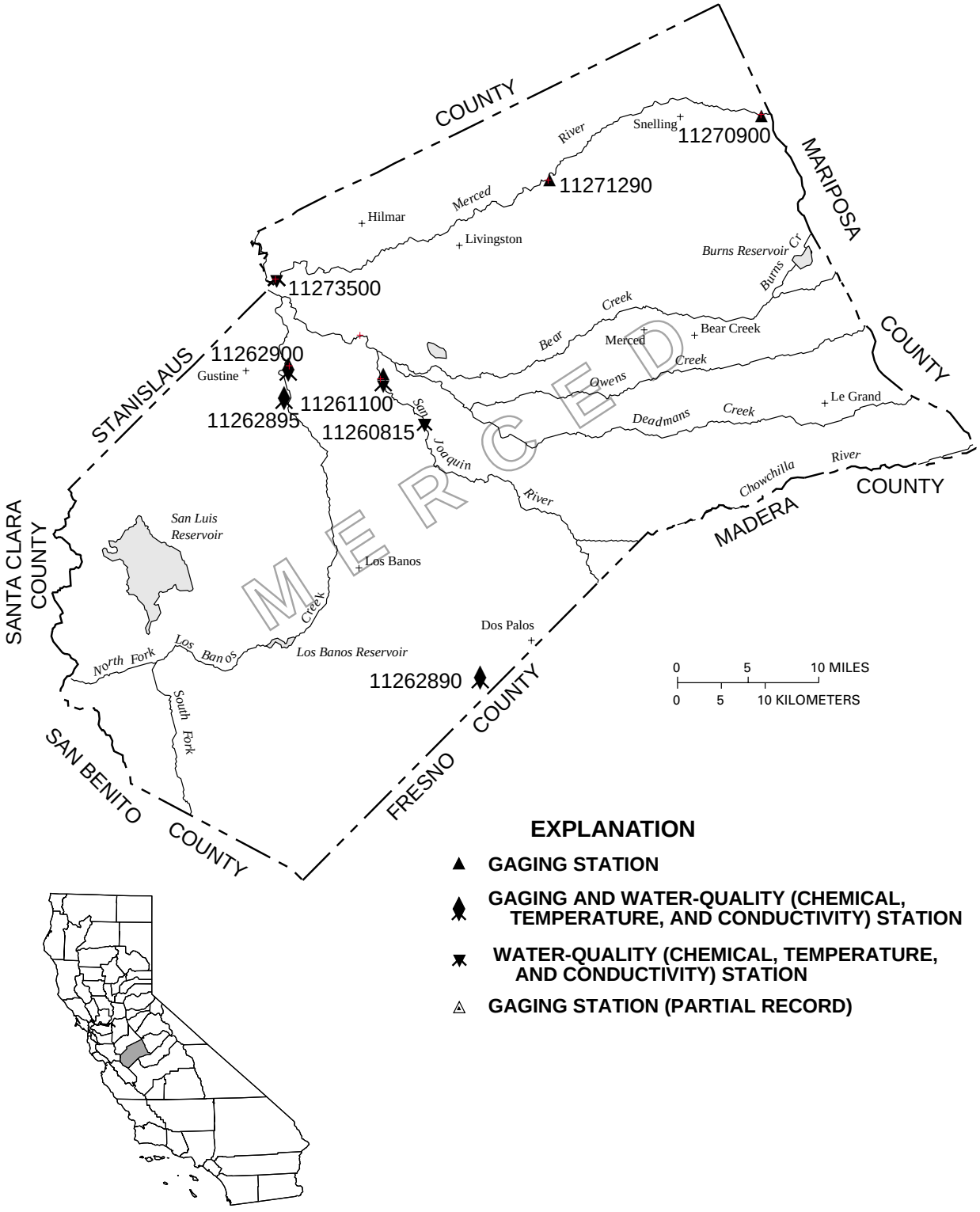

Figure 12. Location of discharge and water-quality stations in Merced County.

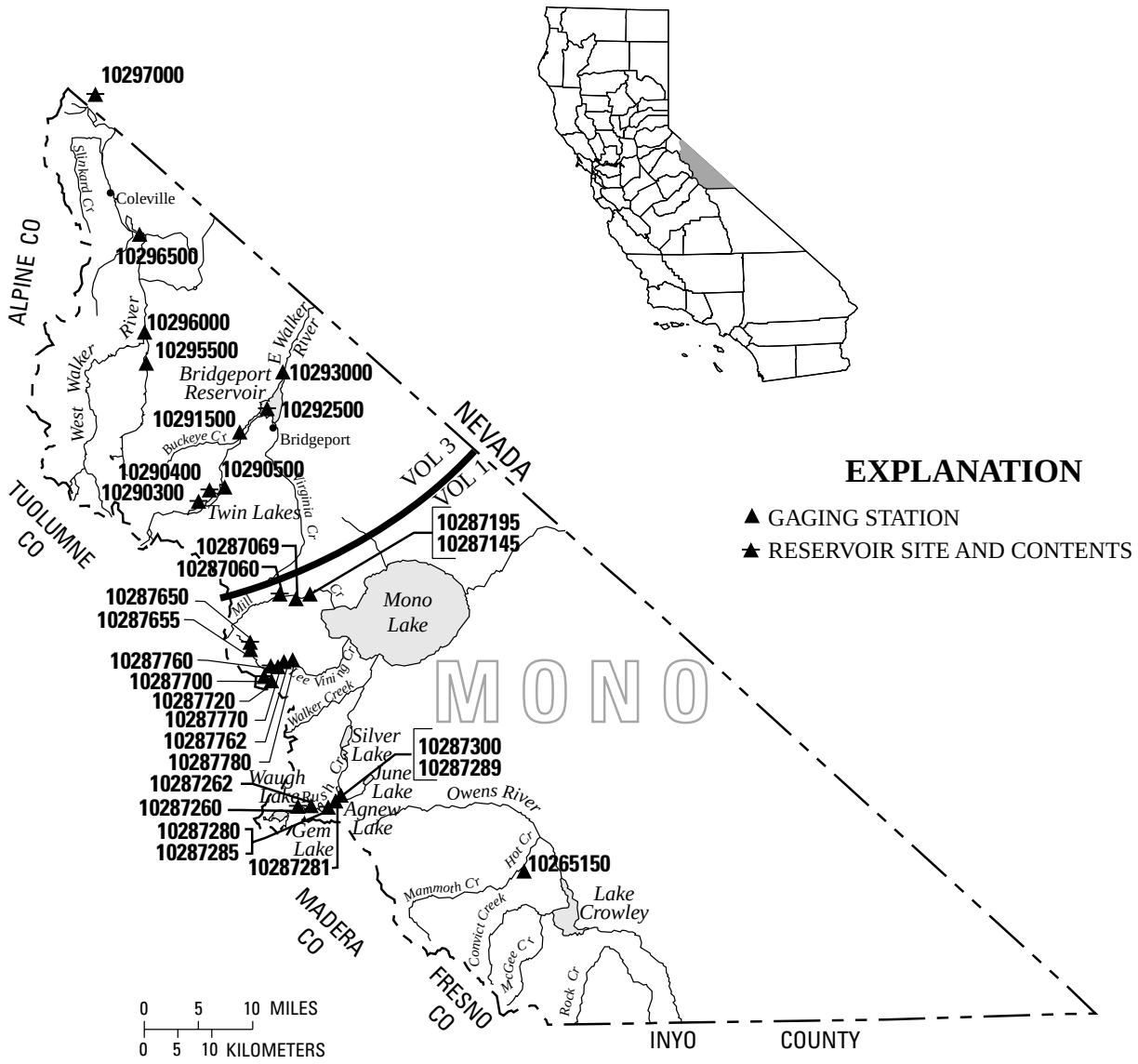

Figure 13. Location of discharge stations in Mono County.
(NOTE: Records for stations 10265150 through 10287780 published in volume 1.
Station 10297000 is actually located in Douglas County, Nevada.)

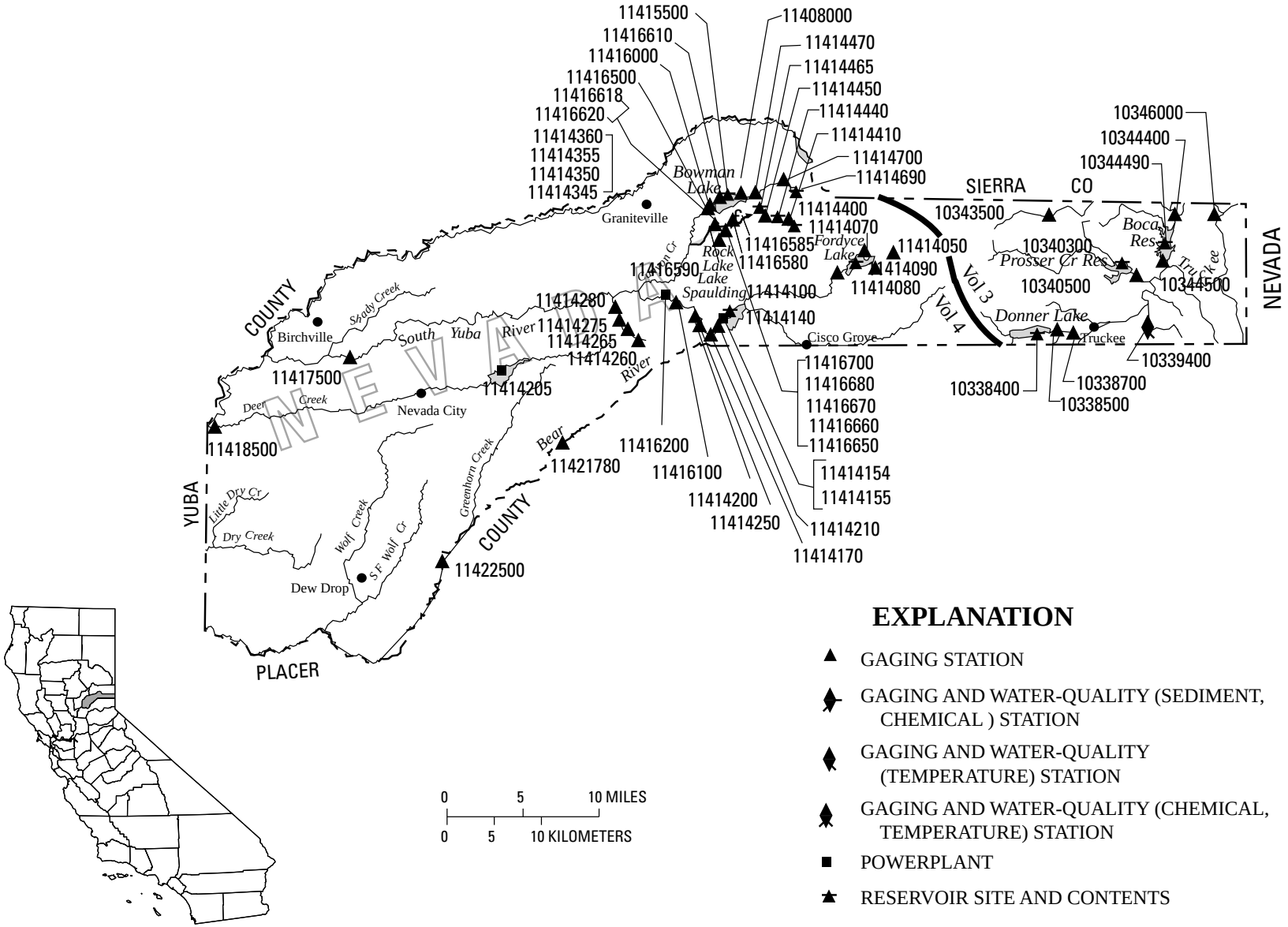

Figure 14. Location of discharge and water-quality stations in Nevada County.
(NOTE: Records for stations 11408000 through 11422500 published in volume 4.)

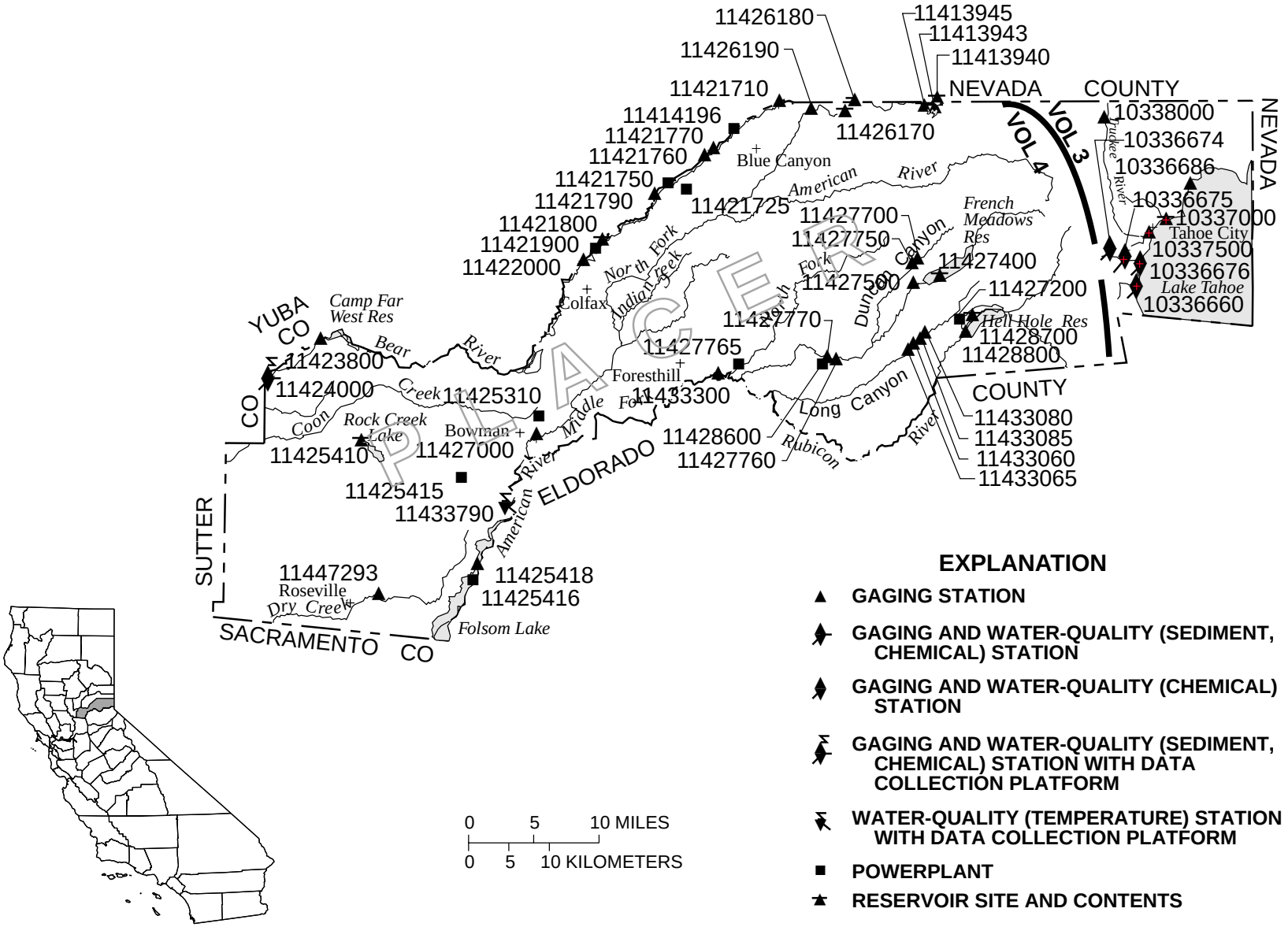

Figure 15. Location of discharge and water-quality stations in Placer County.
(NOTE: Records for stations 11413940 through 11447293 published in volume 4.)

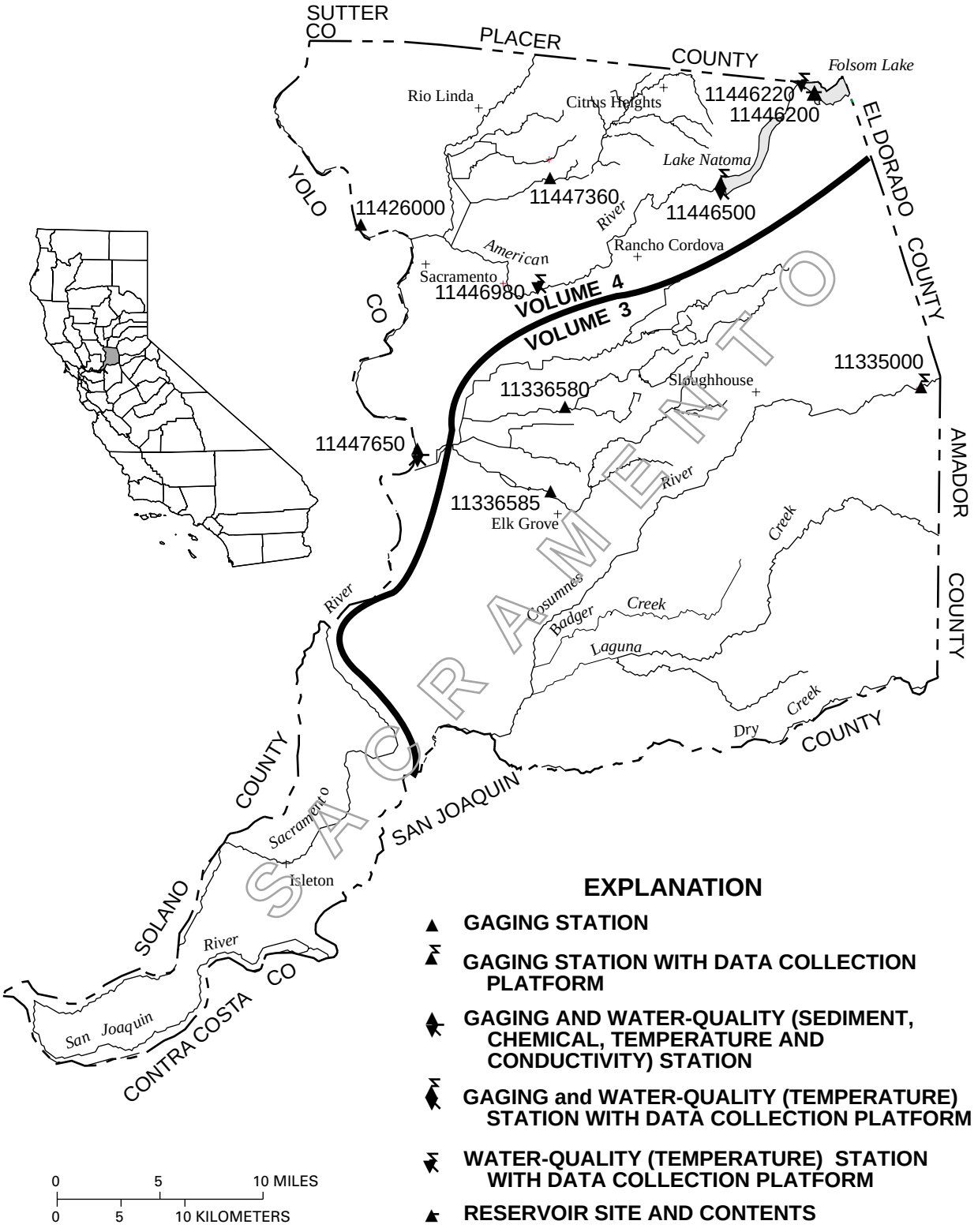

Figure 16. Location of discharge and water-quality stations in Sacramento County.
(NOTE: Records for stations 11426000 through 11447650 published in volume 4.)

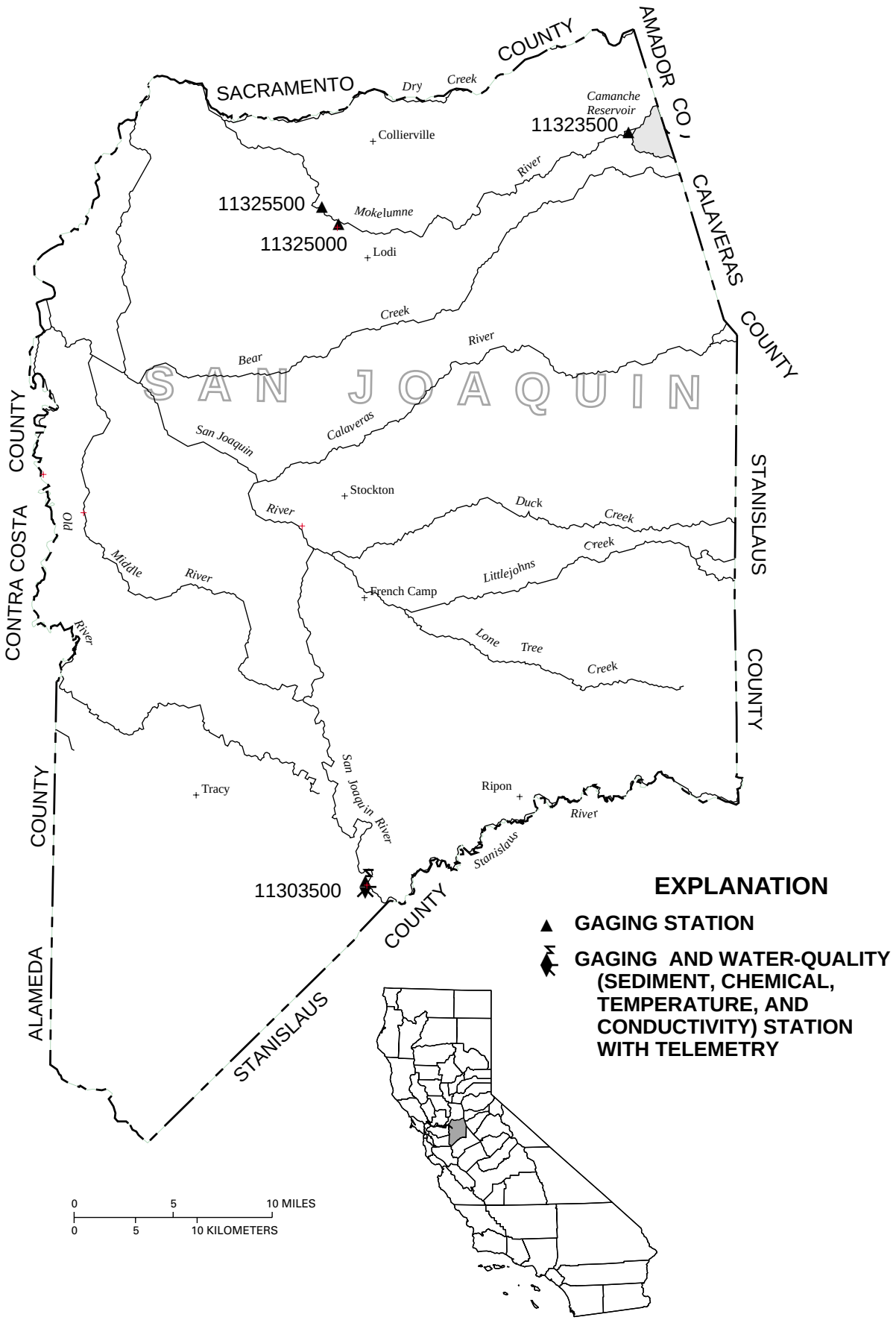

Figure 17. Location of discharge and water-quality stations in San Joaquin County.

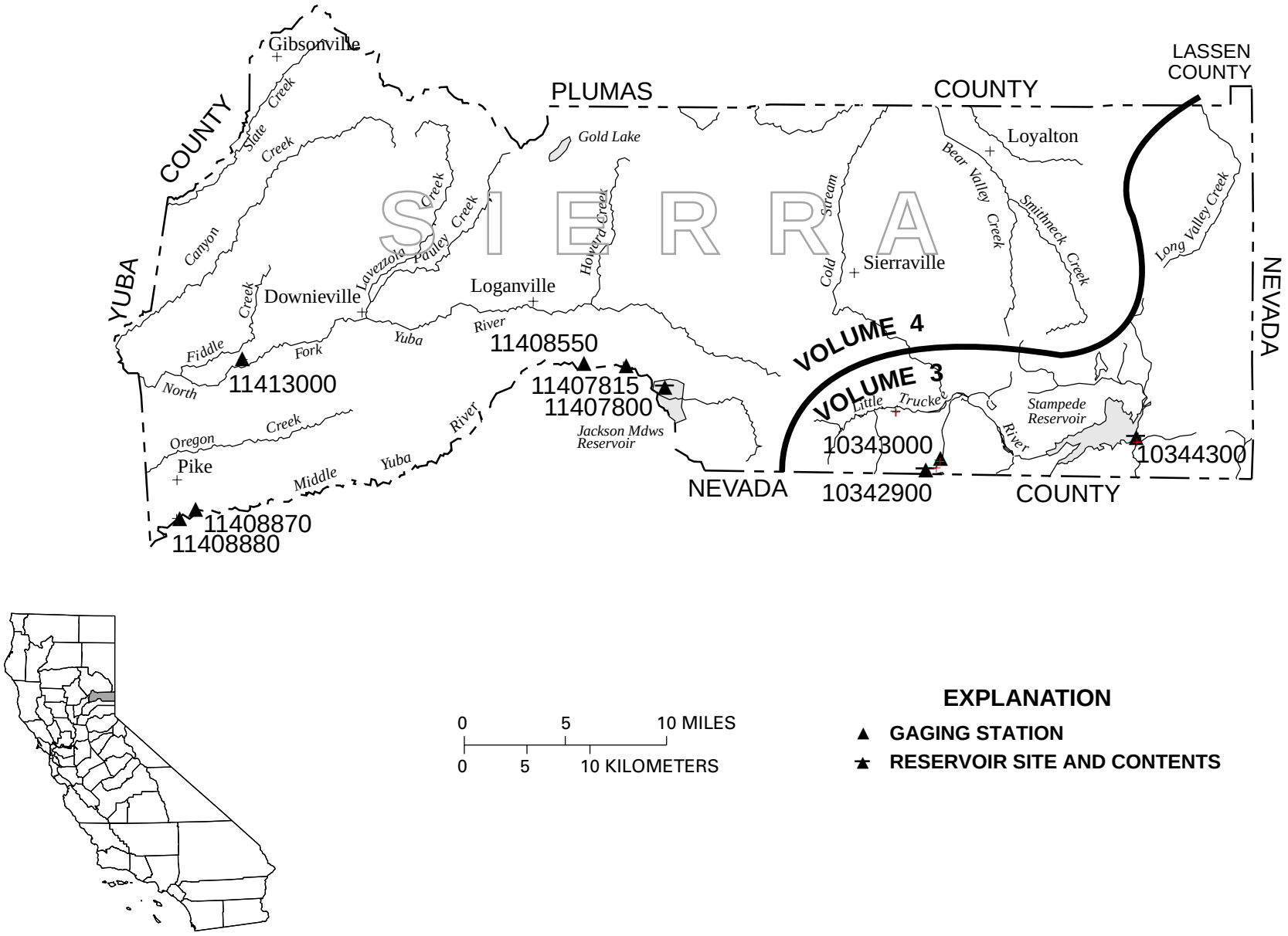

Figure 18. Location of discharge stations in Sierra County.
(NOTE: Records for stations 11407800 through 11413000 published in volume 4.)

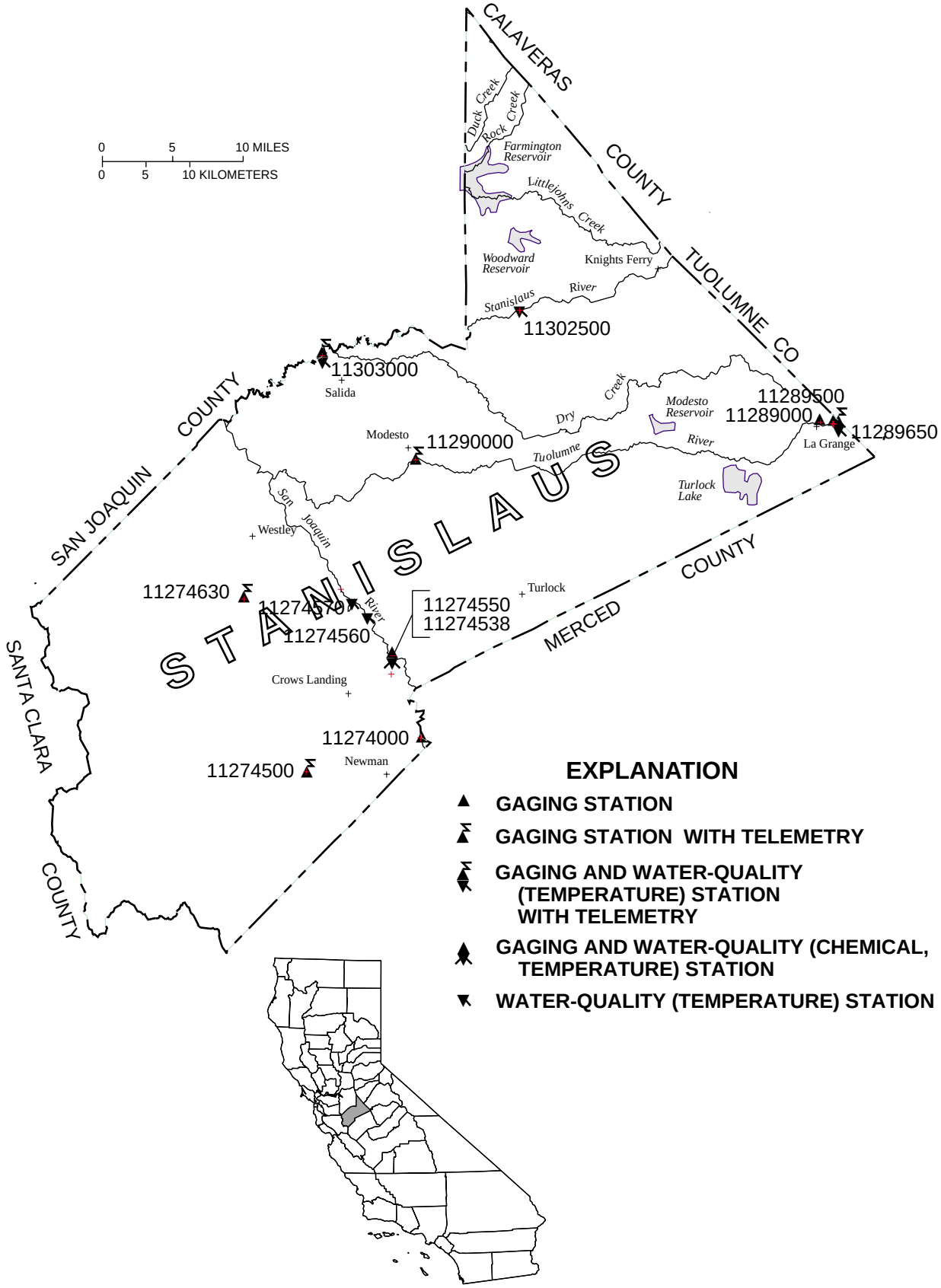

Figure 19. Location of discharge and water-quality stations in Stanislaus County.

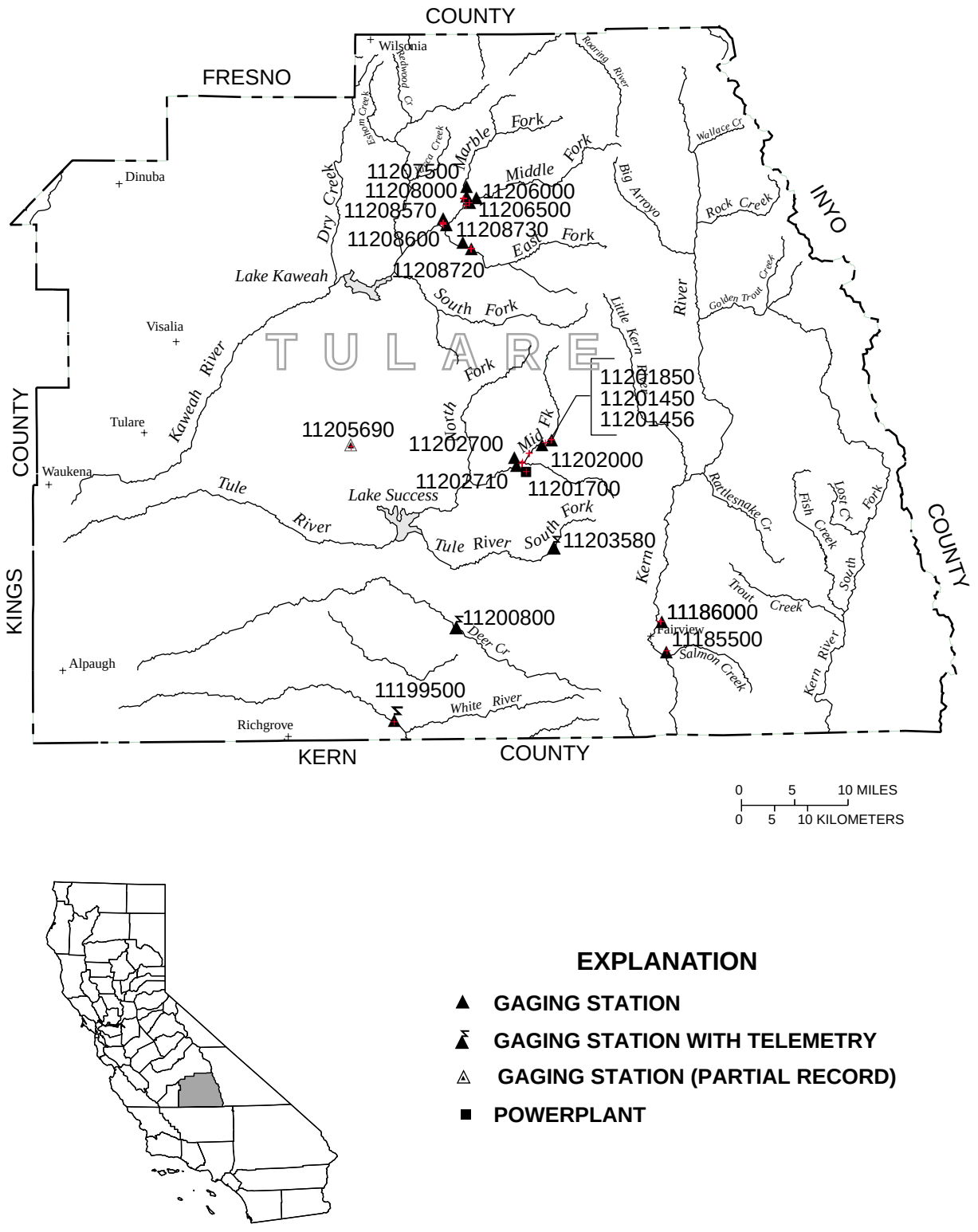

Figure 20. Location of discharge stations in Tulare County.

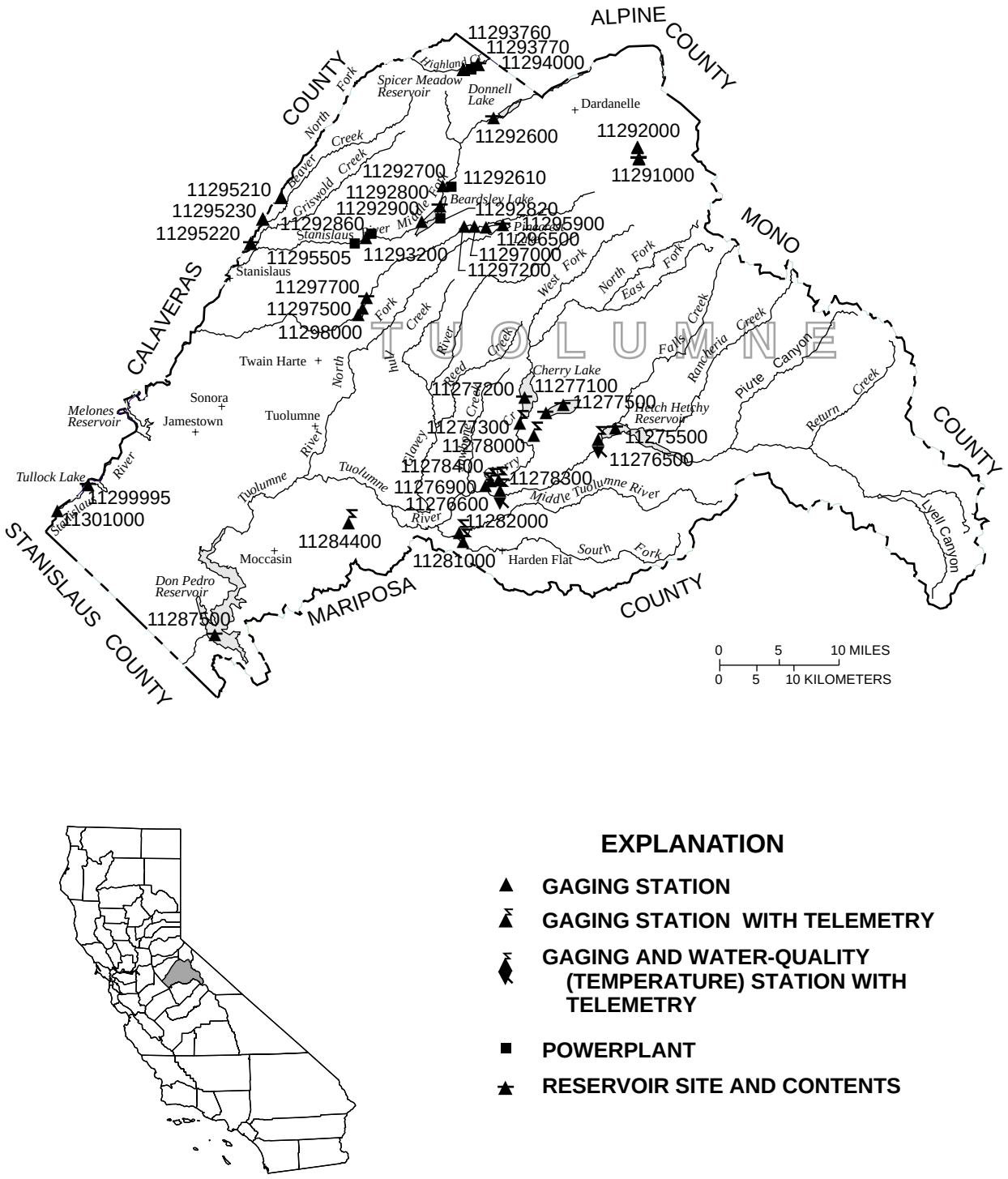

Figure 21. Location of discharge and water-quality stations in Tuolumne County.

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

Remark Codes

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

PRINTED OUTPUT	REMARK
e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptable range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
ND	Not detected.
&	Biological organism estimated as dominant.
*	Instantaneous streamflow at the time of cross-sectional measurements.
**	Partial sampled width.
[1]	Laboratory value.
[2]	Laboratory fixed-end point titration.
A	Samples collected by another agency.
N	Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) protocol.
V	Analyte was detected in both the environmental sample and the associated blanks.
†	Sample collected using an automatic sampler.
M	Presence of material verified, but not quantified.

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

NOTE: Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences, based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

Data Precision

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

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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, in Toiyabe National Forest, at outlet of upper lake dam on Robinson Creek, and 10 mi southwest of Bridgeport.

DRAINAGE AREA.—29.5 mi^2.

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

GAGE.—Nonrecording gage. Datum of gage is 7,212.86 ft above sea level (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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents observed, 2,990 acre-ft, July 7, 1983, elevation, 7,209.85 ft; minimum observed, 30 acre-ft, Nov. 1, 1990, elevation, 7,200.11 ft.

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

EXTREMES FOR CURRENT YEAR.—Maximum contents observed, 2,630 acre-ft, June 30, elevation, 7,208.75 ft; minimum observed, 1,750 acre-ft, Dec. 29, elevation, 7,206.00 ft.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND TOTAL CONTENTS

WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

Date	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)
September 30	7,207.47	2,220	—
October 31	7,206.33	1,860	-360
November 30	7,206.63	1,950	+90
December 31	7,206.07	1,770	-180
CALENDAR YEAR 1999	—	—	-370
January 31	7,207.26	2,150	+380
February 29	7,207.10	2,100	-50
March 31	7,207.33	2,180	+80
April 30	7,208.01	2,390	+210
May 31	7,208.70	2,610	+220
June 30	7,208.75	2,630	+20
July 31	7,207.91	2,360	-270
August 31	7,207.65	2,280	-80
September 30	7,207.16	2,120	-160
WATER YEAR 2000	—	—	-100

NOTE.—Monthend elevations are interpolated from readings made during the year.

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, in Toiyabe National Forest, at outlet of lower lake dam on Robinson Creek, and 8 mi southwest of Bridgeport.

DRAINAGE AREA.—38.9 mi^2.

PERIOD OF RECORD.—December 1961 to current year.

GAGE.—Nonrecording gage. Datum of gage is 7,205.45 ft above sea level (project datum of U.S. Indian Irrigation Service).

REMARKS.—Contents regulated by dam at outlet and by Upper Twin Lake. 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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

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

EXTREMES FOR CURRENT YEAR.—Maximum contents observed, 5,070 acre-ft, June 1, elevation, 7,202.48 ft; minimum observed, 2,900 acre-ft, Aug. 31, elevation 7,197.26 ft.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND TOTAL CONTENTS

WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

Date	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)
September 30	7,197.12	2,850	—
October 31	7,197.42	2,970	+120
November 30	7,199.08	3,630	+660
December 31	7,200.33	4,150	+520
CALENDAR YEAR 1999	—	—	-20
January 31	7,200.60	4,260	+110
February 29	7,200.60	4,260	0
March 31	7,200.50	4,220	-40
April 30	7,201.21	4,520	+300
May 31	7,202.44	5,050	+530
June 30	7,202.30	4,990	-60
July 31	7,201.14	4,490	-500
August 31	7,197.26	2,900	-1590
September 30	7,196.78	2,710	-190
WATER YEAR 2000	—	—	-140

NOTE.—Monthend elevations are interpolated from readings made during the year.

10290500 ROBINSON CREEK AT TWIN LAKES OUTLET, NEAR BRIDGEPORT, CA

LOCATION.—Lat 38°10'20", long 119°19'25", in SE 1/4 SE 1/4 sec.28, T.4 N., R.24 E., Mono County, Hydrologic Unit 16050301, on left bank, 0.2 mi downstream from Lower Twin Lake, and 8 mi southwest of Bridgeport.

DRAINAGE AREA.—39.1 mi^2.

PERIOD OF RECORD.—October 1953 to September 1975, May 1992 to September 1994 (irrigation season only), October 1994 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,050 ft above sea level, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Flow regulated by Upper and Lower Twin Lakes. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

REVISIONS.—WSP 1927: Drainage area.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,170 ft^3/s, Jan. 3, 1997, gage height, 5.44 ft; no flow many days, some years.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 268 ft^3/s, May 29, 30, gage height, 3.29 ft; minimum daily, 2.6 ft^3/s, December 19–22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	8.2	3.4	12	25	25	21	79	235	198	89	60
2	38	8.2	3.2	12	24	25	21	86	220	187	91	45
3	38	8.1	2.8	12	24	25	22	97	209	173	87	36
4	38	7.9	2.9	13	21	23	23	107	206	158	75	35
5	37	7.9	3.0	13	22	23	24	116	211	145	81	33
6	36	7.7	3.0	13	20	23	25	122	222	134	83	32
7	36	7.1	3.1	13	20	22	27	130	225	126	81	31
8	35	4.1	3.2	13	20	22	31	137	229	119	80	30
9	33	3.9	3.2	e13	19	22	33	146	222	113	82	29
10	32	3.8	3.2	e12	20	20	34	149	202	111	79	28
11	32	3.9	3.2	e12	21	19	37	140	182	111	76	27
12	30	3.9	3.3	e13	22	19	38	131	167	112	76	26
13	28	3.7	3.0	e13	25	19	48	122	164	112	76	25
14	28	3.9	2.7	13	33	19	55	111	174	113	78	25
15	28	4.1	2.7	14	33	19	57	102	195	112	73	24
16	27	4.0	2.7	17	31	20	57	94	217	111	84	23
17	26	3.9	2.7	17	30	19	55	87	231	111	89	23
18	24	3.9	2.8	22	28	18	54	83	234	110	84	23
19	24	3.7	2.6	23	27	20	50	81	237	108	83	23
20	21	3.5	2.6	22	26	19	47	83	238	104	82	23
21	16	3.5	2.6	22	26	18	45	92	232	99	82	23
22	16	3.6	2.6	20	25	19	45	110	226	94	81	21
23	15	3.7	2.7	20	26	19	44	136	222	88	81	20
24	15	3.7	3.2	26	25	19	43	164	219	85	79	20
25	13	3.7	4.1	31	24	19	44	191	214	81	79	20
26	13	3.7	5.4	30	23	19	46	218	214	79	79	20
27	12	3.7	6.9	28	28	20	51	231	209	76	78	21
28	8.9	3.7	8.3	26	28	20	59	244	208	73	78	21
29	8.6	3.6	9.2	25	27	20	66	263	207	71	78	21
30	8.5	3.6	10	e25	---	21	74	266	204	71	77	21
31	8.4	---	11	e25	---	21	---	253	---	78	76	---
TOTAL	764.4	141.9	125.3	570	723	636	1276	4371	6375	3463	2497	809
MEAN	24.7	4.73	4.04	18.4	24.9	20.5	42.5	141	212	112	80.5	27.0
MAX	39	8.2	11	31	33	25	74	266	238	198	91	60
MIN	8.4	3.5	2.6	12	19	18	21	79	164	71	73	20
AC-FT	1520	281	249	1130	1430	1260	2530	8670	12640	6870	4950	1600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2000, BY WATER YEAR (WY)

MEAN	21.9	9.26	7.72	17.0	17.0	17.5	46.3	108	194	166	98.1	51.4
MAX	42.4	30.9	36.1	166	63.4	44.8	79.4	187	349	400	199	89.0
(WY)	1999	1999	1997	1997	1963	1997	1959	1997	1969	1995	1995	1974
MIN	7.00	.67	.000	.000	.000	.000	22.3	59.1	68.2	62.0	35.1	15.9
(WY)	1995	1958	1954	1954	1954	1955	1975	1955	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1954 - 2000	
ANNUAL TOTAL	23902.6		21751.6			
ANNUAL MEAN	65.5		59.4		64.7	
HIGHEST ANNUAL MEAN					100	1995
LOWEST ANNUAL MEAN					33.8	1961
HIGHEST DAILY MEAN	299	Jun 19	266	May 30	998	Jan 3 1997
LOWEST DAILY MEAN	2.6	Dec 19	2.6	Dec 19	.00	Nov 3 1953
ANNUAL SEVEN-DAY MINIMUM	2.7	Dec 16	2.7	Dec 16	.00	Nov 3 1953
INSTANTANEOUS PEAK FLOW			268	May 29	1170	Jan 3 1997
INSTANTANEOUS PEAK STAGE			3.29	May 29	5.44	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	47410		43140		46910	
10 PERCENT EXCEEDS	196		176		165	
50 PERCENT EXCEEDS	31		27		32	
90 PERCENT EXCEEDS	3.7		3.7		.51	

e Estimated.

10291500 BUCKEYE CREEK NEAR BRIDGEPORT, CA

LOCATION.—Lat 38°14'20", long 119°19'30", in NE 1/4 NE 1/4 sec.04, T.4 N., R.24 E., Mono County, Hydrologic Unit 16050301, in Toiyabe National Forest, on right bank at Buckeye Hot Springs, 0.6 mi downstream from Eagle Creek, and about 5.5 mi southwest of Bridgeport.

DRAINAGE AREA.—44.1 mi^2.

PERIOD OF RECORD.—November 1910 to September 1914 (fragmentary), October 1953 to September 1979, October 1995 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,900 ft above sea level, from topographic map. November 1910 to September 1914, non-recording gage at site 0.5 mi downstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion above station. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

REVISIONS.—WSP 1927: Drainage area.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,750 ft^3/s, Jan. 2, 1997; gage height, 7.49 ft; minimum daily, 4.5 ft^3/s, Jan. 12, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of June 21, 1911, reached an observed stage of 4.8 ft, discharge not determined, site and datum then in use.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	0645	111	2.39	May 28	0030	*345	*3.19
May 03	2230	210	2.77				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	20	17	e16	15	e15	35	143	189	131	46	25
2	23	19	17	e16	14	15	39	163	195	114	46	28
3	22	19	16	e16	14	15	51	178	199	107	46	27
4	22	19	19	e16	14	15	70	176	216	98	57	24
5	22	19	19	e16	14	15	77	166	224	93	45	24
6	22	18	17	e15	14	15	76	147	212	88	43	23
7	22	18	16	e15	14	14	74	149	214	86	41	22
8	22	20	e16	e15	15	15	82	168	197	83	40	21
9	21	19	e16	e15	15	15	74	159	152	82	37	20
10	21	19	16	e15	15	15	70	142	142	83	35	21
11	20	20	e16	15	14	15	72	113	146	83	33	20
12	20	20	e16	15	15	15	78	103	164	83	32	20
13	20	19	16	15	16	16	99	98	189	78	31	19
14	20	19	16	14	36	18	77	98	208	73	30	19
15	20	19	e16	12	21	20	66	93	212	70	29	19
16	19	19	16	13	19	22	59	90	215	71	28	18
17	19	19	15	12	17	25	57	83	199	68	28	18
18	19	18	15	16	16	26	51	91	208	64	27	18
19	19	e19	15	16	15	32	50	122	197	60	26	18
20	19	e19	14	15	15	29	54	154	177	56	25	18
21	18	18	15	14	15	25	58	186	176	54	25	18
22	18	17	e16	13	15	25	64	223	176	54	25	18
23	18	19	e16	13	15	27	63	217	170	51	24	18
24	18	20	e16	18	e15	29	65	226	164	50	24	18
25	18	19	16	17	15	31	76	259	173	48	24	18
26	18	19	e16	15	15	35	98	239	178	47	24	17
27	18	19	e16	15	15	39	126	247	155	45	24	17
28	35	18	e16	13	e15	37	132	277	158	44	24	17
29	24	18	e16	17	15	37	112	245	150	43	28	17
30	21	18	e16	14	---	37	116	227	145	44	30	17
31	20	---	e16	13	---	35	---	201	---	45	27	---
TOTAL	641	566	499	460	463	724	2221	5183	5500	2196	1004	597
MEAN	20.7	18.9	16.1	14.8	16.0	23.4	74.0	167	183	70.8	32.4	19.9
MAX	35	20	19	18	36	39	132	277	224	131	57	28
MIN	18	17	14	12	14	14	35	83	142	43	24	17
AC-FT	1270	1120	990	912	918	1440	4410	10280	10910	4360	1990	1180

e Estimated.

10291500 BUCKEYE CREEK NEAR BRIDGEPORT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.3	22.3	22.3	24.7	21.8	25.9	51.3	141	208	131	52.9	29.9
MAX	41.4	44.4	52.2	158	55.8	70.6	115	322	432	399	115	65.6
(WY)	1957	1974	1965	1997	1997	1997	1997	1969	1911	1911	1967	1911
MIN	7.43	11.6	10.2	10.2	10.2	11.7	22.3	32.2	43.4	18.8	9.76	7.55
(WY)	1978	1962	1978	1960	1977	1977	1967	1977	1976	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1911 - 2000	
ANNUAL TOTAL	23906		20054			
ANNUAL MEAN	65.5		54.8		61.6	
HIGHEST ANNUAL MEAN					114	1969
LOWEST ANNUAL MEAN					19.5	1977
HIGHEST DAILY MEAN	316	Jun 18	277	May 28	1050	Jan 2 1997
LOWEST DAILY MEAN	14	Dec 20	12	Jan 15	4.5	Jan 12 1963
ANNUAL SEVEN-DAY MINIMUM	15	Dec 15	14	Jan 11	5.5	Jan 11 1963
INSTANTANEOUS PEAK FLOW			345	May 28	2750	Jan 2 1997
INSTANTANEOUS PEAK STAGE			3.19	May 28	7.49	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	47420		39780		44600	
10 PERCENT EXCEEDS	204		165		174	
50 PERCENT EXCEEDS	26		22		29	
90 PERCENT EXCEEDS	18		15		14	

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, in Toiyabe National Forest, at Bridgeport Dam on East Walker River, and 4.5 mi north of Bridgeport.

DRAINAGE AREA.—358 mi^2.

PERIOD OF RECORD.—March 1926 to current year. Month end 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 6,466.44 ft above sea level (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 bottom of reservoir, and 6,461 ft. Crest of spillway is at elevation 6,460.75 ft; however, there are four siphons that become operative prior to reaching this 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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 44,880 acre-ft, June 16, 1974, elevation 6,460.78 ft; no usable contents at times in water years 1929, 1930, 1960, 1977, 1988, and 1989.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 39,720 acre-ft, July 3, 5, elevation, 6,459.06 ft; minimum 11,010 acre-ft, Sept. 30, elevation, 6,444.69 ft.

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

6,425	334	6,440	6,240	6,455	29,160
6,430	1,130	6,445	11,380	6,460	42,460
6,435	2,920	6,450	18,780	6,461	45,490

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12830	11430	14700	17040	22600	29020	32430	28650	31820	39480	29710	18280
2	12680	11540	14730	17150	22830	29180	32310	28610	32150	39570	29300	18020
3	12580	11640	14830	17210	23000	29470	32200	28560	32480	39540	29050	17830
4	12490	11750	14940	17270	23270	29690	32180	28630	32840	39540	28700	17540
5	12330	11870	15000	17320	23450	30000	32100	28580	33200	39430	28380	17350
6	12140	12000	15110	17320	23660	30220	31950	28470	33600	39370	28030	17080
7	12040	12070	15190	17420	23830	30360	31800	28560	34010	39150	27670	16790
8	11980	12180	15260	17490	23970	30580	31650	28560	34350	38900	27300	16460
9	11920	12280	15370	17590	24100	30820	31350	28610	34670	38650	26880	16190
10	11840	12390	15440	17580	24330	30970	31260	28470	34750	38340	26510	15880
11	11770	12490	15530	17730	24430	31110	31140	28580	34800	38040	26090	15580
12	11680	12590	15640	17870	24640	31260	30850	28610	34800	37680	25740	15220
13	11630	12700	15690	18070	24990	31400	30870	28650	34960	37340	25300	14830
14	11570	12790	15770	18110	25560	31500	30850	28610	35120	36950	24920	14510
15	11520	12920	15870	18300	25780	31750	30750	28580	35300	36630	24430	14150
16	11460	13040	15960	18490	26070	31870	30730	28540	35490	36280	23950	13830
17	11410	13130	16070	18640	26270	32030	30510	28450	35730	35910	23500	13460
18	11370	13210	16170	19150	26440	32130	30410	28310	35990	35590	22980	13120
19	11360	13380	16260	19420	26660	32100	30340	28170	36360	35220	22460	12770
20	11340	13600	16340	19640	26820	32230	30200	28060	36730	34830	21970	12460
21	11330	13700	16410	19810	27040	32200	30170	28010	37010	34370	21540	12260
22	11330	13770	16440	19960	27300	32280	30050	28030	37260	33930	21150	11990
23	11300	13830	16500	20200	27410	32330	29910	28170	37480	33480	20760	11800
24	11270	13940	16570	20600	27570	32360	29740	28310	37820	33040	20340	11620
25	11250	14050	16610	21110	27800	32380	29520	28630	38090	32610	20010	11440
26	11170	14200	16680	21400	27900	32430	29350	29020	38430	32050	19610	11320
27	11290	14290	16770	21600	28400	32410	29230	29400	38650	31570	19350	11230
28	11060	14420	16810	21800	28650	32430	29020	29910	38900	31210	19060	11170
29	11100	14950	16870	21970	28810	32330	28880	30510	39180	30820	18820	11130
30	11210	14740	16920	22190	---	32380	28750	31020	39400	30460	18680	11010
31	11330	---	17000	22380	---	32480	---	31450	---	30120	18470	---
MAX	12830	14950	17000	22380	28810	32480	32430	31450	39400	39570	29710	18280
MIN	11060	11430	14700	17040	22600	29020	28750	28010	31820	30120	18470	11010
a	6444.96	6447.51	6448.96	6451.90	6454.85	6456.36	6454.82	6455.95	6458.95	6455.40	6549.82	6444.69
b	-1680	+3410	+2260	+5380	+6430	+3670	-3730	+2700	+7950	-9280	-11650	-7460

CAL YR 1999 MAX 42490 MIN 11060 b -18200
WTR YR 2000 MAX 39570 MIN 11010 b -2000

a Elevation, in feet above sea level, 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, in 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 mi^2.

PERIOD OF RECORD.—July 1911 to September 1914 (gage height only), October and November 1921, May 1922 to September 1924, March to July 1925, October 1925 to current year.

REVISED RECORDS.—WSP 1927: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 6,400 ft above sea level, from topographic map. Prior to Oct. 1, 1921, nonrecording gage at site 0.5 mi upstream at different datum. Oct. 1, 1921, to Feb. 21, 1924, water-stage recorder at site 1 mi downstream at different datum. Feb. 22, 1924, to Sept. 30, 1931, water-stage recorder, and Oct. 1, 1931 to May 25, 1939, nonrecording gage at present site at datum 2.34 ft lower. May 26, 1939, to Nov. 27, 1988, water-stage recorder at datum 2.00 ft higher.

REMARKS.—No estimated daily discharges. Records good. Diversions for irrigation of meadow pasturelands near Bridgeport. Flow regulated by Bridgeport Reservoir (station 10292500). These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,910 ft^3/s, Jan. 4, 1997, gage height, 6.74 ft; minimum daily, 0.20 ft^3/s, Nov. 2, 1955.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 306 ft^3/s, Aug. 15, gage height, 3.96 ft; minimum daily, 20 ft^3/s, Oct. 31, Nov. 1–2, 4–8, and 10–17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	20	22	33	26	23	85	163	207	230	269	154
2	144	20	22	33	26	23	85	164	207	214	269	154
3	143	21	22	34	26	23	85	163	208	215	246	154
4	143	20	28	35	26	23	85	158	208	215	261	154
5	144	20	28	35	26	23	94	152	214	209	254	154
6	145	20	25	34	26	23	110	162	216	212	246	169
7	133	20	25	35	26	23	116	176	209	228	245	189
8	117	20	25	35	26	23	127	186	221	235	238	189
9	116	21	25	35	26	23	141	195	238	243	245	189
10	116	20	25	29	26	23	141	174	238	243	237	189
11	115	20	28	26	26	23	135	154	238	256	229	189
12	115	20	25	26	26	23	129	154	221	260	228	214
13	115	20	25	26	26	23	129	149	204	242	227	226
14	111	20	25	26	26	23	129	142	217	241	227	209
15	105	20	25	26	26	23	129	142	231	241	266	187
16	106	20	25	26	26	28	134	147	239	242	292	197
17	105	20	25	26	26	43	140	161	239	243	282	210
18	98	21	26	26	26	55	135	179	239	243	281	209
19	87	21	26	26	26	55	128	179	224	242	280	208
20	86	21	26	26	26	55	129	184	219	253	280	197
21	79	21	29	26	26	51	128	191	239	271	260	164
22	75	21	29	26	24	45	138	196	233	271	235	148
23	86	21	29	26	23	45	152	203	225	270	235	147
24	86	22	29	26	23	49	157	203	231	269	234	146
25	86	21	25	26	23	59	159	198	239	282	233	132
26	97	22	25	26	23	65	152	190	246	300	232	111
27	114	22	29	26	23	69	157	191	248	278	226	96
28	102	22	30	26	23	79	163	191	240	251	206	85
29	59	22	29	26	23	85	164	192	241	251	192	86
30	27	22	32	26	---	85	163	198	242	241	191	93
31	20	---	33	26	---	85	---	206	---	241	175	---
TOTAL	3232	621	822	884	731	1298	3919	5443	6821	7632	7521	4949
MEAN	104	20.7	26.5	28.5	25.2	41.9	131	176	227	246	243	165
MAX	157	22	33	35	26	85	164	206	248	300	292	226
MIN	20	20	22	26	23	23	85	142	204	209	175	85
AC-FT	6410	1230	1630	1750	1450	2570	7770	10800	13530	15140	14920	9820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2000, BY WATER YEAR (WY)

MEAN	61.7	29.8	38.4	46.4	52.1	90.4	177	259	314	304	242	156
MAX	301	325	398	804	345	417	721	880	1001	797	638	406
(WY)	1984	1983	1984	1997	1997	1983	1952	1938	1938	1967	1983	1983
MIN	7.35	1.10	2.50	.50	.62	5.39	27.5	57.5	36.0	20.4	13.3	17.1
(WY)	1931	1956	1960	1950	1950	1927	1961	1991	1924	1924	1924	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1922 - 2000	
ANNUAL TOTAL	67208		43873			
ANNUAL MEAN	184		120		148	
HIGHEST ANNUAL MEAN					443	1983
LOWEST ANNUAL MEAN					37.5	1931
HIGHEST DAILY MEAN	727	Jun 25	300	Jul 26	1880	Jan 4 1997
LOWEST DAILY MEAN	20	Oct 31	20	Oct 31	.20	Nov 2 1955
ANNUAL SEVEN-DAYIMUM	20	Nov 10	20	Nov 10	.20	Nov 2 1955
INSTANTANEOUS PEAK FLOW			306	Aug 15	1910	Jan 4 1997
INSTANTANEOUS PEAK STAGE			3.96	Aug 15	6.74	Jan 4 1997
ANNUAL RUNOFF (AC-FT)	133300		87020		107100	
10 PERCENT EXCEEDS	349		242		348	
50 PERCENT EXCEEDS	152		115		96	
90 PERCENT EXCEEDS	25		23		7.0	

10295500 LITTLE WALKER RIVER NEAR BRIDGEPORT, CA

LOCATION (REVISED).—Lat 38°21'39", long 119°26'38", in NW 1/4 NW 1/4 sec.22, T.6 N., R.23 E., Mono County, Hydrologic Unit 16050302, in 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 mi^2.

PERIOD OF RECORD.—April to August 1910, October 1944 to September 1986, October 1995 to current year. Prior to October 1958, published as East Fork Walker River near Bridgeport.

REVISED RECORDS.—WDR 82-1: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 6,790 ft above sea level, from topographic map. April to August 1910, nonrecording gage at site 1 mi upstream at different datum. Prior to Jan. 2, 1997 at same site, at datum 1.0 ft higher.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Small diversions above station. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,540 ft^3/s, Jan. 2, 1997, gage height, 5.70 ft; minimum daily, 2.6 ft^3/s, Aug. 16, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 28	2330	*253	*2.54	Jun 18	1915	210	2.43

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	17	e11	15	20	29	82	136	104	38	23
2	19	18	21	e10	16	19	37	85	136	93	40	25
3	19	18	21	e11	16	18	45	95	145	89	45	23
4	21	18	e20	e11	16	19	53	111	143	81	49	21
5	22	18	e19	e10	15	18	55	107	144	75	40	21
6	21	18	e18	e12	16	17	55	97	160	75	39	21
7	21	17	17	e13	15	18	60	99	143	70	35	20
8	20	19	e19	e12	14	16	61	99	129	69	31	19
9	20	18	e18	e13	15	15	53	100	107	69	31	19
10	19	18	18	14	15	17	55	100	105	75	29	18
11	19	19	e20	13	15	18	54	86	97	75	27	17
12	19	19	e19	14	13	18	58	83	109	74	27	17
13	19	18	17	15	25	18	78	89	120	69	27	17
14	19	18	e18	17	66	21	50	81	143	66	24	16
15	19	19	e19	15	36	21	42	75	156	63	23	16
16	19	18	e19	14	28	25	40	67	159	68	23	15
17	19	19	e18	15	27	23	41	62	149	66	22	15
18	19	19	e17	29	26	26	34	67	166	50	22	15
19	19	24	e16	21	24	35	34	78	147	46	21	15
20	19	24	e15	19	23	28	39	96	133	50	20	14
21	18	19	e14	17	22	25	41	128	132	46	20	14
22	18	22	e13	17	20	26	46	139	130	44	20	14
23	18	21	e12	15	18	28	41	143	126	43	20	14
24	18	24	e11	23	25	28	41	160	123	39	20	15
25	18	23	e11	19	20	29	49	193	127	38	21	14
26	18	22	e11	16	21	32	57	183	131	38	21	14
27	18	19	e10	19	20	33	72	188	120	39	21	14
28	30	21	e10	14	21	31	73	199	112	39	22	14
29	20	19	e10	19	19	30	62	171	121	37	23	15
30	20	18	e11	17	---	29	76	171	122	37	29	14
31	19	---	e12	15	---	27	---	146	---	36	26	---
TOTAL	605	586	491	480	622	728	1531	3580	3971	1863	856	509
MEAN	19.5	19.5	15.8	15.5	21.4	23.5	51.0	115	132	60.1	27.6	17.0
MAX	30	24	21	29	66	35	78	199	166	104	49	25
MIN	18	17	10	10	13	15	29	62	97	36	20	14
AC-FT	1200	1160	974	952	1230	1440	3040	7100	7880	3700	1700	1010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2000, BY WATER YEAR (WY)

MEAN	20.6	21.8	22.1	22.7	22.9	27.6	51.4	127	177	105	39.8	23.6
MAX	47.7	65.3	98.4	101	58.9	85.7	97.0	323	388	297	137	55.5
(WY)	1983	1951	1951	1997	1986	1986	1986	1969	1983	1967	1983	1983
MIN	6.79	9.84	9.10	9.26	11.0	10.8	20.9	16.5	36.6	9.48	5.41	4.95
(WY)	1978	1949	1949	1949	1977	1977	1976	1977	1976	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1945 - 2000	
ANNUAL TOTAL	20433		15822			
ANNUAL MEAN	56.0		43.2		55.2	
HIGHEST ANNUAL MEAN					113	1983
LOWEST ANNUAL MEAN					13.9	1977
HIGHEST DAILY MEAN	290	May 28	199	May 28	730	May 16 1996
LOWEST DAILY MEAN	10	Dec 27	10	Dec 27	2.6	Aug 16 1977
ANNUAL SEVEN-DAY MINIMUM	11	Dec 24	11	Dec 24	3.0	Aug 11 1977
INSTANTANEOUS PEAK FLOW			253	May 28	2540	Jan 2 1997
INSTANTANEOUS PEAK STAGE			2.54	May 28	5.70	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	40530		31380		39990	
10 PERCENT EXCEEDS	160		114		146	
50 PERCENT EXCEEDS	25		22		26	
90 PERCENT EXCEEDS	18		15		13	

e Estimated.

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, in Toiyabe National Forest, on left bank, 200 ft downstream from Little Walker River, 10 ft upstream from bridge on U.S. Highway 395, and 13 mi southeast of Coleville.

DRAINAGE AREA.—181 mi^2.

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

REVISED RECORDS.—WDR NV-79-1: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 6,591.39 ft above sea level. Prior to Oct. 1, 1939, at site, 125 ft downstream at datum 1.00 ft higher. Oct. 1, 1939, to Sept. 30, 1969, at present site and datum. Oct. 1, 1969, to July 10, 1987, at site 100 ft downstream at same datum. July 10, 1987 to Mar. 5, 1997, at site upstream 100 ft at same datum. Mar. 6, 1997 at site 150 ft downstream at datum 2.00 ft lower.

REMARKS.—Records fair. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poore Lake, capacity, 1,200 acre-ft, 7 mi upstream. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES OUTSIDE PERIOD OF RECORD.—Maximum discharge observed prior to 1938, 5,800 ft^3/s, Dec. 11, 1937, on basis of slope-area measurement of peak flow.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,300 ft^3/s, Jan. 2, 1997, gage height, 10.11 ft; minimum daily, 9.7 ft^3/s, Sept. 11, 1997.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharges of 1,120 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 08	2145	1,220	4.10	Jun 16	0045	1,580	4.54
May 25	0030	*2,200	*5.22	Jun 26	0515	1,320	4.22
Jun 05	0015	1,560	4.51				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	49	42	30	55	66	162	776	1040	640	153	79
2	56	46	43	28	55	63	175	900	1090	513	160	88
3	55	45	42	30	55	63	217	989	1110	473	164	91
4	57	44	e45	31	55	64	285	1030	1240	420	170	83
5	58	42	48	27	53	65	355	1020	1340	377	147	75
6	57	41	48	29	51	62	379	886	1230	353	139	72
7	58	40	42	34	49	58	391	844	1240	344	133	68
8	56	47	e41	30	50	58	425	1060	1130	333	127	65
9	54	44	45	32	50	55	399	975	750	326	120	61
10	52	46	39	33	51	57	366	839	663	327	112	58
11	45	47	e34	28	50	65	385	633	683	335	106	57
12	43	48	46	33	49	68	417	545	829	333	102	55
13	42	46	41	33	65	70	601	509	1050	307	96	54
14	42	45	e38	34	187	81	468	510	1280	277	91	52
15	42	47	41	38	120	91	368	482	1300	259	87	51
16	41	47	43	38	93	103	319	449	1300	259	84	50
17	41	51	42	36	80	114	304	405	1130	253	82	49
18	42	44	40	78	76	116	268	474	1170	229	79	49
19	41	61	e38	72	70	140	245	700	1120	211	77	48
20	40	68	e38	68	68	139	259	946	950	195	75	47
21	40	51	e36	58	65	125	285	1190	926	186	74	45
22	39	47	e35	50	61	119	306	1470	921	182	71	45
23	39	53	34	49	60	127	316	1510	844	173	69	48
24	39	50	33	79	65	133	329	1600	805	165	68	47
25	39	50	33	80	61	139	379	1930	848	156	68	45
26	38	49	31	65	63	155	517	1740	1030	151	67	41
27	38	47	31	58	71	173	692	1690	777	144	68	40
28	82	45	31	51	68	173	747	1800	762	138	73	39
29	75	48	30	57	66	169	607	1590	733	134	84	39
30	58	47	32	60	---	170	600	1380	794	134	100	38
31	52	---	34	51	---	165	---	1160	---	148	89	---
TOTAL	1517	1435	1196	1420	1962	3246	11566	32032	30085	8475	3135	1679
MEAN	48.9	47.8	38.6	45.8	67.7	105	386	1033	1003	273	101	56.0
MAX	82	68	48	80	187	173	747	1930	1340	640	170	91
MIN	38	40	30	27	49	55	162	405	663	134	67	38
MED	43	47	39	38	61	103	367	975	1040	259	89	50
AC-FT	3010	2850	2370	2820	3890	6440	22940	63540	59670	16810	6220	3330

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	55.8	68.4	72.1	79.2	75.9	111	301	778	966	503	154	75.2
MAX	219	539	448	854	246	369	609	1655	2066	1864	663	246
(WY)	1983	1951	1951	1997	1963	1986	1997	1969	1983	1995	1983	1983
MIN	16.6	22.2	20.0	18.1	26.0	32.1	108	139	188	41.1	18.5	12.4
(WY)	1978	1978	1991	1977	1991	1977	1975	1977	1976	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1938 - 2000	
ANNUAL TOTAL	119501		97748			
ANNUAL MEAN	327		267		268	
HIGHEST ANNUAL MEAN					537	1983
LOWEST ANNUAL MEAN					65.3	1977
HIGHEST DAILY MEAN	2130	May 28	1930	May 25	8660	Jan 2 1997
LOWEST DAILY MEAN	30	Dec 29	27	Jan 5	9.7	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	32	Dec 24	30	Dec 31	10	Sep 5 1977
INSTANTANEOUS PEAK FLOW			2200	May 25	12300	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.22	May 25	10.11	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	237000		193900		193800	
10 PERCENT EXCEEDS	1110		906		822	
50 PERCENT EXCEEDS	92		71		89	
90 PERCENT EXCEEDS	42		39		34	

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA

LOCATION (REVISED).—Lat 38°30'48", long 119°26'56", in NE 1/4 NE 1/4 sec.28, T.8 N., R.23 E., Mono County, Hydrologic Unit 16050302, in Toiyabe National Forest, on left bank, 0.4 mi downstream from Rock Creek, and 5 mi southeast of Coleville.

DRAINAGE AREA.—250 mi^2.

PERIOD OF RECORD.—October 1902 to July 1908 (published as West Fork of Walker River near Coleville, 1903, 1905–08 and as Walker River (West Fork) near Coleville, 1904), March 1909 to September 1910, June 1915 to March 1938, May 1957 to current year.

REVISED RECORDS.—WSP 880: 1917 (runoff in acre-ft). WSP 1514: 1918, 1923. WDR NV-80-1: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 5,520 ft above sea level, from topographic map. See WSP 1927 for history of changes prior to July 25, 1964. July 26, 1964, to Jan. 2, 1997 (gage destroyed in 1997 flood) at several sites and datums 2,000 ft downstream from present location, when reestablished Oct. 28, 1997, at new datum.

REMARKS.—No estimated daily discharges. Records fair. Station is above diversions except for a few small ranch ditches. Flow slightly regulated by Poore Lake, capacity, 1,200 acre-ft, 17 mi upstream. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,500 ft^3/s, Jan. 2, 1997, gage height, 10.23 ft; minimum daily, 14 ft^3/s, several days July–September 1924 and Sept. 12, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,120 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 28	0115	*1,940	*7.85	Jun 16	0145	1,490	7.41
Jun 05	0145	1,430	7.34	Jun 26	0530	1,200	7.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	65	59	42	64	74	158	679	964	668	152	93
2	67	63	59	43	64	76	167	782	979	526	149	92
3	67	61	51	42	66	76	201	857	1000	487	154	103
4	69	61	52	45	65	76	260	887	1100	439	166	92
5	70	59	61	38	65	80	329	880	1220	393	157	85
6	69	58	59	39	60	77	354	768	1120	374	148	81
7	71	57	56	48	61	71	358	715	1130	365	143	77
8	70	62	47	40	61	73	382	883	1090	346	140	72
9	68	60	61	46	62	70	368	849	774	338	133	67
10	66	62	55	48	62	68	342	728	688	337	126	64
11	61	63	47	44	61	75	354	555	701	344	122	62
12	59	63	56	44	61	79	373	475	836	339	110	61
13	58	61	58	46	67	80	525	442	1040	319	107	60
14	58	61	49	48	180	86	429	442	1240	282	104	57
15	58	62	53	53	122	96	349	421	1240	265	99	55
16	58	62	54	56	107	103	309	403	1260	260	103	54
17	58	66	54	54	93	117	293	365	1110	253	98	53
18	58	59	56	78	86	116	262	400	1110	230	96	53
19	57	71	52	84	82	134	237	568	1100	213	89	52
20	57	83	52	77	82	140	247	749	947	187	87	51
21	56	69	49	73	79	124	270	927	989	174	85	50
22	56	55	44	61	75	121	289	1150	948	169	85	51
23	56	62	45	62	76	126	300	1220	901	160	85	53
24	55	60	45	79	68	132	310	1260	841	154	84	53
25	55	63	45	93	73	136	345	1640	822	146	82	51
26	55	63	43	79	72	149	445	1550	1020	141	81	48
27	54	62	44	66	89	166	601	1450	790	135	79	45
28	80	60	44	65	77	169	668	1620	766	140	82	44
29	88	62	41	58	80	165	548	1430	730	136	95	44
30	74	61	41	66	---	166	530	1230	798	126	109	42
31	68	---	47	61	---	160	---	1030	---	144	105	---
TOTAL	1962	1876	1579	1778	2260	3381	10603	27355	29254	8590	3455	1865
MEAN	63.3	62.5	50.9	57.4	77.9	109	353	882	975	277	111	62.2
MAX	88	83	61	93	180	169	668	1640	1260	668	166	103
MIN	54	55	41	38	60	68	158	365	688	126	79	42
AC-FT	3890	3720	3130	3530	4480	6710	21030	54260	58030	17040	6850	3700

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.8	71.3	68.1	79.6	82.3	127	306	790	1002	536	169	84.6
MAX	299	214	270	905	280	403	636	1756	2055	2492	721	269
(WY)	1905	1974	1965	1997	1963	1986	1910	1969	1983	1907	1995	1907
MIN	21.5	25.4	28.7	26.9	32.0	42.1	118	149	106	26.9	17.4	16.1
(WY)	1978	1930	1960	1930	1929	1933	1975	1977	1924	1924	1924	1924

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1903 - 2000	
ANNUAL TOTAL	125791		93958			
ANNUAL MEAN	345		257		282	
HIGHEST ANNUAL MEAN					669	1907
LOWEST ANNUAL MEAN					74.5	1977
HIGHEST DAILY MEAN	2220	May 29	1640	May 25	9000	Jan 2 1997
LOWEST DAILY MEAN	41	Dec 29	38	Jan 5	14	Jul 24 1924
ANNUAL SEVEN-DAY MINIMUM	43	Dec 24	42	Jan 2	14	Aug 28 1924
INSTANTANEOUS PEAK FLOW			1940	May 28	12500	Jan 2 1997
INSTANTANEOUS PEAK STAGE			7.85	May 28	10.23	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	249500		186400		204300	
10 PERCENT EXCEEDS	1160		843		855	
50 PERCENT EXCEEDS	104		82		98	
90 PERCENT EXCEEDS	58		51		38	

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, Hydrologic Unit 16050301, at outlet works of Topaz Lake on West Walker River, and 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.—Water-stage recorder. Datum of gage is above sea level. 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 rim of 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) 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, rock-faced 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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 60,680 acre-ft, July 3, 1980, July 10, 1995, elevation, 5,000.92 ft, present datum; no usable contents at times in some years.

EXTREMES FOR CURRENT YEAR.—Maximum contents 55,940 acre-ft, July 1, 2, elevation, 4,998.84 ft; minimum contents, 7,000 acre-ft, Sept. 30, elevation 4,972.18 ft.

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

4,968	490	4,980	19,760	4,995	47,540
4,970	3,580	4,985	28,310	5,000	58,570
4,975	11,520	4,990	37,360	5,001	60,870

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12330	8780	12620	13950	14720	19030	23310	23650	42840	55940	34000	16850
2	12160	8850	12730	13970	14760	19250	23270	24030	43620	55720	33400	16470
3	11950	8940	12810	13970	14770	19440	23190	24400	44380	55720	32910	16120
4	11710	9040	12940	13950	14810	19620	23150	24860	45200	55270	32330	15730
5	11580	9120	13070	13990	14840	19820	23200	25430	46080	54820	31780	15350
6	11300	9230	13200	13970	14860	20020	23310	25880	46900	54350	31260	15020
7	11080	9300	13290	13970	14910	20210	23410	26160	47680	53680	30800	14690
8	10840	9440	13420	13970	14950	20380	23560	26730	48450	53240	30310	14350
9	10600	9540	13480	14040	14950	20560	23600	27280	48710	52580	29850	13990
10	10370	9710	13560	13990	15050	20700	23560	27580	48750	51920	29370	13560
11	10160	9830	13680	14020	15150	20880	23530	27750	48800	51260	28920	13110
12	9970	9950	13770	14070	15220	21050	23530	27850	48990	50610	28410	12600
13	9830	10070	13840	14020	15430	21220	23790	27920	49440	49720	27780	12020
14	9670	10230	13860	13990	15650	21410	23960	27920	50310	49080	27180	11550
15	9540	10400	13870	14050	15940	21580	23970	27870	51130	48220	26590	11080
16	9420	10480	13900	14100	16210	21730	23960	27680	51990	47640	25950	10640
17	9300	10660	13900	14150	16440	21900	23910	27470	52650	46860	25290	10160
18	9170	10810	13900	14230	16650	22080	23790	27300	53240	46040	24620	9730
19	9150	11000	13900	14310	16890	22270	23700	27330	53880	45130	23970	9380
20	9120	11050	13920	14310	17070	22440	23670	27730	54200	44220	23290	9040
21	9070	11290	13940	14310	17270	22630	23630	28520	54400	43270	22630	8740
22	8960	11400	13940	14330	17450	22780	23550	29650	54640	42350	22070	8470
23	8880	11550	13940	14400	17620	22920	23480	30960	54860	41410	21510	8240
24	8830	11680	13920	14460	17780	23050	23380	32260	54980	40460	20920	8040
25	8770	11840	13940	14530	17980	23170	23170	33910	54950	39490	20340	7890
26	8690	12020	13940	14530	18150	23320	23000	35480	55330	38520	19750	7700
27	8640	12100	13940	14560	18450	23410	22980	36880	55450	37630	19200	7510
28	8640	12240	13950	14580	18670	23410	23340	38410	55540	36820	18620	7320
29	8610	12200	13950	14590	18850	23380	23460	39810	55630	36050	18110	7150
30	8640	12460	13940	14680	---	23340	23480	41090	55720	35340	17670	7000
31	8720	---	13970	14690	---	23310	---	42080	---	34650	17280	---
MAX	12330	12460	13970	14690	18850	23410	23970	42080	55720	55940	34000	16850
MIN	8610	8780	12620	13950	14720	19030	22980	23650	42840	34650	17280	7000
a	4973.26	4975.58	4976.51	4976.94	4979.46	4982.10	4982.20	4992.38	4998.74	4988.56	4978.52	4972.18
b	-3720	+3740	+1510	+720	+4160	+4460	+170	+18600	+13640	-21070	-17370	-10280

CAL YR 1999 MAX 59210 MIN 8610 b -35190
WTR YR 2000 MAX 55940 MIN 7000 b -5440

a Elevation, in feet above sea level, at end of month.
b Change in contents, in acre-feet.

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

LOCATION.—Lat 38°42'50", long 119°45'50", in SW 1/4 NE 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, 1.5 mi northeast of Markleeville, and at mi 114.75 upstream from Lahontan Dam.

DRAINAGE AREA.—276 mi^2.

PERIOD OF RECORD.—August 1960 to current year.

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

REMARKS.—Records good except for estimated daily discharges, which are fair. A few small diversions for irrigation above station. Flow slightly regulated by several small reservoirs, total capacity, about 5,000 acre-ft. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 18,900 ft^3/s, Jan. 2, 1997, gage height, 11.78 ft; minimum daily, 12 ft^3/s, Sept. 10–13, 23, 1997.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 14	0045	1,490	4.22	May 08	1915	1,960	4.70
Apr 13	1015	1,300	4.00	May 24	2230	*2,250	*4.96

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	81	74	76	114	149	279	1060	961	351	98	83
2	68	78	72	67	113	149	304	1180	913	304	109	105
3	67	76	66	69	127	145	409	1290	896	274	100	98
4	67	75	63	69	122	161	615	1320	950	254	115	83
5	67	74	85	69	115	171	690	1350	1000	238	105	69
6	67	73	77	e68	109	152	659	1150	901	223	110	65
7	69	72	75	72	115	138	636	1120	889	211	104	63
8	69	84	60	69	116	139	688	1710	844	199	99	60
9	69	77	81	70	117	132	614	1440	662	189	102	60
10	68	81	72	64	118	127	587	1190	596	184	109	62
11	67	80	60	65	113	142	642	926	575	178	113	58
12	66	80	82	62	117	161	717	810	599	175	115	56
13	66	77	76	64	261	174	1140	785	668	176	102	55
14	65	76	66	63	969	199	807	767	724	167	92	65
15	66	78	79	80	336	219	619	756	716	147	95	67
16	66	79	81	92	244	224	529	728	699	142	91	65
17	67	87	74	86	194	236	489	671	607	136	85	62
18	67	73	74	191	167	232	433	777	603	135	89	57
19	66	89	71	165	153	296	392	959	582	132	75	52
20	66	113	70	139	152	306	440	1110	508	134	73	49
21	65	87	66	121	145	248	526	1280	476	129	72	56
22	65	68	63	99	134	230	596	1430	461	125	72	51
23	65	74	68	99	137	244	594	1470	426	123	69	50
24	64	72	71	334	123	260	617	1770	400	119	76	51
25	64	78	73	329	126	278	701	1840	394	117	76	57
26	64	78	71	197	132	322	886	1590	443	120	77	51
27	64	77	72	150	230	367	1120	1530	378	121	76	51
28	207	74	71	136	178	345	1100	1530	410	121	73	52
29	116	78	71	120	170	328	839	1420	363	121	80	54
30	91	78	70	118	---	322	829	1260	375	114	101	53
31	84	---	74	112	---	295	---	1070	---	96	101	---
TOTAL	2290	2367	2228	3515	5247	6891	19497	37289	19019	5255	2854	1860
MEAN	73.9	78.9	71.9	113	181	222	650	1203	634	170	92.1	62.0
MAX	207	113	85	334	969	367	1140	1840	1000	351	115	105
MIN	64	68	60	62	109	127	279	671	363	96	69	49
AC-FT	4540	4690	4420	6970	10410	13670	38670	73960	37720	10420	5660	3690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2000, BY WATER YEAR (WY)

MEAN	81.4	111	136	200	212	290	552	1143	1016	409	148	90.6
MAX	346	476	718	1722	917	983	1121	2447	2996	1721	477	239
(WY)	1983	1984	1965	1997	1986	1986	1982	1969	1983	1995	1983	1983
MIN	24.0	32.6	41.4	44.2	43.9	58.7	183	197	135	58.0	33.0	18.0
(WY)	1978	1977	1991	1977	1991	1977	1977	1977	1992	1977	1977	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1960 - 2000	
ANNUAL TOTAL	160891		108312			
ANNUAL MEAN	441		296		366	
HIGHEST ANNUAL MEAN					809	1983
LOWEST ANNUAL MEAN					83.7	1977
HIGHEST DAILY MEAN	3030	May 28	1840	May 25	12500	Jan 2 1997
LOWEST DAILY MEAN	60	Dec 8	49	Sep 20	12	Sep 10 1987
ANNUAL SEVEN-DAY MINIMUM	64	Oct 21	52	Sep 22	12	Sep 7 1987
INSTANTANEOUS PEAK FLOW			2250	May 24	18900	Jan 2 1997
INSTANTANEOUS PEAK STAGE			4.96	May 24	11.78	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	319100		214800		265300	
10 PERCENT EXCEEDS	1410		857		975	
50 PERCENT EXCEEDS	176		117		147	
90 PERCENT EXCEEDS	69		65		52	

e Estimated.

10308783 LEVIATHAN CREEK ABOVE LEVIATHAN MINE, NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'05", long 119°39'20", in SW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on right bank, 2 mi north of Highway 89, and 6.5 mi east of Markleeville.

DRAINAGE AREA.—4.16 mi^2.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,200 ft above sea level, from topographic map.

REMARKS.—Records fair except those below 0.5 ft^3/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21 ft^3/s, May 7, 1999, gage height, 4.40 ft; minimum daily, 0.03 ft^3/s, several days in July and August, 2000.

EXTREMES FOR CURRENT YEAR.—Peak discharges above base discharge of 10 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 12	1630	2.4	4.02				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.11	.10	e.18	e.17	.17	.49	.44	.20	.11	.06	.07
2	.11	.11	.10	e.18	e.17	.16	.61	.41	.19	.10	.05	.09
3	.11	.11	e.10	e.18	e.17	.15	.80	.40	.19	.09	.05	.07
4	.11	.11	e.12	e.18	e.17	.18	1.3	.37	.18	.09	.04	.06
5	.11	.11	e.12	e.18	e.17	.18	1.8	.35	.17	.09	.03	.07
6	.12	.11	e.14	.17	e.17	.18	1.7	.34	.16	.09	.03	.07
7	.11	.11	e.14	.15	e.17	.16	1.6	.34	.16	.09	.03	.06
8	.11	.11	e.16	.14	e.17	.16	1.6	.34	.18	.09	.03	.06
9	.10	.11	e.16	.16	.18	.16	1.4	.32	.17	.09	.03	.06
10	.10	.11	e.18	e.17	.17	.17	1.4	.31	.17	.09	.03	.05
11	.10	.10	e.18	e.17	.17	.19	1.5	.31	.16	.08	.04	.05
12	.10	.10	e.18	e.17	.17	.23	1.6	.31	.16	.08	.05	.05
13	.10	.10	e.18	e.17	.22	.24	1.9	.30	.14	.08	.04	.06
14	.11	.10	e.18	e.17	.36	.29	1.7	.28	.14	.07	.04	.06
15	.11	.10	e.18	e.17	.21	.28	1.4	.27	.13	.07	.04	.06
16	.11	.10	e.18	e.17	.18	.36	1.1	.29	.12	.07	.04	.06
17	.11	.11	e.18	e.17	.17	.34	1.1	.28	.12	.07	.04	.06
18	.11	.12	e.18	e.17	.17	.41	.95	.27	.12	.06	.04	.06
19	.11	.14	e.18	e.17	.16	.52	.93	.26	.11	.06	.04	.06
20	.11	.11	e.18	e.17	.16	.43	.97	.25	.11	.05	.04	.06
21	.11	.11	e.18	e.17	.16	.36	.96	.23	.12	.05	.04	.06
22	.11	e.12	e.18	e.17	.16	.39	.92	.23	.12	.05	.04	.06
23	.11	e.13	e.18	e.17	.16	.46	.75	.22	.11	.05	.04	.07
24	.11	e.14	e.18	e.17	.16	.56	.69	.26	.14	.05	.04	.07
25	.11	.12	e.18	e.17	.16	.67	.67	.23	.11	.05	.04	.07
26	.11	.10	e.18	e.17	.16	.85	.66	.22	.14	.05	.04	.07
27	.10	.10	e.18	e.17	.16	.92	.62	.21	.12	.03	.04	.07
28	.16	.10	e.18	e.17	.16	.69	.58	.20	.21	.03	.05	.07
29	.11	.11	e.18	e.17	.17	.67	.54	.20	.25	.03	.06	.07
30	.11	.10	e.18	e.17	---	.60	.47	.20	.13	.03	.11	.07
31	.11	---	e.18	e.17	---	.52	---	.20	---	.03	.07	---
TOTAL	3.41	3.31	5.10	5.26	5.13	11.65	32.71	8.84	4.53	2.07	1.36	1.92
MEAN	.11	.11	.16	.17	.18	.38	1.09	.29	.15	.067	.044	.064
MAX	.16	.14	.18	.18	.36	.92	1.9	.44	.25	.11	.11	.09
MIN	.10	.10	.10	.14	.16	.15	.47	.20	.11	.03	.03	.05
AC-FT	6.8	6.6	10	10	10	23	65	18	9.0	4.1	2.7	3.8

e Estimated.

10308783 LEVIATHAN CREEK ABOVE LEVIATHAN MINE, NEAR MARKLEEVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.11	.16	.20	.22	.23	.60	1.83	3.23	.47	.13	.073	.085
MAX	.11	.20	.24	.27	.29	.83	2.56	6.17	.80	.19	.10	.11
(WY)	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	.11	.11	.16	.17	.18	.38	1.09	.29	.15	.067	.044	.064
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1999 - 2000	
ANNUAL TOTAL	358.38		85.29			
ANNUAL MEAN	.98		.23		.23	
HIGHEST ANNUAL MEAN					.23	2000
LOWEST ANNUAL MEAN					.23	2000
HIGHEST DAILY MEAN	15	May 7	1.9	Apr 13	15	May 7 1999
LOWEST DAILY MEAN	.08	Aug 19	.03	Jul 27	.03	Jul 27 2000
ANNUAL SEVEN-DAY MINIMUM	.08	Aug 19	.03	Aug 4	.03	Aug 4 2000
INSTANTANEOUS PEAK FLOW			2.4	Apr 12	21	May 7 1999
INSTANTANEOUS PEAK STAGE			4.02	Apr 12	4.40	May 7 1999
ANNUAL RUNOFF (AC-FT)	711		169		169	
10 PERCENT EXCEEDS	2.7		.52		1.2	
50 PERCENT EXCEEDS	.24		.16		.18	
90 PERCENT EXCEEDS	.10		.05		.07	

10308784 LEVIATHAN MINE ADIT DRAIN NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'15", long 119°39'28", in NW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.2 mi north of State Highway 89, and 6.5 mi southeast of Markleeville.

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above sea level, from topographic map.

REMARKS.—Records excellent.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.09 ft^3/s, May 15–18, 1999; minimum daily, 0.0340 ft^3/s, Sept. 14, 15, 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0449	.0400	.0359	.0363	.0350	.0356	.0376	.0432	.0400	.0372	.0361	.0355
2	.0449	.0379	.0358	.0360	e.0350	.0359	.0373	.0432	.0398	.0373	.0362	.0357
3	.0445	.0369	.0371	.0356	e.0352	.0355	.0373	.0432	.0397	.0374	.0364	.0357
4	.0445	.0367	.0382	.0356	e.0352	.0359	.0375	.0436	.0391	.0374	.0359	.0354
5	.0444	.0365	.0379	.0358	e.0354	.0360	.0379	.0437	.0393	.0377	.0359	.0357
6	.0445	.0366	.0377	.0359	e.0354	.0360	.0379	.0438	.0395	.0372	.0358	.0352
7	.0447	.0368	.0380	.0364	e.0356	.0362	.0381	.0435	.0394	.0370	.0358	.0351
8	.0443	.0370	.0379	.0373	.0356	.0362	.0389	.0432	.0402	.0366	.0357	.0349
9	.0441	.0369	.0378	.0367	.0355	.0360	.0394	.0432	.0399	.0367	.0357	.0347
10	.0438	.0364	.0377	.0368	.0358	.0357	.0394	.0438	.0394	.0364	.0359	.0345
11	.0437	.0361	.0373	.0368	.0364	.0354	.0394	.0442	.0390	.0363	.0358	.0345
12	.0438	.0363	.0366	.0367	.0366	.0357	.0396	.0436	.0383	.0360	.0355	.0344
13	.0430	.0361	.0366	.0363	.0362	.0355	.0409	.0434	.0381	.0360	.0356	.0343
14	.0422	.0362	.0367	.0360	.0371	.0357	.0410	.0431	.0381	.0360	.0351	.0340
15	.0422	.0360	.0363	.0362	.0362	.0363	.0413	.0435	.0379	.0360	.0351	.0340
16	.0425	.0363	.0360	.0358	.0369	.0364	.0416	.0438	.0385	.0360	.0353	.0341
17	.0425	.0366	.0358	.0355	.0358	.0369	.0423	.0427	.0381	.0361	.0354	.0344
18	.0419	.0365	.0356	.0355	.0357	.0368	.0432	.0419	.0381	.0358	.0353	.0342
19	.0417	.0361	.0358	.0354	.0360	.0372	.0426	.0414	.0380	.0357	.0353	.0342
20	.0415	.0362	.0361	.0354	.0359	.0379	.0422	.0411	.0375	.0360	.0353	.0341
21	.0415	.0367	.0360	.0354	.0358	.0375	.0432	.0405	.0373	.0365	.0353	.0340
22	.0416	.0369	.0360	.0354	.0357	.0372	.0434	.0405	.0373	.0366	.0349	.0349
23	.0412	.0365	.0360	.0355	.0364	.0371	.0434	.0405	.0374	.0365	.0347	.0347
24	.0414	.0361	.0361	.0356	.0364	.0372	.0436	.0406	.0378	.0366	.0348	.0346
25	.0413	.0360	.0362	.0354	.0357	.0368	.0433	.0405	.0377	.0364	.0347	.0347
26	.0412	.0359	.0360	.0355	.0356	.0371	.0430	.0403	.0379	.0366	.0348	.0346
27	e.0405	.0358	.0362	.0353	.0357	.0372	.0432	.0400	.0374	.0364	.0347	.0346
28	.0401	.0355	.0372	.0355	.0355	.0373	.0439	.0399	.0377	.0365	.0349	.0344
29	.0403	.0355	.0372	.0355	.0356	.0374	.0437	.0400	.0378	.0362	.0353	.0344
30	.0397	.0355	.0373	.0355	---	.0375	.0433	.0403	.0372	.0357	.0355	.0344
31	.0398	---	.0360	.0349	---	.0377	---	.0405	---	.0354	.0355	---
TOTAL	1.3182	1.0945	1.1370	1.1115	1.0389	1.1328	1.2294	1.3067	1.1534	1.1302	1.0982	1.0399
MEAN	.043	.036	.037	.036	.036	.037	.041	.042	.038	.036	.035	.035
MAX	.0449	.0400	.0382	.0373	.0371	.0379	.0439	.0442	.0402	.0377	.0364	.0357
MIN	.0397	.0355	.0356	.0349	.0350	.0354	.0373	.0399	.0372	.0354	.0347	.0340
AC-FT	2.6	2.2	2.3	2.2	2.1	2.2	2.4	2.6	2.3	2.2	2.2	2.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

MEAN	.043	.036	.038	.038	.038	.038	.042	.061	.052	.045	.043	.042
MAX	.043	.036	.040	.040	.040	.040	.044	.079	.065	.054	.050	.049
(WY)	2000	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	.043	.036	.037	.036	.036	.037	.041	.042	.038	.036	.035	.035
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1999 - 2000
ANNUAL TOTAL	17.5797	13.7907	
ANNUAL MEAN	.048	.038	.038
HIGHEST ANNUAL MEAN			.038 2000
LOWEST ANNUAL MEAN			.038 2000
HIGHEST DAILY MEAN	.0900 May 15	.0449 Oct 1	.0900 May 15 1999
LOWEST DAILY MEAN	.0355 Nov 28	.0340 Sep 14	.0340 Sep 14 2000
ANNUAL SEVEN-DAY MINIMUM	.04 Nov 26	.03 Sep 14	.03 Sep 14 2000
ANNUAL RUNOFF (AC-FT)	35	27	27
10 PERCENT EXCEEDS	.07	.04	.06
50 PERCENT EXCEEDS	.04	.04	.04
90 PERCENT EXCEEDS	.04	.04	.04

e Estimated.

10308785 LEVIATHAN MINE PIT DRAIN NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'15", long 119°39'28", in NW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.2 mi north of Highway 89 and 6.5 mi southeast of Markleeville.

PERIOD OF RECORD.—February to September 2000.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above sea level, from topographic map.

REMARKS.—Records good.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.0026 ft^3/s, April 28, May 4–6, 10, 2000; minimum daily, 0.0006 ft^3/s, many days in 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.0007	.0015	.0024	.0019	.0017	.0011	.0010
2	---	---	---	---	---	.0007	.0015	.0025	.0018	.0017	.0011	.0008
3	---	---	---	---	---	.0007	.0015	.0025	.0018	.0017	.0011	.0008
4	---	---	---	---	---	.0007	.0015	.0026	.0018	.0016	.0010	.0008
5	---	---	---	---	---	.0008	.0016	.0026	.0018	.0016	.0010	.0008
6	---	---	---	---	---	.0008	.0015	.0026	.0020	.0016	.0011	.0008
7	---	---	---	---	---	.0007	.0015	.0024	.0022	.0016	.0010	.0008
8	---	---	---	---	---	.0008	.0016	.0024	.0022	.0016	.0010	.0008
9	---	---	---	---	---	.0007	.0016	.0024	.0021	.0015	.0010	.0008
10	---	---	---	---	.0006	.0007	.0016	.0026	.0020	.0015	.0010	.0008
11	---	---	---	---	.0006	.0007	.0016	.0023	.0019	.0015	.0010	.0008
12	---	---	---	---	.0006	.0008	.0017	.0023	.0019	.0013	.0009	.0007
13	---	---	---	---	.0006	.0008	.0018	.0024	.0018	.0012	.0008	.0006
14	---	---	---	---	.0008	.0010	.0019	.0024	.0018	.0012	.0008	.0006
15	---	---	---	---	.0009	.0011	.0019	.0024	.0018	.0012	.0008	.0006
16	---	---	---	---	.0009	.0013	.0019	.0024	.0019	.0012	.0008	.0006
17	---	---	---	---	.0008	.0017	.0020	.0021	.0019	.0012	.0008	.0006
18	---	---	---	---	.0007	.0017	.0019	.0020	.0019	.0012	.0008	.0006
19	---	---	---	---	.0007	.0018	.0018	.0020	.0018	.0012	.0008	.0006
20	---	---	---	---	.0008	.0019	.0019	.0020	.0018	.0013	.0008	.0006
21	---	---	---	---	.0007	.0017	.0020	.0020	.0018	.0012	.0008	.0006
22	---	---	---	---	.0007	.0016	.0020	.0020	.0018	.0011	.0008	.0006
23	---	---	---	---	.0007	.0017	.0020	.0020	.0017	.0011	.0008	.0006
24	---	---	---	---	.0007	.0018	.0020	.0021	.0017	.0011	.0008	.0006
25	---	---	---	---	.0006	.0018	.0020	.0022	.0017	.0012	.0008	.0006
26	---	---	---	---	.0006	.0018	.0022	.0020	.0017	.0011	.0008	.0006
27	---	---	---	---	.0007	.0018	.0025	.0019	.0017	.0011	.0008	.0006
28	---	---	---	---	.0007	.0018	.0026	.0019	.0016	.0011	.0008	.0006
29	---	---	---	---	.0007	.0018	.0023	.0020	.0017	.0011	.0008	.0006
30	---	---	---	---	---	.0017	.0023	.0020	.0016	.0011	.0008	.0006
31	---	---	---	---	---	.0016	---	.0019	---	.0010	.0010	---
TOTAL	---	---	---	---	---	0.0392	0.0557	0.0693	0.0551	0.0408	0.0277	0.0205
MEAN	---	---	---	---	---	.001	.002	.002	.002	.001	.001	.001
MAX	---	---	---	---	---	.0019	.0026	.0026	.0022	.0017	.0011	.0010
MIN	---	---	---	---	---	.0007	.0015	.0019	.0016	.0010	.0008	.0006
AC-FT	---	---	---	---	---	.08	.1	.1	.1	.08	.05	.04

103087853 LEVIATHAN MINE POND 1 NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'15", long 119°39'28", in NW 1/4 NE 1/4 sec.22, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.2 mi north of State Highway 89, and 6.5 mi east of Markleeville.

PERIOD OF RECORD.—November 1999 to September 2000.

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above sea level, from topographic map.

REMARKS.—Records good.

EXTREMES FOR PERIOD OF RECORD.—Maximum elevation, 7.88 ft, Apr. 19, 20, 2000; minimum, 4.67 ft, Aug. 31, Sept. 1, 5, 6, 2000.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	6.12	6.31	e6.99	7.61	7.81	7.82	7.60	7.32	6.23	4.67
2	---	---	6.13	6.32	e7.00	7.63	7.81	7.82	7.58	7.31	6.21	4.77
3	---	---	6.13	6.33	e7.01	7.64	7.82	7.81	7.57	7.29	6.18	4.82
4	---	---	6.13	6.33	e7.02	7.65	7.82	7.79	7.55	7.28	6.11	4.79
5	---	---	6.14	6.33	e7.03	7.67	7.81	7.79	7.54	7.27	6.05	4.67
6	---	---	6.13	6.35	e7.04	7.69	7.81	7.78	7.52	7.26	5.97	4.67
7	---	---	6.15	6.35	7.05	7.70	7.81	7.78	7.51	7.25	5.89	4.68
8	---	---	6.15	6.37	7.06	7.72	7.81	7.78	7.50	7.23	5.81	5.08
9	---	---	6.16	6.37	7.06	7.72	7.80	7.75	7.49	7.22	5.73	5.68
10	---	---	6.17	6.38	7.07	7.73	7.79	7.75	7.48	7.18	5.65	6.25
11	---	---	6.18	6.42	7.09	7.74	7.80	7.74	7.47	7.10	5.61	6.76
12	---	---	6.18	6.43	7.11	7.74	7.79	7.74	7.46	7.02	5.54	7.15
13	---	---	6.19	6.44	7.21	7.76	7.85	7.74	7.45	6.93	5.47	7.32
14	---	---	6.20	6.44	7.30	7.77	7.85	7.73	7.44	6.88	5.39	7.38
15	---	---	6.20	6.48	7.31	7.79	7.85	7.73	7.43	6.83	5.33	7.41
16	---	---	6.21	6.55	7.33	7.80	7.86	7.73	7.40	6.86	5.26	7.32
17	---	---	6.22	6.58	7.34	7.80	7.87	7.74	7.40	6.84	5.21	7.27
18	---	---	6.23	6.65	7.34	7.82	7.87	7.73	7.38	6.77	5.14	7.35
19	---	6.12	6.23	6.66	7.35	7.83	7.88	7.74	7.37	6.71	5.07	7.40
20	---	6.09	6.23	6.67	7.37	7.83	7.88	7.73	7.35	6.66	5.01	7.44
21	---	6.12	6.24	6.68	7.37	7.83	7.87	7.72	7.33	6.61	4.99	7.45
22	---	6.12	6.24	6.69	7.38	7.85	7.87	7.71	7.32	6.58	4.94	7.48
23	---	6.14	6.25	6.73	7.44	7.85	7.86	7.72	7.31	6.55	4.89	7.50
24	---	6.15	6.25	6.85	7.45	7.86	7.85	7.71	7.32	6.54	4.84	7.51
25	---	6.16	6.26	6.90	7.45	7.86	7.85	7.70	7.31	6.55	4.80	7.54
26	---	6.17	6.27	6.91	7.46	7.85	7.85	7.69	7.32	6.50	4.76	7.56
27	---	6.18	6.28	6.91	7.59	7.85	7.84	7.67	7.31	6.43	4.73	6.37
28	---	6.20	6.28	6.93	7.59	7.81	7.84	7.66	7.33	6.36	4.70	5.33
29	---	6.19	e6.28	6.93	7.60	7.80	7.83	7.64	7.34	6.29	4.69	5.09
30	---	6.12	6.29	6.98	---	7.80	7.83	7.62	7.33	6.23	4.68	5.09
31	---	---	6.30	6.99	---	7.80	---	7.61	---	6.24	4.67	---
MEAN	---	---	6.21	6.59	7.26	7.77	7.84	7.73	7.42	6.84	5.34	6.33
MAX	---	---	6.30	6.99	7.60	7.86	7.88	7.82	7.60	7.32	6.23	7.56
MIN	---	---	6.12	6.31	6.99	7.61	7.79	7.61	7.31	6.23	4.67	4.67

e Estimated.

103087885 LEVIATHAN CREEK CHANNEL UNDERDRAIN NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'34", long 119°39'41", in SE 1/4 SW 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.9 mi north of State Highway 89, and 6.5 mi east of Markleeville.

PERIOD OF RECORD.—November 1999 to September 2000.

GAGE.—Water-stage recorder. Elevation of gage is 6,800 ft above sea level, from topographic map.

REMARKS.—Records good.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.09 ft^3/s, April 20, 21, 2000; minimum, no flow Sept. 7–10, 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.06	.06	.07	.08	.08	.08	.08	.07	.06	.05
2	---	---	.06	.06	.07	.08	.08	.08	.08	.07	.06	.05
3	---	.07	.06	.06	.07	.08	.08	.08	.08	.07	.06	.05
4	---	.07	.06	.06	.07	.08	.08	.08	.08	.07	.06	.05
5	---	.07	.06	.06	.07	.07	.08	.08	.08	.07	.06	.05
6	---	.07	.06	.06	.07	.07	.08	.08	.08	.07	.06	e.02
7	---	.07	.06	.06	.07	.07	.08	.08	.08	.07	.06	.00
8	---	.07	.06	.06	.07	.08	.08	.08	.08	.07	.06	.00
9	---	.06	.06	.06	.07	.08	.08	.08	.08	.07	.06	.00
10	---	.06	.06	.06	.07	.08	.08	.08	.08	.07	.06	.00
11	---	.06	.06	.06	.07	.08	.08	.08	.08	.07	.06	.02
12	---	.06	.06	.06	.07	.07	.08	.08	.08	.07	.06	.04
13	---	.06	.06	.06	.07	.07	.08	.08	.08	.07	.06	.02
14	---	.06	.06	.06	.07	.07	.08	.08	.08	.07	.06	.03
15	---	.06	.06	.06	.08	.07	.08	.08	.08	.07	.06	.04
16	---	.06	.06	.06	.08	.07	.08	.08	.08	.07	.06	.04
17	---	.06	.06	.06	.08	.07	.08	.08	.08	.07	.05	.04
18	---	.06	.06	.06	.08	.07	.08	.08	.08	.07	.05	.04
19	---	.06	.06	.06	.08	.07	.08	.08	.08	.07	.05	.04
20	---	.06	.06	.06	.08	.07	.09	.08	.08	e.07	.05	.04
21	---	.06	.06	.06	.08	.07	.09	.08	.08	e.07	.05	.04
22	---	.06	.06	.06	.08	.07	.08	.08	.08	e.06	.05	.04
23	---	.06	.06	.06	.08	.07	.08	.08	.08	.06	.05	.04
24	---	.06	.06	.06	.08	.07	.08	.08	.07	.06	.05	.04
25	---	.06	.06	.07	.08	.07	.08	.08	.07	.06	.05	.04
26	---	.06	.06	.07	.08	.07	.08	.08	.07	.06	.05	.04
27	---	.06	.06	.07	.08	.08	.08	.08	.07	.06	.05	.04
28	---	.06	.06	.07	.08	.07	.08	.08	.07	.06	.05	.04
29	---	.06	.06	.07	.08	.08	.08	.08	.07	.06	.05	.04
30	---	.06	.06	.07	---	.08	.08	.08	.07	.06	.05	.04
31	---	---	.06	.07	---	.08	---	.08	---	.06	.05	---
TOTAL	---	---	1.86	1.93	2.18	2.29	2.42	2.48	2.33	2.07	1.71	1.02
MEAN	---	---	.060	.062	.075	.074	.081	.080	.078	.067	.055	.034
MAX	---	---	.06	.07	.08	.08	.09	.08	.08	.07	.06	.05
MIN	---	---	.06	.06	.07	.07	.08	.08	.07	.06	.05	.00
AC-FT	---	---	3.7	3.8	4.3	4.5	4.8	4.9	4.6	4.1	3.4	2.0

e Estimated.

103087887 LEVIATHAN MINE POND 4 NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°42'34", long 119°39'41", in SE 1/4 SW 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.9 mi north of State Highway 89, and 6.5 mi east of Markleeville.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,800 ft above sea level, from topographic map.

REMARKS.—Records good above 0.04 ft^3/s and poor below.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 0.3431 ft^3/s, Feb. 10, 1999; no flow on many days in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0000	.0000	.0000	.0000	.0000	.0003	.0005	.0003	.0001	.0001	.0003	.0001
2	.0000	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0001	.0001	.0003	.0001
3	.0000	.0000	.0000	.0000	.0000	.0004	.0005	.0003	.0001	.0001	.0003	.0001
4	.0000	.0000	.0000	.0000	.0000	.0004	.0005	.0003	.0001	.0001	.0003	.0001
5	.0000	.0000	.0000	.0000	.0000	.0004	.0005	.0003	.0001	.0001	.0003	.0001
6	.0000	.0000	.0000	.0000	.0000	.0004	.0005	.0003	.0001	.0001	.0003	.0001
7	.0000	.0000	.0000	.0000	.0000	.0004	.0004	.0003	.0001	.0001	.0003	.0002
8	.0000	.0000	.0000	.0000	.0000	.0004	.0004	.0003	.0001	.0001	.0003	.0002
9	.0000	.0000	.0000	.0000	.0000	.0004	.0004	.0003	.0001	.0001	.0003	.0002
10	.0000	.0000	.0000	.0000	.0000	.0004	.0004	.0003	.0001	.0000	.0003	.0003
11	.0000	.0000	.0000	.0000	.0000	.0004	.0004	.0003	.0001	.0000	.0003	.0003
12	.0000	.0000	.0000	.0000	.0000	.0004	.0004	.0003	.0001	.0000	.0003	.0003
13	.0000	.0000	.0000	.0000	.0001	.0004	.0004	.0003	.0001	.0000	.0002	.0003
14	.0000	.0000	.0000	.0000	.0001	.0004	.0004	.0002	.0001	.0000	.0002	.0003
15	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	.0000	.0002	.0002
16	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	.0000	.0002	.0002
17	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	.0001	.0002	.0002
18	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	.0002	.0002	.0002
19	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	.0002	.0002	.0002
20	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	e.0002	.0002	.0001
21	.0000	.0000	.0000	.0000	.0002	.0004	.0004	.0002	.0001	e.0003	.0002	.0001
22	.0000	.0000	.0000	.0000	.0002	.0005	.0004	.0002	.0001	e.0004	.0001	.0001
23	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0004	.0001	.0001
24	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0004	.0001	.0001
25	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0004	.0001	.0001
26	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0003	.0001	.0001
27	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0003	.0001	.0001
28	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0003	.0001	.0001
29	.0000	.0000	.0000	.0000	.0003	.0005	.0004	.0002	.0001	.0003	.0001	.0001
30	.0000	.0000	.0000	.0000	---	.0005	.0004	.0002	.0001	.0003	.0001	.0001
31	.0000	---	.0000	.0000	---	.0005	---	.0002	---	.0003	.0001	---
TOTAL	0.0000	0.0000	0.0000	0.0000	0.0039	0.0132	0.0126	0.0076	0.0030	0.0053	0.0064	0.0048
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.0000	.0000	.0000	.0000	.0003	.0005	.0005	.0004	.0001	.0004	.0003	.0003
MIN	.0000	.0000	.0000	.0000	.0000	.0003	.0004	.0002	.0001	.0000	.0001	.0001
AC-FT	.00	.00	.00	.00	.01	.03	.02	.02	.01	.01	.01	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

MEAN	.000	.000	.000	.023	.064	.044	.066	.025	.007	.000	.000	.000
MAX	.000	.000	.000	.045	.13	.088	.13	.050	.014	.001	.000	.000
(WY)	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	2000	2000
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	2000	1999	2000	2000	2000	2000	2000	2000	2000	2000	1999	1999

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1999 - 2000
ANNUAL TOTAL	13.7024	0.0568	
ANNUAL MEAN	.038	.000	.000
HIGHEST ANNUAL MEAN			.000 2000
LOWEST ANNUAL MEAN			.000 2000
HIGHEST DAILY MEAN	.3431 Feb 10	.0005 Mar 22	.3431 Feb 10 1999
LOWEST DAILY MEAN	.0000 Sep 6	.0000 Oct 1	.0000 Oct 17 1998
ANNUAL SEVEN-DAY MINIMUM	.00 Sep 6	.00 Oct 1	.00 Oct 17 1998
ANNUAL RUNOFF (AC-FT)	27	.1	.1
10 PERCENT EXCEEDS	.11	.00	.09
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated.

10308789 LEVIATHAN CREEK ABOVE ASPEN CREEK, NEAR MARKLEEVILLE, CA

LOCATION (REVISED).—Lat 38°43'01", long 119°39'33", in NE 1/4 NW 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on right bank, 3.2 mi north of State Highway 89, and 6.5 mi east of Markleeville.

DRAINAGE AREA.—7.07 mi^2.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,700 ft above sea level, from topographic map.

REMARKS.—Records fair except those below 0.5 ft^3/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24 ft^3/s, Apr. 28, 1999, gage height, 5.14 ft; minimum daily, 0.11 ft^3/s, several days in 2000.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 4	1730	7.2	4.64				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.73	.20	.18	e.11	.19	e.35	1.4	.87	.38	.33	.26	.31
2	.67	.21	e.25	e.11	.21	e.35	1.9	.82	.39	.32	.26	.26
3	.65	.21	e.30	e.13	.21	.36	2.7	.77	.38	.32	.32	.24
4	.60	.21	e.30	e.27	.21	e.36	3.8	.73	.36	.33	.38	.24
5	.58	.21	e.25	e.12	.22	e.37	3.7	.71	.35	.33	.29	.25
6	.48	.20	e.20	e.11	.27	.38	3.2	.68	.34	.18	.28	.21
7	.47	.21	e.20	e.24	.21	e.37	3.0	.68	.33	.16	.25	.18
8	.49	.18	e.20	e.19	.25	.37	2.9	.68	.37	.16	.27	.23
9	.50	.19	.18	e.23	.22	.37	2.4	.62	.35	.17	.28	.16
10	.46	.20	.23	e.24	.22	e.37	2.3	.62	.33	.17	.27	.14
11	.45	.20	e.20	e.27	.23	.40	2.3	.63	.31	.16	.31	.15
12	.42	.20	.20	e.32	.22	.49	2.6	.60	.31	.13	.33	.13
13	.36	.20	.20	.37	.68	.63	3.6	.60	.28	.13	.31	.13
14	.24	.20	e.20	.25	2.3	.93	2.8	.57	.27	.13	.29	.15
15	.20	.20	.20	.21	1.9	.89	2.0	.58	.25	.16	.33	.13
16	.18	.20	.21	.16	.41	1.4	1.7	.71	.21	.13	.21	.14
17	.18	.18	.22	.14	.36	e.77	1.7	.67	.23	.14	.21	.15
18	.20	.17	.19	.43	.33	e1.1	1.4	.61	.24	.16	.22	.11
19	.20	.19	e.20	.28	e.33	e2.0	1.3	.58	.24	.24	.23	.11
20	.21	.18	e.20	.24	e.32	e1.2	1.4	.54	.23	.14	.21	.11
21	.21	.17	e.20	.19	.32	e1.1	1.4	.52	.22	.27	.15	.11
22	.21	.17	e.20	.26	.30	e1.3	1.3	.50	.20	.17	.21	.12
23	.21	.17	e.18	.18	e.32	e1.9	1.2	.50	.23	.27	.19	.12
24	.21	.17	e.18	1.3	e.40	e2.1	1.2	.58	.52	.29	.18	.12
25	.21	.19	e.16	.44	e.46	e2.3	1.1	.49	.27	.16	.19	.12
26	.21	.19	e.16	e.40	.41	e2.5	1.1	.46	.31	.27	.20	.12
27	.21	.19	e.15	.35	e.40	e2.6	1.0	.44	.27	.22	.20	.11
28	.19	.19	e.15	.19	e.40	3.2	1.0	.41	.55	.29	.26	.12
29	.18	.21	e.14	.30	.39	2.2	.96	.40	.64	.24	.29	.12
30	.20	.19	e.14	.24	---	1.6	.90	.39	.41	.29	.39	.11
31	.21	---	e.13	.18	---	1.8	---	.39	---	.17	.32	---
TOTAL	10.52	5.78	6.10	8.45	12.69	36.06	59.26	18.35	9.77	6.63	8.09	4.70
MEAN	.34	.19	.20	.27	.44	1.16	1.98	.59	.33	.21	.26	.16
MAX	.73	.21	.30	1.3	2.3	3.2	3.8	.87	.64	.33	.39	.31
MIN	.18	.17	.13	.11	.19	.35	.90	.39	.20	.13	.15	.11
AC-FT	21	11	12	17	25	72	118	36	19	13	16	9.3

e Estimated.

10308789 LEVIATHAN CREEK ABOVE ASPEN CREEK, NEAR MARKLEEVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.34	.28	.29	.37	.76	1.45	3.68	5.14	1.25	.39	.28	.31
MAX	.34	.36	.39	.47	1.10	1.74	5.38	9.69	2.18	.56	.31	.46
(WY)	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	.34	.19	.20	.27	.44	1.16	1.98	.59	.33	.21	.26	.16
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1999 - 2000	
ANNUAL TOTAL	689.54		186.40			
ANNUAL MEAN	1.89		.51		.51	
HIGHEST ANNUAL MEAN					.51	2000
LOWEST ANNUAL MEAN					.51	2000
HIGHEST DAILY MEAN	17	May 7	3.8	Apr 4	17	May 7 1999
LOWEST DAILY MEAN	.13	Dec 31	.11	Jan 1	.11	Jan 1 2000
ANNUAL SEVEN-DAY MINIMUM	.15	Dec 25	.11	Sep 18	.11	Sep 18 2000
INSTANTANEOUS PEAK FLOW			7.2	Apr 4	24	Apr 28 1999
INSTANTANEOUS PEAK STAGE			4.64	Apr 4	5.14	Apr 28 1999
ANNUAL RUNOFF (AC-FT)	1370		370		369	
10 PERCENT EXCEEDS	7.5		1.3		2.7	
50 PERCENT EXCEEDS	.56		.27		.39	
90 PERCENT EXCEEDS	.20		.15		.18	

103087892 ASPEN CREEK OVERBURDEN SEEP NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°43'45", long 119°39'11", in NE 1/4 SE 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 2.8 mi north of State Highway 89, and 2.1 mi east of Markleeville.

PERIOD OF RECORD.—November 1998 to current year (low-flow records only).

GAGE.—Water-stage recorder. Elevation of gage is 7,100 ft above sea level, from topographic map.

REMARKS.—Records not computed above 0.38 ft^3/s. Records poor, including estimated daily discharges.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.03	.05	.04	.04	.02	.04	.03	.02	.02	.03	e.02
2	.05	.03	e.05	.05	.04	.02	.04	.03	.02	e.02	.04	e.02
3	.05	.03	e.05	.06	.04	.02	.04	.03	.03	e.02	.03	e.02
4	.05	.03	.04	.06	.04	.02	.04	.03	.03	e.02	.03	e.02
5	.05	.03	.04	.05	.04	.02	.04	.03	.02	e.02	.03	e.02
6	.05	.02	.04	.05	.04	.02	.04	.03	.03	e.02	.04	e.02
7	.05	.02	.04	.05	.04	.02	.03	.02	.03	e.02	.04	e.02
8	.05	.03	.04	.06	.04	.02	.03	.03	.03	.02	.04	e.02
9	.05	.02	.05	.06	.03	.03	.03	.03	.03	.02	.04	e.02
10	.04	.02	.06	.06	.03	.03	.03	.02	.03	.02	.04	e.02
11	.04	.02	.06	.06	.03	.02	.04	.03	.03	.02	.04	e.02
12	.03	.02	.06	.06	.03	.03	.04	.03	.03	.02	.04	e.02
13	.02	.02	.06	.05	.04	.02	.04	.02	.03	.02	.04	e.02
14	.02	.03	.06	.05	.04	.03	.04	.03	.03	.02	.04	e.02
15	.03	.03	.06	.06	.03	.03	.04	.03	.03	.02	.04	e.02
16	.03	.03	.06	.05	.03	.03	.03	.02	.03	.03	.04	e.02
17	.03	.03	.05	.05	.03	.03	.04	.02	.02	.02	.04	e.02
18	.02	.03	.04	.06	.03	.03	.03	.02	.02	.02	.04	e.02
19	.02	.04	.04	.05	.03	.03	.03	.02	.02	.02	.03	e.02
20	.03	.03	.03	.04	.03	.03	.03	.03	.02	.02	.03	e.02
21	.03	.03	.03	.04	.02	.04	.03	.04	.02	.02	.03	e.02
22	.03	.03	.04	.04	.02	.04	.03	.04	.02	.02	.03	e.02
23	.03	.04	.04	.04	.02	.04	.03	.03	.03	.02	.03	e.02
24	.03	.04	.04	.05	.02	.04	.03	.03	e.03	.02	.02	e.02
25	.03	.04	.04	.04	.02	.04	.03	.02	---	.02	.02	e.02
26	.03	.04	.04	.04	e.02	.04	.03	.02	e.03	.02	.02	e.02
27	.03	.04	.05	.04	.02	.05	.03	.02	e.03	.02	.02	e.02
28	.03	.04	.05	.04	.02	.04	.03	.02	e.03	.02	---	e.02
29	.03	.04	.06	.04	.02	.04	.03	.02	e.03	.02	e.02	e.02
30	.03	.05	.05	.05	---	.04	.03	.02	.02	.02	e.02	e.02
31	.03	---	.04	.06	---	.04	---	.02	---	.03	e.02	---
TOTAL	1.09	0.93	1.46	1.55	0.88	0.95	1.02	0.81	---	0.64	---	0.60
MEAN	.035	.031	.047	.050	.030	.031	.034	.026	---	.021	---	.020
MAX	.05	.05	.06	.06	.04	.05	.04	.04	---	.03	---	.02
MIN	.02	.02	.03	.04	.02	.02	.03	.02	---	.02	---	.02
AC-FT	2.2	1.8	2.9	3.1	1.7	1.9	2.0	1.6	---	1.3	---	1.2

e Estimated.

10308792 LEVIATHAN CREEK ABOVE MOUNTAINEER CREEK, NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°44'12", long 119°38'39", in SW 1/4 SW 1/4 sec.2, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on left bank, 4.4 mi north of State Highway 89, and 7.5 mi northeast of Markleeville.

DRAINAGE AREA.—10.76 mi^2.

PERIOD OF RECORD.—December 1999 to September 2000.

GAGE.—Water-stage recorder. Elevation of gage is 6,300 ft above sea level, from topographic map.

REMARKS.—Records fair, including estimated daily discharges.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16 ft^3/s, Feb. 14, 2000, gage height, 8.05 ft; minimum daily, 0.16 ft^3/s, June 22, 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e.65	.97	1.5	2.6	1.4	.45	.53	.55	.44
2	---	---	---	e.65	1.0	1.1	3.1	1.3	.42	.51	.54	.48
3	---	---	---	e.68	1.0	1.1	3.9	1.2	.39	.49	.58	.41
4	---	---	---	e.79	1.1	1.5	5.1	1.2	.32	.49	.59	.35
5	---	---	---	e.65	1.0	1.6	4.9	1.2	.27	.49	.50	.37
6	---	---	---	.54	.94	1.3	4.3	1.1	.26	.53	.48	.36
7	---	---	---	.77	.95	1.4	4.1	1.2	.25	.48	.45	.33
8	---	---	---	.85	1.1	1.1	4.0	1.2	.35	.42	.46	.37
9	---	---	---	.90	.90	1.0	3.4	1.1	.36	.27	.49	.30
10	---	---	---	.73	.85	1.2	3.3	1.1	.33	.30	.50	.28
11	---	---	---	.55	.73	1.3	3.3	1.1	.32	.29	.55	.28
12	---	---	---	.54	.72	1.6	3.5	1.1	.31	.25	.55	.25
13	---	---	---	.50	1.9	1.9	5.0	1.1	.29	.24	.53	.21
14	---	---	---	.47	7.6	2.7	3.9	1.0	.25	.23	.50	.19
15	---	---	---	1.0	2.7	2.6	3.1	1.0	.22	.33	.51	.18
16	---	---	---	.77	1.6	3.8	2.7	1.2	.19	.27	.40	.20
17	---	---	---	.70	1.3	3.0	2.8	1.1	.21	.29	.40	.25
18	---	---	---	2.2	1.2	3.4	2.5	.98	.21	.30	.40	.20
19	---	---	---	1.5	1.1	4.6	2.3	.91	.21	.44	.43	.19
20	---	---	---	1.3	1.2	2.9	2.4	.87	.18	.33	.42	.19
21	---	---	---	.96	1.1	2.9	2.3	.82	.17	.43	.35	.19
22	---	---	---	.84	1.0	2.9	2.2	.80	.16	.34	.39	.25
23	---	---	---	1.2	1.6	3.3	2.1	.76	.51	.46	.41	.32
24	---	---	---	4.4	1.2	3.5	2.0	.86	1.1	.49	.34	.30
25	---	---	---	2.5	.86	4.0	1.9	.51	.69	.34	.36	.30
26	---	---	---	1.6	1.0	4.3	1.9	.45	.74	.42	.33	.29
27	---	---	---	1.3	1.4	4.3	1.8	.50	.76	.43	.32	.28
28	---	---	---	1.2	1.5	3.7	1.7	.44	1.0	.48	.45	.29
29	---	---	e.72	.95	1.1	3.4	1.6	.41	.95	.46	.46	.30
30	---	---	e.72	.99	---	2.9	1.5	.41	.63	.49	.52	.30
31	---	---	e.68	.96	---	2.8	---	.47	---	.40	.44	---
TOTAL	---	---	---	33.64	40.62	78.6	89.2	28.79	12.50	12.22	14.20	8.65
MEAN	---	---	---	1.09	1.40	2.54	2.97	.93	.42	.39	.46	.29
MAX	---	---	---	4.4	7.6	4.6	5.1	1.4	1.1	.53	.59	.48
MIN	---	---	---	.47	.72	1.0	1.5	.41	.16	.23	.32	.18
AC-FT	---	---	---	67	81	156	177	57	25	24	28	17

e Estimated.

10308794 BRYANT CREEK BELOW CONFLUENCE, NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°44'12", long 119°38'39", in SW 1/4 SW 1/4 sec.2, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, on left bank, 4.4 mi north of State Highway 89, and 7.5 mi northeast of Markleeville.

DRAINAGE AREA.—12.36 mi^2.

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,300 ft above sea level, from topographic map.

REMARKS.—Records good including estimated daily discharges.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 44 ft^3/s, Apr. 19, 1999, gage height, 5.35 ft; minimum daily, 1.0 ft^3/s, Aug. 8, Sept. 18, 2000.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	2345	29	5.12				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.5	2.5	2.4	2.7	3.5	4.9	3.5	2.1	1.5	1.4	2.6
2	2.6	2.5	e2.3	2.4	2.8	3.4	5.7	3.4	1.9	1.5	1.3	3.2
3	2.5	2.5	1.9	2.4	2.8	3.5	6.5	3.3	1.9	1.5	1.3	2.7
4	2.6	2.5	2.4	2.5	2.8	4.2	8.0	3.2	1.8	1.6	1.4	2.4
5	2.6	2.5	e2.7	2.3	2.7	4.1	7.6	3.1	1.8	1.6	1.1	2.6
6	2.7	2.4	e2.7	2.3	2.6	3.7	7.0	3.1	1.8	1.6	1.1	2.5
7	2.6	2.5	2.6	2.5	2.7	3.5	6.7	3.2	1.7	1.5	1.1	2.2
8	2.5	e2.6	2.5	2.4	2.9	3.4	6.6	3.1	2.0	1.4	1.0	2.2
9	2.4	2.7	2.8	2.5	2.9	3.3	5.9	2.9	1.9	1.4	1.1	1.8
10	2.4	2.7	2.6	2.5	2.9	3.3	5.7	3.0	1.8	1.4	1.2	1.7
11	2.4	2.6	2.5	2.5	2.7	3.8	5.6	3.0	1.8	1.4	1.2	1.7
12	2.4	2.6	2.8	2.6	2.8	4.2	5.8	3.0	1.7	1.3	1.2	1.6
13	2.3	2.6	2.7	2.6	5.2	4.6	8.0	2.9	1.7	1.2	1.4	1.7
14	2.4	2.6	2.4	2.6	13	5.6	6.5	2.9	1.5	1.2	1.3	1.8
15	2.4	2.7	2.6	3.1	4.8	5.3	5.5	2.9	1.4	1.3	1.5	1.2
16	2.3	2.7	2.6	2.9	3.9	7.0	5.1	3.3	1.4	1.2	1.4	1.2
17	2.4	e2.7	2.6	2.9	3.4	5.7	5.2	3.2	1.4	1.2	1.1	1.1
18	2.4	2.6	2.7	4.6	3.2	6.2	4.8	3.0	1.4	1.2	1.2	1.0
19	2.4	e2.5	2.6	3.3	3.1	7.9	4.5	2.9	1.3	1.3	1.3	1.1
20	2.4	e2.5	2.5	3.1	3.2	5.6	4.6	2.9	1.3	1.2	1.2	1.2
21	2.4	2.4	2.4	2.8	3.1	4.7	4.5	2.8	1.2	1.3	1.3	1.3
22	2.4	2.1	2.0	2.7	3.0	5.1	4.4	2.7	1.2	1.2	1.3	1.6
23	2.4	e2.4	2.2	2.9	2.9	5.9	4.1	2.7	1.7	1.2	1.2	1.8
24	2.4	2.6	2.3	6.2	4.0	6.1	4.1	2.9	2.2	1.2	1.2	1.6
25	2.4	2.8	2.3	4.3	3.0	6.7	4.0	2.5	2.0	1.1	1.3	1.6
26	2.4	2.8	2.4	3.3	3.3	7.1	3.8	2.8	2.0	1.2	1.3	1.6
27	2.4	2.8	2.3	2.9	3.8	7.4	3.7	3.1	1.9	1.2	1.4	1.5
28	3.0	2.7	2.2	2.7	3.9	6.5	3.8	2.7	2.1	1.2	1.8	1.4
29	2.4	2.8	2.5	2.4	3.5	6.1	3.7	2.4	2.1	1.2	1.8	1.3
30	2.5	2.8	2.7	2.8	---	5.4	3.6	2.4	1.7	1.2	2.6	1.3
31	2.5	---	2.7	2.7	---	5.0	---	2.4	---	1.1	2.8	---
TOTAL	76.5	77.7	77.0	90.1	103.6	157.8	159.9	91.2	51.7	40.6	42.8	52.5
MEAN	2.47	2.59	2.48	2.91	3.57	5.09	5.33	2.94	1.72	1.31	1.38	1.75
MAX	3.0	2.8	2.8	6.2	13	7.9	8.0	3.5	2.2	1.6	2.8	3.2
MIN	2.3	2.1	1.9	2.3	2.6	3.3	3.6	2.4	1.2	1.1	1.0	1.0
AC-FT	152	154	153	179	205	313	317	181	103	81	85	104

e Estimated.

10308794 BRYANT CREEK BELOW CONFLUENCE, NEAR MARKLEEVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.47	2.59	2.44	3.09	4.16	6.01	10.5	11.1	3.92	1.96	1.95	2.21
MAX	2.47	2.59	2.48	3.26	4.78	6.94	15.6	19.2	6.12	2.61	2.53	2.66
(WY)	2000	2000	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	2.47	2.59	2.39	2.91	3.57	5.09	5.33	2.94	1.72	1.31	1.38	1.75
(WY)	2000	2000	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1999 - 2000	
ANNUAL TOTAL	2166.9		1021.4			
ANNUAL MEAN	5.94		2.79		2.79	
HIGHEST ANNUAL MEAN					2.79	2000
LOWEST ANNUAL MEAN					2.79	2000
HIGHEST DAILY MEAN	29	Apr 21	13	Feb 14	29	Apr 21 1999
LOWEST DAILY MEAN	1.9	Dec 3	1.0	Aug 8	1.0	Aug 8 2000
ANNUAL SEVEN-DAY MINIMUM	2.2	Dec 22	1.1	Aug 5	1.1	Aug 5 2000
INSTANTANEOUS PEAK FLOW			29	Feb 13	44	Apr 19 1999
INSTANTANEOUS PEAK STAGE			5.12	Feb 13	5.35	Apr 19 1999
ANNUAL RUNOFF (AC-FT)	4300		2030		2020	
10 PERCENT EXCEEDS	15		4.9		8.0	
50 PERCENT EXCEEDS	3.0		2.5		2.8	
90 PERCENT EXCEEDS	2.4		1.2		1.5	

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA

LOCATION.—Lat 38°46'11", long 119°49'58", in NW 1/4 SE 1/4 sec.34, T.11 N., R.19 E., Alpine County, Hydrologic Unit 16050201, in Toiyabe National Forest, on left bank, 0.3 mi downstream from bridge on State Highway 88–89, 0.6 mi southwest of Woodfords, 3.8 mi downstream from Willow Creek, and at mi 21.17 from mouth.

DRAINAGE AREA.—65.4 mi^2.

PERIOD OF RECORD.—October 1900 to May 1907, 1910–11 (fragmentary), October 1938 to current year. January 1890 to March 1892, June 1907 to September 1920 (except parts of 1910–11), at site 0.7 mi downstream; records not equivalent owing to diversions for irrigation.

REVISED RECORDS.—WDR NV-79-1: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 5,754.5 ft above sea level. Prior to Oct. 1, 1938, nonrecording gage at about the 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. January 1997 flood, channel changed course upstream and existing site unusable. Gage moved 200 ft upstream March 1997 at same datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs, total capacity, about 1,500 acre-ft. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,100 ft^3/s, Jan. 1, 1997, gage height, 15.36 ft (new site); minimum daily, 5.3 ft^3/s, Sept. 2, 1997.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 11, 1937, reached a stage of 8.0 ft, at different datum, from floodmarks, discharge, 3,500 ft^3/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge at 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	0915	*656	12.57	May 25	0045	594	12.45
May 05	2200	574	12.41				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	27	29	24	31	37	114	338	200	68	35	25
2	24	27	28	26	31	36	140	364	191	60	39	31
3	24	26	26	24	31	36	187	384	185	57	42	30
4	24	26	27	25	31	36	254	389	192	54	42	25
5	24	26	29	e25	30	38	291	394	204	51	40	24
6	24	26	28	e24	30	37	285	335	187	49	35	24
7	25	26	27	24	30	35	283	344	182	47	30	24
8	24	29	26	23	30	35	294	528	185	45	30	23
9	24	29	29	24	31	34	257	413	146	43	29	23
10	23	29	27	25	31	35	251	324	132	42	28	22
11	23	29	26	23	30	36	273	257	126	41	28	22
12	23	29	28	24	30	38	303	221	131	40	27	28
13	23	29	27	24	35	42	552	204	145	38	27	30
14	23	28	26	24	59	48	338	194	154	36	27	28
15	23	29	27	28	48	53	247	200	149	35	43	23
16	24	31	27	26	53	58	208	199	147	34	36	21
17	24	33	27	27	47	62	206	184	128	34	32	21
18	24	31	27	33	45	65	173	190	124	33	23	21
19	23	34	26	34	43	80	159	225	124	43	23	20
20	23	36	26	37	41	82	187	263	112	45	22	21
21	23	33	26	38	39	70	218	302	103	37	22	20
22	28	29	25	37	37	67	231	340	100	31	22	20
23	29	31	25	36	36	74	229	355	94	30	22	21
24	29	30	25	41	38	81	234	472	91	30	23	21
25	29	32	24	39	36	96	256	473	89	29	29	21
26	28	32	24	36	36	110	313	389	86	28	29	26
27	27	31	24	34	39	127	378	331	80	28	28	25
28	54	31	24	34	38	128	369	326	80	27	24	22
29	35	31	24	34	37	121	291	297	78	27	32	21
30	29	30	23	32	---	119	285	257	73	26	36	21
31	28	---	25	29	---	112	---	221	---	26	34	---
TOTAL	812	890	812	914	1073	2028	7806	9713	4018	1214	939	704
MEAN	26.2	29.7	26.2	29.5	37.0	65.4	260	313	134	39.2	30.3	23.5
MAX	54	36	29	41	59	128	552	528	204	68	43	31
MIN	23	26	23	23	30	34	114	184	73	26	22	20
AC-FT	1610	1770	1610	1810	2130	4020	15480	19270	7970	2410	1860	1400

e Estimated.

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.4	40.3	47.5	54.2	57.7	78.6	208	381	263	108	49.1	31.2
MAX	79.1	321	347	621	258	283	502	924	996	525	223	120
(WY)	1983	1951	1951	1997	1963	1986	1907	1906	1983	1907	1907	1983
MIN	8.27	13.1	12.8	13.7	16.3	18.2	46.6	56.4	37.4	18.1	11.1	7.00
(WY)	1989	1991	1991	1961	1977	1977	1975	1977	1992	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1901 - 2000	
ANNUAL TOTAL	45734		30923			
ANNUAL MEAN	125		84.5		112	
HIGHEST ANNUAL MEAN					290	1907
LOWEST ANNUAL MEAN					26.1	1977
HIGHEST DAILY MEAN	908	May 28	552	Apr 13	5500	Jan 2 1997
LOWEST DAILY MEAN	23	Oct 10	20	Sep 19	5.3	Sep 2 1977
ANNUAL SEVEN-DAY MINIMUM	23	Oct 9	21	Sep 16	5.4	Sep 5 1977
INSTANTANEOUS PEAK FLOW			656	Apr 13	8100	Jan 1 1997
INSTANTANEOUS PEAK STAGE			12.57	Apr 13	15.36	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	90710		61340		81350	
10 PERCENT EXCEEDS	388		256		300	
50 PERCENT EXCEEDS	47		34		46	
90 PERCENT EXCEEDS	26		23		17	

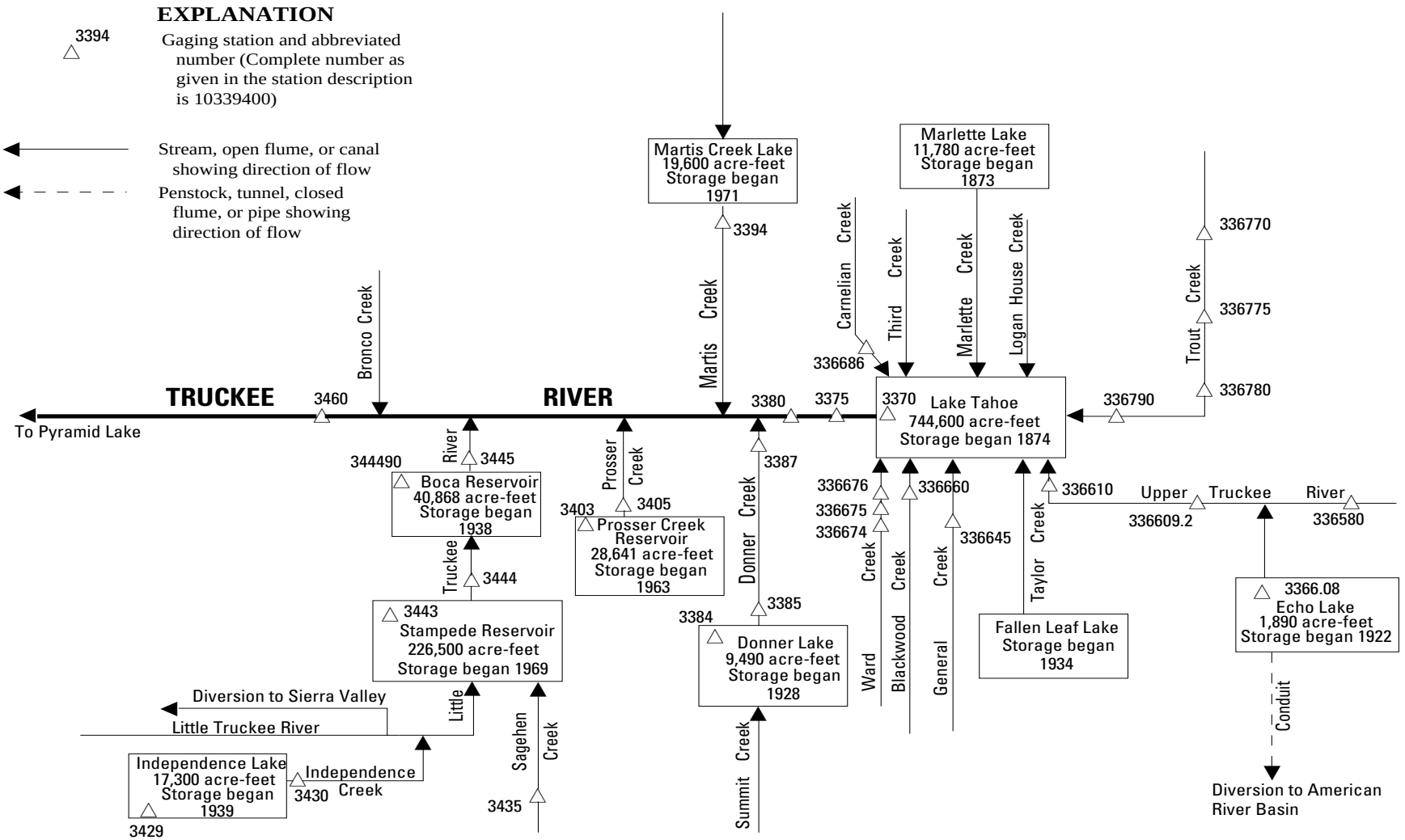

Figure 22. Diversions and storage in Truckee River Basin.

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD, NEAR MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°47'47", long 120°01'05", in NW 1/4 SW 1/4 sec.17, T.11 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 0.25 mi upstream from bridge, 0.5 mi upstream of confluence of Big Meadow and Grass Lake Creeks, 0.5 mi west of State Highway 89, and 4.0 mi south of Meyers.

DRAINAGE AREA.—14.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—May 1990 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,490 ft above sea level, from topographic map. Prior to Oct. 1, 1991, at site 1,200 ft downstream at datum 2.54 ft higher.

REMARKS.—Records good except for estimated daily discharges, which are poor. See schematic diagram of Truckee River Basin. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,010 ft^3/s, Jan. 2, 1997, gage height, 11.31 ft; minimum daily, 0.76 ft^3/s, Sept. 1, 1990.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharges of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	0645	205	7.17	May 24	1915	359	8.07
May 08	0800	*438	*8.46				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.6	4.2	3.8	6.8	8.2	22	137	122	26	4.7	2.9
2	3.6	3.5	4.8	3.9	6.7	8.0	31	165	119	22	5.2	7.0
3	3.0	3.4	4.8	4.0	6.8	7.9	53	173	120	21	6.4	4.8
4	2.8	3.4	4.2	3.9	6.7	8.0	78	180	131	20	5.8	3.7
5	2.9	3.3	4.1	3.9	6.4	8.4	79	178	127	19	4.9	3.2
6	3.0	3.2	4.2	4.5	6.2	8.1	72	140	115	17	4.4	3.1
7	3.2	3.3	4.1	4.4	6.1	7.7	70	168	112	17	4.1	2.9
8	3.4	4.3	4.7	4.1	6.1	7.8	71	316	99	16	4.1	2.8
9	3.4	3.8	4.1	3.9	6.4	7.7	58	194	75	15	3.9	2.6
10	3.5	3.8	4.1	3.6	6.8	7.5	58	141	70	14	3.6	2.5
11	3.3	4.1	4.6	e3.1	6.6	7.7	71	105	70	14	3.4	2.4
12	3.1	4.4	4.4	e2.6	6.9	8.2	88	86	78	13	3.4	2.4
13	2.8	4.3	4.3	e2.9	13	9.1	154	77	90	12	3.2	2.4
14	3.5	4.3	4.2	3.1	54	11	78	77	100	12	3.1	2.3
15	3.6	4.9	4.3	4.2	28	14	52	79	94	11	3.0	2.3
16	3.6	5.0	4.4	4.4	16	14	43	71	84	11	2.8	2.0
17	3.2	5.5	4.2	4.3	13	14	40	71	71	11	2.8	2.1
18	3.2	4.8	4.1	7.5	11	15	35	93	69	8.8	2.6	2.1
19	3.0	6.2	4.0	9.4	9.9	22	34	122	62	7.6	2.6	2.1
20	2.9	6.9	3.7	11	9.2	22	43	151	55	7.7	2.6	2.0
21	2.9	5.6	3.6	10	8.7	17	53	189	53	7.9	2.6	1.9
22	2.9	5.4	3.6	7.8	8.2	15	59	204	50	7.3	2.5	1.9
23	3.4	5.0	3.6	6.9	8.6	17	59	211	44	6.9	2.4	1.9
24	3.1	4.6	3.6	18	8.0	20	63	300	41	6.4	2.4	1.9
25	2.9	4.5	3.6	17	7.6	25	78	253	34	6.2	2.4	1.9
26	2.9	4.4	3.6	13	8.0	31	104	212	32	5.9	2.3	1.9
27	3.1	4.4	3.7	9.4	10	37	128	199	33	5.5	2.3	1.8
28	17	4.3	3.6	8.2	9.4	33	110	198	31	5.2	2.3	1.9
29	5.3	4.4	3.7	7.3	8.6	28	89	181	28	5.1	2.3	1.9
30	4.3	4.4	3.8	7.0	---	26	106	150	27	5.0	2.7	1.9
31	3.8	---	3.8	7.3	---	23	---	130	---	4.8	2.9	---
TOTAL	115.3	133.0	125.7	204.4	309.7	488.3	2079	4951	2236	361.3	103.7	76.5
MEAN	3.72	4.43	4.05	6.59	10.7	15.8	69.3	160	74.5	11.7	3.35	2.55
MAX	17	6.9	4.8	18	54	37	154	316	131	26	6.4	7.0
MIN	2.7	3.2	3.6	2.6	6.1	7.5	22	71	27	4.8	2.3	1.8
AC-FT	229	264	249	405	614	969	4120	9820	4440	717	206	152

e Estimated.

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD, NEAR MEYERS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.42	6.23	9.58	18.9	12.8	21.6	52.8	139	131	51.9	10.4	3.91
MAX	5.72	20.7	37.4	120	39.2	41.3	102	216	329	220	45.9	10.4
(WY)	1999	1997	1997	1997	1996	1995	1997	1996	1995	1995	1995	1998
MIN	2.12	2.13	1.69	1.57	3.06	6.64	15.1	51.2	12.1	3.40	1.64	1.30
(WY)	1993	1991	1991	1991	1991	1991	1991	1992	1992	1994	1994	1991

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	15480.1		11183.9			
ANNUAL MEAN	42.4		30.6		39.7	
HIGHEST ANNUAL MEAN					72.3	1995
LOWEST ANNUAL MEAN					14.1	1994
HIGHEST DAILY MEAN	395	May 26	316	May 8	1130	Jan 2 1997
LOWEST DAILY MEAN	2.7	Oct 1	1.8	Sep 27	.76	Sep 1 1990
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 30	1.9	Sep 21	.97	Aug 29 1990
INSTANTANEOUS PEAK FLOW			438	May 8	2010	Jan 2 1997
INSTANTANEOUS PEAK STAGE			8.46	May 8	11.31	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	30700		22180		28750	
10 PERCENT EXCEEDS	155		101		121	
50 PERCENT EXCEEDS	8.7		6.8		8.6	
90 PERCENT EXCEEDS	3.6		2.7		2.2	

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD, NEAR MEYERS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1990 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997 to current year, two times per hour.

REMARKS. — In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe with in 0.5°C. Interruptions in water temperature record due to loss of hydrologic communication with stream. Water temperature data for September 1997 are unpublished but are available from U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 16.5°C, July 31 and Aug. 1, 2000; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 16.5°C, July 31 and Aug. 1; minimum, freezing point, many days November to March, and May.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
06...	1430	2.9	48	--	10.0	7.5	--	--	--
NOV									
05...	1335	3.4	48	--	18.0	6.0	--	--	--
DEC									
17...	1550	4.1	45	7.6	1.0	.5	608	98	11.2
JAN									
06...	1655	5.6	52	--	-1.5	.5	--	--	--
FEB									
01...	1605	6.8	37	--	2.5	1.0	--	--	--
MAR									
16...	1645	14	31	--	4.0	2.0	606	100	11.0
APR									
03...	1545	48	22	--	18.5	4.1	--	--	--
11...	1605	65	19	--	17.5	4.7	--	--	--
13...	1350	147	15	--	7.5	2.6	--	--	--
MAY									
01...	1500	108	19	--	19.0	6.4	--	--	--
08...	1340	301	14	--	11.5	5.4	--	--	--
23...	1320	166	20	--	24.0	7.5	--	--	--
JUN									
07...	1615	105	21	--	16.0	10.8	596	98	8.5
JUL									
07...	1610	16	31	--	17.0	12.4	--	--	--
AUG									
09...	1655	3.8	43	--	22.5	14.9	--	--	--
SEP									
08...	1525	2.8	45	7.8	21.0	9.7	598	107	9.5

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD, NEAR MEYERS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACTIVE TOTAL (UG/L AS FE) (46568)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT								
06...	<.003	.07	.008	.017	.020	91	1	.01
NOV								
05...	.003	.06	.008	.013	.023	182	1	.01
DEC								
17...	<.003	<.04	.051	.013	.019	97	2	.02
JAN								
06...	.004	.04	.055	.016	.022	148	1	.02
FEB								
01...	.003	.07	.029	.008	.014	153	2	.04
MAR								
16...	<.003	.07	.015	.005	.012	137	1	.04
APR								
03...	<.003	.11	.011	.003	.009	119	6	.78
11...	<.003	.08	.008	.002	.010	108	2	.35
13...	<.003	.14	.009	.003	.013	191	9	3.6
MAY								
01...	<.003	.12	.007	.004	.012	137	4	1.2
08...	<.003	.18	.008	.004	.023	368	23	19
23...	<.003	e.11	.003	.005	.019	146	6	2.7
JUN								
07...	<.003	.05	.004	.006	.017	113	3	.85
JUL								
07...	<.003	.07	.007	.014	.020	70	2	.09
AUG								
09...	<.003	.05	.014	.020	.032	68	1	.01
SEP								
08...	.005	.05	.017	.018	.038	86	1	.01

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.5	6.5	7.5	5.0	3.0	4.0	.5	.0	.0	.0	.0	.0
2	9.0	6.0	7.5	5.0	2.5	3.5	.0	.0	.0	.0	.0	.0
3	9.5	6.5	8.0	4.5	2.0	3.0	.0	.0	.0	.0	.0	.0
4	9.0	6.0	7.5	4.5	2.0	3.0	.0	.0	.0	.0	.0	.0
5	9.0	6.5	7.5	5.0	3.0	3.5	.0	.0	.0	.0	.0	.0
6	8.0	6.0	7.0	5.0	2.5	3.5	.5	.0	.0	.0	.0	.0
7	7.5	4.5	6.0	5.0	3.0	4.0	.0	.0	.0	.0	.0	.0
8	8.0	5.0	6.5	3.0	1.5	2.0	.0	.0	.0	.0	.0	.0
9	8.5	5.0	6.5	2.0	.5	1.0	.0	.0	.0	.0	.0	.0
10	8.5	5.5	6.5	3.0	1.0	2.0	.0	.0	.0	.5	.0	.5
11	8.5	5.5	7.0	4.5	2.0	3.0	.0	.0	.0	.5	.0	.0
12	8.0	5.0	6.5	4.0	2.0	2.5	.0	.0	.0	.5	.0	.0
13	8.0	5.0	6.0	4.0	2.0	2.5	.0	.0	.0	.5	.0	.5
14	8.0	5.0	6.5	3.5	2.0	3.0	.0	.0	.0	.5	.5	.5
15	7.5	5.0	6.0	5.0	3.0	4.0	.0	.0	.0	.5	.0	.5
16	6.0	4.0	5.0	4.0	1.5	3.0	.0	.0	.0	.5	.0	.0
17	5.5	2.5	4.0	2.0	.5	1.5	.5	.0	.0	.5	.0	.5
18	5.5	2.5	4.0	1.0	.0	.5	.5	.0	.5	.5	.0	.5
19	6.0	3.0	4.0	1.0	.5	1.0	.5	.0	.5	.5	.0	.5
20	6.0	3.5	4.5	1.5	.5	1.0	1.0	.0	.5	1.0	.5	.5
21	6.0	3.5	4.5	1.0	.0	.5	.5	.0	.5	.5	.0	.5
22	6.0	3.5	4.5	.5	.0	.0	.5	.0	.0	.5	.0	.5
23	6.0	4.0	4.5	.5	.0	.0	.5	.0	.0	.5	.0	.5
24	5.5	3.5	4.5	.5	.0	.0	.5	.0	.0	.5	.0	.5
25	5.5	3.0	4.0	.5	.0	.0	.5	.0	.0	.5	.0	.0
26	6.0	3.0	4.5	1.0	.0	.5	.5	.0	.0	1.0	.0	.5
27	6.5	4.0	5.0	1.0	.0	.5	.5	.0	.0	.5	.0	.0
28	6.5	4.5	6.0	1.5	.0	.5	.0	.0	.0	.0	.0	.0
29	4.5	2.5	3.5	2.0	.5	1.5	.0	.0	.0	.5	.0	.0
30	5.0	2.5	3.5	2.0	.5	1.5	.0	.0	.0	.5	.0	.0
31	5.5	3.0	4.0	---	---	---	.0	.0	.0	.5	.0	.5
MONTH	9.5	2.5	5.6	5.0	.0	1.9	1.0	.0	.1	1.0	.0	.2

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

10336580 UPPER TRUCKEE RIVER AT SOUTH UPPER TRUCKEE ROAD, NEAR MEYERS, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	.5	.5	.5	.0	.5	4.0	1.0	2.0	6.5	2.0	3.5
2	1.0	.0	.5	1.0	.0	.5	4.5	1.0	2.5	6.0	2.0	3.5
3	1.5	.0	.5	2.0	.5	1.0	4.5	1.0	2.0	6.0	1.5	3.5
4	1.5	.5	1.0	2.5	.5	1.0	4.0	1.0	1.5	6.5	2.5	3.5
5	1.5	.5	1.0	1.5	1.0	1.0	4.0	1.0	2.0	5.5	2.5	3.5
6	1.5	.0	.5	1.5	.5	1.0	4.5	1.0	2.0	5.0	2.0	3.0
7	1.5	.5	1.0	1.5	.0	1.0	5.0	1.0	2.5	4.5	2.5	3.5
8	2.0	.5	1.0	1.5	.0	.5	4.0	1.0	2.0	5.5	2.5	3.5
9	2.0	1.0	1.5	1.5	.0	.5	4.0	1.0	2.0	5.5	2.0	3.5
10	1.5	.5	1.0	2.0	.0	.5	5.0	1.0	2.5	3.5	.5	2.0
11	1.0	.5	.5	2.5	1.0	1.5	5.0	1.0	2.5	4.5	.0	2.0
12	1.0	.0	.5	2.5	.0	1.0	5.0	1.5	2.5	6.0	1.0	3.0
13	.5	.0	.0	3.0	.5	1.5	2.5	1.0	1.5	6.0	2.5	4.0
14	.5	.0	.0	3.0	1.0	1.5	3.5	1.0	2.0	6.5	2.5	4.0
15	1.0	.0	.5	2.5	.5	1.5	3.5	1.0	2.0	5.5	3.0	4.0
16	1.0	.5	1.0	2.5	1.0	1.5	4.0	1.5	2.5	3.0	1.5	2.5
17	1.5	.5	1.0	2.5	.0	1.5	3.0	1.5	2.5	8.0	2.5	4.5
18	1.5	.0	.5	3.0	.5	1.5	2.5	.5	1.5	9.0	3.0	5.0
19	1.5	.0	.5	2.5	1.0	1.5	5.0	1.5	3.0	9.0	3.0	5.5
20	1.5	1.0	1.5	2.0	.0	1.0	5.5	1.5	3.0	9.0	3.5	5.5
21	2.0	.5	1.0	2.5	.0	1.0	5.0	1.5	3.0	9.0	3.0	5.5
22	1.5	.0	1.0	3.0	.5	1.5	4.5	1.5	2.5	8.5	3.5	5.5
23	.5	.0	.0	3.0	1.5	2.0	5.5	1.0	2.5	8.5	3.5	5.5
24	.5	.0	.0	3.0	1.0	2.0	5.5	.5	2.5	8.0	4.5	5.5
25	1.0	.0	.5	3.5	1.0	2.0	6.0	1.5	3.0	8.5	4.0	5.5
26	2.0	.5	1.0	3.5	.5	1.5	6.5	1.5	3.0	9.5	4.0	6.0
27	1.0	.0	.0	3.0	1.0	2.0	6.0	1.5	3.0	10.0	4.0	6.5
28	.5	.0	.5	3.0	.5	1.5	5.0	1.5	3.0	10.0	4.0	6.5
29	1.0	.0	.5	3.5	.5	2.0	6.0	1.0	3.0	9.5	4.5	6.5
30	---	---	---	3.0	.5	1.5	7.0	1.5	3.5	9.5	3.5	6.0
31	---	---	---	3.5	.5	1.5	---	---	---	9.5	3.0	6.0
MONTH	2.0	.0	.7	3.5	.0	1.3	7.0	.5	2.4	10.0	.0	4.5

		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	3.5	7.0	12.5	8.0	10.5	16.5	13.0	14.5	10.0	8.5	9.0
2	10.5	4.0	7.0	13.0	8.5	10.5	16.0	12.5	14.0	9.0	7.5	8.5
3	11.5	4.5	8.0	11.5	8.0	10.0	15.0	13.0	13.5	10.5	7.5	8.5
4	11.5	5.5	8.0	11.5	6.5	9.0	15.0	12.0	13.0	9.5	6.5	8.0
5	10.5	6.0	8.0	11.5	7.5	9.5	16.0	11.0	13.0	9.0	5.0	7.0
6	12.0	5.0	8.0	11.5	7.0	9.5	16.0	11.5	13.5	9.5	5.5	7.0
7	11.0	6.0	8.0	12.5	8.0	10.0	16.0	11.5	13.0	10.5	6.0	7.5
8	7.5	5.0	6.0	12.5	7.5	10.0	15.5	11.0	12.5	10.5	6.5	8.0
9	9.5	4.5	7.0	13.0	8.0	11.0	15.0	11.0	12.5	11.0	6.5	8.5
10	10.0	4.5	7.0	14.0	9.0	11.5	14.5	10.0	12.0	11.0	7.0	8.5
11	10.5	5.0	8.0	15.0	10.0	12.5	14.0	9.0	11.0	11.5	7.0	9.0
12	11.5	7.0	9.0	14.5	9.5	12.5	14.0	9.0	11.0	11.5	8.0	9.5
13	12.5	6.5	9.5	14.0	9.5	12.0	14.0	9.0	11.0	12.5	9.0	10.5
14	13.5	7.0	9.5	14.5	9.5	12.0	13.5	8.5	10.5	13.0	9.5	11.0
15	13.5	7.5	10.5	14.5	9.5	12.0	14.0	9.0	11.0	13.0	9.5	11.0
16	12.5	7.5	10.0	14.0	10.5	12.5	14.0	9.0	11.0	12.5	9.0	10.5
17	12.5	7.0	9.5	14.0	9.0	11.5	14.0	9.0	11.0	12.0	8.0	9.5
18	12.5	7.5	10.0	13.5	9.0	11.5	13.5	9.0	11.0	12.5	8.5	10.0
19	12.5	7.5	10.0	13.5	8.5	11.0	13.0	8.5	10.0	12.5	8.5	10.5
20	12.5	7.5	10.0	14.0	8.5	11.5	13.0	8.0	10.0	13.0	9.5	11.0
21	13.0	8.0	11.0	14.5	9.0	11.5	13.0	8.5	10.5	12.5	10.0	11.0
22	12.5	7.5	10.5	14.5	10.0	12.0	14.0	9.0	11.0	10.5	8.5	9.5
23	13.0	8.0	10.5	14.5	9.5	12.0	13.5	9.0	11.0	9.5	7.0	8.0
24	13.0	9.0	11.0	14.0	9.5	12.0	13.5	9.0	11.0	9.0	5.5	7.0
25	13.0	8.5	11.0	14.5	9.5	12.0	14.0	9.5	11.5	9.5	6.0	7.5
26	11.5	9.0	10.5	14.5	10.0	12.0	15.0	10.5	12.0	9.5	6.5	7.5
27	13.5	8.5	11.0	14.5	9.5	12.0	14.5	10.0	12.0	9.5	6.5	8.0
28	12.5	10.0	11.5	14.5	9.5	12.0	14.0	10.5	12.0	9.5	7.0	8.0
29	12.5	9.5	11.0	14.5	10.5	12.5	12.0	11.0	11.5	10.0	7.0	8.5
30	13.5	9.5	11.5	16.0	11.0	13.0	11.5	10.5	11.0	10.0	7.0	8.5
31	---	---	---	16.5	12.0	14.0	13.0	9.5	11.0	---	---	---
MONTH	13.5	3.5	9.3	16.5	6.5	11.5	16.5	8.0	11.7	13.0	5.0	8.9
YEAR	16.5	.0	4.8									

10336593 GRASS LAKE CREEK NEAR MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°48'07", long 120°00'54", in SE 1/4 NW 1/4 sec.17, T.11 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank, 50 ft upstream of Grass Lake Way, about 0.1 mi upstream from Upper Truckee River and about 0.4 mi downstream of State Highway 89.

DRAINAGE AREA.—6.4 mi^2.

PERIOD OF RECORD.—September 1997 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997, two times per hour.

REMARKS. In September 1996, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor water temperature within the Upper Truckee River—Trout Creek watershed. Records represent water temperature at probe within 0.5°C. Water temperature data for September 1997 were not published but are available from U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 15.0°C, June 30, July 1, 12, 13, 1999, Aug. 1, 2000; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 15.0°C, Aug. 1; minimum, freezing point on many days in November, February, and March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	6.5	7.5	5.5	4.0	4.5	2.0	1.0	1.5	1.0	.5	.5
2	8.5	6.0	7.0	5.5	3.5	4.5	1.5	.5	1.5	.5	.5	.5
3	8.5	6.0	7.5	5.0	3.0	4.0	.5	.5	.5	1.0	.5	.5
4	8.5	6.0	7.0	5.0	3.0	4.0	1.0	.5	.5	1.5	1.0	1.0
5	8.5	7.0	7.5	5.5	3.5	4.5	1.5	.5	1.0	1.0	.5	.5
6	7.0	5.5	6.5	5.0	3.5	4.0	2.0	1.0	1.5	.5	.5	.5
7	7.0	4.5	5.5	5.5	3.5	4.5	2.0	.5	1.0	1.0	.5	1.0
8	7.5	5.0	6.0	3.5	2.5	3.0	.5	.5	.5	1.0	.5	1.0
9	7.5	5.0	6.5	3.0	1.5	2.5	1.0	.5	1.0	1.5	1.0	1.5
10	7.5	5.5	6.5	4.0	2.5	3.5	.5	.5	.5	2.0	1.5	2.0
11	7.5	5.5	6.5	5.0	3.5	4.0	.5	.5	.5	1.5	1.0	1.5
12	7.5	5.0	6.0	5.0	3.0	4.0	1.5	.5	1.0	1.5	1.0	1.0
13	7.0	5.0	6.0	5.0	3.0	4.0	1.5	1.0	1.5	1.5	1.0	1.5
14	7.5	5.0	6.5	5.0	3.0	4.0	1.0	.5	.5	2.0	1.5	1.5
15	7.0	5.0	6.0	5.5	4.5	5.0	1.5	.5	1.0	2.0	1.5	2.0
16	5.0	4.0	4.5	5.0	3.0	4.0	1.5	1.0	1.0	2.0	.5	1.0
17	5.0	2.5	4.0	3.0	1.5	2.5	2.0	1.5	1.5	2.0	1.0	1.5
18	5.5	3.0	4.0	2.5	1.0	2.0	2.5	2.0	2.0	2.0	1.5	2.0
19	5.5	3.0	4.5	2.5	2.0	2.5	2.5	1.5	2.0	2.5	1.5	2.0
20	6.0	3.5	4.5	3.0	2.0	2.5	2.5	2.0	2.0	3.0	2.0	2.5
21	6.0	3.5	5.0	2.0	.5	1.5	2.0	1.0	1.5	2.0	1.0	1.0
22	5.5	3.5	4.5	.5	.0	.5	1.5	1.0	1.0	1.5	.5	1.0
23	6.0	4.0	5.0	1.0	.0	.5	1.5	1.0	1.0	1.5	1.5	1.5
24	5.5	3.5	4.5	1.0	.0	.5	1.5	1.0	1.0	1.5	1.0	1.5
25	5.0	3.0	4.0	2.5	1.0	2.0	1.5	1.0	1.0	1.0	.5	1.0
26	6.0	3.5	4.5	2.5	1.5	2.0	1.5	1.0	1.0	1.0	.5	1.0
27	6.5	4.5	5.5	2.5	1.0	2.0	1.5	1.0	1.0	1.0	.5	.5
28	6.5	4.0	5.5	2.5	1.5	2.0	1.0	1.0	1.0	.5	.5	.5
29	4.5	3.0	4.0	4.5	2.5	3.5	1.0	.5	1.0	.5	.5	.5
30	5.5	3.5	4.5	3.5	2.0	3.0	1.0	.5	.5	1.0	.5	.5
31	5.5	3.5	4.5	---	---	---	1.0	.5	1.0	1.0	.5	1.0
MONTH	9.0	2.5	5.5	5.5	.0	3.0	2.5	.5	1.1	3.0	.5	1.1

10336593 GRASS LAKE CREEK NEAR MEYERS, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	1.0	1.5	.5	.0	.5	4.0	1.0	2.0	9.0	4.0	6.5
2	1.5	1.0	1.5	1.5	.5	1.0	4.0	1.0	2.0	9.0	4.0	6.5
3	2.0	1.0	1.5	1.5	1.0	1.5	4.5	1.0	2.5	9.0	4.0	6.5
4	2.0	1.5	2.0	2.0	1.0	1.5	4.5	1.5	2.5	9.0	5.0	7.0
5	2.0	1.5	2.0	2.0	1.0	1.5	4.0	1.0	2.0	8.0	5.5	6.5
6	1.5	.5	1.0	1.5	1.0	1.0	4.0	1.0	2.0	7.0	4.0	5.5
7	2.0	1.0	1.5	1.0	.0	1.0	4.5	1.0	2.5	6.0	4.5	5.5
8	2.5	1.5	2.0	1.0	.0	.5	4.0	1.5	2.5	8.5	4.5	6.5
9	2.5	2.0	2.0	1.0	.0	.5	4.0	1.0	2.5	8.0	4.5	6.0
10	2.5	1.5	2.0	1.0	.0	.5	5.0	1.0	2.5	6.0	2.5	4.0
11	2.0	1.0	1.5	2.5	1.0	1.5	5.5	1.5	3.0	5.5	1.0	3.0
12	1.0	.5	1.0	2.5	.5	1.5	5.5	2.0	3.5	7.0	2.5	5.0
13	1.0	.5	.5	2.5	.5	1.5	3.5	2.0	2.5	7.0	4.0	5.5
14	1.5	.5	1.0	3.0	1.5	2.0	4.0	1.5	2.5	7.0	4.0	5.5
15	1.5	.5	1.0	3.0	1.0	1.5	4.0	1.5	2.5	6.5	4.5	5.5
16	1.5	1.0	1.5	3.0	1.0	2.0	4.0	2.0	3.0	5.0	3.5	4.0
17	1.5	1.0	1.0	2.5	.5	1.5	3.5	2.0	3.0	8.0	4.0	6.0
18	1.5	.5	1.0	3.5	1.0	2.0	2.5	1.0	2.0	9.5	4.5	7.0
19	2.0	.5	1.0	3.5	1.5	2.5	5.5	1.5	3.5	10.5	5.5	8.0
20	2.5	1.5	2.0	1.5	.0	1.0	6.0	2.5	4.0	11.0	6.0	8.5
21	2.0	1.0	1.5	2.0	.0	1.0	5.0	2.5	4.0	11.5	6.5	9.0
22	2.0	.5	1.5	3.0	.5	1.5	5.0	2.5	3.5	11.5	7.0	9.0
23	.5	.0	.5	3.5	1.5	2.0	6.0	2.0	3.5	12.0	8.0	10.0
24	.5	.0	.0	3.5	1.0	2.0	6.5	1.5	4.0	12.0	8.5	10.5
25	1.0	.5	.5	3.5	1.5	2.5	7.0	2.5	4.5	11.5	8.0	9.5
26	1.5	1.0	1.0	3.5	1.0	2.0	8.0	3.0	5.5	12.0	7.5	9.5
27	1.5	.0	.5	4.0	1.5	2.5	7.5	3.5	5.5	12.5	7.5	10.0
28	.5	.5	.5	3.5	.5	2.0	6.0	4.0	5.0	12.5	7.5	10.0
29	1.0	.5	1.0	3.5	1.0	2.0	7.0	2.5	4.5	11.5	8.5	10.0
30	---	---	---	3.0	1.0	2.0	9.0	3.5	6.0	11.5	7.5	9.5
31	---	---	---	3.5	.5	2.0	---	---	---	11.5	6.0	9.0
MONTH	2.5	.0	1.2	4.0	.0	1.5	9.0	1.0	3.3	12.5	1.0	7.2

		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	7.0	9.5	12.5	9.5	11.0	15.0	12.5	13.5	9.5	8.0	9.0
2	12.0	7.0	10.0	12.5	9.5	11.0	14.5	12.0	13.0	8.5	7.5	8.0
3	13.0	7.5	10.5	11.5	9.5	10.5	14.0	12.0	12.5	9.0	7.0	8.0
4	13.0	9.0	11.0	11.5	7.5	9.5	13.5	11.0	12.0	8.5	6.5	7.5
5	12.5	9.5	11.0	11.0	8.0	10.0	13.5	10.5	12.0	7.5	5.0	6.5
6	13.0	8.0	10.5	11.5	8.0	10.0	14.0	11.0	12.5	8.0	5.5	6.5
7	12.5	9.0	10.5	12.0	9.0	10.5	13.5	11.0	12.0	9.0	6.0	7.5
8	10.5	8.0	9.0	12.0	8.0	10.0	13.0	10.0	11.5	9.0	6.0	7.5
9	11.0	7.5	9.0	12.5	9.0	10.5	12.5	10.5	11.5	9.0	6.0	7.5
10	11.0	7.5	9.5	13.0	9.5	11.5	12.0	10.0	11.0	9.5	6.5	8.0
11	11.5	7.5	9.5	13.0	10.5	12.0	12.0	8.5	10.5	9.5	6.5	8.0
12	12.5	9.5	11.0	13.5	9.5	11.5	12.0	8.5	10.5	9.5	7.5	8.5
13	13.5	9.5	11.5	13.0	9.5	11.5	12.0	8.5	10.5	11.0	8.5	9.5
14	14.0	9.5	12.0	13.0	9.5	11.5	12.0	8.0	10.0	11.5	9.0	10.0
15	14.0	10.5	12.5	13.0	9.5	11.5	12.0	8.5	10.5	11.5	9.0	10.0
16	13.0	10.0	12.0	13.0	10.5	11.5	12.0	8.5	10.5	10.5	8.0	9.5
17	13.0	9.5	11.5	12.5	9.5	11.0	12.0	8.5	10.5	10.0	7.5	9.0
18	13.0	9.5	11.5	12.5	9.0	11.0	11.5	9.0	10.0	10.5	8.0	9.5
19	13.5	9.5	11.5	12.5	8.5	10.5	11.5	8.0	9.5	11.0	8.0	9.5
20	13.0	9.5	11.5	12.5	9.0	11.0	11.0	7.5	9.5	11.5	9.0	10.0
21	14.0	10.0	12.0	13.0	9.0	11.0	11.5	8.0	10.0	11.0	9.5	10.0
22	13.5	9.5	11.5	13.0	9.5	11.5	12.0	9.0	10.5	9.5	8.0	9.0
23	13.5	9.5	12.0	13.0	9.5	11.5	12.0	9.0	10.5	8.5	6.5	7.5
24	13.5	10.5	12.0	12.5	9.5	11.0	12.0	8.5	10.0	8.5	5.5	7.0
25	13.5	10.0	12.0	13.0	9.5	11.5	12.5	9.5	11.0	8.5	6.0	7.5
26	13.0	10.5	11.5	13.0	9.5	11.5	13.0	10.5	11.5	8.5	6.0	7.5
27	13.5	10.0	12.0	13.0	9.5	11.0	12.5	9.5	11.0	8.5	6.0	7.5
28	13.0	11.0	12.0	13.0	9.5	11.0	12.5	10.0	11.0	8.5	6.5	7.5
29	13.0	11.0	12.0	13.0	10.0	11.5	11.5	10.5	11.0	9.0	6.5	8.0
30	14.0	11.0	12.0	14.0	10.5	12.0	11.5	10.0	11.0	9.0	7.0	8.0
31	---	---	---	14.5	11.5	13.0	11.5	9.5	10.0	---	---	---
MONTH	14.0	7.0	11.1	14.5	7.5	11.1	15.0	7.5	11.0	11.5	5.0	8.3
YEAR	15.0	.0	5.5									

10336608 ECHO LAKE NEAR PHILLIPS, CA

LOCATION.—Lat 38°50'05", long 120°02'36", in NE 1/4 NE 1/4 sec.1, T.11 N., R.17 E., El Dorado County, Hydrologic Unit 16050101, Eldorado National Forest, at right end of dam on Lower Echo Lake, near valve outlet to Echo Lake Conduit, and 2.0 mi northeast of Phillips.

DRAINAGE AREA.—4.84 mi^2.

PERIOD OF RECORD.—October 1991 to current year. Unpublished records for 1981–91 water years are available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Prior to Dec. 3, 1991, nonrecording gage read periodically. Elevation of gage is 7,414 ft above sea level, from topographic map.

REMARKS.—Reservoir is formed by concrete dam completed in 1922 and rebuilt in 1992; storage began in 1922. Usable capacity, 1,890 acre-ft, between gage heights 0.0 ft, spillway crest, and 6.0 ft, top of flashboards. Water is released via Echo Lake Conduit (station 11434500) to the South Fork American River for power and domestic use. Records from Dec. 3, 1991, including extremes, represent usable contents at 2400 hours. See schematic diagram of Truckee River Basin.

COOPERATION.—Records were collected by El Dorado Irrigation District, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,968 acre-ft, July 8, 9, 1997, gage height, 6.26 ft; minimum, no storage on several days in most years.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,958 acre-ft, July 12, gage height, 6.06 ft; minimum contents, no storage on many days.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by El Dorado Irrigation District in 2000)

0	0	4	1,279
1	315	5	1,611
2	631	6	1,943
3	955		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1158	128	27	14	0	0	72	242	1796	1924	1898	1729
2	1119	98	25	20	0	0	73	266	1828	1916	1894	1771
3	1076	64	26	8	0	56	86	293	1843	1919	1892	1780
4	1028	35	28	0	0	31	124	304	1859	1923	1895	1778
5	984	20	26	0	0	26	167	353	1876	1926	1894	1767
6	943	8	22	0	0	25	189	376	1872	1928	1892	1732
7	909	2	24	0	0	15	193	393	1855	1934	1888	1703
8	870	14	26	0	0	18	190	538	1869	1935	1882	1674
9	816	12	23	0	0	24	188	588	1839	1943	1868	1662
10	773	18	27	0	0	19	176	533	1827	1948	1859	1653
11	737	24	23	0	0	12	172	481	1818	1952	1856	1646
12	707	25	21	0	0	13	177	416	1856	1958	1853	1640
13	668	25	28	0	0	10	236	361	1913	1955	1843	1637
14	627	24	29	0	0	10	257	324	1934	1954	1839	1631
15	596	22	29	0	0	10	217	312	1941	1951	1827	1628
16	559	17	29	0	0	21	179	310	1941	1952	1822	1622
17	528	41	28	0	0	22	153	302	1928	1953	1816	1617
18	496	39	23	0	0	23	133	349	1917	1951	1797	1613
19	469	44	20	0	0	34	116	445	1909	1951	1790	1583
20	445	64	22	0	0	37	102	581	1912	1951	1783	1555
21	420	61	21	0	0	38	98	757	1928	1943	1780	1528
22	392	56	22	0	0	39	107	925	1942	1928	1777	1521
23	365	52	20	0	0	39	121	1146	1947	1932	1773	1511
24	342	47	19	0	0	40	127	1479	1950	1930	1760	1508
25	322	43	19	0	0	46	140	1764	1948	1928	1755	1505
26	296	36	19	0	0	56	161	1714	1946	1923	1749	1491
27	273	28	17	0	0	68	199	1759	1945	1918	1742	1489
28	315	25	16	0	0	76	246	1802	1945	1912	1739	1482
29	254	24	16	0	0	76	254	1819	1943	1913	1734	1477
30	203	13	16	0	---	81	238	1807	e1934	1909	1730	1472
31	160	---	16	0	---	79	---	1776	---	1904	1730	---
MAX	1158	128	29	20	0	81	257	1819	1950	1958	1898	1780
MIN	160	2	16	0	0	0	72	242	1796	1904	1730	1472
a	0.47	0.03	0.05	0.00	0.00	0.27	0.75	5.50		5.87	5.33	4.58
b	-994	-147	+3	-16	0	+79	+159	+1538	+158	-30	-174	-258
c	801	54	0	0	0	0	0	0	0	0	0	165

CAL YR 1999 MAX 1932 MIN 0 b +16 c 1440
WTR YR 2000 MAX 1958 MIN 0 b +318 c 1020

e Estimated.
a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.
c Release, in acre-feet, through Echo Lake Conduit, provided by El Dorado Irrigation District.

103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50, ABOVE MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°50'55", long 120°01'34", in NE 1/4 NE 1/4 sec.31, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 500 ft downstream of U.S. Highway 50 bridge, 1 mi southwest of Meyers, and 7.5 mi upstream of Lake Tahoe.

DRAINAGE AREA.—39.3 mi^2, revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—June 1990 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,310 ft above sea level, from topographic map. June 1990 to Sept. 5, 1997 at present site, datum 3.00 ft higher.

REMARKS.—No estimated daily discharges. Records fair. See schematic diagram of Truckee River Basin. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,120 ft^3/s, Jan. 2, 1997, gage height, 8.95 ft; minimum daily, 1.2 ft^3/s, Dec. 22, 1990.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	0745	355	6.24	May 25	2215	6.96	7.01
May 08	1000	*830	*7.32				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	18	12	9.9	26	37	76	218	179	51	10	5.1
2	8.7	16	12	10	25	34	86	253	178	40	11	9.1
3	9.1	13	11	9.8	24	32	108	270	182	33	13	7.3
4	8.5	11	11	9.5	24	31	146	286	198	31	14	6.0
5	8.3	11	11	8.3	23	31	162	289	203	29	11	5.4
6	8.6	9.8	11	8.7	22	30	160	240	185	28	9.8	5.1
7	8.8	9.5	11	9.2	21	28	156	292	188	27	9.3	5.0
8	8.7	12	10	8.9	21	28	165	670	191	25	9.0	4.8
9	14	11	11	9.2	22	28	147	442	142	24	8.7	4.4
10	8.7	11	10	9.7	24	27	141	334	123	23	8.0	4.2
11	8.5	10	10	11	24	28	152	251	109	22	7.7	4.0
12	8.4	11	11	12	26	28	169	209	106	21	7.5	4.0
13	8.1	10	12	11	54	30	290	183	129	20	7.3	3.9
14	7.9	10	10	11	143	35	193	171	152	19	7.0	3.5
15	7.9	10	10	16	85	40	143	173	147	18	6.4	3.4
16	7.8	11	10	20	63	43	119	167	139	18	6.0	4.2
17	7.9	14	10	22	56	44	111	146	123	17	5.7	4.2
18	8.0	13	10	32	55	47	99	150	118	16	5.6	3.9
19	8.1	17	10	35	48	62	91	188	104	15	5.2	4.1
20	7.9	23	10	43	43	64	97	229	88	15	5.2	4.8
21	7.8	19	10	39	39	54	108	291	83	14	5.2	5.0
22	7.8	15	9.8	35	36	52	117	334	81	14	5.1	5.2
23	7.8	14	9.7	35	41	56	116	319	77	13	5.0	5.3
24	8.2	13	9.7	83	35	62	120	474	75	13	4.8	5.4
25	7.7	12	9.7	71	33	71	135	466	71	13	4.7	5.4
26	7.7	12	9.6	51	33	78	166	400	68	12	4.7	6.0
27	7.9	12	9.7	39	55	87	208	310	65	12	4.6	7.1
28	34	11	9.5	33	44	85	209	322	64	12	4.3	7.4
29	28	11	9.3	29	41	81	175	310	60	11	4.2	7.5
30	22	12	9.2	29	---	80	181	256	57	11	5.0	7.5
31	18	---	9.6	29	---	77	---	200	---	11	5.3	---
TOTAL	329.5	382.3	318.8	779.2	1186	1510	4346	8843	3685	628	220.3	158.2
MEAN	10.6	12.7	10.3	25.1	40.9	48.7	145	285	123	20.3	7.11	5.27
MAX	34	23	12	83	143	87	290	670	203	51	14	9.1
MIN	7.7	9.5	9.2	8.3	21	27	76	146	57	11	4.2	3.4
AC-FT	654	758	632	1550	2350	3000	8620	17540	7310	1250	437	314

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	9.56	17.6	22.8	55.8	42.1	67.8	122	299	259	98.0	20.1	11.9
MAX	22.6	78.5	96.4	328	125	132	206	569	709	452	78.6	37.5
(WY)	1996	1997	1997	1997	1996	1995	1997	1993	1995	1995	1995	1995
MIN	3.39	3.33	3.15	4.37	6.69	28.2	47.2	85.0	20.4	4.81	2.28	2.50
(WY)	1995	1991	1991	1991	1991	1994	1991	1992	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	34234.5		22386.3			
ANNUAL MEAN	93.8		61.2		88.0	
HIGHEST ANNUAL MEAN					169	1995
LOWEST ANNUAL MEAN					26.1	1994
HIGHEST DAILY MEAN	921	May 26	670	May 8	2000	Jan 2 1997
LOWEST DAILY MEAN	7.7	Oct 25	3.4	Sep 15	1.2	Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	7.8	Oct 20	3.9	Sep 12	1.8	Dec 20 1990
INSTANTANEOUS PEAK FLOW			830	May 8	5120	Jan 2 1997
INSTANTANEOUS PEAK STAGE			7.32	May 8	8.95	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	67900		44400		63790	
10 PERCENT EXCEEDS	322		181		251	
50 PERCENT EXCEEDS	33		20		26	
90 PERCENT EXCEEDS	9.7		5.7		4.9	

103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50, ABOVE MEYERS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1990 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997, two times per hour.

REMARKS. In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 20.5°C, July 31, Aug. 6, 2000; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 20.5°C, July 31, Aug. 6; minimum, freezing point, many days from December to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
06...	1330	8.7	89	--	9.0	9.0	--	--	--
NOV									
05...	1205	10	72	--	19.5	6.0	--	--	--
DEC									
17...	1335	13	76	7.4	7.0	2.0	611	98	10.9
JAN									
06...	1540	11	84	--	6.0	1.0	--	--	--
FEB									
01...	1415	26	59	--	6.0	2.0	--	--	--
MAR									
16...	1510	43	70	--	4.0	4.6	608	100	10.3
APR									
03...	1430	96	47	--	17.5	6.3	--	--	--
11...	1440	134	35	--	17.0	5.3	--	--	--
13...	1225	311	26	--	3.5	3.1	--	--	--
MAY									
01...	1220	188	25	--	18.5	5.1	--	--	--
08...	1245	720	18	--	10.5	5.2	--	--	--
23...	1230	257	26	--	26.5	8.0	--	--	--
JUN									
07...	1435	170	23	--	18.5	12.2	601	100	8.4
JUL									
07...	1420	25	52	--	16.0	14.2	--	--	--
AUG									
09...	1515	8.7	82	--	24.5	18.8	--	--	--
SEP									
08...	1340	4.8	89	7.7	20.0	12.8	602	118	9.8

103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50, ABOVE MEYERS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT								
06...	<.003	.07	.010	.005	.015	156	<1	<.02
NOV								
05...	<.003	.06	.015	.004	.014	161	1	.03
DEC								
17...	<.003	.07	.024	.004	.012	172	3	.11
JAN								
06...	.004	<.04	.028	.005	.011	157	1	.03
FEB								
01...	.003	.06	.022	.003	.008	127	2	.14
MAR								
16...	<.003	.05	.012	.003	.010	162	4	.46
APR								
03...	<.003	.10	.013	.003	.011	229	3	.78
11...	<.003	.08	.007	.002	.009	161	3	1.1
13...	.003	.19	.012	.002	.037	757	40	34
MAY								
01...	<.003	.11	.010	.002	.010	156	3	1.5
08...	<.003	.12	.009	.004	.072	1040	80	156
23...	<.003	e.10	.003	.004	.021	232	29	20
JUN								
07...	<.003	.07	.007	.002	.012	115	2	.92
JUL								
07...	<.003	.04	.006	.006	.013	131	1	.07
AUG								
09...	<.003	.07	.005	.006	.013	158	1	.02
SEP								
08...	.003	.05	.009	.005	.040	145	1	.01

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	8.0	10.0	8.5	5.0	6.5	3.0	1.0	2.0	.5	.0	---
2	12.5	7.5	10.0	8.0	5.0	6.5	2.0	.5	1.5	.5	.0	.5
3	12.5	7.5	10.0	7.5	4.5	6.0	1.0	.0	.5	1.0	.0	.5
4	12.0	7.5	9.5	7.0	4.0	5.5	1.0	.0	.5	1.0	.0	.5
5	12.0	8.5	9.5	7.5	4.5	6.0	2.0	.5	1.0	.5	.0	---
6	10.5	8.0	9.0	7.0	4.0	5.5	2.5	.5	1.5	.5	.0	---
7	10.5	6.0	8.0	7.0	4.0	6.0	2.0	.0	.5	1.0	.5	.5
8	11.5	6.0	8.5	5.0	2.5	3.5	.5	.0	.5	1.0	.0	---
9	11.5	7.5	9.0	5.0	2.5	3.5	1.0	.0	.5	2.0	.5	1.0
10	11.5	7.0	9.0	5.5	3.0	4.5	1.0	.0	.5	2.0	1.0	1.0
11	11.5	7.0	9.0	7.0	4.0	5.5	.5	.0	.5	1.0	.0	.5
12	11.0	6.5	8.5	6.5	3.0	5.0	1.0	.0	.5	1.0	.5	.5
13	11.0	6.0	8.5	6.0	3.0	4.5	1.5	.5	1.0	2.0	.5	1.0
14	10.5	6.5	8.5	5.5	3.0	4.5	1.0	.0	.5	2.0	.5	1.0
15	10.5	6.5	8.0	7.0	5.0	6.0	1.0	.0	.5	2.0	1.5	1.5
16	9.0	5.0	6.5	6.5	3.0	5.0	1.0	.0	.5	1.5	.0	.5
17	8.5	4.0	6.0	4.5	2.5	3.0	2.0	.0	1.0	1.0	.5	.5
18	8.5	4.5	6.0	4.0	1.5	2.5	2.5	1.0	1.5	1.5	.5	1.0
19	8.5	4.5	6.5	3.0	2.0	2.5	2.5	.5	1.5	2.0	1.0	1.5
20	9.0	5.0	6.5	4.0	2.5	3.0	2.5	.5	1.5	2.5	1.0	2.0
21	9.0	5.0	6.5	3.0	1.5	2.5	1.5	.0	1.0	1.0	.0	1.0
22	8.5	4.5	6.5	2.0	.5	1.5	1.0	.0	.5	1.5	.0	1.0
23	8.5	5.0	6.5	2.0	.5	1.5	1.0	.0	---	1.5	1.0	1.0
24	8.5	4.0	6.0	2.5	.5	1.5	1.0	.0	---	1.0	.5	1.0
25	8.5	4.5	6.0	3.5	1.0	2.0	1.0	.0	---	1.0	.0	.5
26	9.0	4.5	6.5	4.0	1.5	2.5	1.0	.0	---	1.5	.0	1.0
27	9.0	6.0	7.5	3.5	1.5	2.0	1.0	.0	---	1.5	.0	.5
28	8.0	7.0	7.5	3.5	1.0	2.0	.5	.0	---	1.0	.0	.5
29	8.0	5.5	7.0	5.0	2.5	3.5	.5	.0	---	1.0	.0	.5
30	8.5	5.5	7.0	4.5	2.0	3.5	.5	.0	---	1.0	.0	.5
31	8.5	5.5	7.0	---	---	---	1.0	.0	.5	1.0	.0	.5
MONTH	13.0	4.0	7.8	8.5	.5	3.9	3.0	.0	---	2.5	.0	---

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

103366092 UPPER TRUCKEE RIVER AT HIGHWAY 50, ABOVE MEYERS, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	.5	1.5	2.5	.0	1.0	6.5	1.5	3.5	7.5	3.0	5.0
2	3.0	1.5	2.0	2.0	1.0	1.5	7.0	2.0	4.0	7.5	2.5	4.5
3	3.0	1.0	2.0	3.5	1.0	2.5	7.0	1.5	4.0	7.0	2.5	4.5
4	3.0	1.5	2.0	4.0	1.0	2.5	6.0	2.0	3.5	7.5	3.5	5.0
5	3.0	1.5	2.0	3.0	2.0	2.5	6.0	1.0	3.0	6.5	3.5	5.0
6	3.0	.5	2.0	3.0	1.5	2.0	5.5	1.5	3.5	5.5	2.5	4.0
7	3.0	1.0	2.0	2.5	1.0	1.5	6.0	1.5	3.5	5.5	3.5	4.0
8	4.5	2.0	3.0	3.0	.5	1.5	5.0	1.5	3.0	6.5	3.5	4.5
9	3.5	2.5	3.0	2.0	.5	1.0	5.0	1.0	3.0	6.5	3.0	4.5
10	3.0	2.0	2.5	4.0	.0	2.0	6.0	1.5	3.5	4.5	2.0	3.5
11	2.0	1.0	1.5	5.5	2.0	3.5	6.0	1.5	3.5	5.5	1.0	3.0
12	1.5	.0	1.0	5.0	1.0	3.0	6.0	2.0	3.5	6.5	2.0	4.0
13	1.0	.0	.5	5.0	1.5	3.5	3.5	2.0	2.5	7.0	3.5	5.0
14	1.0	.0	.5	5.5	2.0	3.5	4.5	1.5	2.5	7.5	3.5	5.5
15	2.5	.0	1.0	5.0	1.0	3.0	4.0	1.5	3.0	6.5	4.0	5.5
16	2.0	1.5	1.5	4.5	1.5	3.0	4.5	2.0	3.0	4.5	2.5	3.5
17	2.5	1.0	1.5	5.0	.5	2.5	3.5	2.5	3.0	9.0	3.5	6.0
18	2.5	.5	1.5	5.5	1.0	3.0	3.0	1.5	2.0	10.5	4.0	7.0
19	3.0	.5	1.5	5.5	2.5	3.5	6.5	2.0	4.0	11.0	4.5	7.5
20	3.0	2.0	2.5	3.5	.5	2.0	6.5	2.5	4.5	11.0	4.5	7.5
21	3.5	1.0	2.0	4.5	.0	2.0	6.0	2.5	4.0	11.0	4.5	7.5
22	2.0	1.0	1.5	5.0	.5	3.0	5.0	2.0	4.0	10.5	5.5	7.5
23	1.5	.0	.5	5.5	2.0	3.5	6.5	1.5	4.0	10.5	5.0	7.5
24	2.0	.0	1.0	5.5	1.5	3.5	6.5	1.0	4.0	10.0	6.0	7.5
25	3.0	.5	1.5	6.0	1.5	3.5	7.5	2.0	4.5	11.5	5.0	7.5
26	4.0	1.0	2.5	6.0	1.5	3.5	8.0	2.0	5.0	11.0	7.5	9.0
27	2.5	.0	.5	5.5	2.0	3.5	7.0	2.5	4.5	11.5	6.5	9.0
28	2.0	.0	1.0	5.5	1.0	3.0	6.0	2.5	4.0	11.5	6.5	9.0
29	1.5	.5	1.0	5.5	1.5	3.5	6.0	1.5	4.0	11.0	7.5	9.0
30	---	---	---	5.5	1.0	3.0	7.5	2.0	4.5	10.5	6.0	8.5
31	---	---	---	5.5	1.0	3.0	---	---	---	10.0	5.5	8.0
MONTH	4.5	.0	1.6	6.0	.0	2.7	8.0	1.0	3.6	11.5	1.0	6.1

		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	6.0	8.5	16.5	11.0	13.5	20.0	15.0	17.0	12.0	10.0	11.0
2	11.5	6.0	9.0	16.0	11.0	13.5	19.5	14.0	16.5	10.5	8.5	9.5
3	12.5	6.5	9.5	15.0	10.0	12.5	18.0	13.5	15.0	13.5	8.5	10.5
4	13.0	8.0	10.5	15.0	9.0	12.0	19.0	12.5	15.0	13.5	9.0	11.0
5	12.0	8.5	10.5	15.0	9.0	12.0	20.0	13.0	16.0	13.5	7.5	10.0
6	12.5	7.5	10.0	15.0	9.0	12.0	20.5	13.5	16.5	14.0	8.0	10.5
7	13.0	8.5	10.5	15.5	9.5	12.5	20.0	13.5	16.5	15.0	8.5	11.0
8	10.0	8.0	9.0	16.5	9.5	13.0	20.0	13.0	16.0	14.5	8.5	11.0
9	11.0	7.5	9.0	17.0	10.0	13.5	19.5	13.5	16.0	15.0	9.0	11.5
10	11.5	7.0	9.5	18.0	11.0	14.0	19.0	13.0	15.0	15.5	9.0	12.0
11	11.5	7.5	9.5	17.5	11.5	14.5	19.0	11.5	14.5	16.0	9.0	12.0
12	13.5	8.5	11.0	18.5	12.0	15.0	19.0	12.0	15.0	15.0	10.0	12.5
13	14.0	9.0	11.5	18.0	11.5	15.0	19.0	11.5	15.0	16.0	11.0	13.0
14	14.5	9.5	12.0	18.5	11.5	14.5	18.5	11.0	14.5	17.0	11.0	13.5
15	16.0	10.5	13.0	18.5	12.0	15.0	19.0	11.5	14.5	17.0	11.0	13.5
16	15.0	11.5	13.0	17.5	12.5	15.0	19.0	11.5	15.0	16.0	10.0	13.0
17	15.5	10.5	13.0	18.5	11.5	14.5	19.0	11.5	15.0	15.5	9.0	12.0
18	15.5	11.0	13.0	18.5	11.5	14.5	18.5	11.5	14.5	16.0	9.0	12.5
19	15.5	11.0	13.0	18.5	11.0	14.5	18.0	11.0	14.0	16.0	9.5	12.5
20	15.5	10.5	12.5	19.0	11.0	14.5	18.0	10.0	14.0	16.5	10.0	13.0
21	16.5	11.0	13.5	19.0	11.5	15.0	18.5	11.0	14.0	16.0	10.0	12.5
22	16.0	11.0	13.5	19.0	12.0	15.0	19.0	11.5	15.0	13.5	8.0	10.5
23	16.5	11.0	13.5	19.5	11.5	15.0	19.0	11.5	14.5	13.0	6.5	9.5
24	17.0	12.0	14.0	19.0	12.0	15.0	19.0	11.5	14.5	13.5	7.0	10.0
25	16.5	11.5	14.0	19.5	11.5	15.0	19.5	12.0	15.0	13.5	7.5	10.0
26	15.5	12.0	13.5	19.5	12.5	15.5	19.5	13.0	15.5	13.5	7.0	10.0
27	17.0	11.5	14.0	19.5	12.0	15.5	19.5	12.0	15.5	13.0	8.0	10.0
28	16.5	12.5	14.5	19.5	12.0	15.5	19.0	12.0	15.0	12.5	8.5	10.0
29	16.5	12.0	14.0	19.0	12.5	15.5	15.0	13.0	14.0	13.0	8.0	10.5
30	17.5	12.0	14.5	19.5	13.0	16.0	13.5	12.0	13.0	13.0	8.0	10.5
31	---	---	---	20.5	13.5	17.0	17.0	11.0	13.5	---	---	---
MONTH	17.5	6.0	11.9	20.5	9.0	14.4	20.5	10.0	15.0	17.0	6.5	11.3

103366098 UPPER TRUCKEE RIVER AT HIGHWAY 50 BRIDGE, BELOW MEYERS, CA

LOCATION:—Lat 38°52'32", long 120°00'16", in SE 1/4 NE 1/4 sec.20, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, at U.S. Highway 50 Bridge, 1.5 mi northeast of Meyers, and 5.2 mi southwest of South Lake Tahoe.

PERIOD OF RECORD.—January to September 2000.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: January to September 2000.

INSTRUMENTATION.—Water temperature recorder since January 2000, two times per hour.

REMARKS. In January 2000, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor water temperature within the Upper Truckee River—Trout Creek watershed. Records represent water temperature at probe within 0.5°C. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 23.5°C, Aug. 26, 2000; minimum, freezing point on many days in February and March 2000.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 23.5°C, Aug. 26, but may have been higher during periods of missing record; minimum, freezing point, many days in February and March, but may have also been reached during periods of missing record.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	3.5	.0	1.5	8.0	1.5	4.5	9.5	3.5	6.0
2	---	---	---	2.5	.5	1.5	9.0	2.0	5.0	9.5	3.0	6.0
3	---	---	---	6.5	1.0	3.0	9.0	2.0	5.0	9.0	3.0	5.5
4	4.0	1.0	2.5	6.5	1.0	3.0	8.0	2.0	4.5	9.5	3.5	6.0
5	4.0	1.0	2.5	3.5	1.5	2.5	7.5	1.5	4.0	8.0	4.0	5.5
6	4.5	.5	2.0	4.0	1.5	2.5	7.5	1.5	4.0	7.0	3.0	4.5
7	4.5	.5	2.0	3.5	.5	2.0	8.0	1.5	4.5	6.0	4.0	5.0
8	6.0	1.5	3.0	5.0	.5	2.0	6.5	2.0	4.0	8.0	4.0	5.5
9	4.5	2.0	3.0	3.0	.5	1.5	6.5	1.5	4.0	8.0	3.5	5.5
10	3.5	1.5	2.5	6.0	.0	2.5	8.0	2.0	4.5	5.5	2.0	4.0
11	3.0	1.0	1.5	7.5	2.0	4.0	8.0	2.0	4.5	7.0	1.0	3.5
12	1.5	.0	1.0	7.5	1.0	3.5	7.0	2.5	4.5	8.0	2.0	5.0
13	1.0	.0	.5	7.5	1.0	4.0	4.5	2.5	3.5	8.0	4.0	6.0
14	.5	.0	.0	8.0	2.0	4.5	6.0	2.0	3.5	8.5	4.0	6.0
15	2.5	.0	1.0	7.5	1.5	4.0	6.0	2.0	3.5	8.0	4.5	6.0
16	2.5	1.0	1.5	7.0	2.0	4.0	6.0	2.5	4.0	5.5	3.5	4.0
17	3.0	1.0	2.0	7.0	1.0	3.5	4.5	3.0	4.0	10.5	3.5	6.5
18	4.0	.0	1.5	8.0	1.5	4.0	4.0	2.0	3.0	11.5	4.5	8.0
19	3.5	.0	2.0	7.5	3.0	4.5	8.0	2.5	4.5	12.0	5.5	8.5
20	4.0	2.0	3.0	5.5	.5	2.5	8.0	3.0	5.5	12.0	5.0	8.5
21	4.0	1.0	2.5	6.5	.0	2.5	7.5	3.0	5.0	12.0	5.0	8.5
22	2.5	.5	1.5	7.5	.5	3.5	8.0	3.0	5.0	11.5	5.5	8.5
23	2.5	.0	.5	7.5	2.5	4.5	9.0	2.5	5.0	11.5	5.5	8.5
24	2.5	.0	1.0	8.0	1.5	4.5	8.5	2.0	5.0	11.0	6.5	8.5
25	4.5	.0	2.0	8.5	2.0	4.5	9.5	2.5	5.5	11.5	5.5	8.0
26	4.5	1.0	2.5	8.0	1.5	4.5	10.0	3.0	6.0	12.0	7.0	9.5
27	2.5	.0	.5	7.5	2.5	4.5	9.0	3.0	5.5	12.5	6.5	9.5
28	3.5	.0	1.5	7.0	1.0	4.0	8.0	3.0	5.0	12.5	6.5	9.5
29	2.0	.0	1.0	7.5	1.5	4.0	8.0	2.0	5.0	12.0	7.5	9.5
30	---	---	---	7.5	1.5	4.0	9.5	2.5	5.5	11.5	6.0	8.5
31	---	---	---	7.5	1.0	4.0	---	---	---	11.5	5.5	8.5
MONTH	---	---	---	8.5	.0	3.4	10.0	1.5	4.6	12.5	1.0	6.9

103366098 UPPER TRUCKEE RIVER AT HIGHWAY 50 BRIDGE, BELOW MEYERS, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.5	6.0	9.0	---	---	---	---	---	---	15.0	11.0	13.0
2	13.0	6.5	9.5	---	---	---	---	---	---	11.5	9.0	10.0
3	13.5	7.0	10.0	---	---	---	---	---	---	15.5	8.5	11.5
4	14.0	8.0	11.0	---	---	---	---	---	---	16.0	9.0	12.0
5	14.0	8.5	11.0	---	---	---	---	---	---	16.0	7.5	11.5
6	14.0	7.5	10.5	---	---	---	---	---	---	16.5	8.0	12.0
7	14.5	8.5	11.0	---	---	---	---	---	---	17.5	8.5	12.5
8	11.0	8.0	9.5	---	---	---	---	---	---	16.0	9.0	12.5
9	13.0	7.5	9.5	---	---	---	---	---	---	17.5	9.0	13.0
10	13.5	7.5	10.0	---	---	---	---	---	---	18.5	9.5	13.5
11	13.0	7.5	10.5	---	---	---	22.0	12.0	16.5	19.0	9.5	14.0
12	15.5	9.5	12.0	---	---	---	22.0	12.0	17.0	17.5	10.5	14.0
13	16.5	9.5	12.5	---	---	---	22.0	12.0	17.0	19.0	12.0	15.0
14	17.0	10.0	13.0	---	---	---	22.0	11.5	16.5	19.5	12.0	15.5
15	18.0	11.0	14.0	---	---	---	22.0	12.0	16.5	20.0	12.0	15.5
16	17.5	12.0	14.5	---	---	---	22.5	12.0	17.0	19.0	11.5	15.0
17	17.5	11.0	14.0	---	---	---	22.0	12.0	16.5	19.0	10.0	14.5
18	18.0	11.5	14.5	---	---	---	21.5	12.5	16.5	19.0	11.0	15.0
19	18.0	11.5	14.5	---	---	---	21.0	11.5	16.0	19.5	11.0	15.0
20	18.0	11.5	14.5	---	---	---	21.0	11.0	16.0	20.0	11.5	15.5
21	19.0	11.5	15.0	---	---	---	21.5	11.5	16.5	19.5	13.0	15.5
22	19.0	11.5	15.0	---	---	---	23.0	12.0	17.0	16.0	11.5	13.5
23	---	---	---	---	---	---	22.0	12.5	17.0	16.0	9.0	12.5
24	---	---	---	---	---	---	22.0	12.0	17.0	15.5	8.0	12.0
25	---	---	---	---	---	---	22.5	13.0	17.5	16.5	8.5	12.5
26	---	---	---	---	---	---	23.5	14.5	18.5	16.0	8.5	12.5
27	---	---	---	---	---	---	23.0	13.0	18.0	16.0	8.5	12.5
28	---	---	---	---	---	---	22.0	13.5	17.5	15.0	9.0	12.0
29	---	---	---	---	---	---	17.0	14.5	16.0	15.5	9.0	12.0
30	---	---	---	---	---	---	15.0	13.5	14.5	16.0	8.5	12.0
31	---	---	---	---	---	---	20.0	11.5	15.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	20.0	7.5	13.2

10336610 UPPER TRUCKEE RIVER AT SOUTH LAKE TAHOE, CA

LOCATION.—Lat 38°55'21", long 119°59'26", in NW 1/4 SE 1/4 sec.4, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 200 ft downstream from 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 mi^2.

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 6,229.04 ft above sea level. Prior to Apr. 26, 1984, at datum 2.00 ft higher. Prior to Oct. 19, 1993, at site 200 ft upstream at same datum.

REMARKS.—Records fair, including estimated daily discharges. Two small dams may cause slight regulation at times. Some small diversions for domestic use upstream from station. Echo Lake conduit (station 11434500) diverts from Echo Lake (station 10336608), to South Fork American River Basin. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,480 ft^3/s, Jan. 2, 1997, gage height, 9.95 ft; minimum daily, 0.70 ft^3/s, Aug. 22 to Sept. 5, 1994.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 300 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	2030	406	4.02	Apr. 28	0115	315	3.37
Feb. 14	0515	639	4.77	May 8	1615	850	5.56
Apr. 13	1215	483	4.08	May 26	0145	692	4.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	20	20	e17	40	74	96	257	243	56	10	6.8
2	9.4	20	20	e17	38	66	105	299	233	49	10	12
3	10	18	e19	e17	37	64	129	329	229	42	14	11
4	9.4	16	e19	e17	38	68	173	340	242	40	17	8.8
5	9.6	14	e19	e17	37	72	206	360	252	38	12	8.0
6	9.9	14	18	e17	35	61	204	306	234	36	11	7.7
7	9.7	14	e18	e17	34	56	194	363	231	35	10	7.4
8	9.5	17	e18	e17	35	54	205	727	240	34	9.7	7.3
9	14	16	e18	e17	37	54	185	550	191	33	9.2	7.1
10	10	16	e18	17	44	56	170	390	157	31	8.8	6.8
11	9.2	15	e18	e18	41	61	182	304	138	29	8.5	6.5
12	8.9	15	e17	e19	41	64	200	259	128	28	8.4	6.5
13	8.7	15	e17	e19	81	67	386	225	145	26	8.1	6.6
14	8.8	15	e17	e19	e143	74	276	205	179	24	7.8	6.9
15	8.7	16	e17	36	e119	79	190	201	176	23	7.6	6.5
16	8.0	17	e17	42	e111	82	151	193	168	22	7.4	6.1
17	8.0	22	e17	43	97	83	139	173	147	22	6.9	5.9
18	8.2	20	17	75	91	84	123	163	136	21	6.5	5.8
19	8.7	27	17	82	85	103	109	193	125	20	6.5	5.7
20	9.0	41	17	87	81	102	114	229	106	19	6.4	5.6
21	9.0	29	e17	72	78	86	125	286	94	18	6.3	5.6
22	8.9	24	e17	59	71	85	138	348	93	17	6.0	5.5
23	8.8	22	e17	55	74	91	134	324	85	16	6.1	5.9
24	9.6	23	e17	e74	70	96	136	465	82	15	6.0	5.9
25	9.2	20	e17	e69	66	102	147	479	77	14	5.9	5.8
26	9.3	20	e17	e54	62	110	182	535	70	14	5.5	5.9
27	9.6	20	e17	e49	95	120	241	390	68	13	5.9	6.6
28	45	19	e17	e49	93	118	257	404	65	12	5.7	6.5
29	37	19	e17	51	82	108	207	399	64	12	5.5	6.8
30	26	20	e17	43	---	105	204	349	61	11	6.7	6.5
31	22	---	e17	46	---	99	---	280	---	11	7.4	---
TOTAL	381.9	584	545	1231	1956	2544	5308	10325	4459	781	252.8	206.0
MEAN	12.3	19.5	17.6	39.7	67.4	82.1	177	333	149	25.2	8.15	6.87
MAX	45	41	20	87	143	120	386	727	252	56	17	12
MIN	8.0	14	17	17	34	54	96	163	61	11	5.5	5.5
AC-FT	757	1160	1080	2440	3880	5050	10530	20480	8840	1550	501	409

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.7	40.9	51.0	68.8	71.0	110	168	312	267	93.0	21.8	13.6
MAX	72.1	225	218	484	307	305	300	567	795	448	102	55.3
(WY)	1983	1984	1982	1997	1986	1986	1982	1982	1983	1995	1983	1983
MIN	2.60	7.36	8.07	8.00	10.5	21.2	64.0	55.3	23.5	4.65	1.15	1.39
(WY)	1989	1991	1991	1991	1991	1977	1977	1977	1992	1994	1994	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1972 - 2000	
ANNUAL TOTAL	44688.7		28573.7			
ANNUAL MEAN	122		78.1		105	
HIGHEST ANNUAL MEAN					203	1983
LOWEST ANNUAL MEAN					29.2	1988
HIGHEST DAILY MEAN	903	May 27	727	May 8	3150	Jan 2 1997
LOWEST DAILY MEAN	8.0	Oct 16	5.5	Aug 26	.70	Aug 22 1994
ANNUAL SEVEN-DAY MINIMUM	8.4	Oct 13	5.7	Sep 17	.70	Aug 22 1994
INSTANTANEOUS PEAK FLOW			850	May 8	5480	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.56	May 8	9.95	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	88640		56680		76290	
10 PERCENT EXCEEDS	404		226		292	
50 PERCENT EXCEEDS	45		28		40	
90 PERCENT EXCEEDS	11		7.0		8.0	

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.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: March 1981 to September 1983.
WATER TEMPERATURE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1992, September 1997 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1992.

INSTRUMENTATION.—Water temperature recorder September 1997 to current year, two times per hour.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 26.0°C, Aug. 18, 1982, July 31, 2000; minimum, freezing point on many days.
SEDIMENT CONCENTRATION: Maximum daily mean, 416 mg/L, Mar. 4, 1991; minimum daily mean, 0 mg/L, several days during most years.
SEDIMENT LOAD: Maximum daily, 781 tons, Mar. 8, 1986; minimum daily, 0 ton, several days during most years.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 26.0°C, July 31; minimum, freezing point, many days November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
06...	1140	10	96	--	9.5	11.0	--	--	--
28...	1245	50	90	--	8.5	8.0	--	--	--
NOV									
05...	1020	16	84	--	15.5	6.5	--	--	--
DEC									
17...	1045	e17	86	7.4	5.0	1.0	614	95	10.9
JAN									
06...	1240	e17	94	--	6.5	.5	--	--	--
24...	1435	e74	45	--	2.0	1.0	--	--	--
25...	1325	e69	52	--	2.5	1.5	--	--	--
FEB									
01...	1110	40	72	--	4.0	1.5	--	--	--
14...	1105	e143	44	--	.5	.5	--	--	--
MAR									
16...	1315	79	81	--	7.0	6.0	610	104	10.3
27...	1225	120	59	--	11.5	5.9	--	--	--
APR									
03...	1230	131	53	--	13.0	5.6	--	--	--
11...	1130	186	39	--	13.0	5.2	--	--	--
13...	1010	463	32	--	5.0	3.8	--	--	--
28...	1355	235	27	--	10.5	7.0	--	--	--
MAY									
01...	1000	261	27	--	18.5	4.7	--	--	--
08...	1045	774	21	--	10.5	5.0	--	--	--
09...	1350	463	25	--	13.0	7.0	--	--	--
16...	1020	194	33	7.4	1.0	4.0	606	96	10.0
23...	1040	324	25	--	16.5	7.0	--	--	--
JUN									
07...	1140	230	24	--	20.5	11.1	604	99	8.6
JUL									
07...	1110	37	59	--	13.5	15.1	--	--	--
AUG									
03...	1700	13	90	--	18.0	18.5	--	--	--
03...	1815	29	82	--	13.0	16.0	--	--	--
09...	1205	9.5	94	--	22.0	18.9	--	--	--
SEP									
08...	1115	8.0	98	7.9	18.5	12.5	604	106	8.9

e Estimated.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACTIVE TOTAL (UG/L AS FE) (46568)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT									
06...	.004	.11	.031	.005	.020	349	5	.14	--
28...	<.003	.34	.025	.010	.062	804	21	2.8	--
NOV									
05...	<.003	.09	.026	.005	.019	305	3	.13	--
DEC									
17...	<.003	.08	.059	.007	.019	393	4	e.18	--
JAN									
06...	.005	.07	.062	.005	.015	353	8	e.37	--
24...	.012	1.0	.023	.010	.324	4840	284	e57	--
25...	.006	.22	.028	.007	.051	700	26	e4.8	--
FEB									
01...	.006	.10	.035	.005	.016	397	6	.65	--
14...	<.003	.38	.019	.014	.117	1920	124	e48	--
MAR									
16...	<.003	.15	.020	.006	.023	448	7	1.5	--
27...	.004	.16	.022	.004	.020	431	13	4.2	--
APR									
03...	<.003	.18	.019	.003	.019	413	9	3.2	--
11...	<.003	.11	.013	.002	.017	295	9	4.5	--
13...	.003	.73	.015	.004	.184	3310	199	249	--
28...	<.003	.12	.011	.002	.020	393	14	8.9	--
MAY									
01...	<.003	.13	.012	.010	.033	395	21	15	--
08...	.003	.34	.010	.006	.156	2780	191	399	--
09...	<.003	.22	.012	.005	.048	813	46	58	--
16...	.003	.09	.017	.004	.016	225	6	3.1	--
23...	<.003	e.10	.008	.005	.033	496	24	21	--
JUN									
07...	<.003	.09	.008	.003	.018	236	7	4.3	--
JUL									
07...	<.003	.06	.016	.005	.012	200	3	.30	--
AUG									
03...	.003	>.40	.018	.014	.201	1360	64	2.2	--
03...	.191	>.40	.028	.058	.778	5570	509	40	88
09...	<.003	.10	.014	.006	.020	348	5	.13	--
SEP									
08...	.003	.10	.023	.007	.026	351	5	.11	--

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	10.0	12.5	9.0	5.5	7.5	3.0	1.0	2.0	1.0	.0	.0
2	15.5	9.5	12.5	8.5	5.0	7.0	2.5	.5	1.5	1.0	.0	.0
3	15.5	10.0	12.5	8.0	4.5	6.5	1.5	.0	.5	1.5	.0	.5
4	15.0	9.5	12.0	8.5	4.5	6.5	1.0	.0	.5	1.0	.0	.5
5	14.5	10.0	12.0	9.0	5.5	7.0	1.5	.0	.5	.5	.0	.0
6	12.5	9.5	11.0	8.5	5.0	7.0	3.0	.0	1.5	.5	.0	.0
7	13.0	8.0	10.5	8.0	5.0	6.5	1.5	.0	.5	1.5	.0	.5
8	14.0	8.5	11.0	6.5	3.5	5.0	1.0	.0	.5	1.0	.0	.0
9	13.5	8.5	11.0	5.5	2.5	4.0	1.0	.0	.0	1.0	.0	.5
10	14.0	8.5	11.5	5.5	3.0	4.5	1.0	.0	.5	1.5	.0	.5
11	14.0	8.5	11.0	8.0	5.0	6.5	1.0	.0	.5	.5	.0	.0
12	13.5	8.0	10.5	7.5	4.5	6.0	1.0	.0	.5	.5	.0	.0
13	13.5	8.0	10.5	7.5	4.0	5.5	1.0	.0	.5	1.0	.0	.5
14	13.5	8.0	10.5	7.0	4.0	5.5	1.0	.0	.0	1.5	.0	.5
15	12.0	8.0	10.0	8.5	5.5	6.5	1.0	.0	.5	.5	.0	.5
16	10.5	6.5	8.5	7.0	4.5	5.5	1.5	.0	.5	1.0	.0	.0
17	10.0	5.0	7.5	5.0	3.0	4.0	1.5	.0	.5	.5	.0	.0
18	10.5	5.5	8.0	4.0	1.0	3.0	2.0	.5	1.0	.5	.0	.5
19	10.5	5.5	8.0	3.0	2.0	2.5	2.5	.0	1.5	2.0	.0	1.0
20	11.0	6.0	8.5	4.5	1.5	3.0	2.5	.5	1.5	3.0	1.0	2.0
21	10.5	6.5	8.5	3.0	1.5	2.0	1.5	.0	1.0	2.0	.0	1.0
22	10.0	6.0	8.0	2.5	.0	1.0	1.0	.0	.5	2.0	.0	1.0
23	9.5	6.0	7.5	2.5	.0	1.0	1.0	.0	.5	1.5	1.0	1.0
24	10.0	5.0	7.5	2.5	.0	1.0	1.0	.0	.5	1.0	.0	.5
25	10.0	5.5	7.5	4.0	1.0	2.0	1.0	.0	.5	1.5	.0	.5
26	9.5	5.5	7.5	4.0	1.5	2.5	1.0	.0	.5	2.5	.0	1.0
27	10.0	6.5	8.0	4.0	1.5	2.5	1.0	.0	.5	2.5	.0	1.0
28	9.5	7.0	8.5	4.0	1.0	2.5	1.0	.0	.5	1.5	.0	.5
29	8.5	4.5	6.5	5.0	2.0	3.5	1.0	.0	.0	1.5	.0	.5
30	8.5	5.0	7.0	4.5	2.5	3.5	1.0	.0	.0	.5	.0	.0
31	9.0	5.5	7.5	---	---	---	1.0	.0	.5	1.0	.0	.5
MONTH	16.0	4.5	9.5	9.0	.0	4.4	3.0	.0	.6	3.0	.0	.5

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	.5	2.0	3.5	.0	1.5	8.5	2.0	5.5	10.0	4.0	7.0
2	4.0	1.5	3.0	2.5	1.0	1.5	9.5	3.0	6.0	10.0	4.0	7.0
3	4.0	1.5	2.5	6.5	1.0	3.5	9.5	3.0	6.0	9.5	3.5	6.5
4	4.0	1.0	2.5	6.5	1.0	3.5	8.5	2.5	6.0	10.0	4.0	7.0
5	4.5	1.0	2.5	4.0	2.0	3.0	8.0	1.5	5.0	9.0	4.5	6.5
6	4.5	.5	2.5	4.0	1.0	2.5	8.0	2.0	5.0	7.0	3.5	5.0
7	4.5	1.0	2.5	3.5	.5	2.0	8.5	2.0	5.0	6.0	4.0	5.0
8	6.0	2.0	3.5	4.5	.5	2.5	7.5	2.5	5.0	8.5	4.5	6.5
9	4.0	2.5	3.5	2.5	.0	1.5	8.0	2.0	4.5	9.0	3.5	6.0
10	4.0	2.0	3.0	6.5	.0	3.0	8.5	2.0	5.5	6.5	2.5	4.5
11	2.5	1.0	2.0	8.0	2.5	5.0	8.5	2.5	5.5	7.0	1.0	3.5
12	2.0	.0	1.0	7.5	1.5	4.5	7.0	3.0	5.5	7.5	2.5	5.0
13	1.0	.0	.5	8.0	1.5	5.0	6.0	3.0	4.5	8.5	4.5	6.0
14	.5	.0	.5	8.0	2.5	5.5	6.5	2.0	4.0	8.5	4.5	6.5
15	3.0	.0	1.0	8.0	2.0	5.0	7.0	2.5	4.0	8.5	5.5	7.0
16	2.5	1.0	1.5	8.0	2.5	5.0	6.5	2.5	4.5	7.0	4.0	5.0
17	3.0	1.0	2.0	7.5	1.0	4.5	5.0	3.5	4.5	10.0	4.0	6.5
18	4.0	.0	2.0	8.5	2.0	5.0	5.0	2.0	3.5	11.0	6.0	8.5
19	4.0	.0	2.0	7.5	4.0	5.5	8.5	2.5	5.0	12.0	6.5	9.5
20	4.0	2.0	3.0	6.0	1.0	3.5	8.5	4.0	6.5	12.0	6.5	9.5
21	4.5	1.0	2.5	6.5	.5	3.0	9.0	4.0	6.0	12.0	6.0	9.0
22	2.5	1.0	2.0	8.0	1.0	4.5	8.0	4.0	6.0	12.0	6.0	9.0
23	2.0	.0	1.0	8.0	3.5	5.5	9.0	3.0	6.0	12.0	6.5	9.5
24	1.5	.0	1.0	8.5	2.0	5.0	9.0	2.5	6.0	11.5	7.5	9.5
25	5.0	.0	2.5	8.5	3.0	5.5	10.0	3.5	6.5	12.0	6.0	9.0
26	4.0	1.0	2.5	8.5	2.5	5.5	10.0	3.5	7.0	13.0	7.5	10.0
27	3.0	.0	.5	8.0	3.5	5.5	10.0	3.5	6.5	13.0	7.5	10.0
28	4.0	.0	1.5	7.5	1.5	4.5	9.0	3.5	6.0	13.5	7.5	10.5
29	2.5	.5	1.5	8.0	2.0	5.0	8.5	2.0	5.5	13.0	8.0	10.5
30	---	---	---	8.0	2.0	5.0	10.0	3.0	6.5	12.5	7.0	10.0
31	---	---	---	7.5	1.5	4.5	---	---	---	12.0	7.0	9.5
MONTH	6.0	.0	2.0	8.5	.0	4.1	10.0	1.5	5.4	13.5	1.0	7.6

		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.0	7.5	10.5	19.0	13.0	16.5	25.5	19.0	21.5	16.5	12.0	14.0
2	13.5	8.5	11.0	19.5	13.5	16.5	24.0	17.0	20.0	14.5	10.5	12.0
3	13.5	9.0	11.5	17.5	13.5	16.0	21.5	15.5	18.5	17.0	9.0	12.0
4	14.5	10.0	12.0	18.0	12.0	15.0	22.5	13.5	18.0	17.0	9.0	12.5
5	14.5	10.5	12.5	18.0	12.5	15.5	24.5	16.0	20.5	17.0	9.0	12.5
6	14.5	9.5	12.0	17.5	12.0	15.5	25.5	17.5	21.5	18.0	9.5	13.5
7	14.5	11.0	12.5	19.5	13.5	16.5	24.5	17.5	20.5	19.0	10.5	14.0
8	13.0	10.0	11.5	19.0	13.0	16.5	24.5	16.5	20.0	16.5	10.5	13.5
9	13.5	9.0	11.0	19.5	13.5	17.0	24.0	16.5	20.0	18.5	10.5	14.5
10	13.5	10.0	11.5	20.5	14.5	18.0	22.5	15.5	19.0	19.5	11.5	15.0
11	13.0	10.0	11.5	21.0	15.0	18.5	23.5	14.0	18.5	20.0	11.5	15.5
12	16.0	11.0	13.0	21.0	15.5	18.5	24.0	14.5	19.0	19.5	12.5	16.0
13	17.5	11.0	14.5	21.0	16.0	18.5	23.5	14.5	18.5	19.5	14.0	16.5
14	18.5	11.5	14.5	21.5	16.0	19.0	23.5	14.0	18.5	20.5	13.5	16.5
15	19.0	12.5	15.5	22.0	16.0	19.0	23.5	14.0	18.5	21.0	13.5	17.0
16	18.5	13.5	16.0	21.0	17.0	18.5	23.5	14.0	18.5	20.0	12.5	16.0
17	19.0	12.0	15.5	21.0	15.0	18.0	23.0	14.5	18.5	20.0	11.5	15.5
18	19.0	12.5	16.0	22.0	15.5	18.5	22.0	14.0	17.5	20.5	12.0	16.0
19	19.5	12.5	16.0	22.0	16.0	19.0	21.0	12.5	16.5	21.0	12.5	16.5
20	20.0	12.5	16.0	23.0	16.5	19.0	21.5	12.0	17.0	21.5	13.5	17.0
21	21.0	12.5	16.5	23.0	16.5	19.5	22.5	13.5	17.5	20.0	14.0	16.5
22	20.5	13.0	17.0	22.5	16.0	19.0	23.5	14.5	18.5	16.5	12.0	14.0
23	21.0	13.0	17.0	23.0	15.5	19.0	23.0	14.5	18.5	17.5	10.5	13.5
24	21.5	14.0	17.5	23.0	16.0	19.5	23.0	14.0	18.5	17.0	9.0	13.0
25	20.0	13.5	17.0	24.0	15.5	19.5	24.0	15.0	19.0	17.5	9.5	13.5
26	20.5	13.5	17.0	23.5	16.5	19.5	24.0	16.5	20.0	17.5	10.0	13.5
27	20.0	13.5	17.0	24.0	15.5	19.5	23.5	15.0	19.5	17.0	10.5	13.5
28	19.0	15.0	17.5	24.5	15.5	19.5	23.5	16.0	19.5	17.0	11.0	13.5
29	19.0	14.0	16.5	24.5	16.5	20.0	19.5	16.5	17.5	17.5	11.0	14.0
30	20.5	14.0	17.5	25.5	17.0	20.5	17.0	15.5	16.0	17.5	10.5	13.5
31	---	---	---	26.0	17.5	21.5	20.0	12.5	16.0	---	---	---
MONTH	21.5	7.5	14.5	26.0	12.0	18.3	25.5	12.0	18.7	21.5	9.0	14.5
YEAR	26.0	.0	8.4									

10336612 UPPER TRUCKEE RIVER AT MOUTH, NEAR VENICE DRIVE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°56'04", long 119°59'57", in NW 1/4 NW 1/4 sec.04, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 0.25 mi upstream of mouth, and 1.0 mi west of South Lake Tahoe.

DRAINAGE AREA.—56.5 mi^2.

PERIOD OF RECORD.—September 1997 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997, two times per hour.

REMARKS. In September 1997, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor water temperature within the Upper Truckee River—Trout Creek watershed. Records represent water temperature at probe within 0.5°C. Interruptions in record due to loss of hydrologic communication with stream. Water temperature data for September 1997 were not published but are available from U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 23.5°C, July 31, 2000; minimum, freezing point, on many days.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 23.5°C, July 31; minimum, freezing point, many days November to March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	11.5	12.5	8.0	5.0	6.5	2.5	.5	1.5	---	---	---
2	13.5	11.0	12.5	8.0	4.5	6.0	2.5	.0	1.0	---	---	---
3	13.5	11.0	12.5	7.0	4.0	5.5	1.0	.0	.0	---	---	---
4	13.5	10.5	12.0	7.0	3.5	5.5	1.0	.0	.0	---	---	---
5	13.0	11.0	12.0	8.0	4.0	6.0	1.5	.0	.5	---	---	---
6	12.5	9.5	10.5	7.5	4.0	6.0	2.0	.0	1.0	---	---	---
7	12.0	8.5	10.0	7.0	5.0	6.0	1.0	.0	.0	---	---	---
8	12.5	9.0	10.5	5.0	2.5	4.0	1.5	.0	.0	---	---	---
9	13.0	9.5	11.5	4.5	2.0	3.5	.5	.0	.0	---	---	---
10	13.0	9.0	11.0	3.5	2.0	3.0	---	---	---	---	---	---
11	13.0	10.0	11.5	7.0	3.5	5.0	---	---	---	---	---	---
12	13.0	10.0	11.0	6.5	3.5	5.0	---	---	---	---	---	---
13	12.5	10.0	11.0	6.5	3.0	5.0	---	---	---	---	---	---
14	12.5	10.0	11.0	6.0	3.0	4.5	---	---	---	---	---	---
15	12.5	10.0	11.0	7.5	4.0	5.5	---	---	---	.5	.0	.0
16	11.5	8.0	9.0	6.0	3.5	5.0	---	---	---	.5	.0	.0
17	10.0	6.5	8.0	4.5	2.5	3.5	---	---	---	.5	.0	.0
18	10.0	6.5	8.0	3.0	1.0	2.0	---	---	---	1.0	.0	.0
19	10.0	6.5	8.5	2.0	1.5	1.5	---	---	---	1.5	.0	.5
20	10.5	7.0	8.5	3.5	.5	2.0	---	---	---	3.0	1.0	2.0
21	10.0	7.0	8.5	2.5	.5	1.5	2.0	.0	1.0	1.5	.0	1.0
22	10.0	7.0	8.0	1.5	.0	.5	1.5	.0	.5	1.5	.0	1.0
23	9.0	6.5	7.5	1.0	.0	.5	1.5	.0	.5	1.5	1.0	1.5
24	9.0	6.0	7.5	1.5	.0	.5	1.5	.0	.5	1.0	.0	.5
25	9.0	6.0	7.5	3.0	.0	1.5	1.5	.0	.5	1.5	.0	.5
26	9.0	6.0	7.5	3.5	1.0	2.0	1.5	.0	.5	2.0	.0	1.0
27	9.0	6.5	7.5	3.5	1.0	2.0	1.5	.0	.5	2.5	.0	1.0
28	9.0	6.5	8.0	3.5	.5	2.0	1.5	.0	.5	1.0	.0	.5
29	7.0	3.5	5.5	4.5	1.5	3.0	1.5	.0	.5	1.5	.0	.5
30	7.5	4.5	6.0	4.0	2.0	3.0	1.5	.0	.5	.5	.0	.5
31	8.5	5.0	6.5	---	---	---	1.0	.0	.5	1.0	.0	.5
MONTH	14.0	3.5	9.4	8.0	.0	3.6	---	---	---	---	---	---

10336612 UPPER TRUCKEE RIVER AT MOUTH, NEAR VENICE DRIVE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	.5	2.0	3.0	.0	1.5	8.5	2.5	5.5	10.0	4.5	7.5
2	4.0	2.0	3.0	2.5	.5	1.5	9.5	3.0	6.0	10.0	4.0	7.5
3	4.0	2.0	3.0	6.0	.5	3.0	9.0	3.0	6.5	10.0	4.0	7.0
4	4.0	1.5	3.0	6.0	1.0	4.0	8.5	3.0	6.0	10.0	4.5	7.5
5	4.0	1.5	3.0	4.5	2.0	3.0	8.0	1.5	5.0	9.5	5.0	7.0
6	4.0	1.0	2.5	3.5	1.5	2.5	7.5	2.0	5.0	7.0	4.0	5.5
7	4.0	1.5	3.0	3.0	.5	2.0	8.0	2.0	5.0	6.5	4.5	5.5
8	5.5	2.5	4.0	4.0	.5	2.5	7.5	2.5	5.0	9.0	5.0	7.0
9	4.5	3.0	3.5	2.5	.0	1.5	7.5	2.0	4.5	9.5	4.0	6.5
10	4.0	2.5	3.5	5.5	.0	2.5	8.5	2.5	5.5	7.0	2.5	5.0
11	2.5	1.0	2.0	7.0	3.0	5.0	8.0	2.5	5.5	7.0	1.5	4.0
12	2.0	.0	1.0	7.0	2.0	4.5	7.5	3.5	5.5	8.0	3.0	5.5
13	1.5	.0	.5	7.5	2.0	5.0	6.0	3.5	4.5	9.0	5.0	6.5
14	.5	.0	.5	7.5	3.0	5.5	6.0	2.0	3.5	9.5	4.5	7.0
15	2.5	.0	1.0	7.5	2.0	5.0	7.0	2.5	4.5	9.5	5.5	7.5
16	2.5	1.0	1.5	7.5	2.5	5.0	6.5	2.5	4.5	7.5	4.5	5.5
17	3.0	.5	2.0	7.0	1.5	4.5	5.5	4.0	4.5	11.0	4.5	7.5
18	4.0	.0	2.0	8.0	2.0	5.0	5.0	2.0	3.5	12.5	6.5	9.5
19	4.0	.0	2.0	7.5	4.0	5.5	8.5	2.5	5.0	13.0	7.5	10.0
20	4.0	2.5	3.5	5.5	1.5	3.5	8.5	4.0	6.5	13.0	7.0	10.0
21	4.5	1.5	3.0	6.0	.5	3.0	9.5	4.5	6.5	13.0	6.5	10.0
22	3.0	1.5	2.0	7.5	1.5	4.5	8.0	4.0	6.0	12.5	6.5	10.0
23	1.5	.0	.5	7.5	3.5	5.5	9.0	3.5	6.5	12.5	7.0	10.0
24	1.0	.0	.5	8.0	2.5	5.5	9.5	3.0	6.5	12.0	8.0	10.0
25	4.5	.0	2.0	8.0	3.0	5.5	10.0	4.0	7.0	12.5	6.5	9.5
26	3.5	1.5	2.5	8.5	2.5	5.5	10.5	4.0	7.5	13.5	8.0	10.5
27	3.5	.0	.5	7.5	3.5	5.5	10.0	4.0	7.0	13.5	8.0	10.5
28	3.5	.0	1.5	7.5	2.0	5.0	9.0	4.0	6.5	13.5	8.0	11.0
29	2.5	.5	1.5	7.5	2.5	5.0	9.0	3.0	6.0	13.0	8.5	11.0
30	---	---	---	7.5	2.5	5.0	10.0	4.0	7.0	12.5	7.5	10.0
31	---	---	---	7.5	1.5	4.5	---	---	---	12.5	7.0	10.0
MONTH	5.5	.0	2.1	8.5	.0	4.1	10.5	1.5	5.6	13.5	1.5	8.1

		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	7.5	10.5	18.5	14.0	16.5	23.0	21.0	22.0	---	---	---
2	14.0	8.5	11.0	18.5	14.5	16.5	21.5	19.5	20.5	---	---	---
3	14.5	8.5	11.5	17.5	14.5	16.0	20.5	15.5	19.0	---	---	---
4	15.5	10.0	12.5	17.5	13.0	15.5	20.0	14.5	16.5	---	---	---
5	15.0	10.0	12.5	17.5	14.0	15.5	22.0	17.5	19.5	---	---	---
6	15.0	9.0	12.0	18.0	13.5	15.5	22.0	19.5	21.0	---	---	---
7	15.0	10.5	12.5	19.5	15.5	17.0	22.0	19.5	21.0	---	---	---
8	12.5	9.5	11.0	19.5	15.0	17.0	21.5	19.0	20.5	---	---	---
9	14.5	8.0	11.0	20.0	15.5	17.5	21.0	19.0	20.0	---	---	---
10	14.5	8.5	11.5	21.0	16.5	18.5	20.5	18.5	19.5	---	---	---
11	14.5	8.5	11.5	21.0	17.0	19.0	21.0	17.5	19.0	---	---	---
12	17.0	10.5	13.0	22.0	17.5	19.5	21.0	18.0	19.0	---	---	---
13	17.5	11.0	14.0	21.5	17.0	19.0	20.5	18.0	19.0	---	---	---
14	17.5	11.5	14.5	22.0	17.0	19.0	21.0	17.5	19.0	---	---	---
15	18.5	12.0	15.5	22.5	17.0	19.5	21.0	17.5	19.0	---	---	---
16	18.0	13.0	15.5	21.0	17.0	19.0	21.5	17.5	19.5	---	---	---
17	18.5	11.5	15.0	21.5	16.0	18.0	20.0	17.5	19.0	---	---	---
18	18.5	12.5	15.5	22.0	16.0	18.5	20.0	17.0	18.5	---	---	---
19	19.0	12.0	15.5	22.0	16.0	19.0	18.5	16.0	17.5	---	---	---
20	19.0	12.0	15.5	22.5	16.0	19.0	19.0	15.5	17.0	---	---	---
21	20.0	12.5	16.5	22.0	16.5	19.5	19.5	16.0	18.0	---	---	---
22	19.5	13.0	16.5	22.0	17.0	19.5	20.5	17.0	18.5	---	---	---
23	20.0	12.5	16.5	21.5	17.0	19.0	20.5	17.5	19.0	---	---	---
24	20.0	14.0	17.0	21.5	17.0	19.5	20.5	17.5	19.0	---	---	---
25	19.5	13.5	16.5	21.5	17.0	19.5	21.0	17.5	19.0	---	---	---
26	19.5	13.5	16.5	21.5	18.0	20.0	22.0	19.0	20.0	---	---	---
27	19.5	13.5	16.5	21.0	17.5	19.5	21.5	19.0	20.0	---	---	---
28	18.5	15.5	17.5	21.0	18.0	20.0	21.5	19.0	20.0	---	---	---
29	18.5	14.5	16.5	22.0	18.5	20.5	20.0	17.5	19.0	---	---	---
30	19.5	15.0	17.0	22.5	19.5	21.0	17.5	15.5	16.0	---	---	---
31	---	---	---	23.5	20.0	22.0	---	---	---	---	---	---
MONTH	20.0	7.5	14.3	23.5	13.0	18.5	---	---	---	---	---	---

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, 0.4 mi upstream from Lake Tahoe, and 1.1 mi north of Meeks Bay.

DRAINAGE AREA.—7.44 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 1980 to current year.

GAGE.—Water-stage recorder. Datum of gage is 6,250.38 ft above sea level.

REMARKS.—Records good except for estimated daily discharges, which are fair. No known diversion or regulation upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 797 ft^3/s, Jan. 2, 1997, gage height, 7.86 ft (backwater from plugged culvert), from rating curve extended above 180 ft^3/s on basis of computation of flow through culvert; minimum daily, 0.29 ft^3/s, July 28, Aug. 15, 1994.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	1145	121	2.17	May 24	0415	206	2.58
May 8	0915	203	2.56				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.5	3.2	e2.1	e5.6	e9.0	26	75	23	2.3	1.4	1.7
2	1.6	2.4	3.2	e2.1	e5.7	8.5	30	79	21	2.2	1.4	3.0
3	1.6	2.5	3.2	2.1	e5.7	8.1	40	79	20	2.2	1.5	1.9
4	1.6	2.5	3.0	2.1	e5.7	8.1	54	85	18	2.1	1.5	1.7
5	1.6	2.5	2.8	e2.1	e5.6	8.9	63	81	17	2.1	1.5	1.6
6	1.8	2.3	2.8	2.1	e5.6	9.0	60	60	15	2.1	1.6	1.6
7	1.8	2.2	e2.8	2.1	e5.5	8.5	57	60	14	2.1	1.7	1.5
8	1.8	2.8	e2.8	2.1	5.5	8.4	58	162	15	2.0	1.7	1.5
9	1.8	2.6	2.8	2.1	5.5	8.0	55	92	15	1.9	1.6	1.4
10	1.6	2.5	2.8	2.1	6.0	7.9	53	64	12	1.9	1.6	1.4
11	1.3	2.2	2.8	e2.2	6.0	7.8	59	44	11	1.8	1.5	1.4
12	1.3	2.5	2.7	e2.5	6.0	8.4	65	38	9.9	1.8	1.3	1.4
13	1.3	2.5	2.8	2.5	9.6	8.8	103	38	e12	1.8	1.4	1.4
14	1.3	2.5	e2.5	2.5	36	10	63	42	e11	1.7	e1.4	1.4
15	1.3	2.5	e2.5	5.0	25	12	42	49	e10	1.7	e1.4	1.5
16	1.3	2.5	e2.5	e5.0	17	13	35	45	7.1	1.7	e1.5	1.3
17	1.3	3.3	2.5	5.0	14	14	34	e40	6.1	1.7	1.5	.91
18	1.3	2.5	2.5	7.9	13	14	31	51	5.7	1.6	1.4	.89
19	1.3	4.4	2.5	9.9	11	18	29	71	5.4	1.6	1.2	.87
20	1.3	5.0	2.5	e13	10	21	30	83	4.8	1.6	1.1	.87
21	1.3	3.6	2.5	e8.5	9.4	18	38	86	4.4	1.5	1.1	.92
22	1.3	3.0	e2.4	e6.9	9.2	16	43	83	4.1	1.5	1.1	1.1
23	1.3	2.5	e2.4	e6.4	e9.0	18	42	86	3.6	1.5	1.1	1.1
24	1.5	2.5	e2.3	e8.0	e8.6	20	43	138	3.3	1.5	1.1	1.1
25	1.6	2.5	e2.3	e9.0	8.0	23	48	77	3.2	1.5	1.1	e1.1
26	1.6	2.5	e2.2	e7.2	7.7	28	64	57	3.1	1.5	1.1	e1.1
27	1.8	2.5	2.2	e6.3	15	32	84	50	2.9	1.4	1.1	1.1
28	6.7	2.5	e2.1	e5.8	12	32	79	44	2.8	1.4	1.1	1.0
29	3.2	2.5	e2.1	e5.7	9.6	30	57	39	2.6	1.4	1.2	1.0
30	2.7	2.7	e2.1	e5.6	---	29	59	31	2.4	1.4	1.4	.96
31	2.5	---	2.1	e6.0	---	26	---	26	---	1.4	1.4	---
TOTAL	55.3	81.5	79.9	151.9	292.5	483.4	1544	2055	285.4	53.9	42.0	39.72
MEAN	1.78	2.72	2.58	4.90	10.1	15.6	51.5	66.3	9.51	1.74	1.35	1.32
MAX	6.7	5.0	3.2	13	36	32	103	162	23	2.3	1.7	3.0
MIN	1.3	2.2	2.1	2.1	5.5	7.8	26	26	2.4	1.4	1.1	.87
AC-FT	110	162	158	301	580	959	3060	4080	566	107	83	79

e Estimated.

10336645 GENERAL CREEK NEAR MEEKS BAY, CA Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.21	7.06	9.26	10.1	13.1	18.8	38.9	64.5	37.9	7.15	1.39	1.39
MAX	15.5	45.4	58.7	68.9	64.2	60.1	70.4	114	158	49.6	4.72	4.36
(WY)	1983	1982	1982	1997	1986	1986	1989	1999	1983	1983	1983	1983
MIN	.73	.84	.89	.90	.99	5.86	15.9	7.18	2.23	.49	.35	.39
(WY)	1993	1993	1991	1991	1991	1994	1991	1992	1992	1994	1994	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1980 - 2000	
ANNUAL TOTAL	7866.7		5164.52			
ANNUAL MEAN	21.6		14.1		17.6	
HIGHEST ANNUAL MEAN					34.7	1982
LOWEST ANNUAL MEAN					4.96	1988
HIGHEST DAILY MEAN	207	May 25	162	May 8	600	Jan 1 1997
LOWEST DAILY MEAN	1.3	Aug 5	.87	Sep 19	.29	Jul 28 1994
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 11	.95	Sep 17	.31	Aug 15 1994
INSTANTANEOUS PEAK FLOW			206	May 24	797	Jan 2 1997
INSTANTANEOUS PEAK STAGE			2.58	May 24	7.86	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	15600		10240		12780	
10 PERCENT EXCEEDS	73		49		52	
50 PERCENT EXCEEDS	4.2		2.8		3.4	
90 PERCENT EXCEEDS	1.7		1.3		.85	

10336645 GENERAL CREEK NEAR MEEKS BAY, CA—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: October 1980 to September 1983.
WATER TEMPERATURE: October 1980 to September 1992.
SUSPENDED-SEDIMENT DISCHARGE: October 1980 to September 1992.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT								
25...	1600	1.6	62	17.0	7.0	611	93	9.0
28...	0210	9.0	74	6.2	6.2	--	--	--
28...	0830	8.4	66	3.3	5.2	--	--	--
28...	1715	4.5	67	3.8	6.2	608	90	8.9
NOV								
29...	1135	2.5	60	3.0	3.0	609	98	10.5
DEC								
29...	1220	e2.8	58	2.5	.0	607	95	11.0
JAN								
18...	1905	10	44	.0	.0	--	--	--
20...	1735	e13	34	.0	.5	604	97	11.1
FEB								
14...	1305	42	25	−.2	.0	--	--	--
14...	1905	38	25	−.5	.0	--	--	--
25...	1715	7.9	32	.0	1.2	605	100	11.2
MAR								
24...	1620	21	27	6.0	3.0	603	100	10.6
APR								
03...	2155	50	21	2.0	2.0	--	--	--
12...	0840	66	16	5.8	1.5	608	100	11.2
13...	1525	121	16	3.0	1.5	--	--	--
21...	1710	38	21	8.3	4.8	604	97	9.9
27...	2155	117	16	5.5	2.5	--	--	--
MAY								
04...	0750	75	12	9.8	2.5	604	102	11.0
08...	1120	195	12	9.3	3.5	--	--	--
08...	1900	184	11	7.0	5.0	--	--	--
19...	2030	96	11	10.5	7.2	610	99	9.6
23...	0740	78	11	10.5	5.0	--	--	--
24...	0905	146	11	12.3	5.5	--	--	--
JUN								
02...	1750	20	20	--	12.0	611	96	8.3
JUL								
03...	1740	2.1	47	16.0	16.0	607	96	7.5
AUG								
09...	1730	1.5	58	21.5	18.5	609	95	7.1
SEP								
02...	1550	2.7	61	6.0	10.8	606	98	8.6
30...	1330	1.0	62	--	11.3	609	97	8.5

e Estimated.

10336645 GENERAL CREEK NEAR MEEKS BAY, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT								
25...	.003	.07	.004	.014	.026	171	<1	<.01
28...	<.003	.44	.012	.046	.134	2290	19	.46
28...	<.003	.23	.010	.018	.044	546	4	.09
28...	<.003	.17	.008	.014	.031	222	2	.02
NOV								
29...	<.003	.04	.006	.012	.020	145	2	.01
DEC								
29...	.003	.05	.008	.008	.017	127	2	e.02
JAN								
18...	.003	.16	.018	.005	.030	346	4	.11
20...	.007	.17	.024	.007	.023	247	5	e.18
FEB								
14...	<.003	.25	.012	.005	.028	378	19	2.2
14...	<.003	.20	.012	.004	.021	220	4	.41
25...	<.003	.07	.005	.004	.008	55	1	.02
MAR								
24...	.003	.11	.006	.002	.013	57	3	.17
APR								
03...	.003	.14	.007	.003	.025	312	14	1.9
12...	<.003	.08	.005	.001	.009	88	8	1.4
13...	<.003	.17	.006	.004	.036	391	52	17
21...	<.003	.13	.005	.002	.010	72	4	.41
27...	<.003	.14	.004	.002	.022	409	32	10
MAY								
04...	<.003	.11	.004	.002	.007	81	4	.81
08...	<.003	.20	.005	.003	.025	510	47	25
08...	<.003	.18	.005	.002	.018	323	53	26
19...	.004	.09	.003	.002	.019	350	22	5.7
23...	<.003	.08	.003	.002	.009	56	5	1.1
24...	.007	.11	.004	.002	.019	272	32	13
JUN								
02...	<.003	.05	.005	.008	.009	46	2	.11
JUL								
03...	<.003	.05	.007	.005	.023	116	2	.01
AUG								
09...	<.003	.05	.005	.018	.030	148	<1	<.01
SEP								
02...	.004	.07	.006	.015	.031	158	3	.02
30...	<.003	.09	.004	.014	.039	147	4	.01

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

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1960 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 6,234.59 ft above sea level. 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 fair, including estimated daily discharges. No known diversion or regulation upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,940 ft^3/s, Jan. 1, 1997, gage height, 9.82 ft; maximum gage height, 9.90 ft, site and datum then in use, Dec. 22, 1964; minimum daily, 0.50 ft^3/s, Sept. 24, 1968.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 8	Unknown	435	a3.31	May 24	Unknown	Unknown	Unknown

a From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.9	4.0	e3.2	11	18	39	124	98	21	4.1	2.7
2	2.0	2.8	4.0	e3.2	12	16	45	133	96	20	4.0	3.3
3	2.0	2.7	3.8	3.1	12	15	58	138	95	18	3.7	2.7
4	2.0	2.7	e3.8	3.1	12	15	82	147	100	17	3.4	2.5
5	2.0	2.7	3.8	e3.1	11	16	86	154	100	16	3.3	2.5
6	2.2	2.6	3.8	e3.1	11	15	82	128	89	15	3.1	2.5
7	2.1	3.0	3.9	3.1	11	14	81	144	85	14	3.1	2.4
8	2.0	3.7	e3.8	e3.1	11	14	84	e325	83	13	3.0	2.4
9	2.0	3.1	3.7	3.1	11	15	79	e152	70	12	3.0	2.4
10	2.1	3.1	3.7	3.1	12	14	81	e146	63	11	3.0	2.4
11	2.2	3.0	4.0	3.6	12	14	86	e114	59	11	3.0	2.2
12	2.2	2.9	3.9	3.5	12	14	93	e102	63	9.5	2.9	2.2
13	2.2	2.8	3.8	3.4	15	15	138	e94	72	8.9	2.8	2.2
14	2.2	2.8	e3.8	3.4	85	16	99	e97	77	8.4	2.7	2.1
15	2.2	3.1	e3.7	4.7	37	18	79	e100	75	8.1	2.6	2.0
16	2.2	3.1	3.6	5.6	26	19	69	e93	68	8.1	2.6	2.0
17	2.2	3.3	3.4	4.7	22	19	71	e85	58	7.8	2.5	2.0
18	2.2	3.1	3.4	7.2	20	20	65	92	55	7.5	2.5	2.0
19	2.2	4.2	3.4	14	19	25	61	113	50	7.3	2.4	1.9
20	2.2	5.1	3.4	e15	19	26	65	135	46	6.9	2.5	1.8
21	2.2	4.4	3.4	e15	18	24	76	163	45	6.4	2.5	1.9
22	2.2	4.1	3.3	14	18	24	80	e175	42	6.2	2.4	2.3
23	2.1	3.8	e3.3	13	17	27	81	e192	38	5.8	2.3	2.3
24	2.1	3.8	e3.3	e14	16	29	84	e244	35	5.5	2.3	2.2
25	2.1	3.8	3.3	e17	16	33	92	195	33	5.2	2.2	2.1
26	2.1	3.8	e3.3	16	16	38	107	168	31	5.0	2.2	2.1
27	2.6	3.7	3.3	15	16	42	133	160	29	4.8	2.2	2.1
28	18	3.7	e3.3	14	15	42	135	158	27	4.7	2.2	2.1
29	5.4	3.8	e3.2	13	17	40	112	152	25	4.5	2.3	2.0
30	3.2	4.2	e3.2	12	---	39	111	126	23	4.3	2.4	1.9
31	3.0	---	3.2	12	---	37	---	106	---	4.3	2.3	---
TOTAL	87.4	101.8	110.8	251.3	530	713	2554	4455	1830	297.2	85.5	67.2
MEAN	2.82	3.39	3.57	8.11	18.3	23.0	85.1	144	61.0	9.59	2.76	2.24
MAX	18	5.1	4.0	17	85	42	138	325	100	21	4.1	3.3
MIN	2.0	2.6	3.2	3.1	11	14	39	85	23	4.3	2.2	1.8
AC-FT	173	202	220	498	1050	1410	5070	8840	3630	589	170	133

e Estimated.

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.89	12.7	20.1	25.7	21.8	30.7	61.4	129	103	29.8	5.84	2.89
MAX	28.1	94.8	157	201	116	122	124	312	320	149	36.1	10.3
(WY)	1963	1984	1965	1997	1986	1986	1989	1969	1983	1983	1983	1982
MIN	1.31	1.68	1.90	2.00	2.27	3.82	13.6	29.7	7.20	3.11	1.51	1.21
(WY)	1978	1978	1977	1991	1991	1977	1975	1977	1992	1987	1994	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	14114.2		11083.2			
ANNUAL MEAN	38.7		30.3		37.4	
HIGHEST ANNUAL MEAN					73.4	1982
LOWEST ANNUAL MEAN					8.71	1977
HIGHEST DAILY MEAN	316	May 28	325	May 8	2000	Jan 1 1997
LOWEST DAILY MEAN	2.0	Sep 29	1.8	Sep 20	.50	Sep 24 1968
ANNUAL SEVEN-DAY MINIMUM	2.0	Sep 29	1.9	Sep 15	.54	Sep 23 1968
INSTANTANEOUS PEAK FLOW			435	May 8	2940	Jan 1 1997
INSTANTANEOUS PEAK STAGE			a3.31	May 8	9.90	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	28000		21980		27090	
10 PERCENT EXCEEDS	136		97		108	
50 PERCENT EXCEEDS	12		7.4		10	
90 PERCENT EXCEEDS	2.2		2.2		2.2	

a From crest-stage gage.

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: December 1980 to September 1983.
WATER TEMPERATURE: October 1974 to June 1978 (1977–78 storm season only), October 1979 to September 1992.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to June 1978 (1977–78 storm season only), October 1979 to September 1992.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT								
25...	1505	2.3	73	16.3	7.0	611	96	9.3
28...	0110	13	62	6.5	7.5	--	--	--
28...	0740	33	45	3.1	5.8	--	--	--
28...	1615	11	60	3.1	8.0	608	95	9.0
NOV								
29...	1035	3.9	68	10.0	3.0	610	99	10.6
DEC								
29...	1050	e3.2	69	1.0	-.1	609	97	11.3
JAN								
18...	1745	9.4	59	1.5	1.0	--	--	--
19...	2325	19	50	1.8	1.0	--	--	--
20...	1625	e15	44	1.0	1.5	605	98	10.9
FEB								
14...	1200	114	38	.0	.0	--	--	--
14...	1730	76	42	1.5	.0	--	--	--
25...	1605	15	55	.1	4.0	606	100	10.4
MAR								
24...	1515	29	52	8.0	7.0	604	99	9.5
APR								
03...	2100	78	42	1.7	2.1	--	--	--
12...	0735	88	41	.2	2.0	609	99	10.9
13...	1435	151	37	1.0	2.7	--	--	--
21...	1610	79	46	7.8	7.0	605	98	9.4
27...	2050	170	33	5.0	3.0	--	--	--
MAY								
04...	0650	134	35	6.5	2.7	605	100	10.8
08...	1030	e325	27	7.8	3.5	--	--	--
08...	1805	e325	28	7.8	5.0	--	--	--
19...	1930	143	31	12.5	6.0	610	100	9.9
23...	0655	e192	29	7.2	3.5	--	--	--
24...	0815	e244	26	10.7	4.0	--	--	--
JUN								
02...	1640	100	32	21.0	12.5	611	100	8.5
JUL								
03...	1640	18	45	17.4	15.2	607	103	8.2
AUG								
09...	1610	3.0	63	22.0	20.0	609	100	7.2
SEP								
02...	1445	3.3	68	6.0	10.6	606	102	9.0
30...	1450	1.9	72	21.1	13.1	609	96	8.0

e Estimated.

10336674 WARD CREEK BELOW CONFLUENCE, NEAR TAHOE CITY, CA

LOCATION.—Lat 39°08'27", long 120°12'40", in SE 1/4 SE 1/4 sec.16, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, Tahoe National Forest, on left bank, 0.1 mi downstream from confluence with unnamed tributary, 3.2 mi west of William Kent Campground, and 4.8 mi southwest of Tahoe City.

DRAINAGE AREA.—4.96 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1991 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,600 ft above sea level, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. No storage or diversion upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,220 ft^3/s, Jan. 1, 1997, gage height, 8.85 ft, from crest stage gage; no flow for some days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 28	0045	62	4.49	May 8	0915	262	5.53
Apr. 13	0730	88	4.63				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.76	e1.4	1.1	4.1	5.2	17	61	48	13	1.4	1.6
2	.43	.72	e1.4	1.0	4.3	5.1	21	68	47	12	1.4	4.3
3	.43	.67	e1.4	.97	4.3	5.0	28	71	46	11	1.3	2.7
4	.45	.66	e1.3	.95	4.0	5.3	42	79	50	e10	1.4	1.4
5	.47	.64	e1.2	.96	3.8	5.8	41	81	50	e9.4	1.2	1.1
6	.80	.61	e1.2	1.0	3.8	5.4	38	59	45	e8.5	1.1	.99
7	.70	.64	e1.2	.92	3.7	5.2	38	76	45	e7.6	1.1	.90
8	.63	.81	e1.3	.91	3.8	5.0	38	188	44	e7.2	1.1	.77
9	.56	.85	e1.2	.93	3.8	4.9	35	89	37	e6.5	1.0	.70
10	.55	.77	e1.2	.95	3.9	4.7	37	62	33	e6.1	.97	.67
11	.52	.80	e1.2	2.0	3.8	4.9	40	48	30	e5.5	.96	.61
12	.50	.78	e1.1	1.7	3.8	5.4	42	43	32	e4.9	.97	.59
13	.46	.75	e1.0	.94	8.8	6.1	69	41	37	e4.6	.89	.50
14	.43	.75	e1.0	.94	24	7.3	40	43	40	4.5	.84	.47
15	.44	1.2	e1.0	1.6	13	8.2	30	49	41	4.2	.76	.49
16	.45	1.2	e1.0	e2.1	9.8	8.3	24	40	38	4.1	.72	.47
17	.46	1.4	e1.0	1.6	8.0	7.8	24	37	33	3.9	.75	.45
18	.46	1.3	e1.0	3.5	7.1	9.4	21	46	31	3.5	.76	.43
19	.45	2.0	e1.0	9.8	6.6	13	20	63	28	3.4	.80	.41
20	.44	1.9	e1.0	17	6.3	13	24	76	26	3.2	.72	.43
21	.44	1.5	.95	9.3	5.9	11	31	91	25	2.9	.73	.55
22	.44	1.2	.94	5.9	5.7	11	32	98	23	2.6	.72	.96
23	.44	1.1	.97	4.9	5.7	12	32	118	22	2.6	.69	.72
24	.43	1.0	.99	9.7	5.2	14	34	154	21	2.4	.67	.65
25	.43	1.3	.98	11	4.9	16	39	119	19	2.2	.58	.60
26	.41	1.4	.97	6.4	5.1	19	50	101	19	2.1	.57	.56
27	2.0	1.2	.95	5.5	7.9	20	66	91	18	2.1	.57	.52
28	11	1.1	.95	4.9	5.9	19	59	86	17	1.9	.58	.48
29	1.3	e1.1	.99	4.6	5.5	18	48	77	16	1.8	.68	.45
30	.99	e1.3	1.1	6.0	---	18	53	61	15	1.6	.74	.40
31	.84	---	1.1	5.5	---	16	---	52	---	1.6	.71	---
TOTAL	28.74	31.41	33.99	124.57	182.5	309.0	1113	2368	976	156.9	27.38	25.87
MEAN	.93	1.05	1.10	4.02	6.29	9.97	37.1	76.4	32.5	5.06	.88	.86
MAX	11	2.0	1.4	17	24	20	69	188	50	13	1.4	4.3
MIN	.39	.61	.94	.91	3.7	4.7	17	37	15	1.6	.57	.40
AC-FT	57	62	67	247	362	613	2210	4700	1940	311	54	51

e Estimated.

10336674 WARD CREEK BELOW CONFLUENCE, NEAR TAHOE CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.66	2.06	5.40	11.9	7.88	12.5	26.9	62.6	57.9	23.5	3.34	.72
MAX	1.43	9.82	27.2	68.8	32.5	26.9	43.1	93.5	127	88.7	16.0	1.94
(WY)	1999	1997	1997	1997	1996	1995	1997	1996	1998	1995	1995	1995
MIN	.11	.45	.69	.82	.95	5.85	16.2	20.5	3.67	.81	.025	.008
(WY)	1993	1996	1995	1992	1994	1994	1998	1992	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1992 - 2000	
ANNUAL TOTAL	6884.63		5377.36			
ANNUAL MEAN	18.9		14.7		17.4	
HIGHEST ANNUAL MEAN					29.0	1995
LOWEST ANNUAL MEAN					5.56	1992
HIGHEST DAILY MEAN	182	May 26	188	May 8	720	Jan 2 1997
LOWEST DAILY MEAN	.39	Sep 30	.39	Oct 1	.00	Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	.40	Sep 25	.43	Oct 20	.00	Sep 9 1992
INSTANTANEOUS PEAK FLOW			262	May 8	1220	Jan 1 1997
INSTANTANEOUS PEAK STAGE			5.53	May 8	8.85	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	13660		10670		12610	
10 PERCENT EXCEEDS	70		46		57	
50 PERCENT EXCEEDS	4.3		3.6		4.2	
90 PERCENT EXCEEDS	.51		.56		.40	

10336674 WARD CREEK BELOW CONFLUENCE, NEAR TAHOE CITY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1993 to current year.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT							
25...	1055	.46	44	12.5	4.0	.005	<.04
28...	1205	3.3	46	4.0	5.5	.004	.18
NOV							
28...	1420	1.2	44	9.0	2.0	<.003	.06
DEC							
28...	1215	.94	42	1.8	.2	.005	<.04
JAN							
20...	1120	16	31	3.5	.0	.004	.09
FEB							
25...	1145	4.9	38	1.3	1.3	<.003	.04
MAR							
24...	1030	13	38	8.0	2.0	.003	.06
APR							
03...	1720	35	31	13.3	.8	.003	.16
12...	1215	35	32	13.5	2.8	<.003	.04
13...	1710	64	30	.1	1.2	<.003	.07
21...	1145	26	33	11.5	3.3	<.003	.06
27...	1700	96	25	10.5	2.0	.003	.17
MAY							
04...	0945	58	28	9.9	2.5	<.003	.06
08...	1415	173	24	8.1	3.5	<.003	.17
19...	1615	87	24	--	--	.003	.10
23...	0935	83	26	18.0	3.7	<.003	.04
24...	1105	114	24	16.5	4.5	.003	.06
JUN							
03...	1720	54	25	--	7.0	<.003	.04
JUL							
03...	1255	10	31	14.0	11.0	<.003	.23
AUG							
09...	1100	1.2	41	19.0	14.0	<.003	.04
SEP							
02...	1025	4.1	45	4.0	7.1	.003	.11

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

10336674 WARD CREEK BELOW CONFLUENCE, NEAR TAHOE CITY, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT						
25...	.006	.004	.017	82	4	<.01
28...	.120	.010	.087	941	47	.42
NOV						
28...	.023	.005	.011	15	1	<.01
DEC						
28...	.018	.003	.009	556	1	<.01
JAN						
20...	.040	.005	.026	138	18	.78
FEB						
25...	.014	.003	.008	21	2	.03
MAR						
24...	.016	.003	.011	16	2	.07
APR						
03...	.021	.004	.077	845	94	8.9
12...	.019	.003	.011	51	7	.66
13...	.025	.003	.024	160	31	5.4
21...	.025	.003	.009	40	3.0	.21
27...	.020	.004	.127	1310	187	48
MAY						
04...	.020	.003	.013	91	13	2.0
08...	.020	.005	.042	383	56	26
19...	.014	.004	.043	358	64	15
23...	.007	.004	.019	78	12	2.7
24...	.018	.004	.029	216	35	11
JUN						
03...	.016	.003	.010	78	10	1.5
JUL						
03...	.006	.007	.014	23	3	.08
AUG						
09...	.003	.005	.012	13	1	<.01
SEP						
02...	.049	.008	.030	51	2	.02

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

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA

LOCATION.—Lat 39°08'13", long 120°10'48", in NE 1/4 NW 1/4 sec.23, T.15 N., R.16 E., Placer County, Hydrologic Unit 16050101, Tahoe National Forest, on left bank, 1.5 mi west of William Kent Campground, 1.7 mi upstream from mouth, and 3.6 mi southwest of Tahoe City.

DRAINAGE AREA.—8.97 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1991 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,450 ft above sea level, from topographic map.

REMARKS.—Records fair. No storage or diversion upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,370 ft^3/s, Jan. 1, 1997, gage height, 7.58 ft; maximum gage height, 8.23 ft, Jan. 10, 1995, backwater from ice; minimum daily, 0.30 ft^3/s, Sept. 22, 1994.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 80 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	0930	Unknown	a 5.19	May 8	0815	440	5.74
Apr. 13	1045	156	5.21	May 24	0115	285	5.46

a Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.2	3.2	3.0	8.0	e12	27	90	59	16	e2.2	1.8
2	1.7	2.1	3.2	e3.0	8.2	11	33	98	57	15	e2.2	3.6
3	1.6	2.0	e3.1	3.0	8.0	11	42	98	57	13	e2.1	2.6
4	1.6	2.0	e3.0	3.0	7.7	11	61	106	61	12	e2.1	2.1
5	e1.6	1.9	2.9	e3.0	7.5	12	65	109	61	11	2.0	1.8
6	e1.6	1.9	2.8	e3.0	7.3	11	62	83	55	10	1.9	1.7
7	1.6	1.9	e2.8	3.1	7.3	10	62	116	54	9.5	1.9	1.7
8	1.5	2.3	e2.8	3.1	7.4	10	61	301	55	8.9	1.9	1.6
9	1.4	2.1	2.7	3.1	7.5	10	57	125	44	8.1	1.9	1.6
10	1.4	2.2	2.7	3.1	7.9	10	59	85	40	7.4	1.8	1.6
11	1.4	2.2	e2.7	e3.4	7.9	9.9	63	64	38	e6.9	1.8	1.5
12	1.4	2.3	2.7	e3.3	7.9	10	68	53	39	e6.4	1.8	1.5
13	1.5	2.2	e2.7	3.1	14	11	123	50	43	e5.9	1.7	1.5
14	1.4	2.2	e2.7	3.1	e66	13	76	51	46	e5.4	1.7	1.5
15	1.5	2.6	2.6	4.4	e25	14	55	59	47	e5.1	1.7	1.5
16	1.4	2.9	2.7	5.4	e17	15	44	49	44	e4.9	1.6	1.4
17	1.5	3.5	2.7	4.9	e14	15	46	45	39	e4.5	1.6	1.4
18	1.5	3.0	2.8	8.5	e13	16	40	52	37	e4.2	1.6	1.4
19	1.5	4.2	2.7	e11	e12	21	37	69	35	e4.0	1.6	1.3
20	1.5	4.6	2.7	e12	e11	21	43	86	32	e3.7	1.6	1.3
21	1.5	3.7	e2.7	e11	e11	18	51	103	30	e3.5	1.6	1.3
22	1.5	3.3	e2.7	e11	e11	18	50	112	28	e3.3	1.5	1.4
23	1.5	3.4	e2.7	9.3	e11	20	50	134	26	e3.1	1.5	1.5
24	1.5	3.1	e2.7	e11	e11	22	52	211	25	e3.0	1.5	1.4
25	1.5	3.0	e2.7	e12	e11	25	60	157	23	e2.9	1.4	1.4
26	1.5	3.2	2.7	e12	e11	29	75	125	23	e2.8	1.4	1.4
27	1.9	3.0	e2.7	e11	e17	31	100	111	22	e2.7	1.4	1.4
28	14	2.9	e2.7	e11	e14	30	90	104	21	e2.6	1.4	1.4
29	3.3	3.0	e2.8	e11	12	29	75	94	20	e2.5	1.4	1.4
30	2.7	3.2	e2.9	9.2	---	28	79	76	18	e2.4	1.5	1.4
31	2.4	---	3.0	e8.5	---	26	---	65	---	e2.3	1.4	---
TOTAL	63.6	82.1	86.5	206.5	373.6	529.9	1806	3081	1179	193.0	52.7	48.4
MEAN	2.05	2.74	2.79	6.66	12.9	17.1	60.2	99.4	39.3	6.23	1.70	1.61
MAX	14	4.6	3.2	12	66	31	123	301	61	16	2.2	3.6
MIN	1.4	1.9	2.6	3.0	7.3	9.9	27	45	18	2.3	1.4	1.3
AC-FT	126	163	172	410	741	1050	3580	6110	2340	383	105	96

e Estimated.

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.70	3.69	9.36	22.4	14.1	22.2	45.2	99.2	83.4	27.6	4.92	1.74
MAX	2.52	14.5	47.5	135	51.2	52.1	70.0	168	182	107	20.1	3.36
(WY)	1994	1997	1997	1997	1996	1995	1997	1996	1995	1995	1995	1995
MIN	.73	1.59	1.47	2.26	2.19	9.10	26.2	22.7	4.60	1.41	.44	.36
(WY)	1995	1998	1995	1992	1994	1994	1994	1992	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1992 - 2000	
ANNUAL TOTAL	10175.0		7702.3			
ANNUAL MEAN	27.9		21.0		28.0	
HIGHEST ANNUAL MEAN					47.5	1995
LOWEST ANNUAL MEAN					7.69	1994
HIGHEST DAILY MEAN	287	May 26	301	May 8	1300	Jan 1 1997
LOWEST DAILY MEAN	1.4	Oct 9	1.3	Sep 19	.30	Sep 22 1994
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct 8	1.4	Sep 16	.31	Sep 17 1994
INSTANTANEOUS PEAK FLOW			440	May 8	2370	Jan 1 1997
INSTANTANEOUS PEAK STAGE			5.74	May 8	8.23	Jan 10 1995
ANNUAL RUNOFF (AC-FT)	20180		15280		20290	
10 PERCENT EXCEEDS	101		62		89	
50 PERCENT EXCEEDS	7.5		4.9		6.1	
90 PERCENT EXCEEDS	1.8		1.5		1.4	

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1993 to current year.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT							
25...	1235	1.6	75	13.5	6.5	.003	<.04
28...	1340	5.8	62	6.0	7.0	<.003	.15
NOV							
28...	1550	2.8	63	2.9	1.5	<.003	.06
DEC							
28...	1405	e2.8	65	1.0	.0	.003	<.04
JAN							
19...	2110	e11	45	1.8	.0	.003	.13
20...	1320	e12	41	3.5	.0	<.003	.12
FEB							
14...	0900	e66	40	--	.0	<.003	.16
25...	1340	e11	50	1.9	2.7	<.003	.07
MAR							
24...	1225	20	47	10.5	5.0	.004	.06
APR							
03...	1900	59	39	4.5	1.5	.004	.23
12...	1350	59	39	13.8	4.3	<.003	.06
13...	1900	126	36	.1	1.2	<.003	.11
21...	1330	44	41	16.3	6.8	.003	.06
27...	1830	149	31	9.3	3.0	<.003	.17
MAY							
04...	1110	83	35	13.2	5.5	<.003	.09
08...	1605	280	29	9.8	5.5	.004	.19
19...	1740	102	30	13.5	6.3	.003	.11
23...	1100	98	31	22.0	6.4	<.003	.06
24...	1235	167	29	22.0	7.0	.004	.10
JUN							
03...	1840	66	30	20.0	8.5	<.003	<.04
JUL							
03...	1435	12	40	14.0	13.5	<.003	.11
AUG							
09...	1300	2.0	67	24.0	19.0	<.003	.05
SEP							
02...	1240	3.5	61	5.8	9.6	.004	.05

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

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT						
25...	.008	.016	.030	71	<1	<.01
28...	.101	.015	.083	978	36	.56
NOV						
28...	.011	.013	.020	38	2	.02
DEC						
28...	.012	.013	.019	40	3	e.02
JAN						
19...	.047	.009	.034	240	19	e.56
20...	.044	.007	.033	244	31	e1.0
FEB						
14...	.025	.007	.051	495	42	e7.5
25...	.007	.007	.012	27	<1	<.03
MAR						
24...	.009	.004	.017	33	2	.11
APR						
03...	.016	.005	.068	508	52	8.3
12...	.012	.004	.014	61	8	1.3
13...	.019	.004	.026	220	23	7.8
21...	.012	.005	.014	59	3	.36
27...	.016	.005	.084	929	74	30
MAY						
04...	.005	.003	.014	84	7	1.6
08...	.019	.006	.056	631	90	68
19...	.003	.005	.029	295	31	8.5
23...	.005	.005	.014	79	9	2.4
24...	.008	.005	.027	224	22	9.9
JUN						
03...	.004	.002	.011	67	4	.71
JUL						
03...	.004	.010	.016	28	2	.06
AUG						
09...	.004	.015	.023	42	2	.01
SEP						
02...	.014	.013	.035	57	2	.02

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

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1972 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,230 ft above sea level, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Minor diversion for local water supply upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,530 ft^3/s, Jan. 1, 1997, gage height, 9.36 ft; no flow for many days during 1977–78, 1981, 1988, 1994.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 14	1015	Unknown	6.10a	May 8	0930	429	6.15
Apr 13	0730	149	5.38	May 24	0045	309	5.88

a Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.5	2.0	3.6	e3.1	e9.2	15	29	87	64	e17	1.7	1.3
2	e1.5	2.0	e3.6	e3.1	e9.0	13	36	95	62	e16	1.7	5.2
3	e1.4	1.9	e3.5	e3.1	e8.9	13	46	99	60	e14	1.7	3.3
4	1.4	1.9	e3.4	e3.1	8.9	13	66	109	64	e12	1.6	2.3
5	1.4	1.9	e3.3	e3.1	8.3	e13	67	111	63	e11	1.5	1.8
6	1.6	1.8	e3.2	e3.1	8.0	e13	63	85	58	e10	1.4	1.6
7	1.6	1.9	e3.2	e3.2	8.1	e12	62	111	58	e9.3	1.4	1.5
8	1.4	2.5	e3.2	e3.2	8.5	12	63	315	58	8.3	1.3	1.3
9	1.4	2.2	e3.2	e3.2	8.9	13	59	153	50	7.7	1.3	1.2
10	1.3	2.4	e3.2	e3.3	9.5	12	60	102	45	7.1	1.3	1.1
11	1.2	2.3	e3.1	e3.5	9.3	12	64	76	42	6.6	1.3	1.1
12	1.2	2.3	e3.1	e3.4	9.2	12	69	64	43	6.1	1.2	1.0
13	1.2	2.3	e3.1	e3.4	18	13	125	60	48	5.6	1.2	1.0
14	1.2	2.4	e3.1	e3.4	e69	15	74	62	52	5.1	1.2	.95
15	1.2	2.8	e3.0	e5.6	e26	16	53	69	53	4.8	1.1	.93
16	1.3	3.1	e3.0	e6.3	e18	16	42	e67	e50	4.6	1.1	.91
17	1.3	4.0	e3.0	e6.1	14	16	45	e66	e42	4.3	1.0	.87
18	1.3	3.1	e2.9	e9.6	13	17	39	e71	e40	4.0	1.0	.85
19	1.3	5.0	e2.9	e12	12	22	35	e87	e37	3.7	1.0	.82
20	1.3	6.1	e2.9	e13	11	22	40	e102	e34	3.4	1.1	.81
21	1.4	4.5	e2.9	e12	11	19	51	e119	e32	3.2	1.1	.78
22	1.4	e4.3	e2.9	e11	11	19	52	e128	e30	3.0	1.1	.91
23	1.5	e4.2	e2.9	e10	e11	21	52	152	e28	2.8	1.1	1.1
24	1.5	4.1	e2.9	e11	e11	23	54	235	e27	2.7	1.0	1.0
25	1.5	3.3	e2.9	e13	11	26	61	178	e25	2.5	.99	.98
26	1.5	3.4	e2.9	e12	11	30	e74	143	e24	2.4	.96	.94
27	2.0	3.4	e2.9	e11	e19	33	e97	127	e23	2.3	.97	.92
28	17	3.3	e2.9	e11	e15	31	e89	118	e23	2.2	.92	.89
29	3.4	3.2	e3.0	e11	14	30	72	106	e21	2.0	.90	.86
30	2.5	3.6	e3.0	e11	---	30	76	84	e19	1.9	1.0	.83
31	2.2	---	e3.1	e10	---	28	---	71	---	1.8	.99	---
TOTAL	62.9	91.2	95.8	220.8	400.8	580	1815	3452	1275	187.4	37.13	39.05
MEAN	2.03	3.04	3.09	7.12	13.8	18.7	60.5	111	42.5	6.05	1.20	1.30
MAX	17	6.1	3.6	13	69	33	125	315	64	17	1.7	5.2
MIN	1.2	1.8	2.9	3.1	8.0	12	29	60	19	1.8	.90	.78
AC-FT	125	181	190	438	795	1150	3600	6850	2530	372	74	77

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2000, BY WATER YEAR (WY)

MEAN	3.19	10.8	12.5	17.6	15.3	21.5	42.7	92.8	77.2	23.2	4.04	1.83
MAX	22.4	73.9	92.5	144	77.7	80.3	89.2	177	265	123	26.9	7.93
(WY)	1983	1982	1982	1997	1982	1986	1989	1996	1983	1983	1983	1983
MIN	.15	1.06	.80	1.10	1.24	2.52	8.06	18.7	4.59	1.10	.003	.005
(WY)	1978	1978	1977	1991	1991	1977	1975	1977	1992	1994	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1973 - 2000	
ANNUAL TOTAL	11267.9		8257.08			
ANNUAL MEAN	30.9		22.6		26.9	
HIGHEST ANNUAL MEAN					59.0	1983
LOWEST ANNUAL MEAN					5.29	1977
HIGHEST DAILY MEAN	287	May 26	315	May 8	1390	Jan 1 1997
LOWEST DAILY MEAN	1.2	Oct 11	.78	Sep 21	.00	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 10	.85	Sep 16	.00	Aug 4 1977
INSTANTANEOUS PEAK FLOW			429	May 8	2530	Jan 1 1997
INSTANTANEOUS PEAK STAGE			6.15	May 8	9.36	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	22350		16380		19500	
10 PERCENT EXCEEDS	111		67		77	
50 PERCENT EXCEEDS	9.0		5.4		7.0	
90 PERCENT EXCEEDS	1.8		1.1		.99	

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.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1980 to September 1983.

WATER TEMPERATURE: October 1972 to June 1978 (storm season only for water years 1977–78), October 1979 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: October 1972 to June 1978 (storm season only for water years 1977–78), October 1979 to September 1992.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
25...	1405	1.5	79	--	14.0	7.1	611	99	9.6
28...	0010	8.0	69	--	7.0	6.5	--	--	--
28...	0645	24	45	--	3.8	5.0	--	--	--
28...	1510	7.1	68	--	6.3	6.2	608	97	9.6
NOV									
28...	1645	3.1	68	--	3.1	.5	609	98	11.3
DEC									
28...	1550	e2.9	70	--	.0	.0	611	100	11.7
JAN									
18...	1640	e9.6	56	--	1.5	.0	--	--	--
19...	2220	e12	49	--	2.0	.0	--	--	--
20...	1425	e13	44	--	3.0	.0	605	100	11.6
FEB									
14...	1020	e69	42	--	-.2	.0	--	--	--
14...	1620	e69	44	--	-.5	.0	--	--	--
25...	1435	e26	53	--	3.0	2.0	606	100	11.0
MAR									
24...	1325	22	50	--	9.5	5.0	605	100	10.1
APR									
03...	1955	63	41	--	3.5	2.0	--	--	--
12...	0620	66	40	--	.0	1.5	609	100	11.2
13...	1300	146	36	--	4.0	3.2	--	--	--
21...	1425	46	44	--	12.0	7.5	604	100	9.5
27...	1930	e97	32	--	7.5	3.3	604	101	10.7
MAY									
04...	0555	93	35	--	4.7	2.7	604	--	--
08...	0945	416	28	--	7.5	3.0	--	--	--
08...	1710	309	30	--	8.5	5.5	--	--	--
17...	1455	e66	37	7.8	11.0	8.5	612	100	9.4
19...	1835	e87	31	--	15.2	6.8	611	99	9.7
23...	0600	125	31	--	7.5	3.5	--	--	--
24...	0710	225	29	--	10.6	4.0	--	--	--
JUN									
03...	1930	68	32	--	16.2	9.1	611	104	9.6
JUL									
03...	1530	e12	42	--	17.5	14.0	607	103	8.4
AUG									
09...	1455	1.3	66	--	25.8	19.9	609	104	7.5
SEP									
02...	1335	5.2	69	--	5.1	9.2	606	103	9.4
30...	1635	.80	77	--	20.5	12.5	608	94	8.0

e Estimated.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT								
25...	<.003	<.04	.003	.013	.024	59	1	<.01
28...	<.003	.35	.006	.049	.081	707	18	.39
28...	.007	.34	.053	.021	3.01	27300	1480	96
28...	<.003	.19	.093	.017	.097	1070	40	.77
NOV								
28...	<.003	<.04	.007	.012	.020	47	2	.02
DEC								
28...	.003	.04	.012	.012	.019	48	4	e.03
JAN								
18...	.006	.08	.021	.009	.027	136	8	e.21
19...	.005	.10	.028	.012	.023	150	6	e.19
20...	.003	.10	.042	.009	.027	189	11	e.39
FEB								
14...	<.003	.14	.018	.009	.040	382	23	e4.3
14...	<.003	.12	.021	.008	.023	156	11	e2.0
25...	<.003	.05	.005	.007	.012	35	2	e.14
MAR								
24...	<.003	.05	.007	.005	.017	43	2	.12
APR								
03...	.003	.15	.014	.006	.071	587	54	9.2
12...	<.003	.06	.016	.005	.015	82	10	1.8
13...	<.003	.39	.019	.004	.058	523	48	19
21...	.003	.07	.009	.005	.015	59	5	.62
27...	<.003	.14	.008	.004	.076	844	69	e18
MAY								
04...	<.003	.10	.016	.004	.017	153	7	1.8
08...	<.003	.63	.015	.009	.382	4620	472	530
08...	<.003	.12	.017	.007	.083	838	87	73
17...	<.003	.06	.006	.005	.014	44	5	e.89
19...	<.003	.11	.003	.005	.033	288	26	e6.1
23...	<.003	.07	.016	.005	.016	110	9	3.0
24...	<.003	.14	.014	.006	.056	588	39	24
JUN								
03...	<.003	<.04	.006	.003	.016	62	4	.73
JUL								
03...	<.003	<.04	.004	.004	.021	37	2	e.06
AUG								
09...	<.003	.05	.005	.011	.019	52	3	.01
SEP								
02...	.003	.06	.010	.012	.033	94	3	.04
30...	.003	.08	.003	.009	.037	45	2	<.01

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

10336686 CARNELIAN CREEK AT CARNELIAN BAY, CA

LOCATION.—Lat 39°13'37", long 120°04'50", in NE 1/4 NW 1/4 sec.22, T.16 N., R.17 E., Placer County, Hydrologic Unit 16050101, on right bank, 0.1 mi east of Carnelian Bay Post Office at Highway 28.

DRAINAGE AREA.—2.93 mi^2.

PERIOD OF RECORD.—May 1999 to September 2000 (discontinued).

GAGE.—Water-stage recorder. Elevation of gage is 6,232 ft above sea level, from topographic map.

REMARKS.—Records fair except for flows below 0.2 ft^3/s, which are poor. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 32 ft^3/s, May 22, 1999, gage height, 1.94 ft, maximum gage height, 2.68 ft, present datum, Apr. 27, 2000; minimum daily, 0.10 ft^3/s, several days in July and August 1999, and August 2000.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 5.0 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Apr. 27	2030	7.5	2.68				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.32	.37	.29	.41	.64	1.1	3.4	.63	.14	.12	.13
2	.20	.33	.37	.30	.45	.61	1.2	3.5	.63	.14	.12	.13
3	.17	.35	.37	.34	.43	.61	1.3	3.4	.71	.13	e.11	.13
4	.18	.37	.36	.36	.44	.60	1.5	3.2	.73	.13	e.10	.13
5	.18	.36	.36	.38	.41	.61	1.5	2.9	.94	.13	e.10	.13
6	.21	.35	.38	.36	.41	.57	1.5	2.4	.64	.13	e.10	.13
7	.22	.35	.38	.38	.42	.53	1.4	2.6	.64	.14	.10	.13
8	.20	.38	.40	.38	.41	.56	1.5	3.4	.54	.14	.12	.13
9	.18	.37	.43	.37	.42	.61	1.4	2.5	.49	.13	e.12	.13
10	.17	.37	.42	.35	.46	.57	1.4	2.1	.50	.13	e.12	.13
11	.18	.35	.36	.46	.42	.59	1.5	1.9	.53	.13	e.12	.13
12	.19	.36	.38	.46	.40	.65	1.7	1.6	.55	.13	e.12	.14
13	.20	.35	.40	.44	.60	.76	3.2	1.5	.64	.13	e.12	.14
14	.22	.36	.39	.44	1.4	.74	2.9	1.4	.52	.13	e.12	.13
15	.23	.37	.39	.51	.80	.73	2.4	1.5	.44	.13	.12	.14
16	.23	.38	.39	.51	.70	.74	2.1	1.5	.31	.13	.12	.13
17	.26	.40	.39	.48	.65	.73	2.6	1.4	.25	.13	.12	.13
18	.28	.39	.40	.71	.59	.78	2.5	1.3	.24	.13	.12	.13
19	.32	.52	.40	.63	.57	.87	2.2	1.2	.24	.13	.12	.13
20	.31	.48	.36	.60	.54	.88	2.4	1.1	.21	.13	.12	.13
21	.30	.42	.38	.51	.59	.89	3.6	1.1	.25	.12	.12	.14
22	.27	.40	.36	.47	.60	.94	3.7	1.1	.23	.12	.12	.14
23	.26	.40	.39	.47	.58	.94	3.3	1.1	.19	.11	.12	.14
24	.25	.39	.38	e.50	.55	.96	3.1	1.3	.17	.12	.12	.14
25	.26	.36	.37	e.50	.53	.95	3.2	1.0	.18	.12	.12	.14
26	.27	.36	.34	.51	.50	1.0	3.6	.88	.24	.12	.12	.14
27	.28	.35	.34	.47	.63	1.1	4.8	.91	.19	.12	.12	.13
28	.38	.36	.34	.44	.61	1.1	4.2	.78	.17	.12	.12	.13
29	.31	.34	.33	.41	.65	1.1	3.4	.72	.16	.12	.13	.13
30	.31	.35	.32	.40	---	1.1	3.2	.68	.15	.12	.13	.13
31	.31	---	.27	.39	---	1.1	---	.64	---	.11	.13	---
TOTAL	7.54	11.24	11.52	13.82	16.17	24.56	73.4	54.01	12.31	3.94	3.66	3.99
MEAN	.24	.37	.37	.45	.56	.79	2.45	1.74	.41	.13	.12	.13
MAX	.38	.52	.43	.71	1.4	1.1	4.8	3.5	.94	.14	.13	.14
MIN	.17	.32	.27	.29	.40	.53	1.1	.64	.15	.11	.10	.13
AC-FT	15	22	23	27	32	49	146	107	24	7.8	7.3	7.9

e Estimated.

10336686 CARNELIAN CREEK AT CARNELIAN BAY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.24	.37	.37	.45	.56	.79	2.45	7.55	.87	.13	.12	.16
MAX	.24	.37	.37	.45	.56	.79	2.45	13.3	1.32	.14	.13	.18
(WY)	2000	2000	2000	2000	2000	2000	2000	1999	1999	1999	1999	1999
MIN	.24	.37	.37	.45	.56	.79	2.45	1.74	.41	.13	.12	.13
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 WATER YEAR		WATER YEARS 1999 - 2000	
ANNUAL TOTAL	236.16			
ANNUAL MEAN	.65		.65	
HIGHEST ANNUAL MEAN			.65	2000
LOWEST ANNUAL MEAN			.65	2000
HIGHEST DAILY MEAN	4.8	Apr 27	21	May 25 1999
LOWEST DAILY MEAN	.10	Aug 4	.10	Jul 26 1999
ANNUAL SEVEN-DAY MINIMUM	.11	Aug 1	.10	Jul 28 1999
INSTANTANEOUS PEAK FLOW	7.5	Apr 27	32	May 22 1999
INSTANTANEOUS PEAK STAGE	2.68	Apr 27	2.68	Apr 27 2000
ANNUAL RUNOFF (AC-FT)	468		467	
10 PERCENT EXCEEDS	1.5		2.9	
50 PERCENT EXCEEDS	.38		.36	
90 PERCENT EXCEEDS	.12		.12	

10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01, NEAR MEYERS, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°51'48", long 119°57'26", in NE 1/4 NW 1/4 sec.26, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank, 50 ft downstream from U.S. Forest Service Road 12N01, about 2.2 mi upstream from confluence of Saxon Creek, and 2.6 mi northeast of Meyers.

DRAINAGE AREA.—7.41 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—May 1990 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,850 ft above sea level, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. See schematic diagram of Truckee River Basin. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 166 ft^3/s, June 27, 1995, gage height, 6.19 ft; minimum daily, 1.9 ft^3/s, Dec. 21, 1990.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 24	0845	*47	*5.10				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	7.8	6.4	5.4	5.8	6.1	7.7	23	23	8.2	e5.8	6.0
2	6.1	8.0	6.4	5.8	5.9	5.0	8.9	23	22	7.9	e5.8	8.3
3	5.8	6.7	e6.4	5.4	5.9	5.5	12	26	21	e8.0	e6.5	7.1
4	5.8	6.3	e6.1	5.3	5.9	6.2	14	25	21	e7.8	e8.0	e6.9
5	5.8	5.5	6.1	e5.3	5.6	6.1	14	21	21	e7.4	e7.0	e6.8
6	6.2	5.4	6.2	e5.4	5.4	6.1	12	20	20	7.2	e5.7	e6.6
7	5.3	5.4	5.8	5.7	5.4	5.6	13	23	21	7.0	e5.6	6.3
8	4.8	6.0	e5.8	5.6	5.5	5.7	14	34	19	6.8	e5.5	5.8
9	4.9	5.9	5.8	5.6	5.7	5.8	14	27	17	e6.7	e5.3	5.6
10	4.9	6.0	5.8	5.6	5.6	5.9	13	23	16	e6.7	e5.3	5.4
11	5.3	6.2	e5.8	5.6	5.5	6.0	12	23	15	e6.7	e5.3	5.4
12	5.5	6.1	5.9	5.7	5.6	6.3	12	22	14	e6.7	e5.3	5.5
13	5.7	5.9	5.9	5.6	7.5	7.2	14	21	15	e6.5	e5.3	5.3
14	5.8	6.2	e5.9	5.7	9.5	7.0	13	18	15	e6.5	e5.3	5.0
15	6.0	6.3	5.6	6.2	6.8	6.6	13	18	14	e6.4	e5.3	5.1
16	6.0	6.2	5.6	6.4	6.0	6.1	12	18	14	e6.4	e5.3	5.3
17	5.8	6.4	5.6	6.4	6.0	5.8	12	19	13	e6.4	e5.3	4.9
18	6.0	6.3	5.6	8.2	5.8	6.1	11	20	13	e6.4	e5.3	4.9
19	6.2	7.1	5.7	7.6	e6.1	6.4	11	22	12	e6.4	e5.3	5.0
20	6.3	7.1	5.4	7.4	e5.8	6.0	12	26	11	e6.3	e5.3	4.5
21	6.7	6.6	5.5	6.8	5.7	5.9	13	28	12	e6.3	e5.3	4.2
22	6.6	8.7	5.4	6.5	5.1	6.1	13	30	11	e6.2	e5.3	4.2
23	6.4	6.7	5.7	6.6	5.2	6.4	13	32	9.6	e6.2	5.2	4.1
24	6.2	6.9	5.7	7.6	e5.2	6.5	13	40	9.5	e6.2	5.4	4.1
25	6.2	6.3	5.8	7.2	5.4	6.9	14	35	9.5	e6.2	5.4	4.4
26	6.2	6.5	5.7	6.7	5.7	7.5	17	32	e9.4	e6.2	5.1	3.6
27	6.5	6.5	5.8	e6.8	5.6	7.5	21	30	e9.2	e6.0	5.3	3.7
28	12	6.4	5.7	e7.2	5.5	7.9	21	30	e9.1	e6.0	5.0	4.1
29	7.8	6.6	5.5	e6.4	5.9	7.9	20	30	e9.1	e6.0	5.4	4.2
30	7.7	6.5	5.6	5.6	---	7.5	21	27	8.7	e6.0	6.4	3.5
31	7.6	---	5.4	5.7	---	7.3	---	24	---	e5.8	6.0	---
TOTAL	194.2	194.5	179.6	193.0	170.6	198.9	410.6	790	434.1	205.5	173.3	155.8
MEAN	6.26	6.48	5.79	6.23	5.88	6.42	13.7	25.5	14.5	6.63	5.59	5.19
MAX	12	8.7	6.4	8.2	9.5	7.9	21	40	23	8.2	8.0	8.3
MIN	4.8	5.4	5.4	5.3	5.1	5.0	7.7	18	8.7	5.8	5.0	3.5
AC-FT	385	386	356	383	338	395	814	1570	861	408	344	309

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	5.31	5.53	5.99	7.07	5.60	6.91	10.9	26.9	33.3	17.3	7.93	5.92
MAX	7.87	8.20	14.2	24.9	11.4	14.2	22.3	48.1	84.9	62.1	20.0	10.7
(WY)	1999	1997	1997	1997	1997	1997	1997	1997	1995	1995	1995	1998
MIN	2.91	2.93	2.63	2.59	2.65	3.25	5.18	8.81	4.10	3.60	3.36	3.32
(WY)	1993	1993	1993	1991	1991	1991	1991	1992	1992	1992	1994	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	5209.6		3300.1			
ANNUAL MEAN	14.3		9.02		11.9	
HIGHEST ANNUAL MEAN					19.8	1995
LOWEST ANNUAL MEAN					4.48	1992
HIGHEST DAILY MEAN	85	May 27	40	May 24	130	Jun 28 1995
LOWEST DAILY MEAN	4.8	Oct 8	3.5	Sep 30	1.9	Dec 21 1990
ANNUAL SEVEN-DAY MINIMUM	5.2	Oct 7	3.9	Sep 24	2.4	Dec 17 1990
INSTANTANEOUS PEAK FLOW			47	May 24	166	Jun 27 1995
INSTANTANEOUS PEAK STAGE			5.10	May 24	6.19	Jun 27 1995
ANNUAL RUNOFF (AC-FT)	10330		6550		8650	
10 PERCENT EXCEEDS	42		20		26	
50 PERCENT EXCEEDS	6.6		6.3		6.3	
90 PERCENT EXCEEDS	5.5		5.3		3.2	

e Estimated.

10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01, NEAR MEYERS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1990 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997 to current year, two times per hour.

REMARKS. In November 1989, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature at probe within 0.5°C. Interruptions in record due to loss of hydrologic communication with stream channel. Water temperature records for September 1997 were not published but are available from the U.S. Geological Survey, in Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 13.0°C, July 12–14, 1999, June 14, 15, July 31, 2000; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 13.0°C, July 14, 15, July 31; minimum, freezing point, many days November to March and May 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
07...	1245	4.9	52	--	13.5	4.0	--	--	--
NOV									
04...	1405	6.4	52	--	14.0	3.0	--	--	--
DEC									
08...	1555	e5.8	49	7.8	-.5	.0	595	--	--
JAN									
07...	1250	5.9	54	--	2.5	1.0	--	--	--
FEB									
28...	1230	4.7	51	--	.5	1.0	--	--	--
MAR									
28...	1215	8.2	48	--	7.0	2.4	--	--	--
APR									
12...	1125	12	39	--	15.0	3.3	--	--	--
MAY									
04...	1525	23	27	--	12.5	7.3	--	--	--
08...	1455	40	24	--	10.5	6.6	--	--	--
23...	1500	30	22	--	21.5	4.0	--	--	--
JUN									
06...	1615	21	26	--	18.0	10.8	595	99	8.5
JUL									
05...	1645	e7.4	40	--	15.0	9.4	--	--	--
AUG									
10...	1440	e5.3	50	--	19.5	9.7	--	--	--
SEP									
08...	1305	5.9	51	7.6	17.5	6.3	593	97	9.3

e Estimated.

10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01, NEAR MEYERS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT								
07...	<.003	<.04	.003	.009	.024	104	1	.01
NOV								
04...	<.003	.05	.004	.009	.021	54	29	.50
DEC								
08...	<.003	.06	.007	.010	.021	177	3	e.05
JAN								
07...	<.003	<.04	.012	.011	.017	79	1	.02
FEB								
28...	<.003	.07	.005	.009	.014	88	2	.03
MAR								
28...	.003	.13	.008	.008	.019	112	2	.04
APR								
12...	<.003	.13	.008	.006	.015	163	4	.13
MAY								
04...	<.003	.11	.003	.005	.022	268	7	.43
08...	.015	.31	.007	.006	.034	649	25	2.7
23...	<.003	e.22	.005	.006	.019	231	6	.49
JUN								
06...	<.003	.08	.003	.007	.028	154	4	.23
JUL								
05...	<.003	.05	.004	.009	.016	77	1	e.02
AUG								
10...	<.003	.04	.004	.011	.020	91	3	e.04
SEP								
08...	.007	.05	.006	.011	.026	68	2	.03

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	1.0	.0	.5	.5	.0	.5
2	---	---	---	---	---	---	1.0	.0	.5	.5	.0	.0
3	---	---	---	---	---	---	.5	.0	.0	1.0	.0	.5
4	---	---	---	---	---	---	1.0	.0	.5	1.5	.5	1.0
5	---	---	---	4.5	2.5	3.5	1.5	.5	1.0	.5	.0	.0
6	---	---	---	4.5	2.5	3.5	2.0	.0	1.0	1.0	.0	.0
7	---	---	---	4.5	3.0	4.0	1.5	.0	.5	1.0	.5	1.0
8	---	---	---	3.0	1.5	2.5	1.0	.0	.0	1.0	.0	.5
9	---	---	---	2.5	1.0	1.5	1.0	.5	1.0	1.5	.5	1.0
10	---	---	---	3.5	2.0	2.5	.5	.0	.0	2.0	1.0	1.5
11	---	---	---	4.5	3.0	3.5	1.0	.0	.5	1.5	.0	1.0
12	---	---	---	4.5	2.5	3.5	1.5	.0	1.0	1.0	.0	.5
13	---	---	---	4.0	2.0	3.0	1.0	.0	1.0	2.0	1.0	1.0
14	---	---	---	4.5	2.5	3.5	.5	.0	.0	1.5	.5	1.0
15	---	---	---	4.5	3.5	4.0	1.0	.0	.5	1.5	1.0	1.5
16	---	---	---	4.0	2.0	3.5	1.5	.5	1.0	1.5	.0	.5
17	---	---	---	2.0	.5	1.5	2.0	.5	1.5	1.5	1.0	1.5
18	---	---	---	2.0	.0	1.0	2.0	1.0	1.5	1.5	1.0	1.5
19	---	---	---	2.0	1.5	1.5	2.5	1.0	2.0	2.0	1.0	1.5
20	---	---	---	2.0	1.5	1.5	2.0	1.0	1.5	2.5	1.5	2.0
21	---	---	---	1.5	.0	1.0	1.5	.5	1.0	1.5	.0	1.0
22	---	---	---	.5	.0	.0	1.0	.0	.5	1.0	.0	.5
23	---	---	---	1.0	.0	.5	1.0	.0	.5	1.5	1.0	1.0
24	---	---	---	1.0	.0	.5	1.0	.0	.5	1.0	.5	1.0
25	---	---	---	2.0	.5	1.0	1.0	.0	.5	1.0	.5	.5
26	---	---	---	2.0	1.0	1.5	1.0	.0	.5	1.0	.0	.5
27	---	---	---	2.0	1.0	1.5	1.0	.0	.5	.5	.0	.0
28	---	---	---	2.0	1.0	1.5	1.0	.0	.5	.0	.0	.0
29	---	---	---	3.0	2.0	2.5	.5	.0	.5	.5	.0	.0
30	---	---	---	2.5	1.0	2.0	.5	.0	.5	1.0	.0	.5
31	---	---	---	---	---	---	1.0	.0	.5	1.5	.0	.5
MONTH	---	---	---	---	---	---	2.5	.0	.7	2.5	.0	.8

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

10336770 TROUT CREEK AT U.S. FOREST SERVICE ROAD 12N01, NEAR MEYERS, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	1.0	1.0	1.0	.0	.5	3.5	1.0	2.5	7.5	2.5	4.5
2	1.5	.5	1.0	1.5	.5	1.0	4.5	2.0	3.0	8.0	2.5	4.5
3	1.5	1.0	1.5	2.5	1.0	1.5	4.5	1.5	3.0	7.5	2.0	4.5
4	2.0	1.5	1.5	2.5	1.0	1.5	4.5	2.0	3.0	7.5	3.0	4.5
5	1.5	.5	1.0	2.0	1.0	2.0	4.5	1.5	2.5	6.5	3.0	4.5
6	2.0	.0	1.0	1.5	1.0	1.0	4.5	1.5	2.5	5.5	2.0	3.5
7	2.5	.0	1.5	1.5	.0	1.0	5.0	1.5	3.0	5.0	3.0	3.5
8	4.5	1.5	2.0	1.5	.5	1.0	4.5	1.5	3.0	7.0	3.0	4.5
9	3.0	1.5	2.0	1.0	.5	1.0	4.0	1.5	2.5	5.5	2.0	3.5
10	2.5	.5	1.5	2.0	.0	1.0	5.0	1.5	3.0	3.5	.5	2.0
11	1.5	.0	.5	3.0	2.0	2.0	5.5	2.0	3.0	4.0	.0	1.5
12	1.0	.0	.5	2.5	.5	1.5	5.0	2.0	3.5	5.5	.5	3.0
13	1.0	.0	.5	2.5	1.0	2.0	4.0	2.0	2.5	6.0	2.5	4.0
14	1.0	.0	.5	3.0	1.5	2.5	4.0	1.0	2.5	6.5	2.5	4.5
15	1.5	.0	.5	3.0	1.0	2.0	4.5	1.5	3.0	6.0	3.0	4.0
16	1.5	1.0	1.5	3.5	1.5	2.0	4.5	2.0	3.0	3.5	2.0	2.5
17	1.5	.5	1.0	2.5	.5	1.5	3.0	1.5	2.5	7.5	2.5	4.5
18	1.5	.0	.5	3.0	1.0	2.0	2.5	1.0	1.5	9.0	3.0	5.5
19	2.0	.0	1.0	3.5	1.5	2.5	5.0	1.5	3.0	9.5	4.0	6.0
20	2.5	1.5	2.0	1.5	.0	1.0	5.5	2.0	3.5	9.0	4.0	6.0
21	3.0	.5	1.5	2.0	.0	1.0	5.0	2.0	3.5	9.5	4.0	6.5
22	2.0	.5	1.0	3.0	.5	2.0	5.5	2.0	3.5	9.0	4.0	6.0
23	2.5	.0	.5	3.5	2.0	2.5	5.5	1.0	3.0	9.5	4.5	7.0
24	.0	.0	.0	3.5	1.0	2.5	5.5	.5	3.0	9.5	5.5	7.5
25	1.0	.0	.5	3.5	1.5	2.5	6.5	2.0	4.0	9.0	4.5	7.0
26	2.0	1.0	1.5	3.5	1.0	2.5	7.5	2.0	4.0	9.5	4.5	7.0
27	1.5	.0	.0	3.5	2.0	2.5	7.0	2.0	4.0	10.0	5.0	7.5
28	1.5	.0	.5	3.5	.5	2.0	5.5	2.5	3.5	10.0	5.0	7.5
29	1.5	.5	1.0	3.5	1.0	2.0	6.0	1.0	3.0	9.5	6.0	7.5
30	---	---	---	3.0	1.0	2.0	8.0	1.5	4.0	9.0	5.0	7.0
31	---	---	---	3.0	.5	2.0	---	---	---	9.0	4.0	6.5
MONTH	4.5	.0	1.0	3.5	.0	1.7	8.0	.5	3.0	10.0	.0	5.1
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.0	4.5	7.0	11.5	6.5	9.0	12.5	10.0	11.5	8.0	6.5	7.0
2	10.0	5.0	7.5	11.5	7.0	9.0	12.0	9.5	11.0	7.0	5.5	6.0
3	10.5	5.5	8.0	10.0	6.5	8.0	11.5	9.0	10.0	8.0	5.5	6.5
4	11.0	7.0	9.0	10.0	4.5	7.5	11.5	8.5	10.0	7.0	4.5	6.0
5	10.5	7.5	9.0	9.5	5.5	7.5	12.0	8.0	10.0	6.5	3.0	5.0
6	11.5	5.5	8.5	10.0	5.0	8.0	12.0	8.5	10.5	7.0	3.5	5.5
7	11.0	6.0	8.5	11.0	6.5	8.5	12.0	8.0	10.0	8.0	4.0	6.0
8	8.5	6.0	7.0	10.5	5.5	8.0	11.5	7.5	10.0	7.5	4.5	6.0
9	9.5	4.5	7.0	11.5	6.0	9.0	11.0	8.0	9.5	8.0	5.0	6.5
10	10.0	4.5	7.0	11.5	7.0	9.5	10.5	7.5	9.0	8.5	4.5	6.5
11	10.5	5.0	7.5	11.5	7.5	9.5	10.5	5.5	8.5	8.5	5.0	6.5
12	11.5	7.0	9.0	12.0	7.5	10.0	10.5	6.0	8.5	9.0	5.5	7.5
13	12.0	7.0	9.5	11.5	7.0	9.5	10.5	6.0	8.5	9.5	7.0	8.5
14	13.0	7.5	10.0	12.0	8.0	10.0	10.5	5.5	8.0	10.0	7.5	9.0
15	13.0	8.0	10.5	12.0	7.0	9.5	10.5	6.0	8.5	10.0	7.0	8.5
16	12.0	8.0	10.5	11.5	7.5	9.5	10.5	6.0	8.5	9.0	6.5	8.0
17	12.0	7.0	9.5	11.5	6.5	9.0	10.5	6.5	8.5	9.0	5.5	7.5
18	12.0	7.5	9.5	11.5	6.5	9.0	10.0	6.5	8.5	9.5	7.0	8.0
19	12.0	7.5	9.5	11.5	6.0	8.5	9.5	5.5	7.5	9.5	6.5	8.0
20	12.0	7.0	9.5	11.5	6.0	9.0	9.5	5.5	7.5	10.0	7.5	9.0
21	12.5	7.5	10.0	12.0	6.5	9.5	10.0	5.5	8.0	9.5	8.0	8.5
22	12.5	7.0	10.0	11.5	7.0	9.5	10.5	6.5	8.5	8.5	6.5	7.5
23	12.5	7.5	10.0	12.0	7.0	9.5	10.5	6.5	8.5	7.0	5.0	6.0
24	12.0	8.0	10.0	11.5	6.5	9.0	10.0	7.0	8.5	7.0	3.5	5.5
25	11.5	7.5	9.5	11.5	7.0	9.5	10.5	7.5	9.0	7.5	4.0	6.0
26	11.0	7.5	9.5	11.5	7.5	9.5	11.0	8.5	10.0	7.5	4.5	6.0
27	11.0	7.5	9.5	11.5	7.0	9.5	11.0	7.5	9.5	7.5	4.0	6.0
28	11.5	8.0	10.0	11.5	7.0	9.5	10.5	8.0	9.5	7.5	5.5	6.5
29	11.0	8.0	9.5	11.5	7.5	10.0	9.5	8.5	9.0	7.5	5.0	6.5
30	12.5	8.0	10.0	12.5	8.5	10.5	9.0	8.5	9.0	8.0	5.0	6.5
31	---	---	---	13.0	9.0	11.0	9.5	7.5	8.0	---	---	---
MONTH	13.0	4.5	9.1	13.0	4.5	9.2	12.5	5.5	9.1	10.0	3.0	6.9

10336775 TROUT CREEK AT PIONEER TRAIL, NEAR SOUTH LAKE TAHOE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°54'13", long 119°58'04", in SE 1/4 NE 1/4 sec.10, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 200 ft upstream of Pioneer Trail Road, 0.6 mi upstream of confluence of Cold Creek, and 2.8 mi south of South Lake Tahoe.

DRAINAGE AREA.—23.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—June 1990 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 6,270 ft above sea level, from topographic map. Prior to May 1, 1992, at datum 0.12 ft higher.

REMARKS.—Records fair except for estimated daily discharges, which are poor. See schematic diagram of Truckee River Basin. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 525 ft^3/s, Jan. 2, 1997, gage height, 7.59 ft; minimum daily, 2.0 ft^3/s, Dec. 22, 1990.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 24	1015	*70	*2.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	11	14	14	20	e23	31	41	16	9.7	8.7
2	12	11	e11	14	14	e19	e25	33	39	16	10	12
3	12	11	e11	15	14	e19	e28	34	38	15	12	9.8
4	12	11	e12	14	13	e20	e28	34	38	15	14	8.9
5	12	11	13	14	13	e20	28	34	37	15	10	8.7
6	12	11	12	15	13	e20	28	32	36	15	9.5	8.7
7	12	11	12	e15	13	e16	27	42	35	15	9.3	8.3
8	12	12	13	e15	13	e17	28	64	35	14	9.2	8.0
9	11	12	13	16	13	e18	26	52	33	14	9.0	8.0
10	11	12	12	16	14	e19	25	47	31	14	8.7	7.9
11	11	12	13	16	13	e19	26	44	30	14	8.5	7.8
12	11	12	14	16	13	e18	27	41	29	13	8.4	7.7
13	11	11	13	15	19	e21	38	39	28	13	8.4	7.7
14	11	11	13	14	51	e20	31	38	27	12	8.4	7.5
15	11	11	14	16	30	e19	27	38	27	12	8.3	7.5
16	11	11	14	17	23	e18	26	37	26	12	8.1	7.6
17	11	12	14	14	20	e17	26	37	25	12	8.2	7.5
18	11	12	13	18	19	e18	24	37	24	12	8.2	7.5
19	11	e12	13	19	20	e18	23	40	23	12	8.1	7.5
20	11	e13	12	17	18	e19	23	43	22	12	8.0	7.4
21	11	e12	e12	15	17	e17	24	48	21	11	7.9	7.3
22	11	15	e12	14	17	e18	24	52	20	11	7.9	7.5
23	11	e12	e12	14	16	e18	24	55	19	11	7.8	7.8
24	11	e13	13	28	18	e19	24	65	18	11	7.7	7.7
25	11	13	13	28	17	e19	25	54	18	11	7.7	7.7
26	11	e13	13	20	16	e20	27	51	18	10	7.7	7.6
27	11	12	13	20	19	e20	29	50	18	10	7.6	7.6
28	22	13	14	22	20	e24	30	50	17	10	7.6	7.6
29	13	12	13	17	17	e24	28	49	17	10	7.9	7.7
30	12	12	14	16	---	e20	28	46	17	10	9.0	7.6
31	12	---	15	16	---	e22	---	43	---	9.9	8.9	---
TOTAL	364	357	397	520	517	596	800	1360	807	387.9	271.7	240.8
MEAN	11.7	11.9	12.8	16.8	17.8	19.2	26.7	43.9	26.9	12.5	8.76	8.03
MAX	22	15	15	28	51	24	38	65	41	16	14	12
MIN	11	11	11	14	13	16	23	31	17	9.9	7.6	7.3
AC-FT	722	708	787	1030	1030	1180	1590	2700	1600	769	539	478

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	9.68	10.5	12.3	19.4	16.2	22.6	32.0	60.9	66.5	36.3	14.2	10.0
MAX	15.4	18.7	34.2	87.8	38.2	42.0	54.9	107	158	142	35.8	19.0
(WY)	1999	1997	1997	1997	1997	1997	1996	1996	1995	1995	1995	1995
MIN	4.49	5.03	4.05	4.70	5.49	7.85	12.2	14.2	7.66	5.84	4.48	4.08
(WY)	1991	1991	1991	1991	1993	1992	1991	1992	1992	1992	1994	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	12223		6618.4			
ANNUAL MEAN	33.5		18.1		26.7	
HIGHEST ANNUAL MEAN					46.9	1995
LOWEST ANNUAL MEAN					7.71	1992
HIGHEST DAILY MEAN	159	May 28	65	May 24	457	Jan 2 1997
LOWEST DAILY MEAN	11	Jan 3	7.3	Sep 21	2.0	Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	11	Oct 9	7.5	Sep 15	2.8	Dec 21 1990
INSTANTANEOUS PEAK FLOW			70	May 24	525	Jan 2 1997
INSTANTANEOUS PEAK STAGE			2.61	May 24	7.59	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	24240		13130		19360	
10 PERCENT EXCEEDS	94		34		65	
50 PERCENT EXCEEDS	20		14		14	
90 PERCENT EXCEEDS	11		8.2		5.2	

e Estimated.

10336775 TROUT CREEK AT PIONEER TRAIL, NEAR SOUTH LAKE TAHOE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1993 to current year.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT							
25...	1235	1.6	75	13.5	6.5	.003	<.04
28...	1340	5.8	62	6.0	7.0	<.003	.15
NOV							
28...	1550	2.8	63	2.9	1.5	<.003	.06
DEC							
28...	1405	e2.8	65	1.0	.0	.003	<.04
JAN							
19...	2110	e11	45	1.8	.0	.003	.13
20...	1320	e12	41	3.5	.0	<.003	.12
FEB							
14...	0900	e66	40	--	.0	<.003	.16
25...	1340	e11	50	1.9	2.7	<.003	.07
MAR							
24...	1225	20	47	10.5	5.0	.004	.06
APR							
03...	1900	59	39	4.5	1.5	.004	.23
12...	1350	59	39	13.8	4.3	<.003	.06
13...	1900	126	36	.1	1.2	<.003	.11
21...	1330	44	41	16.3	6.8	.003	.06
27...	1830	149	31	9.3	3.0	<.003	.17
MAY							
04...	1110	83	35	13.2	5.5	<.003	.09
08...	1605	280	29	9.8	5.5	.004	.19
19...	1740	102	30	13.5	6.3	.003	.11
23...	1100	98	31	22.0	6.4	<.003	.06
24...	1235	167	29	22.0	7.0	.004	.10
JUN							
03...	1840	66	30	20.0	8.5	<.003	<.04
JUL							
03...	1435	12	40	14.0	13.5	<.003	.11
AUG							
09...	1300	2.0	67	24.0	19.0	<.003	.05
SEP							
02...	1240	3.5	61	5.8	9.6	.004	.05

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

10336775 TROUT CREEK AT PIONEER TRAIL, NEAR SOUTH LAKE TAHOE, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT						
25...	.008	.016	.030	71	<1	<.01
28...	.101	.015	.083	978	36	.56
NOV						
28...	.011	.013	.020	38	2	.02
DEC						
28...	.012	.013	.019	40	3	e.02
JAN						
19...	.047	.009	.034	240	19	e.56
20...	.044	.007	.033	244	31	e1.0
FEB						
14...	.025	.007	.051	495	42	e7.5
25...	.007	.007	.012	27	<1	<.03
MAR						
24...	.009	.004	.017	33	2	.11
APR						
03...	.016	.005	.068	508	52	8.3
12...	.012	.004	.014	61	8	1.3
13...	.019	.004	.026	220	23	7.8
21...	.012	.005	.014	59	3	.36
27...	.016	.005	.084	929	74	30
MAY						
04...	.005	.003	.014	84	7	1.6
08...	.019	.006	.056	631	90	68
19...	.003	.005	.029	295	31	8.5
23...	.005	.005	.014	79	9	2.4
24...	.008	.005	.027	224	22	9.9
JUN						
03...	.004	.002	.011	67	4	.71
JUL						
03...	.004	.010	.016	28	2	.06
AUG						
09...	.004	.015	.023	42	2	.01
SEP						
02...	.014	.013	.035	57	2	.02

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

10336779 COLD CREEK AT MOUTH, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°54'44", long 119°58'06", in SE 1/4 SE 1/4 sec.03, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on left bank, 600 ft upstream of mouth, about 0.5 mi downstream from Pioneer Trail Road, and 1.7 mi south of South Lake Tahoe.

DRAINAGE AREA.—12.8 mi^2.

PERIOD OF RECORD.—September 1997 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997, two times per hour.

REMARKS.—In September 1997, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor streamflows and water temperature within the Upper Truckee River–Trout Creek watershed. Records represent water temperature at probe within 0.58°C. Interruptions in record due to instrument malfunction. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 17.08°C, July 31 and Aug. 1, 2000; minimum, freezing point on many days.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 17.08°C, July 31, Aug. 1; minimum, freezing point, many days November to March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	6.0	7.5	6.5	3.5	4.5	2.5	.5	1.5	1.5	.0	.5
2	9.5	5.5	7.5	6.0	3.0	4.5	3.0	.5	1.5	1.0	.0	.5
3	9.5	5.5	7.5	5.5	3.0	4.0	1.5	.0	.5	1.5	.0	1.0
4	9.5	5.5	7.0	5.5	2.5	4.0	1.5	.0	.5	2.0	.5	1.0
5	10.0	6.5	7.5	6.5	3.5	4.5	2.0	.5	1.5	.5	.0	.0
6	8.5	5.5	7.0	5.5	3.0	4.5	3.0	.5	2.0	1.0	.0	.0
7	8.0	4.5	6.0	6.5	4.0	5.0	2.0	.0	1.0	1.5	.5	1.0
8	9.0	4.5	6.5	4.5	2.5	3.5	1.0	.0	.5	1.5	.0	1.0
9	9.0	5.0	7.0	4.0	1.5	2.5	2.0	1.0	1.0	3.0	.5	1.5
10	9.0	5.0	7.0	4.0	2.0	3.0	1.0	.0	.5	3.0	1.5	2.0
11	9.0	5.0	7.0	6.0	3.0	4.5	1.5	.0	.5	2.0	.0	1.0
12	8.5	4.5	6.5	5.5	3.0	4.0	2.0	.5	1.5	2.0	1.0	1.5
13	8.5	4.5	6.0	5.5	2.5	4.0	2.5	.5	1.5	3.0	1.0	1.5
14	8.5	5.0	6.5	5.5	3.0	4.0	1.0	.0	.5	3.0	1.5	2.0
15	8.5	5.0	6.5	6.5	4.0	5.0	2.0	.0	1.0	2.5	2.0	2.5
16	6.5	3.5	5.0	5.0	3.0	4.0	2.5	.5	1.5	2.0	.0	1.5
17	6.0	2.5	4.0	3.5	1.5	2.5	3.0	1.0	2.0	2.5	1.5	2.0
18	6.5	3.0	4.5	3.0	.5	1.5	3.5	1.5	2.5	3.0	1.5	2.5
19	7.0	3.5	5.0	3.0	1.5	2.5	3.5	1.0	2.0	4.0	1.5	2.5
20	7.0	3.5	5.0	4.0	2.0	2.5	3.0	1.5	2.0	4.0	2.5	3.0
21	7.0	3.5	5.0	2.5	.5	1.5	2.5	.5	1.5	2.5	1.0	1.5
22	6.5	3.5	5.0	1.5	.0	.5	2.0	.5	1.0	2.5	1.0	1.5
23	7.0	4.0	5.5	2.0	.0	1.0	1.5	.0	1.0	2.0	1.5	2.0
24	6.5	3.0	5.0	2.0	.0	1.0	1.5	.0	1.0	1.5	1.0	1.5
25	6.5	3.0	4.5	3.5	1.0	2.0	1.5	.0	1.0	2.5	.5	1.5
26	6.5	3.0	5.0	3.5	1.5	2.0	1.5	.0	1.0	2.0	.5	1.5
27	7.5	4.5	6.0	3.0	1.0	2.0	2.0	.0	1.0	2.0	.0	1.0
28	7.0	4.0	6.0	3.5	1.0	2.0	1.5	.0	1.0	.5	.0	.5
29	5.0	2.5	3.5	5.0	2.5	3.5	1.5	.0	.5	1.5	.0	.5
30	6.0	3.0	4.5	4.5	2.0	3.5	1.5	.0	.5	1.5	.5	1.0
31	6.5	3.5	5.0	---	---	---	2.0	.0	1.0	2.5	.5	1.5
MONTH	10.0	2.5	5.9	6.5	.0	3.1	3.5	.0	1.2	4.0	.0	1.4

10336779 COLD CREEK AT MOUTH, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	1.5	2.5	3.5	.0	1.5	8.0	2.0	4.5	11.5	5.0	8.0
2	3.5	1.5	2.0	3.0	1.0	2.0	9.0	2.5	5.0	12.0	4.5	8.0
3	3.0	1.5	2.0	5.0	1.5	3.0	9.0	2.5	5.5	11.5	5.0	8.0
4	4.0	2.0	2.5	5.5	1.0	3.0	9.0	3.0	5.5	12.0	5.5	8.0
5	4.0	1.5	2.5	4.0	2.0	2.5	8.5	2.5	5.0	11.0	6.0	8.0
6	3.5	1.0	2.0	3.5	1.5	2.0	8.5	2.5	5.0	9.0	4.0	6.5
7	4.0	1.0	2.5	3.0	.5	1.5	8.5	2.0	5.0	7.5	5.0	6.5
8	5.0	2.0	3.0	3.5	.5	2.0	8.5	2.5	5.0	11.0	5.5	7.5
9	4.5	2.5	3.0	3.0	.5	1.5	7.5	2.0	4.5	9.0	4.5	6.5
10	4.0	2.0	3.0	4.5	.0	2.0	9.0	2.5	5.0	7.5	2.0	5.0
11	3.0	1.5	2.0	6.0	2.5	3.5	9.0	3.0	5.5	7.0	.5	3.0
12	2.5	1.5	2.0	6.0	1.0	3.0	8.5	3.5	6.0	7.5	1.5	4.5
13	2.5	.0	1.5	6.5	1.5	3.5	7.0	3.5	5.0	8.0	4.0	6.0
14	2.0	1.0	1.5	6.5	2.0	4.0	5.5	2.5	4.0	9.5	4.0	6.5
15	3.0	.5	1.5	6.5	1.5	3.5	7.0	2.5	4.5	9.5	4.5	7.0
16	2.5	1.5	2.0	6.5	2.0	3.5	6.0	3.0	4.0	6.0	3.5	4.5
17	3.5	1.5	2.0	6.0	1.0	3.0	5.0	3.0	4.0	11.0	4.0	7.0
18	3.5	.5	1.5	7.0	1.5	4.0	4.5	2.0	3.5	12.5	5.0	8.5
19	4.0	.5	2.0	7.0	2.5	4.5	7.5	2.5	5.0	13.5	6.5	9.5
20	4.0	2.5	3.0	4.5	.5	2.0	8.5	3.0	5.5	14.0	6.5	10.0
21	4.0	1.5	2.5	5.5	.0	2.0	9.5	3.5	6.0	14.5	7.0	10.5
22	3.5	1.5	2.5	6.5	1.0	3.5	8.5	3.0	5.5	14.0	7.5	10.5
23	2.5	.0	1.5	6.5	2.5	4.0	8.5	2.5	5.0	14.0	8.5	11.5
24	1.5	.0	.5	7.5	2.0	4.0	8.5	2.0	5.0	14.0	9.5	11.5
25	4.0	.5	2.0	7.0	2.0	4.5	10.5	3.5	6.5	12.0	7.5	10.0
26	4.0	1.5	2.5	7.5	2.0	4.5	11.0	3.5	7.0	12.5	6.5	9.5
27	2.5	.0	1.0	8.0	3.0	4.5	11.0	4.5	7.5	12.5	6.5	9.5
28	3.0	.5	1.5	7.0	1.5	4.0	10.0	4.5	6.5	13.0	6.5	9.5
29	3.0	1.0	1.5	7.0	1.5	4.0	9.5	2.5	5.5	12.0	7.0	9.5
30	---	---	---	6.5	1.5	3.5	11.0	3.5	7.0	11.5	5.5	8.5
31	---	---	---	7.0	1.5	3.5	---	---	---	10.5	4.5	7.5
MONTH	5.0	.0	2.1	8.0	.0	3.1	11.0	2.0	5.3	14.5	.5	8.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	5.0	8.5	14.0	8.0	11.0	17.0	12.0	13.5	9.0	7.5	8.5
2	12.0	5.0	9.0	14.0	8.0	11.0	16.5	11.0	13.0	9.5	6.0	7.5
3	12.0	6.0	9.5	12.0	7.5	10.0	15.0	11.0	12.5	11.0	5.5	7.5
4	13.5	7.5	10.5	12.5	6.5	9.5	15.5	10.5	12.5	10.5	5.0	7.0
5	13.0	8.5	10.5	12.5	7.0	9.5	16.0	10.5	13.0	10.0	4.0	6.5
6	12.5	6.5	9.5	11.5	6.5	9.0	16.5	10.5	13.0	10.0	4.5	7.0
7	12.5	7.0	10.0	13.5	8.0	10.5	15.5	10.5	12.5	11.0	5.0	7.5
8	10.0	7.0	8.0	13.5	7.0	10.0	16.0	10.0	12.5	10.0	5.0	7.5
9	11.0	5.5	8.0	14.0	8.0	11.0	15.5	10.0	12.0	11.0	5.5	8.0
10	11.0	5.5	8.5	14.5	9.0	11.5	15.0	9.0	11.5	12.0	6.0	8.5
11	11.5	5.5	8.5	15.0	9.5	12.0	14.0	7.5	10.5	12.0	6.0	8.5
12	13.5	8.0	10.5	15.5	9.0	12.0	14.5	8.0	11.0	12.5	7.0	9.0
13	14.5	8.5	11.5	15.0	8.5	11.5	14.5	8.0	10.5	12.5	8.0	10.0
14	15.0	9.0	12.0	15.5	9.0	12.0	14.5	7.5	10.5	13.5	8.0	10.0
15	15.5	9.5	12.5	15.0	9.0	12.0	15.0	7.5	10.5	13.0	7.5	10.0
16	14.0	10.0	12.0	14.5	10.0	11.5	14.5	7.5	10.5	12.5	6.5	9.0
17	13.5	8.0	11.0	14.5	8.5	11.5	14.5	7.5	10.5	12.0	6.0	8.5
18	14.0	8.5	11.5	14.5	8.5	11.0	14.5	7.5	10.5	12.5	7.0	9.5
19	14.0	8.5	11.5	14.5	8.0	11.0	13.5	7.0	9.5	13.0	7.0	9.5
20	14.0	9.0	11.5	15.0	8.0	11.5	13.5	6.5	9.5	13.5	8.0	10.5
21	14.5	8.5	11.5	15.0	8.5	11.5	14.0	7.0	10.0	13.0	8.5	10.0
22	14.5	8.5	11.5	15.5	8.5	11.5	14.5	8.0	11.0	11.0	7.0	8.5
23	14.5	8.5	11.5	15.5	8.5	11.5	14.5	8.0	11.0	10.0	5.5	7.5
24	15.0	10.0	12.5	14.5	8.5	11.5	14.5	8.0	11.0	9.0	4.0	6.0
25	14.0	9.5	11.5	15.0	8.5	11.5	15.0	9.0	11.5	9.5	4.0	6.5
26	15.0	9.5	12.0	15.5	9.5	12.0	16.0	10.0	12.0	---	---	---
27	14.0	9.5	12.0	15.0	8.5	11.5	15.5	9.0	11.5	---	---	---
28	14.0	10.0	12.0	15.5	8.5	12.0	15.0	9.0	11.5	---	---	---
29	14.5	10.0	12.0	15.5	9.5	12.0	11.5	10.0	10.5	---	---	---
30	15.0	10.0	12.0	16.0	10.5	13.0	11.0	9.5	10.5	---	---	---
31	---	---	---	17.0	11.0	13.5	13.5	8.0	10.5	---	---	---
MONTH	15.5	5.0	10.8	17.0	6.5	11.3	17.0	6.5	11.3	---	---	---

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1960 to current year.
SPECIFIC CONDUCTANCE: March 1981 to September 1983.
WATER TEMPERATURE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1985, October 1987 to September 1988.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1985, October 1987 to September 1988.

GAGE.—Water-stage recorder. Datum of gage is 6,241.57 ft above sea level.

REMARKS.—Records good. Minor diversions for local water supply upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 535 ft^3/s, Feb. 1, 1963, gage height, 11.14 ft, from rating curve extended above 250 ft^3/s on basis of computation of peak flow (weir formula), and Jan. 2, 1997, gage height, 9.33 ft; minimum daily, 2.5 ft^3/s, Sept. 7, 1988.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	0515	105	6.66				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	e22	21	e21	24	29	33	48	64	30	20	17
2	23	e21	20	20	24	27	36	50	62	29	20	21
3	22	e20	21	21	23	27	39	51	60	29	23	19
4	22	e19	e22	19	23	28	44	52	59	29	25	17
5	22	e18	22	e20	23	28	46	52	59	28	21	16
6	22	e18	21	e22	23	26	45	49	57	28	20	16
7	23	e18	20	21	23	26	44	58	56	27	20	15
8	22	e20	e20	e22	23	26	45	76	57	27	19	15
9	22	e19	21	20	24	25	42	61	54	26	19	16
10	22	e19	22	20	24	27	41	55	51	24	18	15
11	22	e19	e22	20	23	27	43	52	49	25	16	15
12	22	e19	e21	20	23	28	45	49	47	24	17	15
13	22	e19	20	20	33	28	59	47	46	23	17	15
14	e22	e19	e21	20	80	30	50	44	44	22	17	15
15	e22	e20	e21	24	47	31	44	44	44	22	16	15
16	e21	e21	21	23	39	31	41	44	43	22	16	15
17	e21	e23	20	23	35	32	41	43	42	22	16	14
18	e21	21	20	31	32	32	38	43	41	21	16	15
19	e22	25	21	31	31	36	37	46	40	22	16	15
20	e22	26	20	29	31	34	38	50	38	22	16	15
21	e22	22	20	26	30	33	39	55	37	21	17	14
22	e22	22	20	24	29	32	40	60	36	21	16	14
23	e22	23	24	24	29	33	40	64	35	21	16	15
24	e23	24	22	47	29	33	39	77	34	21	15	14
25	e22	21	23	44	28	35	41	77	33	20	14	14
26	e22	e21	24	32	27	37	44	74	33	20	15	14
27	e22	21	24	28	29	38	48	73	32	20	15	14
28	e40	21	23	29	29	37	47	74	32	18	15	14
29	e35	e21	25	35	28	35	44	73	31	20	16	14
30	e25	e21	e22	25	---	35	44	70	30	20	18	14
31	e24	---	22	25	---	33	---	67	---	20	17	---
TOTAL	719	623	666	786	866	959	1277	1778	1346	724	542	457
MEAN	23.2	20.8	21.5	25.4	29.9	30.9	42.6	57.4	44.9	23.4	17.5	15.2
MAX	40	26	25	47	80	38	59	77	64	30	25	21
MIN	21	18	20	19	23	25	33	43	30	18	14	14
AC-FT	1430	1240	1320	1560	1720	1900	2530	3530	2670	1440	1080	906

e Estimated.

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.5	19.8	21.4	24.9	25.5	30.5	44.1	79.7	94.7	50.9	24.7	17.7
MAX	37.6	61.1	64.0	115	68.7	85.0	81.9	184	286	188	88.7	49.6
(WY)	1983	1984	1984	1997	1986	1986	1982	1969	1983	1995	1983	1983
MIN	5.19	7.43	8.18	8.00	8.02	11.0	15.7	14.2	10.9	5.21	3.43	3.71
(WY)	1989	1978	1991	1991	1991	1977	1988	1988	1988	1988	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	19570		10743			
ANNUAL MEAN	53.6		29.4		37.6	
HIGHEST ANNUAL MEAN					85.3	1983
LOWEST ANNUAL MEAN					10.2	1977
HIGHEST DAILY MEAN	240	May 28	80	Feb 14	501	Jan 2 1997
LOWEST DAILY MEAN	18	Nov 5	14	Aug 25	2.5	Sep 7 1988
ANNUAL SEVEN-DAY MINIMUM	19	Nov 4	14	Sep 24	3.0	Sep 9 1977
INSTANTANEOUS PEAK FLOW			105	Feb 14	535	Feb 1 1963
INSTANTANEOUS PEAK STAGE			6.66	Feb 14	11.14	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	38820		21310		27270	
10 PERCENT EXCEEDS	135		49		85	
50 PERCENT EXCEEDS	32		23		23	
90 PERCENT EXCEEDS	21		16		9.0	

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1974, 1978, 1980–85, 1988, 1997 to current year.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: March 1981 to September 1983.
WATER TEMPERATURE: September 1997 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1977 to June 1978, March 1980 to September 1985, October 1987 to September 1988.

INSTRUMENTATION.—Water temperature recorder since September 1997 to current year, two times per hour.

REMARKS.—In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Water temperature records represent water temperature probe within 0.58°C. Interruptions in record due to loss of hydrologic communication with stream channel and/or instrument malfunction. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 160 microsiemens, Aug. 24, 1981; minimum recorded 14 microsiemens, May 28, 1982.
WATER TEMPERATURE: Maximum, 20.58°C, July 25, 1988; minimum, freezing point on many days during winter months in most years.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 20.08°C, July 31; minimum, freezing point, many days November to March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.5	6.5	8.0	6.0	2.5	4.0	1.5	.0	.5	1.5	.0	.5
2	10.5	6.0	7.5	4.5	1.0	2.5	1.5	.0	1.0	1.0	.0	.0
3	9.0	4.5	6.5	5.5	1.5	3.0	2.0	.0	1.0	1.0	.0	.0
4	8.0	3.0	5.0	5.0	1.5	3.0	.0	.0	.0	1.0	.0	.0
5	8.5	3.0	5.0	4.0	1.5	2.5	.0	.0	.0	1.5	.0	.5
6	8.0	3.0	5.5	2.0	1.0	1.5	.0	.0	.0	1.0	.0	.5
7	9.0	3.5	5.5	2.5	.5	1.5	.0	.0	.0	2.0	.5	.5
8	9.0	4.0	6.0	2.5	.5	1.5	.0	.0	.0	2.0	.0	.5
9	7.5	2.5	5.0	3.0	.0	1.0	.5	.0	.0	1.5	.0	.5
10	6.5	2.0	4.0	2.5	.0	1.0	1.0	.0	.0	1.5	.0	.5
11	7.5	2.0	4.5	4.5	.5	1.5	1.5	.0	.5	2.0	.0	.5
12	6.5	2.5	4.5	2.5	.0	.5	1.5	.5	.5	2.0	.0	1.0
13	8.5	3.5	5.5	3.0	.0	1.5	2.0	.5	1.0	3.0	.5	1.0
14	7.5	3.0	5.0	4.5	1.0	2.0	1.0	.0	.5	3.0	.5	1.5
15	7.0	3.0	4.5	4.0	.5	2.0	2.0	.0	.5	3.5	1.0	2.5
16	6.0	2.0	3.5	4.0	1.0	2.0	2.5	.5	1.0	2.0	1.0	1.5
17	5.5	.5	2.5	3.0	.5	2.0	2.5	.5	1.0	3.5	1.5	2.0
18	5.5	1.0	3.0	2.0	.0	.5	2.0	.0	.5	2.0	.0	1.0
19	6.5	1.5	3.0	2.0	.0	.5	1.0	.0	.5	.5	.0	.0
20	6.5	2.0	4.0	1.5	.0	.5	.0	.0	.0	.5	.0	.0
21	6.5	2.0	4.0	4.5	1.0	2.5	.0	.0	.0	1.0	.0	.0
22	6.5	3.0	4.5	3.0	1.0	2.0	.0	.0	.0	2.0	.0	.5
23	7.0	2.0	4.0	3.5	1.5	2.5	.0	.0	.0	1.0	.0	.0
24	5.0	3.5	4.5	3.0	.5	1.5	.0	.0	.0	.0	.0	.0
25	3.5	2.0	3.0	4.0	.5	1.5	.0	.0	.0	.5	.0	.0
26	6.5	3.0	4.5	3.5	.0	1.5	.0	.0	.0	1.0	.0	.5
27	6.5	3.0	4.5	3.5	1.5	2.0	1.0	.0	.5	1.0	.0	.0
28	6.5	4.0	5.0	2.5	1.5	2.0	1.5	.5	.5	.0	.0	.0
29	6.0	2.5	4.0	1.5	.0	1.0	1.5	.0	.5	1.0	.0	.0
30	5.0	1.5	2.5	3.0	.0	1.5	1.5	.0	.5	1.0	.0	.0
31	4.5	.5	2.5	---	---	---	2.0	.5	1.0	1.0	.0	.5
MONTH	10.5	.5	4.5	6.0	.0	1.8	2.5	.0	.4	3.5	.0	.5

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	.5	1.5	3.0	.0	.5	8.5	1.5	4.5	11.5	4.5	7.5
2	3.5	1.0	1.5	1.5	.0	1.0	9.5	2.0	5.0	11.5	4.5	7.5
3	3.5	1.0	1.5	6.0	.5	2.5	9.5	2.0	5.5	11.0	4.5	7.5
4	4.0	1.0	2.0	6.0	.0	2.5	9.5	2.5	5.5	11.5	5.0	7.5
5	4.5	.5	2.0	3.0	1.0	2.0	9.0	2.0	5.0	10.5	5.5	7.5
6	4.0	.0	1.5	3.5	.5	1.5	9.0	2.0	5.0	8.0	4.0	6.0
7	4.0	.0	1.5	2.0	.0	1.0	9.0	2.0	5.0	6.5	4.5	5.5
8	5.0	1.5	2.5	3.5	.0	1.5	8.5	2.5	5.0	9.5	5.0	7.0
9	4.0	1.5	2.5	2.5	.0	.5	8.0	2.0	4.5	9.0	4.0	6.0
10	3.5	1.5	2.5	4.0	.0	1.5	9.0	2.0	5.0	6.5	1.5	4.5
11	2.5	.5	1.5	6.5	1.5	3.0	8.5	3.0	5.5	6.5	.0	3.0
12	2.0	.5	1.0	6.5	.5	3.0	8.0	3.5	5.5	7.0	1.5	4.0
13	1.5	.0	.5	6.5	.5	3.0	6.5	3.5	5.0	7.0	4.0	5.5
14	1.0	.0	.5	6.5	1.5	3.5	5.0	2.5	4.0	8.5	4.0	6.0
15	2.0	.0	1.0	7.0	1.0	3.0	7.0	2.0	4.0	8.5	4.5	6.5
16	2.0	1.0	1.5	6.5	1.5	3.0	5.5	2.5	4.0	6.0	4.0	4.5
17	3.5	.5	1.5	6.5	.5	3.0	4.5	3.0	4.0	9.5	4.0	6.0
18	3.5	.0	1.0	7.5	.5	3.5	4.5	2.0	3.0	10.5	5.0	7.5
19	2.5	.0	1.0	7.0	2.0	4.0	8.0	2.5	4.5	11.5	6.0	8.5
20	3.5	1.5	2.5	5.5	.0	2.0	8.0	3.0	5.5	12.0	6.5	9.0
21	4.0	1.0	2.0	4.5	.0	1.5	9.0	3.0	5.5	12.5	6.5	9.5
22	2.5	.5	1.5	7.0	.0	3.0	8.5	3.5	5.5	12.5	6.5	9.5
23	2.5	.0	.5	6.5	2.0	3.5	9.5	2.5	5.5	12.5	7.5	10.0
24	1.0	.0	.0	8.0	1.0	4.0	9.0	2.0	5.0	12.5	8.5	10.5
25	3.5	.0	1.0	6.5	1.5	4.0	10.5	3.0	6.5	11.5	7.0	9.5
26	3.0	.5	1.5	8.0	1.5	4.0	11.0	3.5	7.0	12.0	6.5	9.0
27	2.0	.0	.5	8.0	2.5	4.5	11.0	4.5	7.5	12.5	6.5	9.5
28	2.5	.0	.5	7.5	1.0	3.5	10.0	4.5	6.5	12.5	6.5	9.5
29	2.5	.0	.5	7.5	1.0	4.0	9.5	2.5	5.5	---	---	---
30	---	---	---	7.5	1.5	3.5	11.0	3.0	6.5	---	---	---
31	---	---	---	7.5	1.0	3.5	---	---	---	---	---	---
MONTH	5.0	.0	1.3	8.0	.0	2.7	11.0	1.5	5.2	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	16.5	8.0	12.0	20.0	13.0	15.5	11.0	8.0	9.5
2	---	---	---	16.5	8.5	12.0	18.5	12.0	15.0	10.5	7.0	8.0
3	---	---	---	14.0	8.0	11.0	17.0	12.0	14.0	14.0	5.5	8.5
4	---	---	---	15.0	6.5	10.5	18.0	10.5	14.0	13.5	5.0	8.5
5	---	---	---	14.5	7.0	10.5	19.5	11.0	15.0	12.5	4.0	7.5
6	---	---	---	14.0	7.0	10.5	20.0	11.5	15.5	13.0	4.5	8.0
7	---	---	---	16.0	8.0	12.0	19.0	11.5	15.0	14.0	4.5	8.5
8	---	---	---	16.0	7.5	11.5	19.5	11.0	14.5	11.5	5.0	8.0
9	---	---	---	16.5	8.0	12.0	19.5	11.0	14.5	14.0	5.0	9.0
10	---	---	---	17.5	9.5	13.0	19.5	10.0	13.5	15.0	5.5	9.5
11	---	---	---	17.5	10.0	13.5	19.0	8.5	13.0	15.0	6.0	9.5
12	---	---	---	18.0	9.5	13.5	18.5	8.5	13.0	14.0	7.0	10.0
13	---	---	---	17.5	9.0	13.0	19.0	8.5	13.0	15.0	8.5	11.0
14	---	---	---	18.5	9.5	13.5	18.5	8.0	12.5	17.0	8.0	12.0
15	---	---	---	18.5	9.5	13.5	18.5	8.5	12.5	17.0	8.5	12.0
16	---	---	---	17.0	10.5	13.0	19.0	8.5	13.0	16.0	7.0	11.0
17	---	---	---	18.0	9.0	13.0	18.5	8.5	12.5	15.5	6.5	10.5
18	---	---	---	18.0	9.0	13.0	18.0	8.5	12.5	16.0	7.5	11.0
19	---	---	---	17.5	9.0	13.0	17.0	7.5	11.5	16.5	7.5	11.0
20	---	---	---	18.0	9.0	13.0	17.0	7.0	11.5	17.0	8.5	12.0
21	---	---	---	18.0	9.0	13.5	17.5	8.0	12.0	16.5	9.0	11.5
22	---	---	---	18.0	9.0	13.5	18.5	8.5	12.5	14.5	8.5	10.0
23	---	---	---	18.5	9.0	13.5	18.5	9.0	13.0	13.5	6.5	9.0
24	---	---	---	17.5	9.0	13.5	18.5	8.5	12.5	12.5	4.5	8.0
25	---	---	---	18.5	9.0	13.5	19.5	9.5	13.5	13.5	5.0	8.0
26	---	---	---	19.0	10.5	14.0	20.0	11.0	14.5	13.5	5.0	8.5
27	---	---	---	18.5	9.5	14.0	19.5	9.5	13.5	12.5	5.0	8.0
28	15.5	10.0	12.5	19.0	9.5	14.0	18.0	10.0	13.0	12.5	5.5	8.5
29	15.5	10.0	12.5	18.5	10.0	14.0	13.0	10.5	12.0	13.5	6.0	9.0
30	17.5	10.0	13.5	19.5	11.0	14.5	12.0	10.5	11.5	13.5	5.5	9.0
31	---	---	---	20.0	11.5	15.5	16.5	8.5	11.5	---	---	---
MONTH	---	---	---	20.0	6.5	12.9	20.0	7.0	13.3	17.0	4.0	9.5

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°55'56", long 119°58'40", in SE 1/4 NW 1/4 sec.3, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank, downstream side of U.S. Highway 50 bridge, 1.2 mi upstream from Lake Tahoe, and 1.4 mi southwest of South Lake Tahoe Post Office.

DRAINAGE AREA.—40.4 mi^2.

PERIOD OF RECORD.—Water years 1972–74, 1989 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Instantaneous, October 1971 to June 1974, October 1988 to September 1992. Continuous, September 1997 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1988 to September 1992.

INSTRUMENTATION.—Water temperature recorder since September 1997, two times per hour.

REMARKS. In October 1992, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor tributary contributions of nutrients and sediment to Lake Tahoe. Samples were analyzed by the University of California, Davis, Tahoe Research Group. Water temperature records represent water temperature within 0.5°C. Water temperature data for September 1997 were not published but are available from the U.S. Geological Survey in Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 22.0°C, July 8, 1990; minimum, freezing point on many days during winter months in most years.
SEDIMENT CONCENTRATION: Maximum daily mean, 300 mg/L, Jan. 15, 1974; minimum daily mean, 0 mg/L, at times in most years.
SEDIMENT LOAD: Maximum daily, 52 tons, Jan. 15, 1974; minimum daily, 0 ton, at times in most years.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 21.0°C, July 31; minimum, freezing point, many days November to March and May 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
06...	1100	22	51	--	9.0	6.5	--	--	--
28...	1120	e40	53	--	9.0	6.0	--	--	--
NOV									
04...	1140	e20	53	--	14.0	4.5	--	--	--
DEC									
08...	1255	e22	52	7.6	2.5	.0	612	97	11.4
JAN									
07...	1045	22	56	--	4.0	.0	--	--	--
24...	1340	50	46	--	2.0	1.0	--	--	--
25...	1205	42	55	--	2.5	1.5	--	--	--
FEB									
03...	1155	24	58	--	1.0	2.0	--	--	--
14...	1015	84	43	--	.5	1.0	--	--	--
MAR									
10...	1120	26	60	--	5.0	1.0	608	96	10.9
27...	1125	38	54	--	10.5	5.2	--	--	--
APR									
03...	1115	38	51	--	10.5	4.7	--	--	--
13...	1145	66	47	--	8.5	5.5	--	--	--
28...	1210	46	41	--	8.0	7.6	--	--	--
MAY									
05...	1125	52	35	--	12.0	7.8	--	--	--
08...	0950	82	36	--	9.5	5.7	--	--	--
09...	1250	60	35	--	10.0	5.5	--	--	--
16...	1415	44	39	7.5	5.5	4.5	608	99	10.2
23...	1155	62	32	--	21.5	10.0	--	--	--
30...	1440	70	29	--	18.0	11.2	--	--	--
JUN									
06...	1110	60	30	--	15.0	9.1	611	101	9.3
JUL									
05...	1330	30	40	--	16.5	12.8	--	--	--
AUG									
03...	1900	30	46	--	13.5	15.0	--	--	--
10...	1140	20	49	--	21.5	13.2	--	--	--
SEP									
08...	1055	18	49	7.6	19.0	7.8	609	100	9.5

e Estimated.

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	IRON, BIO. REACT-IVE TOTAL (UG/L AS FE) (46568)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT								
06...	.003	.14	.009	.009	.028	234	3	.18
28...	<.003	.20	.016	.015	.179	3700	78	e8.4
NOV								
04...	<.003	.04	.010	.006	.019	229	3	e.16
DEC								
08...	.004	.08	.018	.008	.024	547	11	e.65
JAN								
07...	.003	.05	.027	.009	.018	268	3	.18
24...	<.003	.28	.019	.019	.102	1710	54	7.3
25...	.004	.20	.021	.012	.061	1070	29	3.3
FEB								
03...	.003	.07	.022	.008	.023	452	7	.45
14...	<.003	.58	.017	.015	.166	3390	90	20
MAR								
10...	.004	.12	.016	.007	.036	767	17	1.2
27...	.004	.11	.017	.009	.028	577	6	.62
APR								
03...	<.003	.12	.019	.007	.022	507	8	.82
13...	<.003	.30	.013	.008	.085	1810	53	9.4
28...	<.003	.17	.015	.006	.029	548	12	1.5
MAY								
05...	<.003	.13	.014	.007	.025	536	12	1.7
08...	<.003	.28	.011	.009	.087	2070	64	14
09...	<.003	.16	.013	.007	.036	1030	28	4.5
16...	.003	.09	.014	.007	.023	391	8	.95
23...	<.003	e.15	.008	.007	.034	656	19	3.2
30...	<.003	.16	.006	.008	.034	651	19	3.6
JUN								
06...	.003	.07	.009	.006	.026	494	12	1.9
JUL								
05...	<.003	.09	.007	.009	.021	273	5	.41
AUG								
03...	.019	.31	.004	.016	.072	1070	33	2.7
10...	<.003	.07	.003	.010	.024	315	5	.27
SEP								
08...	.003	.04	.002	.007	.026	232	2	.10

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

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.0	5.5	8.5	7.5	2.5	4.5	3.0	.0	1.5	.0	.0	.0
2	11.5	5.0	8.0	7.0	2.0	4.5	2.0	.0	.5	.0	.0	.0
3	11.5	5.5	8.0	6.5	2.0	4.0	1.0	.0	.0	1.0	.0	.0
4	11.5	5.0	8.0	6.5	1.5	4.0	.5	.0	.0	1.0	.0	.0
5	11.5	6.0	8.0	7.0	2.5	4.5	2.0	.0	.5	.0	.0	.0
6	10.0	6.0	7.5	6.5	2.0	4.0	2.0	.0	1.0	.0	.0	.0
7	10.0	4.0	6.5	7.0	3.0	4.5	.5	.0	.0	.0	.0	.0
8	11.0	4.0	7.0	6.0	2.0	3.5	.5	.0	.0	.0	.0	.0
9	11.0	4.0	7.0	5.0	1.0	2.5	1.0	.0	.0	1.5	.0	.5
10	11.0	4.5	7.5	3.5	1.0	2.5	1.0	.0	.0	2.0	.0	1.0
11	11.0	4.5	7.5	6.5	2.5	4.0	.0	.0	.0	1.0	.0	.0
12	10.0	4.0	7.0	6.5	2.0	4.0	1.0	.0	.5	1.0	.0	.0
13	10.0	4.0	6.5	6.5	1.5	3.5	2.0	.0	.5	2.5	.0	.5
14	10.0	4.0	7.0	6.0	1.5	3.5	.0	.0	.0	3.0	.0	1.0
15	9.5	4.5	6.5	7.5	3.5	5.0	1.0	.0	.0	1.5	.5	1.0
16	8.5	3.0	5.0	6.0	2.0	4.0	2.0	.0	.5	1.0	.0	.5
17	7.5	1.5	4.0	4.5	1.0	2.5	2.5	.0	.5	1.5	.0	1.0
18	8.0	1.5	4.5	3.0	.0	1.5	2.5	.0	1.0	1.5	.5	1.0
19	8.0	2.0	5.0	2.5	.0	1.5	2.5	.0	1.0	3.0	.0	1.5
20	8.5	2.5	5.0	4.5	1.0	2.5	3.0	.0	1.0	3.5	1.5	2.0
21	8.0	2.5	5.0	3.0	.0	1.0	2.0	.0	.5	3.0	.0	1.0
22	7.5	2.5	5.0	1.0	.0	.5	1.5	.0	.0	2.5	.0	1.0
23	7.5	3.0	5.0	1.5	.0	.0	1.0	.0	.0	1.5	1.0	1.0
24	8.0	2.5	5.0	2.0	.0	.5	1.0	.0	.0	1.0	.0	.5
25	8.0	2.0	4.5	3.0	.0	1.0	1.0	.0	.0	1.5	.0	.5
26	7.5	2.5	4.5	3.0	.0	1.5	1.0	.0	.0	2.0	.0	.5
27	8.0	3.5	5.5	3.0	.0	1.0	1.0	.0	.0	2.0	.0	.5
28	8.5	4.5	6.5	3.0	.0	1.5	1.0	.0	.0	.5	.0	.0
29	6.5	2.0	4.0	5.0	1.0	3.0	.0	.0	.0	.5	.0	.0
30	7.0	2.0	4.0	4.5	1.5	3.0	.0	.0	.0	.5	.0	.0
31	7.5	2.5	4.5	---	---	---	.0	.0	.0	1.5	.0	.5
MONTH	12.0	1.5	6.0	7.5	.0	2.8	3.0	.0	.3	3.5	.0	.5
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	.0	1.5	3.5	.0	1.0	9.0	1.0	4.5	12.0	5.0	8.0
2	3.5	1.0	2.0	1.5	.0	.5	10.0	2.0	5.5	12.0	5.0	8.0
3	3.5	1.0	1.5	6.0	.5	2.5	10.0	2.5	6.0	12.0	5.0	8.0
4	4.0	1.0	2.0	6.0	.0	2.5	10.0	3.0	6.0	12.0	5.5	8.0
5	4.5	.5	2.0	3.0	1.0	2.0	9.0	2.5	5.5	10.5	6.0	8.0
6	4.0	.0	1.5	3.5	.5	1.5	9.0	2.5	5.5	8.5	4.0	6.0
7	4.0	.0	1.5	2.0	.0	1.0	9.5	2.0	5.5	7.0	4.5	6.0
8	5.5	1.0	2.5	3.5	.0	1.5	9.0	2.5	5.5	10.0	5.0	7.0
9	4.0	1.5	2.5	2.5	.0	1.0	8.5	2.0	5.0	9.5	4.0	6.5
10	4.0	1.5	2.5	4.5	.0	1.5	9.5	2.0	5.5	7.0	2.0	5.0
11	2.5	.5	1.5	6.5	1.5	3.5	9.5	2.5	6.0	7.0	.0	3.0
12	2.5	.5	1.0	7.0	.5	3.0	9.0	4.0	6.0	7.5	1.5	4.5
13	1.5	.0	.5	7.0	.5	3.5	6.5	4.0	5.0	8.0	4.0	5.5
14	1.0	.0	.5	7.0	1.5	4.0	6.0	2.5	4.0	9.5	3.5	6.5
15	2.0	.0	1.0	7.5	1.0	3.5	7.5	2.5	4.5	10.0	4.5	7.0
16	2.0	1.0	1.5	7.0	1.5	3.5	6.0	3.0	4.0	6.0	4.0	4.5
17	3.0	.5	1.5	7.0	.5	3.0	5.0	3.5	4.5	11.5	3.5	6.5
18	4.0	.0	1.5	8.0	.5	4.0	5.0	2.0	3.5	12.5	5.0	8.5
19	3.0	.0	1.5	7.0	2.5	4.0	8.5	2.5	5.0	13.5	6.5	9.5
20	3.5	1.5	2.5	5.5	.0	2.5	8.5	3.0	5.5	13.5	6.5	9.5
21	4.0	1.0	2.5	5.0	.0	2.0	10.0	3.5	6.0	14.0	6.5	10.0
22	2.5	.5	1.5	7.5	.0	3.0	9.0	3.5	5.5	13.5	7.0	10.0
23	2.5	.0	.5	7.0	2.0	4.0	10.0	2.5	6.0	13.5	8.0	10.5
24	1.5	.0	.5	8.5	1.0	4.0	10.0	2.0	5.5	13.5	9.0	11.0
25	4.0	.0	1.5	7.0	1.5	4.0	11.0	3.5	6.5	12.5	8.0	10.0
26	3.5	.5	2.0	8.5	1.5	4.5	11.5	4.0	7.5	13.0	7.0	9.5
27	2.0	.0	.5	8.5	2.5	4.5	11.5	4.5	7.5	13.5	7.5	10.0
28	3.5	.0	1.0	7.5	1.0	4.0	10.5	4.5	7.0	13.5	7.5	10.5
29	2.5	.0	.5	8.0	1.0	4.0	10.0	2.5	6.0	13.0	8.0	10.5
30	---	---	---	8.0	1.0	4.0	11.5	3.5	7.0	12.0	7.0	9.5
31	---	---	---	8.0	1.0	4.0	---	---	---	11.0	6.5	9.0
MONTH	5.5	.0	1.5	8.5	.0	3.0	11.5	1.0	5.6	14.0	.0	7.9

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	6.5	9.0	17.0	9.0	13.0	19.5	13.0	16.0	12.0	8.5	10.0
2	12.5	7.0	9.5	17.5	9.0	13.0	19.0	12.0	15.0	10.5	7.5	8.5
3	13.0	7.0	10.0	15.5	8.5	12.0	17.0	12.0	14.0	14.0	5.5	9.0
4	14.5	8.5	11.0	15.5	7.0	11.0	19.0	10.0	14.0	13.0	5.5	9.0
5	14.5	9.0	11.5	15.0	7.5	11.0	20.0	11.0	15.0	12.0	4.5	8.5
6	14.0	7.0	10.5	15.0	7.0	11.0	20.5	11.5	15.5	13.0	4.5	8.5
7	14.0	8.0	10.5	17.0	8.5	12.5	20.0	11.5	15.0	14.0	5.5	9.0
8	10.0	7.5	9.0	17.0	8.0	12.0	19.5	10.5	14.5	11.5	6.0	9.0
9	12.5	6.0	9.0	17.5	8.5	12.5	19.0	11.0	14.5	14.0	6.0	9.5
10	12.5	6.5	9.0	18.5	9.5	13.5	18.5	10.0	14.0	14.5	6.5	10.5
11	12.5	6.5	9.5	18.0	10.0	14.0	18.5	8.5	13.0	14.5	6.5	10.5
12	15.0	8.5	11.5	19.0	10.0	14.0	18.5	8.5	13.0	14.5	7.5	11.0
13	16.5	9.0	12.5	18.5	9.5	14.0	18.5	8.5	13.0	15.0	9.0	12.0
14	17.5	9.5	13.0	19.0	9.5	14.0	18.0	8.5	13.0	16.5	9.0	12.5
15	18.0	10.5	14.0	19.0	10.0	14.0	18.5	8.5	13.0	16.5	9.0	12.5
16	17.0	10.5	13.5	17.0	10.5	13.5	18.5	8.5	13.0	15.5	8.0	11.5
17	17.0	9.5	12.5	18.5	9.5	13.5	18.0	8.5	13.0	15.0	7.5	11.0
18	17.0	9.5	13.0	18.5	9.0	13.5	17.5	8.5	12.5	15.5	8.0	11.5
19	17.0	9.5	13.0	18.5	9.0	13.5	17.0	8.0	12.0	16.0	8.5	12.0
20	17.0	10.0	13.0	19.0	9.0	13.5	17.0	7.5	12.0	16.5	9.0	12.5
21	18.0	10.0	13.5	19.0	9.0	14.0	17.5	8.0	12.5	16.0	10.0	12.5
22	18.0	10.0	13.5	19.0	9.5	14.0	18.0	9.0	13.0	14.0	9.0	11.0
23	18.0	10.0	13.5	19.0	9.5	14.0	18.0	9.0	13.5	13.5	7.5	10.0
24	18.5	10.5	14.5	18.5	9.5	13.5	18.0	8.5	13.0	12.0	5.5	8.5
25	17.5	10.5	13.5	19.5	9.5	14.0	19.5	9.5	14.0	12.5	5.5	9.0
26	18.0	10.5	14.0	19.5	10.0	14.5	19.5	11.5	15.0	12.5	5.5	9.0
27	17.0	10.5	14.0	19.5	10.0	14.0	19.0	10.0	14.5	12.5	5.5	9.0
28	16.0	11.0	13.5	20.0	9.5	14.5	18.5	10.5	14.0	13.0	6.5	9.5
29	16.5	10.5	13.5	19.5	10.0	14.5	13.5	11.0	12.5	13.0	6.5	9.5
30	18.5	10.5	14.0	19.5	11.0	15.0	12.5	11.0	11.5	13.0	6.5	9.5
31	---	---	---	21.0	12.0	16.0	16.5	9.0	12.0	---	---	---
MONTH	18.5	6.0	12.1	21.0	7.0	13.5	20.5	7.5	13.6	16.5	4.5	10.2
YEAR	21.0	.0	6.4									

10336795 TROUT CREEK NEAR MOUTH EAST, NEAR BELLEVUE/ELDORADO AVENUE, CA

(Lake Tahoe Interagency Monitoring Program)

LOCATION.—Lat 38°56'12", long 119°59'23", in NE 1/4 NE 1/4 sec.04, T.12 N., R.18 E., El Dorado County, Hydrologic Unit 16050101, on right bank, east channel, about 0.4 mi upstream from Lake Tahoe, and about 0.8 mi downstream of U.S. Highway 50.

DRAINAGE AREA.—41 mi^2.

PERIOD OF RECORD.—September 1997 to current year.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: September 1997 to current year.

INSTRUMENTATION.—Water temperature recorder since September 1997, two times per hour.

REMARKS. In September 1997, station was incorporated into the expanded Lake Tahoe Interagency Monitoring Program to monitor water temperature within the Upper Truckee River—Trout Creek watershed. Records represent water temperature at probe within 0.5°C. Water temperature records for September 1997 were not published but are available from the U.S. Geological Survey, Carson City, NV. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum, 21.5°C, July 31, 2000; minimum, freezing point during winter months in most years.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum, 21.5°C, July 31; minimum, freezing point, many days November to March and May 11.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.5	6.0	9.0	8.0	2.5	5.0	3.5	.0	1.5	.5	.0	.0
2	12.0	5.5	8.5	8.0	2.5	4.5	2.5	.0	.5	.5	.0	.0
3	12.0	5.5	8.5	7.0	2.0	4.0	.5	.0	.0	.5	.0	.0
4	12.0	5.0	8.5	7.0	1.5	4.0	.5	.0	.0	.5	.0	.0
5	12.0	6.0	8.5	8.0	2.5	4.5	2.0	.0	.5	.5	.0	.0
6	10.0	6.0	8.0	7.5	2.0	4.5	2.5	.0	1.0	.5	.0	.0
7	10.5	4.0	7.0	7.0	3.0	5.0	1.0	.0	.0	.5	.0	.0
8	11.5	4.0	7.5	6.0	2.0	3.5	.5	.0	.0	.5	.0	.0
9	11.5	4.5	7.5	5.5	1.0	2.5	.5	.0	.0	.5	.0	.0
10	11.5	4.5	8.0	4.0	1.0	2.5	1.0	.0	.0	2.5	.0	1.0
11	11.5	4.5	7.5	6.5	2.5	4.0	.5	.0	.0	1.0	.0	.0
12	11.0	4.0	7.5	7.0	2.0	4.0	.5	.0	.5	.5	.0	.0
13	11.0	4.0	7.0	6.5	1.5	4.0	2.5	.0	.5	2.5	.0	.5
14	11.0	4.0	7.0	6.0	1.5	4.0	.5	.0	.0	3.0	.0	1.0
15	10.0	4.5	7.0	8.0	4.0	5.0	.5	.0	.0	1.5	1.0	1.0
16	9.0	3.0	5.5	6.5	2.0	4.0	2.0	.0	.5	1.0	.0	.5
17	8.0	1.5	4.5	5.0	1.0	3.0	3.0	.0	1.0	1.5	.0	1.0
18	8.5	2.0	5.0	3.5	.0	1.5	2.5	.0	1.0	2.0	.5	1.0
19	8.5	2.0	5.0	2.5	.0	1.5	3.0	.0	1.0	3.0	.0	1.5
20	9.0	2.5	5.5	4.5	1.0	2.5	3.0	.0	1.0	4.0	1.5	2.5
21	8.5	2.5	5.5	3.0	.0	1.5	2.5	.0	.5	3.0	.0	1.5
22	8.0	2.5	5.0	1.0	.0	.5	1.5	.0	.5	3.0	.0	1.0
23	8.0	3.5	5.5	1.5	.0	.5	.5	.0	.0	1.5	1.0	1.0
24	8.5	2.5	5.0	2.0	.0	.5	.5	.0	.0	1.0	.0	.5
25	8.5	2.5	5.0	3.5	.0	1.0	.5	.0	.0	2.0	.0	.5
26	8.0	2.5	5.0	3.5	.0	1.5	.5	.0	.0	2.5	.0	1.0
27	8.0	3.5	6.0	3.5	.0	1.5	.5	.0	.0	2.5	.0	.5
28	8.5	5.0	7.0	4.0	.0	1.5	.5	.0	.0	1.0	.0	.0
29	7.5	2.0	4.5	5.0	1.0	3.0	.5	.0	.0	.5	.0	.0
30	8.0	2.0	4.5	4.5	1.5	3.0	.5	.0	.0	.5	.0	.0
31	8.0	2.5	5.0	---	---	---	.5	.0	.0	1.5	.0	.5
MONTH	12.5	1.5	6.5	8.0	.0	2.9	3.5	.0	.3	4.0	.0	.5

10336795 TROUT CREEK NEAR MOUTH EAST, NEAR BELLEVUE/ELDORADO AVENUE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	.0	1.5	4.0	.0	1.0	9.5	1.5	5.0	12.5	5.5	8.5
2	3.5	1.0	2.0	1.5	.0	1.0	10.5	2.0	5.5	12.5	5.5	8.5
3	3.5	1.0	2.0	6.5	.5	3.0	10.5	2.5	6.0	12.0	5.5	8.5
4	4.5	1.0	2.5	6.5	.0	3.0	10.0	3.0	6.5	12.0	6.0	8.5
5	5.5	.5	2.5	3.0	1.0	2.0	9.5	2.5	6.0	11.5	6.0	8.5
6	4.5	.0	2.0	3.5	.5	2.0	9.5	2.5	6.0	9.5	4.5	6.5
7	4.5	.0	2.0	2.5	.0	1.0	10.0	2.5	6.0	7.5	5.0	6.0
8	6.0	1.0	3.0	4.0	.0	1.5	9.5	3.0	6.0	11.0	5.5	7.5
9	4.0	2.0	3.0	3.0	.0	1.0	9.0	2.5	5.5	9.5	4.5	6.5
10	4.0	1.5	3.0	5.5	.0	2.0	10.0	2.5	6.0	7.5	2.0	5.0
11	2.5	.5	1.5	7.0	1.5	3.5	10.0	3.0	6.0	7.5	.0	3.5
12	2.5	.5	1.5	7.5	.5	3.5	9.5	4.0	6.5	8.0	1.5	5.0
13	1.5	.0	1.0	8.0	.5	3.5	7.0	4.0	5.5	8.5	4.0	6.0
14	1.0	.0	.5	7.5	1.5	4.5	6.0	2.5	4.0	10.0	4.0	6.5
15	2.5	.0	1.0	8.0	1.0	4.0	8.0	2.5	4.5	10.5	5.0	7.5
16	2.5	1.0	1.5	7.5	1.5	4.0	6.0	3.0	4.5	6.5	4.0	5.0
17	4.0	1.0	2.0	7.5	.5	3.5	5.5	3.5	4.5	12.0	3.5	7.0
18	4.5	.0	1.5	8.5	1.0	4.0	5.0	2.0	3.5	13.0	5.5	9.0
19	4.0	.0	1.5	7.5	2.5	4.5	9.5	2.5	5.5	14.0	6.5	10.0
20	4.0	1.5	2.5	6.0	.5	2.5	9.5	3.0	6.0	14.0	7.0	10.0
21	5.5	1.0	3.0	5.5	.0	2.0	10.5	3.5	6.5	14.5	7.0	10.5
22	3.0	.5	2.0	8.0	.0	3.5	9.0	3.5	6.0	14.0	7.5	10.5
23	3.0	.0	1.0	7.5	2.0	4.5	10.5	3.0	6.0	14.0	8.5	11.0
24	1.5	.0	.5	8.5	1.0	4.5	10.0	2.0	6.0	14.0	9.5	11.5
25	4.5	.0	1.5	8.0	1.5	4.5	11.5	3.5	7.0	13.0	8.0	10.5
26	4.0	.5	2.0	9.0	1.5	5.0	12.0	4.0	8.0	13.0	7.0	10.0
27	2.5	.0	.5	9.0	2.5	5.0	12.0	5.0	8.0	13.5	7.5	10.5
28	4.0	.0	1.0	8.0	1.0	4.5	11.0	5.0	7.5	13.5	7.5	10.5
29	2.5	.0	1.0	8.5	1.5	4.5	10.5	3.0	6.5	13.5	8.0	10.5
30	---	---	---	8.5	1.0	4.5	12.0	3.5	7.5	12.5	6.5	9.5
31	---	---	---	8.5	1.0	4.0	---	---	---	12.0	5.5	8.5
MONTH	6.0	.0	1.7	9.0	.0	3.3	12.0	1.5	5.9	14.5	.0	8.3
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.5	6.0	9.0	17.5	9.0	13.5	20.5	13.5	16.5	12.5	9.0	10.5
2	13.0	6.5	9.5	17.5	9.5	13.5	19.5	12.5	15.5	12.0	7.5	9.0
3	14.0	7.0	10.5	16.0	9.0	12.5	17.5	12.5	14.5	14.5	6.0	9.5
4	15.0	8.5	11.5	16.5	7.5	11.5	19.5	10.5	14.5	14.0	6.0	9.5
5	15.0	9.0	11.5	16.0	8.0	11.5	21.0	11.5	16.0	12.5	5.0	9.0
6	14.5	7.5	11.0	16.0	7.5	11.5	21.0	12.0	16.5	14.0	5.0	9.0
7	14.5	8.5	11.0	17.5	9.0	13.0	21.0	12.0	16.0	14.5	5.5	10.0
8	10.5	8.0	9.5	17.5	8.5	13.0	20.5	11.0	15.5	12.5	5.5	9.5
9	13.0	6.0	9.0	18.0	9.0	13.5	20.0	11.0	15.5	14.5	6.0	10.0
10	13.0	6.5	9.5	19.5	10.0	14.5	19.0	10.5	14.5	15.5	6.5	11.0
11	13.0	6.5	9.5	18.5	10.5	14.5	19.0	8.5	14.0	15.5	6.5	11.0
12	15.5	8.5	11.5	20.0	10.5	15.0	19.5	9.0	14.0	15.0	7.5	11.5
13	17.0	9.0	12.5	19.5	10.0	14.5	19.0	9.0	14.0	15.5	9.5	12.5
14	17.5	9.5	13.5	20.0	10.0	14.5	19.0	8.5	13.5	17.5	9.0	13.0
15	18.5	10.5	14.0	20.0	10.0	15.0	19.0	8.5	13.5	17.5	9.5	13.5
16	17.5	11.0	14.0	17.5	11.0	14.0	19.5	9.0	14.0	16.0	8.0	12.0
17	17.5	9.5	13.0	19.5	10.0	14.5	19.0	9.0	14.0	15.5	7.5	11.5
18	17.5	10.0	13.5	19.5	9.5	14.0	18.5	9.0	13.5	16.5	8.0	12.0
19	17.5	9.5	13.5	19.5	9.5	14.0	17.5	8.0	12.5	16.5	8.0	12.5
20	17.5	10.0	13.5	19.5	9.5	14.5	17.5	7.5	12.5	17.0	9.0	13.0
21	18.0	10.0	14.0	20.0	9.5	14.5	18.0	8.5	13.0	16.5	10.0	13.0
22	18.0	10.0	14.0	19.5	10.0	14.5	19.0	9.0	14.0	14.5	9.0	11.5
23	18.0	9.5	14.0	20.0	10.0	14.5	19.0	9.5	14.0	13.5	7.0	10.5
24	18.5	11.0	14.5	19.0	9.5	14.5	19.0	9.0	14.0	12.5	5.0	9.0
25	18.0	10.5	14.0	20.0	9.5	14.5	20.0	10.0	15.0	13.0	5.5	9.5
26	18.5	10.5	14.5	20.5	10.5	15.0	20.5	12.0	16.0	13.0	5.5	9.5
27	18.5	10.5	14.5	20.0	10.0	15.0	20.0	10.5	15.0	12.5	5.5	9.5
28	17.0	11.0	14.0	21.0	10.0	15.0	19.5	11.0	15.0	13.0	6.0	9.5
29	17.0	10.5	14.0	20.0	10.5	15.0	14.5	11.5	13.0	13.0	6.5	10.0
30	19.0	10.5	14.5	20.5	11.5	16.0	13.0	11.0	12.0	13.0	6.0	10.0
31	---	---	---	21.5	12.0	16.5	17.0	9.0	12.5	---	---	---
MONTH	19.0	6.0	12.4	21.5	7.5	14.1	21.0	7.5	14.3	17.5	5.0	10.7
YEAR	21.5	.0	6.8									

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 mi^2, 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."
CHEMICAL DATA: Water year 1969, bimonthly; 1978, biannually; 1979, annually.

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

GAGE.—Water-stage recorder. Datum of gage is 6,220.00 ft above U.S. Bureau of Reclamation datum, 6,218.86 ft above sea level. Prior to Oct. 1, 1957, nonrecording gages at several sites near outlet of lake at same datum except for water years 1907 and 1908, which were at a datum 5.5 ft higher. 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 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 U.S. 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. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum elevation, 6,231.26 ft, July 14, 15, 17, 18, 1907; minimum, 6,220.26 ft, Nov. 30, 1992.

EXTREMES FOR CURRENT YEAR.—Maximum elevation, 6,229.06 ft, June 16; minimum, 6,226.97 ft, Jan. 14.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on topographic information available in April 1959)

6,223	0	6,227	486,800
6,224	121,400	6,228	609,300
6,225	243,000	6,229.1	744,600
6,226	364,800		

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.94	7.59	7.34	7.08	7.62	8.16	8.12	8.48	9.01	8.97	8.57	7.97
2	7.94	7.58	7.31	7.06	7.62	8.15	8.13	8.49	9.01	8.94	8.55	7.97
3	7.92	7.58	7.30	7.06	7.61	8.16	8.13	8.51	9.03	8.93	8.56	7.94
4	7.90	7.56	7.27	7.04	7.63	8.16	8.14	8.52	9.02	8.91	8.54	7.89
5	7.87	7.56	7.26	7.03	7.62	8.17	8.14	8.53	9.02	8.89	8.54	7.88
6	7.88	7.53	7.24	7.03	7.63	8.16	8.16	8.58	9.03	8.88	8.51	7.87
7	7.83	7.57	7.25	7.02	7.62	8.16	8.17	8.61	9.00	8.86	8.49	7.83
8	7.83	7.53	7.22	7.01	7.62	8.17	8.17	8.67	9.03	8.86	8.47	7.82
9	7.81	7.47	7.22	7.00	7.64	8.16	8.19	8.67	9.02	8.83	8.47	7.80
10	7.80	7.50	7.22	6.99	7.66	8.14	8.20	8.68	9.02	8.84	8.43	7.79
11	7.80	7.47	7.21	7.02	7.66	8.16	8.21	8.70	9.02	8.82	8.39	7.79
12	7.79	7.48	7.22	7.02	7.69	8.16	8.22	8.71	9.02	8.82	8.38	7.77
13	7.78	7.46	7.21	7.00	7.84	8.15	8.30	8.72	9.04	8.80	8.37	7.77
14	7.77	7.45	7.20	6.97	7.92	8.16	8.32	8.71	9.05	8.80	8.35	7.75
15	7.77	7.45	7.19	7.05	7.93	8.15	8.32	8.74	9.05	8.77	8.32	7.74
16	7.72	7.45	7.18	7.10	7.95	8.14	8.33	8.76	9.06	8.77	8.31	7.73
17	7.70	7.45	7.19	7.11	7.96	8.16	8.37	8.77	9.03	8.74	8.28	7.71
18	7.68	7.44	7.19	7.19	7.95	8.15	8.36	8.78	9.03	8.74	8.26	7.71
19	7.67	7.49	7.18	7.19	7.94	8.13	8.37	8.78	9.04	8.73	8.21	7.70
20	7.66	7.46	7.16	7.20	7.96	8.16	8.38	8.80	9.03	8.72	8.18	7.68
21	7.65	7.43	7.16	7.22	7.96	8.12	8.40	8.82	9.04	8.70	8.19	7.66
22	7.64	7.42	7.14	7.22	7.98	8.11	8.38	8.83	9.03	8.68	8.16	7.62
23	7.63	7.41	7.14	7.31	8.01	8.11	8.39	8.92	9.02	8.67	8.14	7.62
24	7.62	7.40	7.13	7.51	8.00	8.12	8.41	8.95	9.02	8.66	8.13	7.58
25	7.62	7.39	7.12	7.58	8.00	8.11	8.41	8.97	9.04	8.66	8.11	7.58
26	7.59	7.38	7.12	7.58	8.02	8.13	8.43	8.99	9.03	8.61	8.10	7.56
27	7.60	7.36	7.10	7.58	8.13	8.12	8.48	9.01	9.02	8.61	8.08	7.55
28	7.66	7.36	7.10	7.58	8.14	8.13	8.44	9.02	9.03	8.60	8.07	7.55
29	7.60	7.30	7.09	7.58	8.17	8.12	8.46	8.99	9.03	8.59	8.06	7.53
30	7.61	7.36	7.09	7.62	---	8.14	8.47	9.00	8.99	8.58	8.04	7.52
31	7.59	---	7.09	7.61	---	8.15	---	9.02	---	8.57	7.99	---
MEAN	7.74	7.46	7.19	7.21	7.84	8.14	8.30	8.77	9.03	8.76	8.30	7.73
MAX	7.94	7.59	7.34	7.62	8.17	8.17	8.48	9.02	9.06	8.97	8.57	7.97
MIN	7.59	7.30	7.09	6.97	7.61	8.11	8.12	8.48	8.99	8.57	7.99	7.52
a	558,800	530,600	497,600	561,300	630,000	627,500	667,000	734,600	730,900	679,300	608,000	550,400
b	-44,300	-28,200	-33,000	+63,700	+68,700	-2,500	+39,500	+67,600	-3,700	-51,600	-71,300	-57,600

CAL YR 1999 MEAN 8.04 MAX 8.93 MIN 7.09 b -56,400
WTR YR 2000 MEAN 8.04 MAX 9.06 MIN 6.97 b -52,700

a Usable contents, in acre-feet, at end of month.
b Change in contents, in acre-feet.
NOTE.—Add 6,220 feet to obtain elevation, U.S. 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 mi^2.

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."
CHEMICAL DATA: Water years 1978–81.
WATER TEMPERATURE: June 1993 to September 1994.

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

GAGE.—Water-stage recorder. Datum of gage is 6,216.59 ft above sea level. 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 good. Flow completely regulated by dam at outlet of Lake Tahoe (station 10337000), 510 ft upstream. There are several diversions for irrigation, power, and domestic water supply. In addition, sewer effluent is pumped from the Lake Tahoe Basin. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,690 ft^3/s, Jan. 2, 1997, gage height, 9.59 ft; no flow for parts of many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	151	150	110	56	175	72	71	337	188	316	300
2	110	151	150	110	56	196	78	72	236	223	315	301
3	108	153	149	163	56	196	79	72	204	241	315	302
4	106	155	149	245	56	196	79	72	204	241	314	300
5	104	155	150	267	56	196	77	72	205	251	314	255
6	104	155	150	267	55	228	77	72	205	257	315	194
7	103	153	143	267	55	252	74	72	205	266	314	192
8	121	152	96	267	55	253	72	74	205	282	313	192
9	127	152	96	267	56	266	70	73	203	281	312	192
10	125	152	97	265	55	292	68	73	148	281	311	192
11	125	152	97	263	55	293	68	72	83	280	311	192
12	125	152	97	264	54	292	68	72	71	280	311	193
13	125	152	97	264	58	293	72	72	70	280	310	193
14	125	153	98	261	65	294	70	72	69	280	307	193
15	125	153	97	262	56	293	69	72	69	279	306	194
16	122	153	98	216	54	293	70	72	98	279	307	193
17	121	153	98	183	54	293	71	73	185	278	323	193
18	120	153	99	157	53	292	76	73	194	278	322	193
19	135	154	99	126	53	292	72	73	193	278	308	193
20	151	154	98	94	53	289	69	73	141	278	307	193
21	151	153	98	59	53	287	69	72	74	278	305	207
22	151	153	97	59	53	245	69	72	70	277	305	247
23	152	153	98	59	53	143	69	72	69	277	305	246
24	151	153	98	60	53	101	68	90	91	276	302	246
25	152	153	98	63	53	107	68	173	130	301	303	246
26	152	154	98	55	54	108	67	253	142	316	303	246
27	153	154	97	53	55	91	68	366	142	316	302	246
28	154	154	98	57	53	73	69	465	141	314	302	246
29	151	154	98	57	98	73	69	499	170	315	301	247
30	150	151	107	57	---	72	68	444	188	315	302	247
31	151	---	110	57	---	69	---	408	---	315	301	---
TOTAL	4067	4590	3405	4954	1636	6543	2135	4361	4542	8601	9582	6774
MEAN	131	153	110	160	56.4	211	71.2	141	151	277	309	226
MAX	154	155	150	267	98	294	79	499	337	316	323	302
MIN	103	151	96	53	53	69	67	71	69	188	301	192
AC-FT	8070	9100	6750	9830	3250	12980	4230	8650	9010	17060	19010	13440

10337500 TRUCKEE RIVER AT TAHOE CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	181	196	233	241	298	263	180	169	238	274	312	266
MAX	413	1575	2209	2561	2375	2235	1806	1746	1673	1071	638	687
(WY)	1910	1983	1984	1997	1997	1986	1983	1958	1969	1983	1918	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1932	1927	1925	1925	1925	1925	1919	1919	1921	1931	1931	1931

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1909 - 2000	
ANNUAL TOTAL	172870		61190			
ANNUAL MEAN	474		167		235	
HIGHEST ANNUAL MEAN					1150	1983
LOWEST ANNUAL MEAN					.15	1994
HIGHEST DAILY MEAN	2000	Feb 12	499	May 29	2630	Jan 3 1997
LOWEST DAILY MEAN	57	Jan 9	53	Jan 27	.00	Jan 4 1914
ANNUAL SEVEN-DAY MINIMUM	57	Jan 8	53	Feb 18	.00	Jan 23 1914
INSTANTANEOUS PEAK FLOW			513	May 28	2690	Jan 2 1997
INSTANTANEOUS PEAK STAGE			4.76	May 28	9.59	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	342900		121400		170500	
10 PERCENT EXCEEDS	929		303		483	
50 PERCENT EXCEEDS	284		152		143	
90 PERCENT EXCEEDS	98		60		.00	

10338000 TRUCKEE RIVER NEAR TRUCKEE, CA

LOCATION.—Lat 39°17'17", long 120°12'16", in SW 1/4 NE 1/4 sec.28, T.17 N., R.16 E., Placer County, Hydrologic Unit 16050102, Tahoe National Forest, on left bank, 1.4 mi downstream from Cabin Creek, and 2.5 mi southwest of Truckee.

DRAINAGE AREA.—553 mi^2.

PERIOD OF RECORD.—December 1944 to September 1961, June 1977 to September 1982, October 1992 to September 1995, October 1996 to current year. Monthly discharge only for some periods, published in WSP 1314.
CHEMICAL DATA: Water years 1951–66.
SPECIFIC CONDUCTANCE: July 1977 to September 1982.
WATER TEMPERATURE: July 1977 to September 1982, March 1993 to September 1994.

REVISED RECORDS.—WDR CA-77-3: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 5,857.66 ft above sea level.

REMARKS.—Records good. Flow regulated by Lake Tahoe (station 10337000), operating capacity, 744,600 acre-ft. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,900 ft^3/s, Jan. 2, 1997, gage height, 9.97 ft, from rating curve extended above 3,100 ft^3/s on basis of slope-area measurements at gage heights 7.62 ft and 7.92 ft; minimum daily, 3.4 ft^3/s, several days in August 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	167	179	126	105	227	238	364	548	240	325	321
2	121	167	178	127	105	258	266	385	445	255	325	332
3	120	167	175	150	106	256	301	393	393	280	325	321
4	118	170	173	236	105	261	372	411	408	279	324	320
5	117	168	171	269	103	267	381	411	414	282	324	303
6	118	168	167	272	101	280	353	360	386	289	324	222
7	117	167	167	272	100	305	338	359	385	289	324	214
8	125	175	124	272	101	305	338	599	378	309	324	212
9	141	171	114	272	103	308	321	441	337	308	323	212
10	137	170	113	272	111	335	310	364	294	306	321	212
11	137	170	113	276	111	342	322	313	213	303	320	212
12	137	170	112	270	108	348	339	284	207	302	321	212
13	137	170	114	271	139	360	511	270	228	299	320	212
14	137	170	113	272	478	375	389	265	235	298	320	212
15	137	170	112	292	254	388	319	277	225	297	320	212
16	137	172	112	269	197	396	284	266	217	296	320	212
17	137	181	112	215	169	395	323	249	296	294	330	212
18	135	174	112	253	154	402	292	263	313	293	338	212
19	141	191	112	241	144	433	269	310	303	292	323	212
20	162	194	112	290	141	432	271	356	267	292	322	212
21	163	182	114	168	138	410	298	396	177	291	320	212
22	163	176	115	132	134	385	308	420	162	290	320	258
23	163	174	115	122	130	310	296	467	155	289	320	258
24	163	173	115	174	125	253	292	612	160	288	320	258
25	163	173	114	200	121	278	301	561	194	301	320	258
26	163	174	115	148	124	296	334	572	214	320	320	258
27	167	175	114	129	160	304	398	642	213	320	320	258
28	267	174	114	119	144	272	395	756	210	320	320	258
29	172	174	114	115	152	258	337	805	223	322	320	258
30	167	179	119	113	---	248	334	697	246	325	320	258
31	167	---	125	108	---	236	---	612	---	325	320	---
TOTAL	4567	5206	3959	6445	4163	9923	9830	13480	8446	9194	9993	7323
MEAN	147	174	128	208	144	320	328	435	282	297	322	244
MAX	267	194	179	292	478	433	511	805	548	325	338	332
MIN	117	167	112	108	100	227	238	249	155	240	320	212
AC-FT	9060	10330	7850	12780	8260	19680	19500	26740	16750	18240	19820	14530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2000, BY WATER YEAR (WY)

MEAN	197	207	293	346	378	355	415	581	501	304	283	258
MAX	387	551	1483	3190	2537	1421	1734	2403	1843	635	492	453
(WY)	1948	1951	1997	1997	1997	1952	1958	1958	1998	1998	1959	1954
MIN	7.27	11.3	14.2	8.82	12.2	58.1	98.3	122	34.5	6.40	3.56	4.72
(WY)	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1945 - 2000	
ANNUAL TOTAL	218337		92529			
ANNUAL MEAN	598		253		348	
HIGHEST ANNUAL MEAN					941	1997
LOWEST ANNUAL MEAN					32.4	1994
HIGHEST DAILY MEAN	2120	Mar 3	805	May 29	8900	Jan 1 1997
LOWEST DAILY MEAN	74	Jan 12	100	Feb 7	3.4	Aug 18 1994
ANNUAL SEVEN-DAY MINIMUM	76	Jan 8	103	Feb 3	3.4	Aug 22 1994
INSTANTANEOUS PEAK FLOW			943	May 28	11900	Jan 2 1997
INSTANTANEOUS PEAK STAGE			2.88	May 28	9.97	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	433100		183500		252400	
10 PERCENT EXCEEDS	1370		385		600	
50 PERCENT EXCEEDS	295		258		241	
90 PERCENT EXCEEDS	119		116		48	

10338400 DONNER LAKE NEAR TRUCKEE, CA

LOCATION.—Lat 39°19'30", long 120°16'53", in SE 1/4 NW 1/4 sec.14, T.17 N., R.15 E., Nevada County, Hydrologic Unit 16050102, on north shore, 2.5 mi upstream from outlet gates, and 4.9 mi west of Truckee.

DRAINAGE AREA.—14.0 mi^2.

PERIOD OF RECORD.—January 1989 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Westpac Utilities).

REMARKS.—Lake levels regulated by a concrete dam at the outlet constructed in 1928. Usable capacity, 9,490 acre-ft between elevations 5,923.8 and 5,935.8 ft, maximum storage level. Water is used for irrigation and power development downstream. Records, including extremes, represent usable contents. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 12,800 acre-ft, Jan. 2, 1997, elevation, 5,938.64 ft; minimum, 2,510 acre-ft, Jan. 24, 28–31, 1991, elevation, 5,927.23 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 9,710 acre-ft, May 24, elevation, 5,936.04 ft; minimum, 3,130 acre-ft, Jan. 10, elevation, 5,928.02 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Westpac Utilities, dated Aug. 22, 1980)

5,923.8	0	5,934	7,970
5,926.0	1,600	5,936	9,670
5,928.0	3,120	5,938	12,000
5,930.0	4,690	5,940	14,700
5,932	6,310		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6180	3610	3280	3200	4940	4280	e4190	5910	9210	9200	8260	7640
2	6030	3560	3260	3200	4960	4200	e4200	6020	9260	9160	8250	7670
3	5890	3540	3250	3200	5020	4130	4250	6180	9310	9100	8240	7610
4	5740	3510	3260	3190	5010	4040	4400	6380	9390	9100	8180	7580
5	5600	3480	3260	3170	4950	4000	4510	6590	9440	9040	8150	7550
6	5480	3440	3240	3180	4870	3940	4520	6740	9470	9010	8140	7560
7	5350	3440	3230	3180	4800	3900	4550	7010	9450	8990	8100	7530
8	5220	3440	3210	3170	4740	3840	4580	7570	9470	8950	8060	7520
9	5090	3400	3240	3170	4710	3820	4580	7730	9470	8900	8030	7520
10	4990	3380	3220	3130	4700	3770	4570	7890	9470	8900	8010	7480
11	4880	3350	3240	3260	4660	3760	4590	8010	9470	8860	7990	7480
12	4790	3330	3200	3240	4640	3730	4650	8080	9470	8850	7970	7470
13	4690	3320	3250	3240	4890	3720	4930	8160	9470	8800	7960	7450
14	4570	3300	3250	3260	5270	3740	4880	8230	9480	8780	7930	7430
15	4470	3290	3250	3350	5210	3760	4820	8320	9480	8770	7920	7420
16	4380	3300	3250	3460	5090	3790	4680	8450	9470	8710	7880	7380
17	4290	3300	3250	3480	4970	3780	4680	8530	9470	8700	7900	7370
18	4220	3290	3240	3660	4830	3810	4590	8620	9470	8630	7870	7340
19	4110	3350	3230	3830	4740	3850	4510	8780	9440	8600	7840	7310
20	4040	3350	3230	4040	4670	3870	4460	8990	9430	8590	7790	7280
21	4000	3340	3210	4130	4560	3910	4550	9190	9420	8530	7780	7240
22	3910	3330	3220	4190	4510	3910	4620	9340	9390	8510	7760	7230
23	3850	3320	3220	4260	4470	3910	4670	9580	9370	8500	7740	7160
24	3790	3310	3220	4550	4390	3950	4750	9710	9360	8450	7720	7130
25	3720	3300	3190	4680	4300	3990	4890	9600	9360	8420	7720	7090
26	3670	3290	3210	4730	4290	4060	5110	9440	9310	8380	7690	7050
27	3700	3280	3200	4770	4440	4120	5300	9260	9330	8360	7690	7010
28	3780	3270	3210	4790	4380	4160	5460	9150	9280	8370	7650	6960
29	3750	3240	3200	4820	4340	4160	5590	9170	9270	8320	7650	6910
30	3680	3290	3200	4900	---	4160	5730	9170	9220	8300	7620	6870
31	3650	---	3200	4930	---	e4170	---	9190	---	8280	7630	---
MAX	6180	3610	3280	4930	5270	4280	5730	9710	9480	9200	8260	7670
MIN	3650	3240	3190	3130	4290	3720	4190	5910	9210	8280	7620	6870
a	5928.70	5928.23	5928.11	5930.31	5929.57		5931.30	5935.45	5935.49	5934.38	5933.61	5932.69
b	-2680	-360	-90	+1730	-590	-170	+1560	+3460	+30	-940	-650	-760

CAL YR 1999 MAX 9490 MIN 3190 b -140
WTR YR 2000 MAX 9710 MIN 3130 b +540

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

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 mi^2.

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 and concrete control, completed Oct. 3, 1989. Datum of gage is 5,924.40 ft above sea level. 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 good. Flow completely regulated at dam at outlet of Donner Lake (station 10338400) since 1928. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 863 ft^3/s, Jan. 2, 1997; gage height, 6.69 ft; no flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	17	6.1	4.7	11	61	67	51	28	13	7.7	3.7
2	69	18	6.1	4.5	11	66	69	59	17	13	8.0	3.7
3	67	17	6.1	4.3	14	70	73	64	10	13	7.8	3.5
4	66	16	5.9	4.4	37	65	81	58	10	12	8.1	3.3
5	66	16	5.9	4.4	60	62	97	34	10	12	8.4	3.0
6	64	15	6.1	4.4	58	59	106	29	19	11	8.4	2.7
7	62	13	5.7	4.4	57	55	108	30	26	11	8.3	2.5
8	60	13	5.6	4.4	56	53	111	32	22	11	5.3	2.5
9	60	12	5.6	4.4	54	51	113	32	19	11	3.4	2.5
10	58	12	5.6	4.4	54	48	112	32	19	11	2.8	2.5
11	55	12	5.6	4.4	54	46	113	28	19	11	2.5	4.7
12	54	12	5.6	5.1	52	44	116	25	18	11	2.1	7.5
13	52	11	5.1	5.2	53	43	137	25	18	11	2.1	7.5
14	50	10	4.7	5.1	81	43	147	25	18	11	2.2	7.5
15	48	9.6	4.7	5.3	129	43	142	25	18	10	2.1	7.4
16	46	9.4	4.7	5.9	120	45	132	25	17	10	3.2	7.1
17	42	9.1	4.7	6.1	110	46	127	23	17	10	3.2	7.1
18	40	9.1	4.7	6.4	101	46	121	23	17	10	2.9	8.9
19	38	8.5	4.7	7.2	92	49	111	23	17	10	2.8	13
20	36	8.5	4.7	9.9	86	52	103	23	16	10	2.7	13
21	34	8.5	4.7	10	80	52	81	23	16	9.3	2.6	13
22	32	8.5	4.7	10	75	52	67	24	14	9.0	2.9	13
23	30	8.3	4.7	10	74	52	69	43	13	8.0	2.8	13
24	27	8.0	4.7	10	70	54	52	102	13	8.0	3.9	13
25	25	7.1	4.7	10	65	56	45	158	13	8.0	4.8	13
26	23	7.1	4.7	11	62	60	46	170	13	8.0	4.8	14
27	21	7.1	4.7	11	68	65	48	168	13	8.0	4.0	17
28	21	7.1	4.7	11	67	68	49	115	13	8.0	4.0	18
29	20	7.0	4.7	11	66	70	49	62	13	7.8	3.9	18
30	19	6.1	4.7	11	---	71	50	51	13	7.5	3.9	18
31	18	---	4.7	11	---	69	---	42	---	7.5	3.9	---
TOTAL	1372	323.0	159.6	220.9	1917	1716	2742	1624	489	311.1	135.5	263.6
MEAN	44.3	10.8	5.15	7.13	66.1	55.4	91.4	52.4	16.3	10.0	4.37	8.79
MAX	69	18	6.1	11	129	71	147	170	28	13	8.4	18
MIN	18	6.1	4.7	4.3	11	43	45	23	10	7.5	2.1	2.5
AC-FT	2720	641	317	438	3800	3400	5440	3220	970	617	269	523

10338500 DONNER CREEK AT DONNER LAKE, NEAR TRUCKEE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.8	27.4	30.9	33.5	33.2	37.6	53.3	87.0	47.3	12.4	7.94	25.0
MAX	85.7	195	214	284	198	182	144	243	244	67.2	52.7	99.1
(WY)	1973	1951	1951	1997	1986	1986	1940	1952	1983	1934	1932	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1930	1930	1930	1929	1929	1929	1929	1929	1929	1937	1936	1930

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1929 - 2000	
ANNUAL TOTAL	17002.6		11273.7			
ANNUAL MEAN	46.6		30.8		36.3	
HIGHEST ANNUAL MEAN					83.3	1982
LOWEST ANNUAL MEAN					7.71	1977
HIGHEST DAILY MEAN	457	May 27	170	May 26	820	Jan 2 1997
LOWEST DAILY MEAN	4.4	Aug 3	2.1	Aug 12	.00	Jan 1 1929
ANNUAL SEVEN-DAY MINIMUM	4.6	Jul 30	2.4	Aug 10	.00	Jan 1 1929
INSTANTANEOUS PEAK FLOW			177	May 25	863	Jan 2 1997
INSTANTANEOUS PEAK STAGE			4.30	May 25	6.69	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	33720		22360		26330	
10 PERCENT EXCEEDS	102		70		99	
50 PERCENT EXCEEDS	34		13		13	
90 PERCENT EXCEEDS	5.3		4.4		.00	

10338700 DONNER CREEK AT HIGHWAY 89, NEAR TRUCKEE, CA

LOCATION.—Lat 39°19'16", long 120°12'25", in NE 1/4 SW 1/4 sec.16, T.17 N., R.16 E., Nevada County, Hydrologic Unit 16050102, on right bank, 50 ft upstream from State Highway 89 bridge, 0.5 mi upstream from mouth, and 1.4 mi southwest of Truckee.

DRAINAGE AREA.—29.1 mi^2.

PERIOD OF RECORD.—March 1993 to current year.
WATER TEMPERATURE: August 1993 to September 1994.

GAGE.—Water-stage recorder. Elevation of gage is 5,870 ft above sea level, from topographic map.

REMARKS.—Records good. About half the drainage area is regulated at dam at outlet of Donner Lake (station 10338400) 2.0 mi upstream. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, about 2,500 ft^3/s, Jan. 2, 1997, gage height, 12.76 ft, backwater from debris, on the basis of the flood routing the peak discharge between Truckee River near Truckee and Truckee River above Prosser Creek; minimum daily, 2.3 ft^3/s, Aug. 21, 22, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	22	11	8.8	28	88	126	172	108	29	e11	5.9
2	72	22	11	e8.7	29	91	134	187	97	27	e11	7.0
3	70	21	11	8.7	31	97	149	196	89	26	e11	6.0
4	69	21	11	8.7	53	94	184	203	95	24	e11	5.8
5	69	20	11	8.6	74	90	203	182	93	24	e11	5.3
6	67	19	11	e8.5	73	85	207	145	91	23	e11	5.1
7	66	18	11	8.4	71	79	206	151	96	22	e10	4.9
8	64	18	11	8.4	70	76	211	289	93	21	7.6	4.8
9	63	17	11	8.4	70	74	205	185	78	20	5.5	4.7
10	61	16	10	8.6	71	71	200	152	72	20	4.9	4.8
11	59	16	10	e9.5	70	70	208	127	68	19	e4.7	6.6
12	57	15	10	9.7	68	68	216	113	74	19	e4.6	9.8
13	55	15	9.9	9.8	80	69	298	109	84	18	e4.5	9.8
14	53	14	9.2	9.6	187	73	261	110	87	18	e4.5	9.7
15	51	14	9.1	e10	198	77	227	115	81	17	e4.4	9.5
16	48	14	9.1	e10	174	80	207	105	76	17	e5.0	9.4
17	47	14	9.1	13	155	80	216	97	67	17	5.3	9.4
18	45	13	9.1	23	140	84	197	109	65	16	5.0	11
19	43	16	9.1	34	129	97	178	132	60	15	4.7	16
20	41	17	9.2	67	122	101	176	150	56	15	4.6	16
21	39	15	9.3	46	111	97	162	172	53	14	4.7	17
22	36	14	9.2	32	105	97	152	180	49	14	4.6	17
23	34	14	9.1	30	103	100	153	220	43	13	4.6	17
24	31	13	9.1	40	96	105	136	332	41	12	6.1	17
25	29	12	9.0	55	89	112	133	335	39	12	6.0	16
26	27	12	9.0	41	88	123	148	328	38	12	5.8	18
27	26	12	8.9	35	105	133	175	316	37	12	5.8	21
28	51	12	8.9	32	99	135	172	252	35	11	5.7	21
29	26	11	8.8	30	94	133	151	177	33	11	5.8	21
30	24	11	8.8	30	---	130	155	143	31	11	5.9	21
31	23	---	8.8	29	---	126	---	123	---	e11	5.9	---
TOTAL	1519	468	301.7	681.4	2783	2935	5546	5607	2029	540	202.2	347.5
MEAN	49.0	15.6	9.73	22.0	96.0	94.7	185	181	67.6	17.4	6.52	11.6
MAX	73	22	11	67	198	135	298	335	108	29	11	21
MIN	23	11	8.8	8.4	28	68	126	97	31	11	4.4	4.7
AC-FT	3010	928	598	1350	5520	5820	11000	11120	4020	1070	401	689

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2000, BY WATER YEAR (WY)

MEAN	33.2	23.4	50.0	105	87.8	118	158	263	186	58.6	12.3	42.0
MAX	49.0	45.5	201	438	200	251	220	379	398	180	38.1	60.2
(WY)	2000	1999	1997	1997	1996	1995	1993	1995	1995	1995	1995	1993
MIN	15.8	8.35	9.73	9.27	11.6	30.9	39.8	64.8	19.8	14.2	3.24	11.6
(WY)	1995	1994	2000	1994	1994	1994	1994	1994	1994	1997	1994	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1993 - 2000	
ANNUAL TOTAL	34030.2		22959.8			
ANNUAL MEAN	93.2		62.7		92.1	
HIGHEST ANNUAL MEAN					142	1995
LOWEST ANNUAL MEAN					25.9	1994
HIGHEST DAILY MEAN	767	May 27	335	May 25	2380	Jan 2 1997
LOWEST DAILY MEAN	8.8	Dec 29	4.4	Aug 15	2.3	Aug 21 1994
ANNUAL SEVEN-DAY MINIMUM	8.9	Dec 25	4.7	Aug 10	2.5	Aug 19 1994
INSTANTANEOUS PEAK FLOW			407	May 24	2500	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.62	May 24	12.76	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	67500		45540		66720	
10 PERCENT EXCEEDS	244		172		247	
50 PERCENT EXCEEDS	62		30		53	
90 PERCENT EXCEEDS	11		8.4		8.4	

e Estimated.

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, 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1958 to November 1990, June 1993 to current year.

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

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

REMARKS.—Records good. Flow is completely regulated by Martis Creek Lake since Oct. 7, 1971. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,880 ft^3/s, Feb. 1, 1963, gage height, 6.16 ft, site and datum then in use; minimum, 1.3 ft^3/s, July 30, 1961. Maximum discharge since construction of Martis Creek Lake Dam in 1971, 663 ft^3/s, Feb. 28, 1986, gage height, 5.66 ft; maximum gage height, 6.01 ft, Apr. 2, 1974; minimum daily, 0.20 ft^3/s, Nov. 9–14, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	14	11	19	37	48	60	16	8.1	7.4	7.3
2	12	12	14	11	18	34	51	48	15	7.7	7.5	9.9
3	12	12	12	11	20	32	56	42	14	7.7	7.6	9.4
4	12	12	12	11	23	37	60	41	14	7.8	7.7	8.6
5	11	12	13	11	26	41	61	39	13	7.9	7.6	8.3
6	12	12	13	10	25	36	62	37	13	7.9	7.4	8.6
7	12	12	14	11	25	31	64	40	12	8.0	7.4	8.5
8	12	14	12	11	24	28	65	48	12	7.8	7.0	7.7
9	12	13	13	11	27	28	63	43	12	7.8	6.2	7.5
10	12	13	13	11	35	27	63	37	12	7.8	8.4	7.2
11	12	12	12	14	33	31	63	36	12	7.7	7.4	7.2
12	12	12	12	15	28	36	64	33	12	7.6	7.3	7.2
13	12	12	13	13	44	38	64	30	11	7.4	7.2	7.2
14	12	12	12	13	83	42	67	29	11	7.2	7.1	7.2
15	12	13	12	22	78	43	67	29	11	7.1	7.0	7.2
16	12	12	12	30	72	44	64	30	10	7.3	6.9	7.0
17	12	15	12	21	74	44	64	32	9.4	7.4	6.9	7.0
18	12	14	12	45	80	44	65	30	9.5	7.4	6.6	7.0
19	12	17	12	50	74	51	65	26	9.7	7.4	6.5	7.1
20	12	23	12	40	72	50	64	25	9.8	7.4	6.6	7.2
21	12	17	11	26	78	44	64	24	9.2	7.4	6.9	7.2
22	12	14	11	20	67	43	65	24	8.8	7.3	7.0	7.1
23	12	13	10	19	64	47	65	24	8.0	7.2	7.0	7.5
24	11	13	10	41	59	49	65	35	7.8	7.3	6.9	7.5
25	11	13	10	71	33	51	64	29	7.9	7.5	6.7	7.5
26	11	13	10	71	33	54	e64	26	8.9	7.4	6.7	7.4
27	12	13	10	60	69	58	e64	24	9.5	7.2	6.5	7.5
28	23	12	11	26	72	59	e64	22	9.5	7.3	6.6	7.4
29	16	13	11	20	54	56	64	20	9.1	7.4	6.7	7.6
30	13	13	11	21	---	52	61	18	9.1	7.5	7.2	7.5
31	12	---	11	23	---	48	---	17	---	7.5	7.4	---
TOTAL	384	400	367	770	1409	1315	1880	998	326.2	233.4	219.3	228.5
MEAN	12.4	13.3	11.8	24.8	48.6	42.4	62.7	32.2	10.9	7.53	7.07	7.62
MAX	23	23	14	71	83	59	67	60	16	8.1	8.4	9.9
MIN	11	12	10	10	18	27	48	17	7.8	7.1	6.2	7.0
AC-FT	762	793	728	1530	2790	2610	3730	1980	647	463	435	453

e Estimated.

10339400 MARTIS CREEK NEAR TRUCKEE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1971, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.05	12.0	18.5	30.6	28.0	36.5	60.2	59.5	22.6	6.40	4.90	5.51
MAX	16.4	18.0	86.5	116	83.4	78.8	148	202	96.6	18.0	10.8	10.1
(WY)	1963	1971	1965	1970	1963	1967	1969	1967	1967	1967	1967	1967
MIN	3.73	4.81	5.38	4.28	9.60	11.1	15.4	9.80	3.21	1.79	1.81	2.37
(WY)	1962	1962	1962	1962	1964	1961	1961	1961	1960	1961	1964	1960

SUMMARY STATISTICS	WATER YEARS 1959 - 1971	
ANNUAL MEAN	24.4	
HIGHEST ANNUAL MEAN	47.2	1969
LOWEST ANNUAL MEAN	6.89	1961
HIGHEST DAILY MEAN	903	Jan 31 1963
LOWEST DAILY MEAN	1.3	Jul 30 1961
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 29 1961
INSTANTANEOUS PEAK FLOW	1880	Feb 1 1963
INSTANTANEOUS PEAK STAGE	6.16	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	17650	
10 PERCENT EXCEEDS	57	
50 PERCENT EXCEEDS	11	
90 PERCENT EXCEEDS	2.7	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.25	16.8	21.3	31.0	37.2	48.4	54.0	59.4	36.8	15.0	10.4	9.29
MAX	20.8	80.0	95.5	214	149	181	139	219	169	75.0	76.0	40.2
(WY)	1983	1984	1982	1997	1986	1986	1982	1983	1983	1986	1995	1995
MIN	3.09	1.57	1.25	6.42	8.10	8.35	8.52	7.40	3.96	2.67	2.01	2.40
(WY)	1972	1978	1978	1978	1994	1974	1980	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1972 - 2000	
ANNUAL TOTAL	14489.9		8530.4			
ANNUAL MEAN	39.7		23.3		29.1	
HIGHEST ANNUAL MEAN					74.5	1983
LOWEST ANNUAL MEAN					6.90	1977
HIGHEST DAILY MEAN	182	May 15	83	Feb 14	626	Mar 1 1986
LOWEST DAILY MEAN	8.9	Aug 3	6.2	Aug 9	.20	Nov 9 1977
ANNUAL SEVEN-DAY MINIMUM	10	Dec 21	6.7	Aug 23	.21	Nov 9 1977
INSTANTANEOUS PEAK FLOW			89	Feb 14	663	Feb 28 1986
INSTANTANEOUS PEAK STAGE			3.14	Feb 14	6.01	Apr 2 1974
ANNUAL RUNOFF (AC-FT)	28740		16920		21060	
10 PERCENT EXCEEDS	79		63		71	
50 PERCENT EXCEEDS	15		12		12	
90 PERCENT EXCEEDS	12		7.2		4.6	

10339400 MARTIS CREEK NEAR TRUCKEE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1975 to current year.
CHEMICAL DATA: Water years 1975–95.
WATER TEMPERATURE: Water years 1975 to current year.
SEDIMENT DATA: Water years 1975–95.

PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: October 1974 to current year.

INSTRUMENTATION.—Digital water-temperature recorder since October 1974.

REMARKS.—Records good. Interruption in the record was due to recording equipment failure. Water temperature is affected by regulation from Martis Creek Lake Dam (station 10339380). Unpublished chemical, water-temperature, and sediment data prior to October 1974, available at the U.S. Geological Survey office in Carson City, NV.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 25.5°C, July 11, 12, 1993; minimum recorded, 0.0°C, Feb. 16, 17, 1982, Jan. 11–13, 16, 1995, Feb. 10, 1999.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 24.0°C, Aug. 9; minimum recorded, 1.0°C, Feb. 15.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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

10339400 MARTIS CREEK NEAR TRUCKEE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.5	13.5	11.0	17.0	14.5	21.5	18.5	21.5	18.5	17.5	16.0
2	8.0	7.0	13.5	11.5	17.5	15.0	21.5	18.5	21.5	18.5	17.0	15.5
3	10.0	7.5	13.5	11.5	18.5	15.5	21.0	18.0	21.5	18.5	17.0	15.0
4	11.0	9.0	14.0	12.0	18.5	16.0	20.5	17.5	21.5	18.5	17.0	14.5
5	10.5	9.0	13.5	12.0	18.5	16.0	20.5	17.0	22.0	18.5	16.5	13.5
6	10.5	8.5	12.5	11.5	18.5	16.0	20.0	17.0	22.0	18.5	16.0	13.0
7	11.0	8.5	12.5	11.5	19.0	16.5	20.0	17.0	22.0	18.5	16.0	13.0
8	10.5	9.0	12.5	11.0	18.0	16.5	20.0	17.0	21.5	18.5	16.5	13.0
9	10.0	8.5	12.5	11.5	18.0	16.0	20.5	17.0	24.0	18.5	16.5	13.5
10	10.5	8.5	11.5	10.5	18.0	16.0	20.5	17.0	21.5	18.5	16.5	13.5
11	11.0	8.5	11.0	10.0	18.0	15.5	21.0	17.5	21.0	18.0	16.5	13.5
12	11.0	9.0	11.5	9.5	18.5	16.0	21.0	17.5	21.0	17.5	16.5	14.0
13	10.0	8.5	11.0	10.0	18.5	16.5	21.0	17.5	21.0	17.5	16.0	14.0
14	9.0	8.5	11.5	10.0	19.0	16.0	21.0	17.5	21.0	17.5	17.5	14.0
15	9.0	8.0	12.0	10.0	19.5	16.5	21.0	17.5	21.0	17.0	17.5	14.5
16	8.5	7.5	11.0	10.0	19.5	17.0	21.0	18.0	21.0	17.0	18.0	14.5
17	7.5	7.0	11.5	10.0	20.0	17.0	21.0	18.0	20.5	17.0	17.5	14.5
18	7.0	6.5	12.5	9.5	20.5	17.5	21.0	17.5	20.5	16.5	17.0	14.0
19	7.0	6.0	13.0	11.0	20.5	17.5	21.0	17.5	20.0	16.0	17.5	14.0
20	9.5	6.0	15.0	11.5	20.5	17.5	21.0	17.5	19.5	16.0	17.5	14.5
21	10.0	7.0	15.5	12.5	21.0	18.0	21.5	17.5	19.5	16.0	17.5	14.5
22	9.5	7.5	16.5	14.0	21.0	18.0	---	17.5	19.5	16.0	17.0	15.0
23	9.5	7.5	16.0	14.5	21.0	18.0	---	17.5	20.0	16.0	17.0	14.5
24	11.0	8.0	17.5	15.5	21.0	18.0	---	17.5	19.5	16.0	16.5	13.5
25	11.5	9.0	17.5	16.0	21.5	18.5	---	17.5	20.0	16.5	16.0	13.5
26	12.5	9.0	17.0	15.5	21.5	18.5	---	17.5	20.0	16.5	16.0	13.5
27	12.5	10.5	18.0	15.5	21.5	19.0	21.0	17.5	20.0	16.5	16.0	13.5
28	11.5	10.0	18.0	16.0	21.5	18.5	21.0	17.5	20.0	17.0	16.0	13.5
29	11.5	9.5	18.0	16.0	22.0	19.0	21.0	17.5	18.5	17.0	16.0	13.5
30	14.0	10.5	17.5	15.5	21.5	19.0	21.0	18.0	18.5	17.0	16.0	13.0
31	---	---	16.5	15.0	---	---	21.5	18.0	19.0	16.5	---	---
MONTH	14.0	6.0	18.0	9.5	22.0	14.5	---	17.0	24.0	16.0	18.0	13.0

10340300 PROSSER CREEK RESERVOIR NEAR TRUCKEE, CA

LOCATION.—Lat 39°22'46", long 120°08'12", in NW 1/4 SW 1/4 sec.30, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, in control house on Prosser Creek Dam on Prosser Creek, 1.4 mi upstream from mouth, and 4.2 mi northeast of Truckee.

DRAINAGE AREA.—50.3 mi^2.

PERIOD OF RECORD.—January 1963 to current year. January 1963 to September 1987 (monthend elevations and contents only). Prior to October 1976, published as "near Boca."

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

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.—Records good. Reservoir is formed by rolled-earth and rockfill dam. Storage began Jan. 30, 1963. Usable capacity, 28,641 acre-ft between elevations 5,660.6 ft, top of inactive contents, and 5,741.2 ft, crest of spillway. Inactive contents, 1,201 acre-ft, includes 83 acre-ft dead contents below elevation 5,637.0 ft. Figures given represent total contents at 0800 hours. Reservoir is used for flood control, enhancement of fishery, and recreation. See schematic diagram of Truckee River Basin.

EXTREMES (at 0800 hours) FOR PERIOD OF RECORD.—Maximum contents, 33,719 acre-ft, May 19, 1996, elevation, 5,746.11 ft; minimum since reservoir first filled, 66 acre-ft, Oct. 10–12, 1983, elevation, 5,635.75 ft.

EXTREMES (at 0800 hours) FOR CURRENT YEAR.—Maximum contents observed, 30,000 acre-ft, June 15, 16, elevation, 5,741.38 ft; minimum, 9,620 acre-ft, Jan. 28, elevation, 5,703.10 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Bureau of Reclamation, dated August 1962)

5,630	17	5,680	3,791	5,720	16,643
5,640	143	5,690	5,901	5,730	22,220
5,650	491	5,700	8,636	5,740	28,949
5,660	1,148	5,710	12,147	5,750	37,046
5,670	2,230				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13800	10100	9810	9910	9770	9870	9750	20200	28100	28300	23300	17800
2	13500	9970	9800	9920	9800	9890	9760	20700	28100	28000	23100	17600
3	13300	9860	9820	9930	9820	9900	9830	21200	28200	27900	23000	17500
4	13100	9830	9840	9950	9860	9900	9990	21700	28400	27800	22800	17300
5	12900	9840	9860	9960	9850	9920	10300	22200	28600	27600	22600	17200
6	12700	9850	9890	9940	9830	9940	10600	22700	28800	27500	22400	17000
7	12500	9860	9920	9930	9800	9950	10700	23100	29100	27400	22300	16800
8	12300	9890	9930	9920	9780	9950	10900	23600	29300	27200	22100	16700
9	12100	9910	9960	9900	9760	9950	11100	24400	29500	27100	21900	16500
10	11900	9930	9960	9890	9740	9950	11200	24800	29600	26900	21700	16300
11	11700	9920	9960	9880	9750	9940	11400	25000	29700	26800	21500	16200
12	11500	9910	9960	9910	9740	9960	11700	25100	29800	26700	21300	16000
13	11300	9890	9980	9910	9740	9980	12200	25100	29900	26500	21200	15800
14	11100	9870	9980	9910	9930	10000	13000	25100	29900	26400	21000	15700
15	11000	9850	9980	9920	10300	10000	13500	25000	30000	26200	20800	15500
16	10800	9840	9980	e9990	10400	9990	13900	25000	30000	26100	20600	15300
17	10700	9840	9980	9960	10200	9960	14300	25000	29900	25900	20400	15200
18	10500	9840	9980	9900	9930	9930	14800	24900	29900	25700	20300	15000
19	10400	9840	9990	9910	9840	9940	15100	24900	29900	25600	20100	14800
20	10300	9880	9990	9990	9780	10000	15500	25000	29900	25400	19900	14700
21	10200	9890	9990	10100	9710	10000	15800	25100	29900	25300	19700	14500
22	10100	9880	9990	10100	9630	9980	16300	25300	29900	25100	19500	14300
23	10100	9880	9980	9940	9650	9920	16700	25500	29900	24900	19400	14200
24	10100	9860	9980	9820	9650	9900	17100	25900	29700	24700	19200	14000
25	10000	9850	9980	9750	9660	9920	17500	26400	29500	24500	19000	13800
26	10000	9840	9980	9690	9660	9990	17900	26800	29300	24400	18800	13700
27	9980	9830	9970	9670	9720	10100	18300	27100	29100	24200	18600	13500
28	10000	9820	9940	9620	9780	10100	18900	27400	28900	24000	18500	13300
29	10100	9810	9910	9650	9850	10000	19400	27700	28700	23800	18300	13200
30	10100	9800	9880	9690	---	9930	19800	27900	28500	23700	18100	13000
31	10100	---	9890	9730	---	9800	---	28000	---	23500	17900	---
MEAN	11200	9870	9940	9880	9830	9950	13900	24800	29300	26000	20600	15400
MAX	13800	10100	9990	10100	10400	10100	19800	28000	30000	28300	23300	17800
MIN	9980	9800	9800	9620	9630	9800	9750	20200	28100	23500	17900	13000
a	5704.48	5703.63	5703.90	5703.43	5703.79	5703.63	5725.89	5738.67	5739.43	5732.04	5722.55	5712.15
b	-3790	-300	+90	-160	+120	-50	+10000	+8200	+500	-5000	-5600	-4900

CAL YR 1999 b +150
WTR YR 2000 MEAN 15900 MAX 30000 MIN 9620 b -890

e Estimated.
a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

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 mi^2.

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; daily discharge in files of U.S. Geological Survey. 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.
WATER TEMPERATURE: Water years 1993–98.

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

GAGE.—Water-stage recorder. Datum of gage is 5,602.31 ft above sea level (levels by U.S. 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 good. Flow regulated by Prosser Creek Reservoir (station 10340300) since Jan. 30, 1963. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Water years 1943–63, prior to construction of Prosser Creek Dam, maximum discharge, 4,560 ft^3/s, Dec. 23, 1955, gage height, 10.13 ft, present datum, from rating curve extended above 910 ft^3/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 ft^3/s, July 18, 1961, result of work on dam upstream. Maximum discharge since construction of Prosser Creek Dam in 1963, 2,030 ft^3/s, Jan. 3, 1997, gage height, 6.72 ft, from rating curve extended above 880 ft^3/s on basis of valve setting at Prosser Creek Dam; minimum daily, 0.02 ft^3/s, Jan. 2, 1975, result of temporary closing of Prosser Creek Dam for spillway maintenance.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	47	24	12	28	50	168	13	101	161	90	82
2	112	63	16	12	28	50	168	12	102	144	90	83
3	112	44	11	12	28	50	168	13	73	98	89	83
4	113	14	11	12	40	51	168	13	49	97	89	84
5	113	11	11	18	49	50	168	18	41	96	89	85
6	114	11	10	23	49	50	169	22	24	97	88	85
7	115	11	10	22	49	50	170	22	21	98	88	84
8	116	11	10	22	49	50	170	23	21	98	88	84
9	115	11	15	22	49	50	170	25	38	98	88	84
10	115	19	18	22	49	51	147	66	49	97	87	84
11	114	25	19	23	48	52	109	111	49	97	87	85
12	105	25	19	e22	48	52	74	138	49	97	86	85
13	100	25	19	e22	51	62	29	155	88	96	86	85
14	89	25	19	e22	84	71	12	154	117	96	86	85
15	81	25	19	e22	96	99	12	154	117	95	85	85
16	81	25	19	e49	152	114	12	154	117	95	85	85
17	81	25	19	e70	182	114	13	155	116	94	84	85
18	72	25	18	e75	132	115	12	e154	99	94	83	85
19	66	25	18	70	92	115	12	e154	88	93	83	85
20	54	25	19	70	91	114	12	e154	88	94	83	85
21	44	25	19	88	92	136	13	e152	88	94	83	84
22	35	25	18	117	67	152	13	e150	88	93	83	84
23	27	25	18	117	50	152	12	147	131	92	83	84
24	27	25	18	120	49	152	12	123	158	92	83	84
25	27	24	18	119	50	152	12	103	159	92	83	84
26	27	24	18	92	50	152	13	98	160	92	83	84
27	27	24	25	73	52	192	13	99	160	92	82	82
28	22	24	29	46	51	221	13	100	161	92	83	82
29	23	24	29	28	50	221	13	100	162	91	83	82
30	28	24	18	28	---	220	13	101	161	90	83	82
31	28	---	12	28	---	194	---	101	---	90	83	---
TOTAL	2295	736	546	1478	1905	3354	2090	2984	2875	3045	2646	2520
MEAN	74.0	24.5	17.6	47.7	65.7	108	69.7	96.3	95.8	98.2	85.4	84.0
MAX	116	63	29	120	182	221	170	155	162	161	90	85
MIN	22	11	10	12	28	50	12	12	21	90	82	82
AC-FT	4550	1460	1080	2930	3780	6650	4150	5920	5700	6040	5250	5000

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1962, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.1	34.5	47.9	36.1	45.1	75.4	203	261	157	48.5	12.1	8.45
MAX	22.4	268	321	155	89.7	175	406	669	395	176	44.5	19.6
(WY)	1946	1951	1956	1956	1943	1943	1952	1952	1952	1952	1952	1952
MIN	6.63	8.62	9.81	10.0	11.0	20.0	94.5	106	55.9	10.0	3.79	3.90
(WY)	1961	1960	1960	1948	1948	1948	1955	1959	1947	1961	1961	1947

SUMMARY STATISTICS	WATER YEARS 1943 - 1962	
ANNUAL MEAN	76.8	
HIGHEST ANNUAL MEAN	162	1952
LOWEST ANNUAL MEAN	38.1	1961
HIGHEST DAILY MEAN	3490	Dec 23 1955
LOWEST DAILY MEAN	2.7	Aug 24 1961
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 19 1947
INSTANTANEOUS PEAK FLOW	4560	Dec 23 1955
INSTANTANEOUS PEAK STAGE	11.00	Nov 20 1950
ANNUAL RUNOFF (AC-FT)	55620	
10 PERCENT EXCEEDS	212	
50 PERCENT EXCEEDS	27	
90 PERCENT EXCEEDS	7.0	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	93.3	40.4	56.4	79.6	75.8	119	125	214	112	60.2	49.8	110
MAX	282	214	361	564	397	371	372	545	494	167	151	477
(WY)	1983	1982	1965	1997	1986	1986	1969	1983	1983	1985	1995	1983
MIN	5.41	6.84	5.32	7.96	17.5	27.1	21.7	17.2	8.39	6.33	2.55	1.96
(WY)	1989	1989	1989	1989	1991	1977	1977	1985	1966	1966	1994	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1964 - 2000	
ANNUAL TOTAL	44194		26474			
ANNUAL MEAN	121		72.3		94.7	
HIGHEST ANNUAL MEAN					214	1983
LOWEST ANNUAL MEAN					24.4	1977
HIGHEST DAILY MEAN	556	May 26	221	Mar 28	1790	Feb 21 1986
LOWEST DAILY MEAN	10	Dec 6	10	Dec 6	.02	Jan 2 1975
ANNUAL SEVEN-DAY MINIMUM	11	Dec 3	11	Dec 3	.30	Apr 13 1977
INSTANTANEOUS PEAK FLOW			228	Mar 27	2030	Jan 3 1997
INSTANTANEOUS PEAK STAGE			3.83	Mar 27	6.72	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	87660		52510		68600	
10 PERCENT EXCEEDS	245		152		219	
50 PERCENT EXCEEDS	107		82		51	
90 PERCENT EXCEEDS	24		13		9.5	

10342900 INDEPENDENCE LAKE NEAR TRUCKEE, CA

LOCATION.—Lat 39°27'07", long 120°17'23", in NW 1/4 SW 1/4 sec.35, T.19 N., R.15 E., Sierra County, Hydrologic Unit 16050102, on right bank of outlet channel, 60 ft upstream from outlet gates, and 10.5 mi northwest of Truckee.

DRAINAGE AREA.—7.51 mi^2.

PERIOD OF RECORD.—November 1988 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Sierra Pacific Power Co.).

REMARKS.—Lake levels regulated by an earthfill dam at the outlet constructed in 1939. Usable capacity, 17,300 acre-ft between elevations 6,921.0 ft, invert of outlet gate and 6,949.0 ft, normal maximum storage level. Water is used for irrigation and power development downstream. Records, including extremes, represent usable contents. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 17,700 acre-ft, Aug. 4, 1995, elevation, 6,949.51 ft; minimum, 4,750 acre-ft, Nov. 10, 11, 1988, elevation, 6,929.39 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 17,200 acre-ft, June 16–20, maximum elevation, 6,948.83 ft, June 18; minimum, 13,700 acre-ft, several days in January, minimum elevation, 6943.70 ft, Jan. 10.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Sierra Pacific Power Co., dated Nov. 5, 1941)

6,921	0	6,940	11,240
6,925	2,220	6,945	14,530
6,930	5,110	6,950	18,000
6,935	8,110		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15200	14600	14300	13800	14300	14900	15000	15500	17000	16900	15800	14700
2	15200	14600	14300	13800	14300	14800	15000	15600	17000	16900	15800	14700
3	15100	14600	14300	13800	14300	14800	15000	15600	17000	16900	15700	14600
4	15100	14500	14300	13800	14300	14800	15100	15700	17000	16800	15700	14600
5	15000	14500	14200	13800	14300	14800	15200	15800	17000	16800	15700	14600
6	15000	14500	14200	13800	14300	14800	15300	15800	17000	16800	15600	14500
7	15000	14500	14200	13700	14300	14800	15300	15800	17000	16700	15600	14500
8	15000	14500	14200	13700	14300	14800	15300	16000	17000	16700	15600	14500
9	15000	14500	14200	13700	14300	14900	15300	16100	17100	16700	15500	14400
10	14900	14500	14100	13700	14300	14900	15300	16100	17100	16600	15500	14400
11	14900	14500	14100	13800	14300	14900	15300	16100	17100	16600	15400	14400
12	14900	14400	14100	13800	14300	14900	15300	16100	17100	16600	15400	14300
13	14900	14400	14100	13700	14500	14900	15400	16000	17100	16500	15400	14300
14	14800	14400	14100	13700	14600	14800	15500	16000	17100	16500	15300	14300
15	14800	14400	14100	13800	14600	14800	15400	16000	17100	16500	15300	14200
16	14800	14400	14100	13800	14600	14800	15400	16000	17200	16400	15200	14200
17	14700	14400	14100	13900	14600	14800	15400	16000	17200	16400	15200	14200
18	14700	14400	14000	13900	14600	14800	15400	16000	17200	16400	15100	14200
19	14700	14400	14000	14000	14600	14800	15400	16100	17200	16300	15100	14200
20	14700	14400	14000	14000	14600	14800	15400	16200	17200	16300	15100	14100
21	14700	14400	14000	14000	14600	14800	15400	16300	17100	16200	15000	14100
22	14600	14400	14000	14000	14700	14800	15300	16500	17100	16200	15000	14000
23	14600	14400	14000	14100	14700	14900	15300	16700	17100	16200	15000	14000
24	14600	14400	14000	14200	14700	14900	15300	16800	17100	16100	14900	14000
25	14500	14300	14000	14200	14700	14900	15300	16900	17000	16100	14900	14000
26	14500	14300	14000	14200	14700	14900	15300	17000	17000	16000	14800	14000
27	14600	14300	13900	14200	14800	14900	15400	17000	17000	16000	14800	13900
28	14600	14300	13900	14200	14800	14900	15400	17100	17000	16000	14800	13900
29	14600	14300	13900	14200	14900	15000	15500	17100	17000	15900	14800	13900
30	14600	14300	13900	14300	---	15000	15500	17100	16900	15900	14700	13900
31	14600	---	13900	14300	---	15000	---	17000	---	15900	14700	---
MAX	15200	14600	14300	14300	14900	15000	15500	17100	17200	16900	15800	14700
MIN	14500	14300	13900	13700	14300	14800	15000	15500	16900	15900	14700	13900
a	6945.12	6944.63	6944.03	6944.62	6945.48	6945.65	6946.37	6948.64	6948.48	6946.96	6945.19	6944.00
b	-600	-300	-400	+400	+600	+100	+500	+1500	-100	-1000	-1200	-800

CAL YR 1999 MAX 16800 MIN 13000 b -400
WTR YR 2000 MAX 17200 MIN 13700 b -1300

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

10343000 INDEPENDENCE CREEK NEAR TRUCKEE, CA

LOCATION.—Lat 39°27'24", long 120°17'10", in SW 1/4 NW 1/4 sec.35, T.19 N., R.15 E., Sierra County, Hydrologic Unit 16050102, on left bank, 0.4 mi downstream from Independence Lake outlet, and 10.5 mi northwest of Truckee.

DRAINAGE AREA.—8.10 mi^2.

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. Elevation of gage is 6,920 ft above sea level, 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 (station 10342900) since 1939. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 325 ft^3/s, Jan. 3, 1997, gage height, 6.17 ft; maximum gage height, 8.16 ft, Apr. 16, 1993, backwater from snow and ice; no flow Sept. 28 to Nov. 10, 1905, June 1, 1906.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	11	11	12	12	13	49	70	21	16	14
2	12	12	11	11	11	12	13	49	69	21	16	14
3	12	12	11	11	12	12	14	49	68	21	15	14
4	12	12	11	11	12	12	15	49	67	21	15	14
5	12	12	11	11	12	12	15	49	55	21	15	14
6	12	12	11	11	12	12	25	49	38	21	15	14
7	12	12	11	11	12	12	47	50	39	21	15	14
8	12	12	11	11	12	12	48	51	41	21	15	14
9	12	12	11	11	12	12	47	50	41	21	15	14
10	12	12	11	11	12	12	47	49	40	21	15	14
11	12	12	11	11	12	12	47	50	39	20	15	14
12	12	12	11	11	12	12	48	49	37	19	15	14
13	12	12	11	11	12	12	49	49	37	19	15	15
14	12	12	11	11	12	12	47	49	37	20	15	15
15	12	12	11	11	12	12	47	49	37	20	16	15
16	12	12	11	11	12	12	46	49	37	20	16	15
17	12	12	11	11	12	12	49	49	37	20	16	14
18	12	12	11	11	12	12	49	37	37	19	16	14
19	12	12	11	11	12	12	49	29	37	18	16	14
20	12	12	11	11	12	12	49	29	36	18	16	14
21	12	12	11	11	12	12	50	29	35	18	16	14
22	12	12	11	11	12	12	50	31	35	18	15	14
23	12	11	11	11	12	12	49	48	34	18	15	14
24	12	11	11	11	12	12	49	65	34	18	15	14
25	12	11	11	12	12	12	49	70	34	17	15	14
26	12	11	11	12	12	13	50	73	32	16	14	13
27	12	11	11	12	12	13	50	74	28	16	14	13
28	12	11	11	12	12	13	50	75	23	16	14	13
29	12	11	11	11	12	13	49	75	23	16	14	13
30	12	11	11	12	---	13	49	73	21	16	14	13
31	12	---	11	12	---	13	---	71	---	16	14	---
TOTAL	372	352	341	347	347	378	1259	1617	1198	588	468	419
MEAN	12.0	11.7	11.0	11.2	12.0	12.2	42.0	52.2	39.9	19.0	15.1	14.0
MAX	12	12	11	12	12	13	50	75	70	21	16	15
MIN	12	11	11	11	11	12	13	29	21	16	14	13
AC-FT	738	698	676	688	688	750	2500	3210	2380	1170	928	831

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

MEAN	15.7	21.3	12.3	13.5	12.1	15.5	20.2	44.4	56.6	27.2	20.1	21.0
MAX	45.8	97.6	58.2	161	58.0	94.5	72.9	112	188	89.2	114	133
(WY)	1976	1984	1982	1997	1986	1996	1986	1982	1983	1983	1988	1973
MIN	.47	1.36	.70	1.04	1.07	1.45	1.50	1.51	2.09	1.78	2.05	.58
(WY)	1980	1989	1993	1993	1974	1977	1977	1977	1977	1977	1976	1979

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	10067		7686			
ANNUAL MEAN	27.6		21.0		23.3	
HIGHEST ANNUAL MEAN					46.7	1983
LOWEST ANNUAL MEAN					7.63	1989
HIGHEST DAILY MEAN	134	May 30	75	May 28	295	Jan 4 1997
LOWEST DAILY MEAN	10	Aug 10	11	Nov 23	.02	Sep 26 1973
ANNUAL SEVEN-DAY MINIMUM	11	Nov 23	11	Nov 23	.02	Sep 26 1973
INSTANTANEOUS PEAK FLOW			76	May 29	325	Jan 3 1997
INSTANTANEOUS PEAK STAGE			3.53	May 29	8.16	Apr 16 1993
ANNUAL RUNOFF (AC-FT)	19970		15250		16890	
10 PERCENT EXCEEDS	46		49		62	
50 PERCENT EXCEEDS	15		13		11	
90 PERCENT EXCEEDS	11		11		2.1	

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA
(Hydrologic Benchmark Station)

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 mi^2.

PERIOD OF RECORD.—October 1953 to current year.
PRECIPITATION DATA: Water years 1990–96.
CHEMICAL DATA: Water years 1968–72, 1986–96.
WATER TEMPERATURE: Water years 1970–74.
SEDIMENT DATA: Water years 1968–75, 1981–96.

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

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

REMARKS.—Records good, including estimated daily discharges. No storage or diversion upstream from station. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,230 ft^3/s, Jan. 1, 1997, gage height, 5.20 ft, from poor high-water mark on gage house. Rating curve extended above 160 ft^3/s on basis of slope-area measurement at gage height 4.28 ft; minimum daily, 1.0 ft^3/s, Sept. 13, 1960.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 24	0100	75	2.83				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	4.0	5.0	4.1	5.4	e7.2	17	43	19	5.6	3.0	2.9
2	3.4	4.0	4.8	4.1	5.6	6.9	21	43	18	5.6	3.0	4.2
3	3.4	4.0	e4.7	4.1	5.6	6.9	27	43	17	5.5	3.0	3.3
4	3.4	4.0	e4.6	4.2	5.5	7.2	36	43	16	5.4	3.0	3.1
5	3.5	4.0	4.6	4.1	5.4	7.3	37	41	16	5.3	3.0	3.0
6	3.8	3.9	4.6	e4.0	5.4	6.9	35	37	15	5.2	2.9	3.0
7	4.0	3.9	4.6	4.0	5.4	6.6	36	40	15	5.1	2.9	2.9
8	3.8	4.8	e4.5	4.0	5.4	6.4	37	52	15	4.9	2.9	2.8
9	3.6	4.6	4.5	4.1	5.7	6.3	34	40	14	4.8	2.9	2.8
10	3.5	4.4	4.5	4.2	6.6	6.2	35	36	13	4.7	2.9	2.7
11	3.5	4.5	e4.5	4.4	6.4	6.5	37	33	12	4.6	2.9	2.7
12	3.5	4.5	4.5	4.3	6.0	6.9	40	29	12	4.4	2.9	2.6
13	3.4	4.5	4.5	4.3	9.6	7.5	60	27	11	4.3	2.9	2.5
14	3.4	4.5	e4.5	4.4	34	8.0	42	27	11	4.1	2.8	2.4
15	3.4	5.0	4.5	6.6	18	8.7	36	28	11	3.9	2.7	2.4
16	3.4	4.9	4.5	6.6	12	9.0	34	27	10	4.0	2.7	2.3
17	3.5	5.3	4.5	6.3	9.7	9.0	44	25	9.7	3.9	2.7	2.4
18	3.6	4.8	4.5	11	8.7	10	33	25	9.3	3.8	2.6	2.4
19	3.7	6.0	4.5	13	8.0	12	32	25	8.9	3.7	2.7	2.4
20	3.6	6.2	4.5	14	7.7	12	36	25	8.5	3.7	2.7	2.4
21	3.6	5.3	4.4	9.4	7.5	10	37	26	8.2	3.6	2.7	2.3
22	3.6	4.8	4.4	7.1	7.2	10	38	26	7.9	3.4	2.7	2.4
23	3.6	4.6	4.4	6.6	7.0	11	37	30	7.5	3.4	2.7	2.4
24	3.6	4.6	4.4	8.4	e6.6	13	37	44	7.2	3.4	2.6	2.5
25	3.5	4.6	4.3	9.3	6.4	14	38	33	7.0	3.4	2.6	2.5
26	3.4	4.8	4.3	7.4	7.0	16	42	31	7.0	3.3	2.6	2.4
27	4.5	4.7	4.3	6.5	11	18	47	29	7.2	3.3	2.6	2.4
28	14	4.6	4.2	e5.8	8.2	18	43	28	6.8	3.2	2.6	2.4
29	4.9	4.8	4.2	e5.7	7.6	17	39	26	6.3	3.2	2.6	2.4
30	4.3	5.2	4.1	5.6	---	16	40	23	5.9	3.1	2.7	2.4
31	4.1	---	4.1	5.6	---	15	---	21	---	3.0	2.7	---
TOTAL	123.9	139.8	138.5	193.2	244.6	315.5	1107	1006	332.4	128.8	86.2	79.3
MEAN	4.00	4.66	4.47	6.23	8.43	10.2	36.9	32.5	11.1	4.15	2.78	2.64
MAX	14	6.2	5.0	14	34	18	60	52	19	5.6	3.0	4.2
MIN	3.4	3.9	4.1	4.0	5.4	6.2	17	21	5.9	3.0	2.6	2.3
AC-FT	246	277	275	383	485	626	2200	2000	659	255	171	157

e Estimated.

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA—Continued
(Hydrologic Benchmark Station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.49	5.14	7.25	8.73	8.32	10.8	24.8	44.7	26.1	7.43	3.19	2.78
MAX	11.9	27.7	44.0	87.3	51.0	50.1	51.6	117	142	37.4	11.8	7.56
(WY)	1963	1984	1965	1997	1963	1986	1986	1969	1983	1983	1983	1983
MIN	1.46	1.83	2.03	1.81	2.54	2.74	6.13	3.45	1.82	1.36	1.20	1.11
(WY)	1995	1993	1977	1962	1994	1962	1975	1988	1992	1994	1994	1960

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1954 - 2000	
ANNUAL TOTAL	6728.2		3895.2			
ANNUAL MEAN	18.4		10.6		12.7	
HIGHEST ANNUAL MEAN					30.0	1983
LOWEST ANNUAL MEAN					2.65	1977
HIGHEST DAILY MEAN	169	May 25	60	Apr 13	800	Jan 1 1997
LOWEST DAILY MEAN	3.4	Oct 1	2.3	Sep 16	1.0	Sep 13 1960
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 28	2.4	Sep 15	1.1	Sep 9 1960
INSTANTANEOUS PEAK FLOW			75	May 24	1230	Jan 1 1997
INSTANTANEOUS PEAK STAGE			2.83	May 24	5.20	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	13350		7730		9230	
10 PERCENT EXCEEDS	54		34		34	
50 PERCENT EXCEEDS	6.5		4.9		4.5	
90 PERCENT EXCEEDS	3.8		2.7		1.9	

10344300 STAMPEDE RESERVOIR NEAR TRUCKEE, CA

LOCATION.—Lat 39°28'14", long 120°06'11", in SE 1/4 NE 1/4 sec.29, 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 mi^2.

PERIOD OF RECORD.—August 1969 to current year. August 1969 to September 1977 (monthend elevations and contents only). October 1977 to September 1987 (daily contents). Prior to October 1976, published as "near Boca."

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.—Records good. 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 contents, 5,010 acre-ft, includes 660 acre-ft dead contents below elevation 5,798.3 ft. Figures given, including extremes, represent total contents at 0800 hours. Reservoir is used for flood control, municipal water supply, enhancement of fishery, and recreation. See schematic diagram of Truckee River Basin.

EXTREMES (at 0800 hours) 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 (at 0800 hours) FOR CURRENT YEAR.—Maximum contents, 222,541 acre-ft, June 23 , 27, elevation, 5,947.61 ft; minimum, 198,840 acre-ft, Oct. 26, 27, elevation, 5,940.39 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Bureau of Reclamation, dated July 1971)

5,850	27,915	5,880	60,185	5,910	115,865	5,940	197,630
5,860	36,470	5,890	76,008	5,920	140,141	5,950	231,005
5,870	47,090	5,900	94,535	5,930	167,355	5,960	267,386

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200146	199122	199368	199527	203196	202210	203953	216425	217750	222069	216253	209345
2	200075	199122	199386	199527	203196	202031	203899	216885	218039	221853	216043	209123
3	199986	199122	199368	199527	203158	201871	203989	217308	218348	221676	215813	208993
4	199916	199139	199333	199509	203233	201674	204277	217577	218619	221402	215584	208790
5	199898	199122	199386	199545	203270	201514	204748	217885	218967	221304	215337	208569
6	199774	199122	199368	199457	203142	201371	205165	217811	219142	221069	215116	208403
7	199668	199122	199492	199492	203071	201140	205619	217538	219452	220893	214899	208274
8	199616	199122	199368	199527	203107	200962	206038	217293	219685	220775	214671	208108
9	199580	199122	199492	199527	203071	200891	206494	217596	219957	220542	214405	208016
10	199527	199175	199527	199545	203107	200802	206786	217538	220230	220405	214178	207906
11	199457	199122	199386	199582	203107	200840	207336	217173	220405	220269	213799	207777
12	199368	199051	199386	199862	203160	200802	e207913	216751	220620	220132	213610	207722
13	199298	199051	199545	199863	203412	200802	208698	216291	220893	219957	213327	207648
14	199298	199016	199457	199863	203935	200767	209864	215720	221069	219760	213101	207593
15	199298	199086	199457	199916	204205	200855	210496	215208	221402	219559	212837	207465
16	199210	199122	199492	e200314	204277	200980	210925	e214630	221715	219412	212574	207336
17	199051	199139	199527	200323	204061	200980	211317	214235	221892	219238	212348	207208
18	199051	199139	199545	e200559	203772	201122	211916	213676	222093	219006	212104	207102
19	199016	199210	199545	200838	203538	201344	212179	213063	222206	218832	211841	207006
20	198963	199333	199527	201049	203493	201514	212404	212611	222265	218696	211504	206938
21	198893	199386	199545	201211	203320	201674	212667	212235	222403	218522	211280	206915
22	198928	199298	199527	201389	203071	201871	213006	e212013	222521	e218316	211093	206787
23	198928	199298	199492	201467	203142	201960	213311	211974	222541	218078	210852	e206547
24	198893	199262	199457	e201996	202873	202282	213572	212609	222521	217904	210646	206366
25	198858	199262	199457	e202539	202658	202604	213837	213442	222481	217750	210496	206257
26	198840	199298	199492	202658	202416	202909	214140	214443	222481	217585	210329	206166
27	198840	199333	199457	202694	e202589	203448	214614	215184	222541	e217372	210161	206075
28	199086	199333	199421	202730	202604	203736	215146	215890	222442	217173	209976	206002
29	199122	199262	199492	202783	202461	203899	215549	216598	222383	216924	209864	205911
30	199122	199386	199497	202910	---	204079	215947	217058	222269	216732	209697	205819
31	199139	---	199545	e203158	---	204061	---	217404	---	216483	209512	---
MAX	200146	199386	199545	203158	204277	204079	215947	217885	222541	222069	216253	209345
MIN	198840	199016	199333	199457	202416	200767	203899	211974	217750	216483	209512	205819
a	5940.49	5940.57	5940.62		5941.55	5942.05	5945.68	5946.11	5947.53	5945.84	5943.74	5942.60
b	-1613	+247	+159	+3613	-697	+1600	+11886	+1457	+4865	-5786	-6971	-3693

CAL YR 1999 MAX 224332 MIN 198840 b -4631
WTR YR 2000 MAX 222541 MIN 198840 b +5067

e Estimated.
a Elevation, in feet, 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 mi^2.

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 above sea level (U.S. Bureau of Reclamation Benchmark). June 1903 to October 1910, nonrecording gages at different sites and datums.

REMARKS.—Records good, including estimated daily discharges. Flow regulated by Independence Lake (station 10342900) since 1939 and Stampede Reservoir (station 10344300) since 1969. There is one transbasin diversion to Sierra Valley. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 13,300 ft^3/s, Feb. 1, 1963, gage height, 9.00 ft, from rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft^3/s, Sept. 16–21, 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	32	32	30	58	204	355	242	120	90	117	90
2	47	28	32	30	81	204	357	285	121	90	116	90
3	47	21	32	30	81	204	360	349	121	90	117	90
4	47	32	32	30	82	205	362	370	121	90	116	89
5	47	32	32	30	83	207	363	468	121	90	116	89
6	47	32	32	e30	83	207	360	572	101	90	116	89
7	48	32	32	30	83	206	358	574	74	90	116	74
8	47	33	32	30	83	173	359	570	51	90	116	61
9	47	32	32	30	83	127	356	567	35	90	116	60
10	47	32	32	30	84	107	295	567	34	90	117	60
11	47	32	32	31	84	106	251	565	34	90	116	60
12	47	32	32	30	83	107	250	566	34	90	116	60
13	41	32	32	30	88	110	254	566	34	90	116	60
14	33	32	32	30	179	113	251	563	34	90	116	61
15	34	32	31	34	210	115	250	562	34	90	116	60
16	31	32	30	36	235	117	250	566	34	90	116	60
17	31	33	30	32	254	116	252	566	34	90	116	60
18	33	32	30	36	225	117	250	564	33	90	116	61
19	34	33	30	34	203	120	250	561	32	90	117	60
20	34	33	30	34	204	117	249	560	32	90	117	60
21	34	32	30	33	204	114	250	560	32	90	116	60
22	34	32	30	32	204	114	249	499	47	90	116	61
23	32	32	30	33	204	116	248	401	60	90	101	61
24	32	32	30	41	203	117	247	305	61	90	89	61
25	31	32	30	43	203	117	244	201	61	90	89	60
26	31	32	30	40	204	117	242	171	61	90	90	61
27	32	32	30	39	210	169	242	147	78	90	90	60
28	34	32	30	e38	206	240	242	119	90	105	90	61
29	32	32	30	38	205	257	242	119	91	117	90	61
30	32	32	30	39	---	285	241	119	90	117	90	61
31	32	---	30	39	---	334	---	119	---	116	90	---
TOTAL	1192	949	959	1042	4409	4962	8479	12963	1905	2885	3376	2001
MEAN	38.5	31.6	30.9	33.6	152	160	283	418	63.5	93.1	109	66.7
MAX	48	33	32	43	254	334	363	574	121	117	117	90
MIN	31	21	30	30	58	106	241	119	32	90	89	60
AC-FT	2360	1880	1900	2070	8750	9840	16820	25710	3780	5720	6700	3970

e Estimated.

10344400 LITTLE TRUCKEE RIVER ABOVE BOCA RESERVOIR, NEAR TRUCKEE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1968, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.0	83.5	123	87.3	131	170	399	543	310	78.1	29.8	25.8
MAX	394	630	725	264	835	374	855	1304	1045	433	180	76.5
(WY)	1963	1951	1965	1956	1963	1967	1952	1952	1967	1967	1940	1959
MIN	13.5	13.0	11.6	9.45	22.0	39.0	106	171	45.7	6.06	4.45	5.93
(WY)	1962	1940	1960	1962	1948	1948	1961	1961	1954	1949	1949	1948

SUMMARY STATISTICS	WATER YEARS 1939 - 1968	
ANNUAL MEAN	170	
HIGHEST ANNUAL MEAN	321	1952
LOWEST ANNUAL MEAN	58.9	1961
HIGHEST DAILY MEAN	8810	Feb 1 1963
LOWEST DAILY MEAN	3.0	Nov 30 1954
ANNUAL SEVEN-DAY MINIMUM	4.0	Jul 17 1949
INSTANTANEOUS PEAK FLOW	13300	Feb 1 1963
INSTANTANEOUS PEAK STAGE	9.00	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	123200	
10 PERCENT EXCEEDS	454	
50 PERCENT EXCEEDS	70	
90 PERCENT EXCEEDS	13	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.9	42.3	73.4	106	86.8	140	309	555	339	175	118	57.2
MAX	503	132	711	1089	400	418	923	1371	1733	1301	573	359
(WY)	1974	1975	1984	1997	1996	1996	1986	1969	1983	1983	1975	1971
MIN	.56	.75	2.85	16.7	10.6	13.8	25.6	30.6	28.1	24.1	1.65	.47
(WY)	1970	1970	1970	1980	1970	1970	1970	1988	1988	1981	1969	1969

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1969 - 2000	
ANNUAL TOTAL	82257		45122			
ANNUAL MEAN	225		123		173	
HIGHEST ANNUAL MEAN					427	1983
LOWEST ANNUAL MEAN					53.4	1992
HIGHEST DAILY MEAN	840	Apr 26	574	May 7	2590	Jan 12 1997
LOWEST DAILY MEAN	21	Nov 3	21	Nov 3	.30	Sep 16 1969
ANNUAL SEVEN-DAY MINIMUM	30	Oct 29	30	Oct 29	.31	Sep 15 1969
INSTANTANEOUS PEAK FLOW			575	May 5	13300	Feb 1 1963
INSTANTANEOUS PEAK STAGE			2.13	May 5	9.00	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	163200		89500		125600	
10 PERCENT EXCEEDS	671		255		492	
50 PERCENT EXCEEDS	104		89		48	
90 PERCENT EXCEEDS	32		31		28	

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 mi^2.

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 most days. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.—Reservoir is formed by earthfill, rock-faced dam. Storage began Dec. 8, 1938. Usable capacity, 40,868 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 contents, 241 acre-ft. Records, including extremes, represent usable contents at 0800 hours. Water is used for irrigation in the State of Nevada and for power development. See schematic diagram of Truckee River Basin.

COOPERATION.—Records and capacity table were provided by U.S. Bureau of Reclamation; not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800 hours) 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 (at 0800 hours) FOR CURRENT YEAR.—Maximum contents, 39,656 acre-ft, June 9, elevation, 5,603.77 ft; minimum, 10,419 acre-ft, Jan. 11, elevation, 5,563.63 ft.

Capacity table (elevation, in feet, and contents in acre-feet)
(Based on table provided by U.S. Bureau of Reclamation, dated November 1970)

5,540	2,356	5,570	13,768
5,545	3,513	5,580	20,002
5,550	4,970	5,590	27,488
5,555	6,725	5,600	36,128
5,560	8,778	5,605	40,868

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32346	26109	20422	11460	11323	20073	31887	33309	38880	37684	34909	32288
2	32154	25913	20209	11157	11193	20521	32278	32868	38906	37659	34836	32182
3	31958	25681	19987	10860	11135	20947	32680	32643	38865	37629	34764	32068
4	31763	25447	19749	10639	11089	21372	33074	32585	38918	37659	34701	31939
5	31561	25243	19510	10491	11119	21816	33459	32471	39136	37694	34629	31806
6	31359	25046	19270	10447	11204	22281	33837	32637	39336	37723	34557	31514
7	31154	24857	19034	10447	11292	22713	34200	32664	39491	37624	34480	31131
8	30965	24678	18797	10442	11381	23141	34562	32730	39599	37512	34408	30749
9	30767	24477	18469	10432	11471	23492	34923	33062	39656	37395	34333	30366
10	30580	24281	18170	10429	11582	23745	35264	33380	39511	37291	34271	29980
11	30384	24080	17860	10419	11723	23994	35411	33687	39238	37257	34181	29598
12	30188	23877	17562	10519	11862	24252	35561	34001	38886	37218	34110	29226
13	29998	23676	17264	10535	12005	24517	35712	34209	38606	37174	34040	28871
14	29797	23476	16937	10550	12415	24798	35930	34423	38491	37045	33959	28500
15	29578	23286	16609	10579	13044	25082	36070	34644	38491	36909	33888	28128
16	e29398	23089	16295	10928	13562	25386	36190	34851	38540	36777	33808	27749
17	e29230	22918	15973	10807	14139	25711	36145	35118	38562	36644	33738	27359
18	e29070	22713	15671	10900	14680	26023	36311	35347	38612	36502	33668	26981
19	e28907	22521	15368	11037	15120	26379	36245	35558	38647	36371	33589	26608
20	28708	22389	15055	11146	15553	26737	36105	35880	38688	36245	33513	26244
21	28491	22223	14752	11240	15993	27063	36040	36200	38653	36115	33450	25880
22	28278	22051	14449	11323	16435	27366	35855	36614	38491	35985	33382	25516
23	28056	21873	14139	11372	16913	27729	35573	37018	38340	35845	33320	25243
24	27823	21696	13821	11450	17352	28083	35288	37286	38205	35713	33200	24969
25	27596	21535	13511	11650	17760	28436	35225	37610	37961	35587	33090	24694
26	27362	21364	13205	11767	18162	28781	34952	37919	37836	35455	32971	24426
27	27143	21199	12914	11869	18687	29139	34629	38231	37832	35319	32848	24147
28	26987	21034	12605	11960	19177	29638	34295	38474	37768	35191	32730	23869
29	26763	20831	12311	11851	19635	30228	33953	38678	37694	35118	32643	23582
30	26544	20618	12027	11684	---	30817	33626	38886	37703	35045	32544	23310
31	26320	---	11746	11527	---	31514	---	38820	---	34976	32418	---
MAX	32346	26109	20422	11960	19635	31514	36311	38886	39656	37723	34909	32288
MIN	26320	20618	11746	10419	11089	20073	31887	32471	37694	34976	32418	23310
a	5588.59	5580.89	5566.25	5565.82	5579.50	5594.85	5597.26	5602.90	5601.71	5598.77	5595.86	5584.66
b	-6163	-5702	-8872	-219	+8108	+11879	+2112	+5194	-1117	-2727	-2558	-9108

CAL YR 1999 MAX 39984 MIN 11746 b -21052
WTR YR 2000 MAX 39656 MIN 10419 b -9173

e Estimated.
a Elevation, in feet, 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 mi^2.

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.
WATER TEMPERATURE: Water years 1993–98.

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

GAGE.—Water-stage recorder. Elevation of gage is 5,500 ft above sea level, 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) since 1938, Independence Lake (station 10342900) since 1939, and Stampede Reservoir (station 10344300) since 1969. There is one transmountain diversion to Sierra Valley of about 6,000 acre-ft per year. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,800 ft^3/s, Dec. 24, 1955, from records of Washoe County Water Conservation District; no flow for many days in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	129	142	181	142	.81	198	445	84	90	154	147
2	142	144	142	180	126	.81	198	439	121	90	154	147
3	142	144	151	171	117	.79	199	406	109	73	154	147
4	142	143	156	114	98	.79	199	410	34	60	154	147
5	142	138	155	e65	52	.81	199	442	.79	60	154	180
6	142	135	157	e42	48	.83	200	501	.78	110	154	275
7	142	135	157	35	48	.81	201	539	.77	143	154	261
8	142	134	185	35	49	.79	201	449	.77	143	154	252
9	141	134	197	35	48	.80	201	398	57	143	153	250
10	141	134	197	35	40	.79	201	399	128	119	152	250
11	141	133	196	20	28	.77	201	400	205	103	151	250
12	141	133	196	15	28	.77	201	431	190	103	150	250
13	145	133	194	24	21	.77	201	449	116	134	150	250
14	148	132	193	24	1.1	.74	202	450	45	151	149	249
15	147	132	192	14	.76	.74	202	452	9.9	151	149	248
16	147	132	192	.57	.74	.74	260	452	.77	152	149	247
17	147	131	192	.45	.74	.74	260	452	.77	152	148	247
18	146	131	191	.57	.71	.74	242	452	.78	152	147	247
19	145	126	190	.47	.68	.74	339	419	.78	152	147	245
20	145	122	190	.45	.68	.74	308	401	23	152	147	245
21	145	122	189	.44	.70	.83	320	368	86	153	147	244
22	145	122	188	5.9	.70	.88	394	302	122	154	147	217
23	145	122	188	28	.71	.88	393	264	122	154	147	203
24	144	122	187	11	.70	.92	331	148	122	154	147	202
25	144	122	186	.63	.71	.92	330	41	122	154	147	202
26	144	122	184	.49	.72	.98	411	.79	122	154	147	203
27	143	122	184	.45	.88	1.1	411	.77	122	154	147	203
28	144	135	184	66	.79	1.2	411	.79	121	154	147	203
29	143	142	184	118	.81	1.2	410	.78	116	154	147	203
30	143	142	182	142	---	1.3	409	90	90	154	147	174
31	143	---	182	142	---	125	---	110	---	154	147	---
TOTAL	4431	3948	5603	1507.42	857.13	150.73	8233	10112.13	2273.11	4126	4641	6588
MEAN	143	132	181	48.6	29.6	4.86	274	326	75.8	133	150	220
MAX	148	144	197	181	142	125	411	539	205	154	154	275
MIN	120	122	142	.44	.68	.74	198	.77	.77	60	147	147
AC-FT	8790	7830	11110	2990	1700	299	16330	20060	4510	8180	9210	13070

e Estimated.

10344500 LITTLE TRUCKEE RIVER BELOW BOCA DAM, NEAR TRUCKEE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1915, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.8	38.1	29.2	83.4	75.5	196	721	790	582	169	36.5	26.3
MAX	34.2	58.4	39.3	283	173	558	1367	1260	1211	435	66.3	35.7
(WY)	1915	1913	1914	1914	1914	1914	1914	1911	1911	1911	1911	1912
MIN	14.1	28.4	23.2	20.5	28.4	56.3	106	379	212	50.7	20.1	14.4
(WY)	1914	1915	1912	1913	1912	1912	1912	1912	1913	1912	1915	1915

SUMMARY STATISTICS	WATER YEARS 1911 - 1915	
ANNUAL MEAN	193	
HIGHEST ANNUAL MEAN	387	1914
LOWEST ANNUAL MEAN	94.7	1912
HIGHEST DAILY MEAN	2360	Apr 15 1914
LOWEST DAILY MEAN	.00	Sep 26 1911
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 26 1911
ANNUAL RUNOFF (AC-FT)	140100	
10 PERCENT EXCEEDS	800	
50 PERCENT EXCEEDS	49	
90 PERCENT EXCEEDS	16	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1969, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	89.7	106	144	156	160	132	264	426	315	159	146	120
MAX	303	611	856	649	606	442	808	1647	974	389	408	414
(WY)	1968	1951	1951	1965	1963	1967	1952	1952	1967	1967	1958	1952
MIN	.000	.12	.20	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1940	1967	1960	1939	1939	1939	1939	1939	1939	1939	1939	1939

SUMMARY STATISTICS	WATER YEARS 1939 - 1969	
ANNUAL MEAN	190	
HIGHEST ANNUAL MEAN	435	1952
LOWEST ANNUAL MEAN	65.8	1961
HIGHEST DAILY MEAN	5520	Dec 24 1955
LOWEST DAILY MEAN	.00	Jan 1 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1 1939
INSTANTANEOUS PEAK FLOW	8800	Dec 24 1955
ANNUAL RUNOFF (AC-FT)	137700	
10 PERCENT EXCEEDS	430	
50 PERCENT EXCEEDS	107	
90 PERCENT EXCEEDS	.02	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	108	76.3	94.8	118	90.3	129	283	494	312	209	157	112
MAX	441	327	568	1296	433	522	975	1148	1788	1131	585	418
(WY)	1972	1984	1984	1997	1997	1996	1986	1985	1983	1983	1975	1971
MIN	.000	.020	.11	.001	1.60	.13	.39	.31	2.63	.75	13.6	.55
(WY)	1995	1991	1978	1995	1995	1995	1988	1988	1977	1981	1984	1970

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1970 - 2000	
ANNUAL TOTAL	100610.2		52470.52			
ANNUAL MEAN	276		143		183	
HIGHEST ANNUAL MEAN					470	1983
LOWEST ANNUAL MEAN					55.6	1992
HIGHEST DAILY MEAN	916	Apr 26	539	May 7	2530	Jan 9 1997
LOWEST DAILY MEAN	1.0	Jan 19	.44	Jan 21	.00	Sep 13 1994
ANNUAL SEVEN-DAY MINIMUM	30	Jan 28	.70	Feb 18	.00	Sep 13 1994
INSTANTANEOUS PEAK FLOW			543	May 7	2720	Jan 8 1997
INSTANTANEOUS PEAK STAGE			3.47	May 7	6.14	Jan 8 1997
ANNUAL RUNOFF (AC-FT)	199600		104100		132300	
10 PERCENT EXCEEDS	624		262		472	
50 PERCENT EXCEEDS	166		144		87	
90 PERCENT EXCEEDS	112		.78		.56	

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, and 3.5 mi upstream from California–Nevada State line.

DRAINAGE AREA.—932 mi^2.

WATER-DISCHARGE RECORDS

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.

CHEMICAL DATA: Water years 1951–61, 1964–81. Published as Truckee River at Floriston (station 10345900) January 1964 to September 1971.

BIOLOGICAL DATA: Water years 1975–77.

SPECIFIC CONDUCTANCE: Water years 1964–80, 1993–98.

WATER TEMPERATURE: Water years 1964–81, 1993–98.

SUSPENDED SEDIMENT: Water years 1974, 1978.

REVISED RECORDS.—WSP 1714: Drainage area. WDR CA-88-3: 1906–07 (monthly runoff).

GAGE.—Water-stage recorder. Datum of gage is 5,153.21 ft above sea level (U.S. Bureau of Reclamation benchmark). See WSP 2127 for history of changes prior to Aug. 26, 1957.

REMARKS.—Records good. Flow regulated by Lake Tahoe and Donner, Martis Creek, and Independence Lakes, and Prosser Creek, Stampede, and Boca Reservoirs (stations 10337000, 10338400, 10339380, 10342900, 10340300, 10344300, and 10344490), and by several powerplants. See schematic diagram of Truckee River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 17,500 ft^3/s, Nov. 21, 1950, gage height, 14.5 ft, present datum, from floodmarks, from slope-area measurement of peak flow; minimum, 37 ft^3/s, Sept. 15, 1933.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	526	413	404	376	389	495	888	1190	1010	603	618	601
2	515	453	394	376	392	545	922	1220	933	594	621	623
3	515	441	381	375	377	548	989	1210	832	564	622	608
4	511	413	388	399	393	549	1100	1230	744	545	621	602
5	508	403	393	419	391	565	1170	1270	720	541	620	613
6	510	394	391	398	382	553	1130	1230	668	584	621	639
7	508	390	393	392	377	576	1100	1230	661	615	622	615
8	503	397	386	390	375	567	1110	1560	661	630	619	603
9	525	391	388	390	383	562	1080	1310	649	632	611	601
10	516	393	393	392	401	582	1030	1160	691	610	612	600
11	510	401	387	403	387	595	1010	1110	676	589	611	598
12	502	399	389	377	375	611	1010	1100	648	585	609	600
13	497	398	394	384	393	630	1230	1110	640	605	609	599
14	496	395	385	383	964	669	1100	1100	632	621	607	596
15	486	396	386	415	801	708	958	1120	586	617	604	595
16	479	396	385	462	726	742	930	1120	558	617	603	595
17	478	413	385	379	694	743	1000	1080	590	617	605	593
18	469	405	386	448	619	751	927	1090	608	613	624	592
19	456	411	385	477	537	814	971	1140	583	616	607	596
20	469	440	383	552	522	840	944	1200	569	617	606	596
21	456	406	380	435	511	807	975	1250	534	613	605	595
22	449	387	377	380	480	806	1060	1260	537	611	604	610
23	434	387	375	387	456	751	1030	1310	550	609	601	605
24	430	385	376	432	428	688	971	1520	576	606	602	603
25	429	384	376	570	388	718	937	1330	604	604	600	601
26	426	383	375	462	376	756	1080	1240	628	629	600	600
27	427	383	381	385	505	822	1180	1290	626	625	599	602
28	589	388	387	359	475	832	1240	1320	619	624	600	602
29	432	396	386	374	449	804	1120	1290	618	625	599	601
30	412	399	376	405	---	791	1090	1210	616	622	600	581
31	412	---	378	399	---	839	---	1120	---	619	601	---
TOTAL	14875	12040	11943	12775	13946	21259	31282	37920	19567	18802	18883	18065
MEAN	480	401	385	412	481	686	1043	1223	652	607	609	602
MAX	589	453	404	570	964	840	1240	1560	1010	632	624	639
MIN	412	383	375	359	375	495	888	1080	534	541	599	581
AC-FT	29500	23880	23690	25340	27660	42170	62050	75210	38810	37290	37450	35830

10346000 TRUCKEE RIVER AT FARAD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	385	422	537	602	667	810	1283	1742	1279	661	513	468
MAX	982	2469	3596	6115	3254	4073	3887	5674	5214	2921	1084	1482
(WY)	1972	1984	1984	1997	1997	1986	1952	1952	1983	1983	1975	1983
MIN	51.0	55.6	80.4	77.7	85.3	142	369	349	142	53.9	53.9	47.3
(WY)	1978	1991	1991	1991	1933	1933	1977	1934	1931	1931	1931	1933

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1909 - 2000	
ANNUAL TOTAL	446094		231357			
ANNUAL MEAN	1222		632		774	
HIGHEST ANNUAL MEAN					2443	1983
LOWEST ANNUAL MEAN					184	1931
HIGHEST DAILY MEAN	4190	May 26	1560	May 8	13400	Dec 23 1955
LOWEST DAILY MEAN	375	Dec 23	359	Jan 28	37	Sep 15 1933
ANNUAL SEVEN-DAY MINIMUM	377	Dec 21	377	Dec 21	40	Sep 9 1933
INSTANTANEOUS PEAK FLOW			1780	May 24	17500	Nov 21 1950
INSTANTANEOUS PEAK STAGE			5.41	May 24	14.50	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	884800		458900		560700	
10 PERCENT EXCEEDS	2550		1100		1730	
50 PERCENT EXCEEDS	678		597		506	
90 PERCENT EXCEEDS	389		385		202	

10346000 TRUCKEE RIVER AT FARAD, CA—Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.— April 1999 to current year.

INSTRUMENTATION.—Recording-weighing gage.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily precipitation, 1.97 in., Jan. 24, 2000; no precipitation for many days in each year.

EXTREMES FOR CURRENT YEAR.—Maximum daily precipitation, 1.97 in., Jan. 24; no precipitation for many days.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.09	.00	.00	.00	.00	.01	.00	.00	.00	.11
2	.00	.00	.03	.00	.00	.04	.00	.00	.00	.00	.00	.25
3	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.03	.00
4	.00	.00	.00	.00	.04	.00	.00	.00	.00	.03	.00	.00
5	.00	.00	.00	.00	.03	.14	.00	.00	.00	.00	.00	.00
6	.05	.00	.00	.00	.00	.24	.00	.11	.00	.00	.00	.00
7	.03	.05	.00	.00	.00	.03	.00	.07	.00	.00	.00	.00
8	.00	.11	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00
9	.00	.00	.07	.00	.03	.10	.00	.00	.00	.00	.00	.00
10	.00	.00	.08	.04	.16	.00	.00	.11	.00	.00	.00	.00
11	.00	.00	.00	1.00	.04	.00	.00	.03	.00	.00	.00	.00
12	.00	.00	.07	.00	.09	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.14	.00	1.89	.00	.89	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	1.06	.00	.03	.00	.00	.00	.00	.00
15	.00	.00	.00	.70	.07	.00	.00	.04	.00	.00	.03	.00
16	.00	.33	.00	1.01	.27	.00	.00	.81	.00	.00	.00	.00
17	.00	.04	.00	.00	.03	.00	.42	.00	.00	.00	.00	.00
18	.00	.00	.00	.76	.00	.00	.04	.00	.00	.00	.00	.00
19	.00	.52	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.03	.00	.06	.10	.00	.00	.00	.03	.00	.00	.00
21	.00	.00	.00	.00	.12	.04	.04	.00	.00	.00	.00	.00
22	.00	.04	.00	.03	.07	.00	.03	.00	.00	.00	.00	.16
23	.00	.00	.00	.65	.44	.00	.00	.08	.00	.00	.00	.00
24	.00	.00	.00	1.97	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.44	.03	.00	.00	.03	.07	.00	.00	.00
26	.00	.00	.00	.03	.10	.00	.00	.00	.00	.00	.00	.00
27	.29	.00	.00	.00	1.35	.00	.00	.00	.00	.00	.00	.00
28	.62	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.08	.00	.00	.00	.32	.00	.04	.00
30	.00	.07	.00	.60	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.99	1.19	0.48	7.36	6.06	0.59	1.45	1.42	0.42	0.03	0.10	0.52

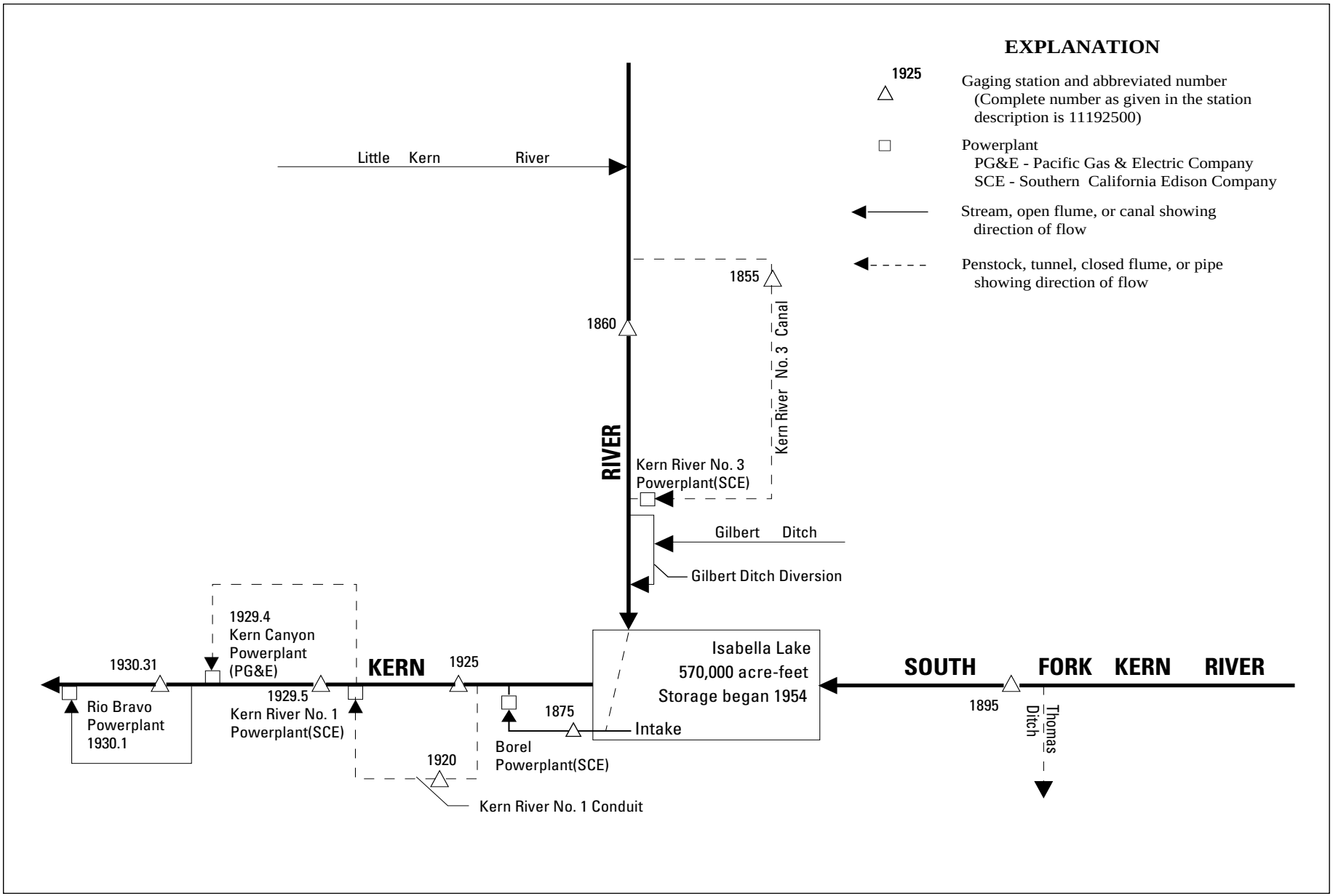

Figure 23. Diversions and storage in Kern River Basin.

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 mi^2.

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. Elevation of gage is 3,620 ft above sea level, 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.—Since 1921, Kern River No. 3 Canal (station 11185500) diverts up to 630 ft^3/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. For records of combined discharge of river and canal, see station 11186001. See schematic diagram of Kern River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only: Maximum discharge, 60,000 ft^3/s, Dec. 6, 1966, gage height, 22.77 ft, site and datum then in use, from floodmarks, from rating curve extended above 6,000 ft^3/s on basis of computed flow over dam at gage height 17.55 ft (basic data for computation provided by Southern California Edison Co.) and slope-area measurement of peak flow; no flow for many days in 1924 and 1925.

Combined river and diversion: Maximum discharge, 60,000 ft^3/s, Dec. 6, 1966; minimum daily, 76 ft^3/s, Dec. 22, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	156	171	49	62	78	108	938	1480	148	135	112
2	159	156	158	50	58	79	108	1120	1370	151	135	111
3	158	156	134	49	49	80	111	1350	1280	149	135	112
4	156	156	164	50	45	79	204	1550	1330	148	134	112
5	155	156	166	106	45	79	271	1560	1380	148	134	114
6	157	157	166	146	45	78	289	1550	1160	142	135	109
7	159	158	167	154	46	77	318	1630	1130	136	134	108
8	157	170	162	153	46	78	360	1720	1000	136	136	107
9	153	181	156	155	46	76	375	1640	795	137	138	106
10	150	173	169	153	48	76	331	1810	568	136	136	107
11	149	167	158	80	47	77	327	1400	463	135	137	106
12	148	170	155	52	47	77	352	1090	520	137	137	105
13	147	168	112	53	60	78	564	921	622	141	135	109
14	146	165	66	52	305	77	600	885	834	138	136	108
15	147	165	60	53	144	80	347	759	897	137	134	108
16	148	166	62	52	46	76	215	737	935	137	134	108
17	150	169	56	53	50	78	216	659	899	136	135	107
18	155	164	55	52	46	78	231	654	689	136	133	109
19	164	187	54	53	46	101	169	713	503	136	134	108
20	155	232	54	55	46	136	180	910	339	141	134	106
21	155	221	55	53	46	78	201	1240	275	137	134	110
22	154	163	54	54	46	76	195	1600	272	138	134	105
23	154	170	56	54	47	75	212	2080	211	136	129	106
24	155	168	56	55	49	76	246	2490	194	136	130	108
25	155	169	55	95	47	77	308	2460	175	135	130	106
26	155	179	55	59	46	77	452	2290	148	137	146	108
27	155	179	54	58	47	77	654	2160	124	136	150	108
28	157	177	52	60	46	91	827	2360	124	135	146	108
29	159	172	50	60	46	87	732	2260	128	135	142	107
30	159	177	51	59	---	76	732	1960	130	134	137	105
31	157	---	50	60	---	77	---	1640	---	135	137	---
TOTAL	4789	5147	3033	2287	1747	2505	10235	46136	19975	4299	4216	3243
MEAN	154	172	97.8	73.8	60.2	80.8	341	1488	666	139	136	108
MAX	164	232	171	155	305	136	827	2490	1480	151	150	114
MIN	146	156	50	49	45	75	108	654	124	134	129	105
AC-FT	9500	10210	6020	4540	3470	4970	20300	91510	39620	8530	8360	6430

11186000 KERN RIVER NEAR KERNVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.2	54.1	128	182	155	274	609	1519	1663	768	220	111
MAX	197	197	2488	2619	967	1480	2631	5874	6819	3482	1583	538
(WY)	1983	1997	1967	1997	1986	1986	1969	1969	1983	1983	1983	1982
MIN	2.01	1.36	.98	2.01	1.51	1.84	1.93	6.68	7.22	2.66	12.5	2.70
(WY)	1961	1961	1961	1961	1961	1961	1961	1961	1961	1961	1961	1963

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	76045		107612			
ANNUAL MEAN	208		294		480	
HIGHEST ANNUAL MEAN					1727	1969
LOWEST ANNUAL MEAN					3.65	1961
HIGHEST DAILY MEAN	1300	May 29	2490	May 24	33600	Dec 6 1966
LOWEST DAILY MEAN	42	Jan 27	45	Feb 4	.20	Dec 16 1960
ANNUAL SEVEN-DAY MINIMUM	43	Feb 17	46	Feb 4	.26	Dec 12 1960
INSTANTANEOUS PEAK FLOW			2820	May 24	60000	Dec 6 1966
INSTANTANEOUS PEAK STAGE			7.59	May 24	22.77	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	150800		213400		347400	
10 PERCENT EXCEEDS	545		889		1540	
50 PERCENT EXCEEDS	147		137		81	
90 PERCENT EXCEEDS	45		53		28	

11186001 KERN RIVER NEAR KERNVILLE, CA—Continued

KERN RIVER AND KERN RIVER NO. 3 CANAL NEAR KERNVILLE

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	156	171	153	244	357	602	1520	2060	692	250	212
2	159	156	163	154	235	340	604	1710	1950	650	250	222
3	158	156	167	145	227	337	682	1940	1860	595	266	223
4	156	156	168	153	224	339	789	2140	1920	546	317	209
5	155	156	168	161	223	375	856	2140	1970	505	300	196
6	157	157	166	150	216	367	872	2130	1750	473	273	189
7	159	158	167	156	212	338	897	2210	1720	449	258	181
8	157	170	162	153	210	360	940	2300	1590	431	251	176
9	153	181	156	155	210	349	961	2220	1380	419	242	172
10	150	173	169	156	250	356	917	2390	1150	411	230	169
11	149	167	158	160	282	376	912	1980	1050	404	222	165
12	148	170	158	162	281	400	938	1670	1100	399	214	161
13	147	168	169	158	416	434	1010	1500	1210	391	205	159
14	146	165	165	156	888	470	954	1470	1420	379	201	155
15	147	165	160	160	699	530	862	1340	1480	370	196	153
16	148	166	165	167	499	571	799	1320	1520	369	194	151
17	150	169	167	188	446	611	801	1240	1490	376	196	148
18	155	178	164	312	378	642	814	1240	1280	370	197	149
19	164	191	165	294	354	686	754	1290	1090	339	193	148
20	155	236	164	211	340	717	769	1490	925	316	191	147
21	155	225	161	190	399	629	786	1820	861	301	186	146
22	154	190	156	179	349	582	779	2180	858	292	181	148
23	154	174	157	175	365	565	798	2660	797	283	174	153
24	155	170	156	302	332	578	831	3070	779	278	171	156
25	155	169	154	474	342	571	894	3040	760	274	170	154
26	155	179	154	347	339	589	1040	2870	734	278	192	151
27	155	179	156	253	372	630	1240	2740	710	277	199	151
28	157	177	153	222	388	677	1410	2940	710	266	192	149
29	159	172	145	209	369	670	1320	2840	714	257	202	150
30	159	177	148	217	---	648	1320	2540	703	248	223	148
31	157	---	150	281	---	640	---	2220	---	249	234	---
TOTAL	4789	5206	4982	6353	10089	15734	27151	64160	37541	11887	6770	4991
MEAN	154	174	161	205	348	508	905	2070	1251	383	218	166
MAX	164	236	171	474	888	717	1410	3070	2060	692	317	223
MIN	146	156	145	145	210	337	602	1240	703	248	170	146
AC-FT	9500	10330	9880	12600	20010	31210	53850	127300	74460	23580	13430	9900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

MEAN	248	268	363	470	521	709	1134	2087	2213	1186	515	312
MAX	634	715	2696	3161	1524	2075	3235	6475	7401	4059	2175	934
(WY)	1983	1984	1967	1997	1980	1986	1969	1969	1983	1983	1983	1978
MIN	106	112	109	121	120	181	333	373	303	133	114	100
(WY)	1962	1991	1991	1991	1991	1977	1976	1977	1976	1961	1990	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	164528		199653			
ANNUAL MEAN	451		546		836	
HIGHEST ANNUAL MEAN					2264	1983
LOWEST ANNUAL MEAN					228	1961
HIGHEST DAILY MEAN	1890	May 29	3070	May 24	33600	Dec 6 1966
LOWEST DAILY MEAN	145	Dec 29	145	Dec 29	76	Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	148	Oct 10	148	Oct 10	84	Sep 11 1990
ANNUAL RUNOFF (AC-FT)	326300		396000		605800	
10 PERCENT EXCEEDS	1110		1470		2130	
50 PERCENT EXCEEDS	334		250		389	
90 PERCENT EXCEEDS	157		154		158	

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 and concrete-lined channel with Ogee weir and AVM in syphon pipe 6 mi downstream. Elevation of gage is 2,540 ft above sea level, from topographic map. Prior to Apr. 29, 1952, at site 4 mi upstream at different datum.

REMARKS.—Canal diverts from right bank of Kern River 5.5 mi upstream from Isabella Dam and above South Fork Kern River. When contents of Isabella Reservoir are above 110,000 acre-ft, 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. See schematic diagram of Kern River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under the general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 634 ft^3/s, Mar. 13, 14, 1952; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	226	589	278	367	607	590	589	591	566	474
2	.00	.00	245	438	307	366	608	614	589	593	567	467
3	.00	.00	241	209	307	364	609	613	590	594	564	483
4	.00	.00	213	173	307	364	609	614	588	591	562	448
5	.00	.00	182	173	307	365	611	614	587	589	564	437
6	.00	.00	190	168	307	367	612	612	586	592	564	409
7	.00	.00	202	161	293	367	613	611	586	593	566	350
8	.00	.00	217	158	293	366	612	614	587	595	567	328
9	.00	.00	243	153	303	366	612	612	586	595	568	307
10	.00	.00	227	153	290	367	615	614	582	586	567	350
11	.00	.00	197	150	314	367	612	613	575	583	568	433
12	.00	62	208	148	355	368	610	611	570	581	566	490
13	.00	136	218	149	374	361	431	610	558	583	567	513
14	.00	127	222	171	392	355	614	606	562	577	568	507
15	.00	129	219	190	382	361	612	604	574	571	575	475
16	.00	166	190	224	366	360	610	605	576	572	575	417
17	.00	197	198	249	366	357	607	606	575	569	575	400
18	.00	197	219	302	367	404	607	603	575	572	576	422
19	.00	222	231	379	367	488	599	602	581	571	572	407
20	.00	208	267	402	366	564	545	601	584	575	570	396
21	.00	154	331	443	366	606	458	599	591	578	573	423
22	.00	154	329	437	366	610	499	600	594	578	574	417
23	.00	173	246	419	367	613	573	600	593	577	573	373
24	.00	186	186	392	366	603	612	599	592	575	567	383
25	.00	186	171	385	364	599	610	597	596	579	486	415
26	.00	186	193	406	364	610	610	595	595	578	406	441
27	.00	186	236	401	365	608	613	593	591	579	466	459
28	.00	186	244	379	366	610	604	594	587	572	514	409
29	.00	186	249	358	367	610	571	594	590	569	548	399
30	.00	197	257	313	---	611	560	594	591	565	520	328
31	.00	---	411	253	---	610	---	593	---	569	485	---
TOTAL	0.00	3238.00	7208	8925	9932	14334	17665	18727	17520	17992	17079	12560
MEAN	.000	108	233	288	342	462	589	604	584	580	551	419
MAX	.00	222	411	589	392	613	615	614	596	595	576	513
MIN	.00	.00	171	148	278	355	431	590	558	565	406	307
AC-FT	.00	6420	14300	17700	19700	28430	35040	37150	34750	35690	33880	24910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2000, BY WATER YEAR (WY)

MEAN	245	240	267	306	386	463	508	520	537	488	398	303
MAX	588	584	576	584	590	611	605	607	614	605	607	586
(WY)	1979	1984	1951	1984	1984	1985	1984	1989	1989	1985	1952	1993
MIN	.000	.000	.000	.000	.000	.000	.000	.000	9.23	2.25	.000	.000
(WY)	1973	1946	1973	1952	1951	1973	1990	1914	1914	1990	1972	1931

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1910 - 2000	
ANNUAL TOTAL	145462.00		145180.00			
ANNUAL MEAN	399		397		388	
HIGHEST ANNUAL MEAN					585	1984
LOWEST ANNUAL MEAN					106	1990
HIGHEST DAILY MEAN	583	Feb 28	615	Apr 10	634	Mar 13 1952
LOWEST DAILY MEAN	.00	Sep 23	.00	Oct 1	.00	Oct 23 1910
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 23	.00	Oct 1	.00	May 24 1912
ANNUAL RUNOFF (AC-FT)	288500		288000		280700	
10 PERCENT EXCEEDS	578		608		587	
50 PERCENT EXCEEDS	495		420		447	
90 PERCENT EXCEEDS	.00		.00		126	

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CA

LOCATION.—Lat 35°44'15", long 118°10'22", 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 mi^2.

PERIOD OF RECORD.—September 1911 to August 1914, January 1919 to September 1942, October 1947 to June 1994, July 1995 to current year. Yearly estimate for water year 1927 (incomplete) and monthly discharges for incomplete water years 1914, 1919, 1926, 1928, 1929, published in WSP 1315-A.

REVISED RECORDS.—WSP 1151: 1948(M). WSP 1445: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 2,900 ft above sea level, from topographic map. Sept. 12, 1911, to Aug. 31, 1914, nonrecording gage, and Jan. 23, 1919, to Apr. 17, 1936, water-stage recorder, 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 poor including estimated daily discharges. Lowell and Thomas Ditches divert upstream from station for irrigation downstream of station, combined capacity, 7 ft^3/s. See schematic diagram of Kern River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,700 ft^3/s, Dec. 6, 1966, gage height, 18.9 ft, from floodmarks, present datum, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement of peak flow; no flow for several days in 1929, 1934, 1960–61.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 28	1600	205	4.76	Apr. 5	2000	231	4.92

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	32	24	45	57	126	143	50	20	2.6	19
2	11	15	32	24	39	52	121	147	48	19	2.8	20
3	11	19	30	22	42	53	150	141	46	13	2.7	19
4	15	21	28	24	41	53	183	134	44	9.0	e3.0	18
5	18	21	26	27	44	61	206	131	44	9.0	e2.5	17
6	19	22	27	24	42	66	211	125	45	9.0	e2.5	13
7	20	22	29	27	40	59	206	124	43	8.7	e2.5	11
8	21	25	26	26	40	63	206	126	41	8.5	e2.5	11
9	21	28	23	27	40	63	203	125	44	8.2	e4.2	11
10	20	28	23	31	43	58	186	124	45	6.1	e7.0	10
11	20	28	22	29	50	66	168	118	42	4.4	6.5	10
12	20	28	22	30	49	73	162	112	40	4.3	6.3	10
13	20	28	28	30	69	77	165	108	37	4.1	6.1	9.9
14	20	28	30	29	109	82	166	103	35	4.1	7.6	6.0
15	20	28	26	30	80	90	153	98	32	4.1	8.3	2.9
16	21	29	30	32	69	95	137	97	27	3.9	8.2	3.1
17	22	26	31	36	66	100	133	103	21	3.8	5.3	3.0
18	22	25	30	49	54	99	153	111	21	3.7	1.9	3.0
19	23	25	31	54	50	104	141	104	21	3.6	2.0	3.0
20	23	25	31	52	48	114	150	96	21	3.5	2.0	6.0
21	23	29	31	48	85	109	158	92	20	3.3	2.1	8.1
22	17	28	31	43	64	103	146	88	19	3.2	2.1	8.3
23	13	23	29	39	64	102	134	85	20	3.3	2.1	8.6
24	13	19	28	42	61	106	136	84	19	3.2	2.1	6.9
25	13	18	29	75	50	123	140	84	18	3.2	2.2	6.9
26	14	20	30	54	55	132	148	83	17	3.1	2.2	7.0
27	14	28	29	47	60	152	157	74	20	3.1	2.4	9.4
28	14	32	25	41	59	185	166	66	22	2.9	2.6	11
29	13	32	24	39	53	185	160	62	21	2.5	6.8	13
30	13	32	22	39	---	168	146	56	21	2.3	12	15
31	13	---	23	51	---	147	---	52	---	2.5	15	---
TOTAL	538	745	858	1145	1611	2997	4817	3196	944	182.6	138.1	300.1
MEAN	17.4	24.8	27.7	36.9	55.6	96.7	161	103	31.5	5.89	4.45	10.0
MAX	23	32	32	75	109	185	211	147	50	20	15	20
MIN	11	13	22	22	39	52	121	52	17	2.3	1.9	2.9
AC-FT	1070	1480	1700	2270	3200	5940	9550	6340	1870	362	274	595

e Estimated.

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.5	36.4	57.9	66.6	96.5	164	355	437	176	50.5	24.2	19.3
MAX	98.9	143	942	500	448	686	1583	2896	1311	349	184	90.2
(WY)	1984	1984	1967	1997	1980	1978	1969	1969	1983	1983	1983	1978
MIN	1.00	8.92	12.4	14.0	17.3	24.1	23.4	9.52	1.00	.19	.20	.10
(WY)	1962	1930	1949	1931	1961	1961	1961	1961	1924	1961	1934	1961

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1912 - 2000	
ANNUAL TOTAL	17879.8		17471.8			
ANNUAL MEAN	49.0		47.7		126	
HIGHEST ANNUAL MEAN					605	1969
LOWEST ANNUAL MEAN					11.5	1961
HIGHEST DAILY MEAN	250	Apr 22	211	Apr 6	14000	Dec 6 1966
LOWEST DAILY MEAN	1.0	Aug 21	1.9	Aug 18	.00	Sep 1 1934
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 21	2.0	Aug 18	.00	Jul 23 1961
INSTANTANEOUS PEAK FLOW			231	Apr 5	28700	Dec 6 1966
INSTANTANEOUS PEAK STAGE			4.92	Apr 5	18.90	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	35460		34660		91570	
10 PERCENT EXCEEDS	106		133		294	
50 PERCENT EXCEEDS	29		28		42	
90 PERCENT EXCEEDS	9.1		3.6		7.3	

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 mi^2.

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 above sea level.

REMARKS.—Kern River No. 1 Conduit (station 11192000) diverts up to about 420 ft^3/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 downstream from station. Flow regulated by Isabella Lake 22 mi upstream beginning in 1954. Many diversions upstream from station for irrigation. For records of combined discharge of river and conduit, see station 11192501. See schematic diagram of Kern River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, prior to regulation by Isabella Lake in 1954: Maximum discharge, 40,000 ft^3/s, Nov. 19, 1950, gage height, 30.7 ft, from rating curve extended above 8,700 ft^3/s on basis of computation of peak flow over dam (basic data for computation provided by Southern California Edison Co.); minimum daily, 0.7 ft^3/s, Nov. 17–19, 1951. Since regulation by Isabella Lake: Maximum discharge, 10,100 ft^3/s, Dec. 6, 1966, gage height, 18.55 ft; no flow May 26–28, 1977.

Combined flow, prior to regulation by Isabella Lake: Maximum discharge, 40,000 ft^3/s, Nov. 19, 1950; minimum daily, 123 ft^3/s, Sept. 22, 1951. Since regulation by Isabella Lake: Maximum discharge, 10,100 ft^3/s, Dec. 6, 1966; minimum daily, 10 ft^3/s, Dec. 17, 1968.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	22	23	290	19	59	268	212	773	1230	843	144
2	58	22	23	259	19	45	359	303	810	1140	771	115
3	41	22	23	20	19	43	456	356	798	1190	782	135
4	75	22	23	19	28	38	508	384	779	1140	823	122
5	100	22	23	19	46	49	615	336	846	1090	819	75
6	42	22	23	19	19	66	572	285	876	1160	791	87
7	38	22	23	19	19	46	515	289	960	1130	849	59
8	22	22	23	19	19	47	409	375	968	974	833	59
9	20	22	23	19	19	39	382	447	1030	859	729	58
10	20	22	23	19	18	35	413	438	924	901	783	58
11	20	22	23	19	19	34	463	365	879	856	735	67
12	23	23	23	19	23	34	553	365	947	905	706	120
13	50	23	23	19	45	34	586	270	1070	914	683	150
14	51	22	22	20	109	21	600	224	1060	971	706	148
15	21	22	22	22	56	22	492	254	1040	762	698	134
16	20	22	22	31	28	28	398	341	1080	967	705	80
17	20	23	22	47	42	26	504	315	1000	1070	757	59
18	21	23	22	21	28	34	424	314	837	1050	769	66
19	21	23	22	28	25	126	355	309	921	977	768	64
20	21	23	22	31	21	208	201	295	856	928	759	59
21	21	23	26	89	33	275	98	294	835	918	711	60
22	21	23	59	88	32	358	63	383	834	844	596	75
23	21	23	31	77	39	329	153	470	833	751	444	60
24	21	23	21	56	42	296	287	560	829	802	389	59
25	21	23	20	35	22	257	348	626	817	863	248	396
26	21	23	20	53	20	318	387	624	891	928	94	466
27	22	23	20	49	23	627	407	430	975	982	157	525
28	20	23	21	32	53	740	297	468	1090	945	198	494
29	20	23	21	20	50	761	190	604	1190	866	256	495
30	20	23	20	20	---	593	161	634	1190	820	248	495
31	21	---	39	19	---	248	---	691	---	854	295	---
TOTAL	971	676	751	1497	935	5836	11464	12261	27938	29787	18945	4984
MEAN	31.3	22.5	24.2	48.3	32.2	188	382	396	931	961	611	166
MAX	100	23	59	290	109	761	615	691	1190	1230	849	525
MIN	20	22	20	19	18	21	63	212	773	751	94	58
AC-FT	1930	1340	1490	2970	1850	11580	22740	24320	55420	59080	37580	9890

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	332	251	144	180	309	526	775	1040	1549	1510	1085	477
MAX	1455	1298	1052	1967	2046	3289	5306	5512	6446	5712	3435	2115
(WY)	1984	1983	1984	1967	1997	1969	1969	1983	1983	1983	1967	1983
MIN	.53	.18	.13	.16	2.19	2.37	1.94	1.69	50.5	57.6	53.1	50.4
(WY)	1978	1977	1977	1977	1977	1961	1961	1977	1961	1961	1961	1981

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	102095		116045			
ANNUAL MEAN	280		317		683	
HIGHEST ANNUAL MEAN					2837	1983
LOWEST ANNUAL MEAN					23.7	1961
HIGHEST DAILY MEAN	1120	Jun 18	1230	Jul 1	6640	Jun 7 1969
LOWEST DAILY MEAN	17	Mar 28	18	Feb 10	.00	May 26 1977
ANNUAL SEVEN-DAY MINIMUM	20	Dec 24	19	Jan 4	.01	May 16 1977
INSTANTANEOUS PEAK FLOW			1390	Jul 1	10100	Dec 6 1966
INSTANTANEOUS PEAK STAGE			9.67	Jul 1	18.55	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	202500		230200		495100	
10 PERCENT EXCEEDS	849		894		1960	
50 PERCENT EXCEEDS	166		92		258	
90 PERCENT EXCEEDS	22		20		2.0	

11192501 KERN RIVER NEAR DEMOCRAT SPRINGS, CA—Continued

KERN RIVER AND KERN RIVER NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	454	179	234	616	275	407	666	613	1170	1620	1210	536
2	454	178	269	585	324	401	758	704	1210	1530	1140	507
3	437	168	270	285	322	410	854	757	1200	1580	1140	525
4	471	166	258	201	322	407	906	785	1180	1530	1180	512
5	496	182	210	201	327	414	1020	737	1250	1480	1180	465
6	438	186	208	198	326	431	954	686	1280	1540	1150	478
7	434	168	223	186	320	414	916	690	1360	1510	1210	395
8	400	178	232	185	300	412	810	776	1370	1360	1190	392
9	302	171	266	179	324	408	783	848	1430	1240	1090	344
10	250	153	271	179	312	404	814	832	1320	1280	1140	369
11	308	157	230	179	315	402	864	761	1280	1240	1090	435
12	389	172	225	173	367	403	954	766	1350	1280	1060	506
13	440	170	247	170	391	402	987	671	1470	1290	1040	532
14	440	152	233	172	455	387	1000	625	1460	1350	1060	532
15	366	155	267	209	402	391	893	655	1440	1140	1050	519
16	240	157	217	221	376	395	799	742	1480	1340	1060	465
17	206	221	218	264	390	391	905	716	1400	1440	1110	423
18	308	222	236	260	376	399	825	715	1230	1420	1130	450
19	327	220	256	372	373	491	756	712	1320	1350	1120	449
20	329	268	262	377	369	573	602	696	1250	1300	1110	422
21	316	189	334	435	381	639	499	695	1230	1290	1070	440
22	315	178	381	434	380	721	464	784	1230	1220	951	457
23	261	183	305	423	387	694	554	871	1230	1120	797	426
24	230	211	232	402	390	662	688	961	1220	1170	743	394
25	296	211	200	381	370	624	748	1030	1210	1230	602	524
26	292	211	197	401	368	685	785	1020	1280	1290	446	467
27	315	211	251	397	371	739	806	831	1370	1350	509	526
28	315	211	266	380	401	741	698	869	1480	1310	548	494
29	276	210	272	365	398	762	591	1000	1580	1230	602	495
30	211	212	282	364	---	709	562	1040	1580	1190	593	495
31	181	---	305	283	---	646	---	1090	---	1220	540	---
TOTAL	10497	5650	7857	9477	10412	15964	23461	24678	39860	41440	29861	13974
MEAN	339	188	253	306	359	515	782	796	1329	1337	963	466
MAX	496	268	381	616	455	762	1020	1090	1580	1620	1210	536
MIN	181	152	197	170	275	387	464	613	1170	1120	446	344
AC-FT	20820	11210	15580	18800	20650	31660	46530	48950	79060	82200	59230	27720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2000, BY WATER YEAR (WY)

MEAN	575	480	405	470	629	846	1092	1379	1909	1827	1389	737
MAX	1835	1689	1432	2338	2439	3644	5695	5922	6850	6110	3824	2501
(WY)	1984	1983	1984	1967	1997	1969	1969	1983	1983	1983	1967	1983
MIN	116	127	131	154	152	221	260	256	311	400	334	127
(WY)	1962	1991	1991	1991	1991	1961	1961	1961	1961	1961	1961	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1955 - 2000	
ANNUAL TOTAL	225523		233131			
ANNUAL MEAN	618		637		980	
HIGHEST ANNUAL MEAN					3173	1983
LOWEST ANNUAL MEAN					246	1961
HIGHEST DAILY MEAN	1510	Jun 18	1620	Jul 1	7030	Jun 7 1969
LOWEST DAILY MEAN	152	Nov 14	152	Nov 14	10	Dec 17 1968
ANNUAL SEVEN-DAY MINIMUM	159	Nov 10	159	Nov 10	12	Dec 11 1968
ANNUAL RUNOFF (AC-FT)	447300		462400		709900	
10 PERCENT EXCEEDS	1230		1280		2200	
50 PERCENT EXCEEDS	540		466		612	
90 PERCENT EXCEEDS	221		210		204	

11192950 KERN RIVER BELOW KERN CANYON POWERHOUSE DIVERSION DAM, NEAR BAKERSFIELD, CA

LOCATION.—Lat 35°27'37", long 118°46'43", in SE 1/4 SE 1/4 sec.29, T.28 S., R.30 E., Kern County, Hydrologic Unit 18030003, Sequoia National Forest, on right bank, 100 ft downstream of diversion dam, 16.4 mi northeast of Bakersfield.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—October 1987 to June 1995, October 1995 to September 1996 (low-flow records only to 35 ft^3/s), October 1996 to current year. Prior to October 1996 published as "Kern River Fishwater Release at Kern County Powerhouse Dam, near Bakersfield". Prior to October 1, 1993, at site 100 ft upstream and did not include leakage through diversion dam radial gates. Bypass flow would enter the main channel immediately downstream from the gage. Water is diverted upstream of gage to Kern Canyon Powerplant (station 11192940) and returned to the river approximately 5 mi downstream.

GAGE.—Water-stage recorder. Elevation of gage is 975 ft above sea level, from topographic map.

REMARKS.—Flow regulated at diversion dam 100 ft upstream from gage. See schematic diagram of Kern River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,770 ft^3/s, July 3, 1998, gage height, 7.61 ft; minimum daily, 6 ft^3/s, Dec. 18, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	32	30	39	29	440	29	29	464	956	517	29
2	32	31	30	32	29	432	299	34	496	848	502	29
3	32	31	30	31	29	425	560	55	489	898	426	29
4	33	31	30	31	29	425	474	90	469	864	469	29
5	33	31	30	31	29	428	318	46	534	783	468	29
6	32	31	30	31	29	465	278	29	563	868	433	28
7	32	31	30	31	29	442	226	29	670	846	488	28
8	32	31	30	31	29	434	118	69	669	677	490	28
9	32	31	30	31	29	428	83	149	754	524	367	28
10	32	31	31	31	29	420	105	138	629	578	437	28
11	33	31	30	31	29	417	147	62	568	527	387	29
12	32	31	30	31	29	416	239	66	639	1100	354	29
13	32	31	30	30	31	415	291	31	782	1230	322	29
14	32	31	30	29	240	401	299	29	779	1280	353	29
15	32	31	30	29	344	242	206	29	753	963	339	30
16	32	31	30	29	322	29	99	41	784	867	342	30
17	33	31	31	29	326	28	205	30	740	742	404	30
18	32	31	31	29	300	28	143	29	505	731	412	30
19	32	31	31	29	257	29	66	29	620	650	413	30
20	33	33	31	29	267	28	31	29	546	587	407	30
21	32	31	31	29	274	28	28	31	552	584	367	30
22	33	77	31	29	255	29	29	70	516	514	261	30
23	32	31	30	29	241	28	32	160	515	406	109	30
24	33	31	30	29	294	28	31	253	513	449	62	30
25	33	31	30	29	361	28	41	319	484	503	31	107
26	33	31	31	29	406	28	80	337	567	569	31	227
27	33	30	31	29	402	28	110	128	651	641	31	508
28	33	31	31	29	430	28	39	150	785	611	30	336
29	33	30	31	28	428	35	28	299	913	524	30	32
30	33	30	31	29	---	87	29	322	893	465	31	30
31	33	---	31	29	---	31	---	377	---	497	36	---
TOTAL	1006	976	943	932	5526	6750	4663	3489	18842	22282	9349	1941
MEAN	32.5	32.5	30.4	30.1	191	218	155	113	628	719	302	64.7
MAX	33	77	31	39	430	465	560	377	913	1280	517	508
MIN	32	30	30	28	29	28	28	29	464	406	30	28
AC-FT	2000	1940	1870	1850	10960	13390	9250	6920	37370	44200	18540	3850
a	16570	6720	11010	15510	7110	16920	33220	38340	37670	32990	36820	20710

a Diversion, in acre-feet, to Kern Canyon Powerplant, provided by Pacific Gas and Electric Co.

11192950 KERN RIVER BELOW KERN CANYON POWERHOUSE DIVERSION DAM, NEAR BAKERSFIELD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	141	128	138	147	265	252	236	412	622	621	409	179
MAX	1134	1093	1212	630	1234	1634	1543	3378	4191	3375	2667	1442
(WY)	1999	1999	1997	1998	1998	1997	1998	1998	1998	1998	1998	1998
MIN	11.5	12.3	14.6	15.6	12.3	12.4	11.2	9.87	10.5	11.2	12.8	12.0
(WY)	1989	1988	1989	1991	1988	1988	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1988 - 2000	
ANNUAL TOTAL	59267		76699			
ANNUAL TOTAL a	152723		137930			
ANNUAL MEAN	162		210		625	
HIGHEST ANNUAL MEAN					1631	1998
LOWEST ANNUAL MEAN					24.8	1994
HIGHEST DAILY MEAN	855	Jun 18	1280	Jul 14	4520	Jul 5 1998
LOWEST DAILY MEAN	28	Aug 22	28	Jan 29	6.0	Dec 18 1988
ANNUAL SEVEN-DAY MINIMUM	30	Mar 10	28	Mar 20	9.5	May 20 1988
INSTANTANEOUS PEAK FLOW			1360	Jul 15	4770	Jul 3 1998
INSTANTANEOUS PEAK STAGE			4.70	Jul 15	7.61	Jul 3 1998
ANNUAL RUNOFF (AC-FT)	117600		152100		453100	
ANNUAL RUNOFF (AC-FT) a	302900		273600		324000	
10 PERCENT EXCEEDS	596		572		976	
50 PERCENT EXCEEDS	32		32		30	
90 PERCENT EXCEEDS	30		29		14	

a Diversion, in acre-feet, to Kern Canyon Powerplant, provided by Pacific Gas and Electric Co.

11193031 KERN RIVER AT RIO BRAVO POWERPLANT, NEAR BAKERSFIELD, CA

LOCATION.—Lat 35°25'49", long 118°49'18", in NE 1/4 SW 1/4 SW 1/4 sec.1, T.29 S., R.29 E., Kern County, Hydrologic Unit 18030012, on left bank, at diversion to Rio Bravo Powerplant, and 15.5 mi northeast of Bakersfield.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—October 1989 to current year.

GAGE.—Water-stage recorder and broad-crested weir; water-stage recorder, Parshall flume and drain gate. Datum of gage is 678.17 ft above sea level.

REMARKS.—Flow regulated by Isabella Lake, capacity 570,000 acre-ft. Flow at this station has three components which are combined for publication: flow over a broad-crested weir (station 11193020), flow through a Parshall flume (station 11193030) and bypass flow through a sand ejector and drain gate in dam (station 11193032). Water is diverted upstream from weir through a channel to Rio Bravo Powerplant (station 11193010), returning to Kern River about 1 mi downstream. See schematic diagram of Kern River Basin.

COOPERATION.—Records provided by Rio Bravo Hydro Project, under the general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (combined), 5,160 ft^3/s, Feb. 23, 1998; minimum daily, 46 ft^3/s, Feb. 22, 1996.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	203	270	122	315	79	59	85	56	110	73	67
2	65	203	309	94	365	75	71	78	54	62	54	61
3	65	184	307	212	366	73	73	78	54	76	58	55
4	72	186	293	235	359	72	85	78	53	68	58	66
5	80	206	238	234	363	71	88	71	188	54	54	59
6	73	212	237	232	387	75	61	70	392	66	54	55
7	68	192	257	217	363	67	65	72	483	60	60	54
8	71	206	266	215	346	66	68	66	479	56	73	57
9	159	193	306	210	369	67	69	57	395	56	68	58
10	301	172	310	211	357	64	80	56	60	56	59	64
11	311	180	260	211	287	64	80	57	56	54	52	63
12	79	198	261	206	69	63	75	53	57	61	52	59
13	67	194	286	202	68	63	111	54	70	58	54	56
14	66	176	269	201	105	66	80	52	59	59	55	58
15	100	177	307	243	82	90	69	53	57	213	85	62
16	157	182	249	253	74	71	66	56	82	62	83	67
17	241	250	252	330	78	76	85	54	61	69	54	58
18	312	251	274	334	77	73	60	54	55	55	56	57
19	360	249	296	256	74	72	78	54	63	56	55	59
20	375	307	303	67	74	77	57	54	54	57	53	60
21	365	215	375	69	70	73	58	51	59	60	55	58
22	358	205	215	68	77	78	59	56	55	72	62	63
23	318	211	363	71	75	65	74	59	54	65	58	64
24	265	240	272	68	78	64	71	61	54	55	60	109
25	314	242	232	67	72	64	63	60	55	56	59	395
26	330	243	229	66	71	77	70	58	57	57	54	429
27	343	242	292	65	70	70	69	55	61	56	55	272
28	354	243	306	67	76	71	76	60	68	52	56	84
29	326	242	316	66	75	68	81	61	88	54	56	89
30	271	246	327	64	---	89	77	53	82	56	56	206
31	220	---	270	238	---	67	---	57	---	84	98	---
TOTAL	6560	6450	8747	5194	5242	2210	2178	1883	3461	2075	1879	2964
MEAN	212	215	282	168	181	71.3	72.6	60.7	115	66.9	60.6	98.8
MAX	375	307	375	334	387	90	111	85	483	213	98	429
MIN	65	172	215	64	68	63	57	51	53	52	52	54
AC-FT	13010	12790	17350	10300	10400	4380	4320	3730	6860	4120	3730	5880
a	9730	0	454	10290	12620	27140	42400	44200	68250	73340	54100	21010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	131	189	230	170	353	359	376	543	735	593	622	228
MAX	258	407	759	348	1762	1639	2014	2009	2705	1943	2665	586
(WY)	1990	1999	1997	1995	1997	1997	1995	1998	1998	1998	1995	1998
MIN	60.5	63.1	57.8	58.8	59.2	59.8	49.5	51.5	51.6	52.1	60.6	61.0
(WY)	1994	1996	1998	1998	1994	1994	1991	1991	1991	1991	2000	1993

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	46605		48843			
ANNUAL MEAN	128		133		387	
HIGHEST ANNUAL MEAN					1056	1995
LOWEST ANNUAL MEAN					106	1994
HIGHEST DAILY MEAN	522	Jul 9	483	Jun 7	3870	Aug 17 1995
LOWEST DAILY MEAN	54	Feb 14	51	May 21	46	Feb 22 1996
ANNUAL SEVEN-DAY MINIMUM	62	Aug 31	54	May 12	47	Jun 14 1991
INSTANTANEOUS PEAK FLOW			1590	Jul 15	5160	Feb 23 1998
ANNUAL RUNOFF (AC-FT)	92440		96880		280600	
TOTAL DIVERSION (AC-FT) a	368900		364500		451400	
10 PERCENT EXCEEDS	269		308		1330	
50 PERCENT EXCEEDS	86		72		107	
90 PERCENT EXCEEDS	67		55		55	

a Diversion, in acre-feet, through Rio Bravo Powerplant, provided by Rio Bravo Hydro Project.

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 mi^2.

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. Elevation of gage is 715 ft above sea level, from topographic map. October 1942 to September 1946, at site 3,800 ft downstream; 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 datums. December 1978 to September 1999 at datum 5.00 ft higher.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,720 ft^3/s, Feb. 23, 1998, gage height, 4.53 ft from rating curve extended above 646 ft^3/s on basis of slope-area measurement; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 30 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	unknown	350	7.49	Mar. 5	2130	276	7.13
Feb. 28	0330	197	6.79	Apr. 18	0145	46	5.77

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.48	2.6	3.6	8.7	e28	14	8.6	e3.6	.00	.00	.00
2	.00	.62	2.8	3.9	e8.0	e22	12	8.3	e3.6	.00	.00	.00
3	.00	.77	2.6	3.7	e7.0	e21	12	8.0	e3.3	.00	.00	.00
4	.00	.95	2.6	3.8	e6.2	e19	11	7.5	e2.6	.00	.00	.00
5	.00	1.2	2.9	3.9	e5.6	e44	11	7.7	e3.0	.00	.00	.00
6	.00	1.4	2.9	3.6	e5.4	e54	11	7.4	e2.4	.00	.00	.00
7	.00	1.7	2.7	3.5	e5.2	e70	9.9	7.0	e2.4	.00	.00	.00
8	.00	2.0	2.9	3.5	e4.9	70	9.6	6.9	3.1	.00	.00	.00
9	.00	2.0	2.9	3.5	e4.9	64	10	7.4	6.6	.00	.00	.00
10	.00	2.2	2.9	3.5	e5.7	47	11	7.0	7.0	.00	.00	.00
11	.00	2.0	2.9	3.5	e12	41	11	6.7	5.7	.00	.00	.00
12	.00	2.0	2.9	3.5	e12	36	9.6	6.8	4.3	.00	.00	.00
13	.00	2.3	2.9	3.5	e73	33	10	6.4	3.2	.00	.00	.00
14	.00	2.3	2.9	3.5	e130	30	9.9	5.6	2.2	.00	.00	.00
15	.00	2.1	2.9	3.2	e30	28	11	5.7	1.1	.00	.00	.00
16	.00	2.2	2.9	3.2	e20	27	11	7.0	.57	.00	.00	.00
17	.00	2.3	2.9	3.2	e31	25	18	9.2	.30	.00	.00	.00
18	.00	2.3	2.9	4.2	e20	22	36	e7.8	.14	.00	.00	.00
19	.00	2.4	2.9	5.1	e17	21	20	e7.5	.14	.00	.00	.00
20	.00	2.3	3.2	5.1	e15	20	16	e6.6	.11	.00	.00	.00
21	.00	2.1	3.2	4.2	e18	19	15	e5.1	.02	.00	.00	.00
22	.00	2.4	3.2	3.5	e15	17	14	e5.4	.00	.00	.00	.00
23	.00	2.6	3.2	3.5	e23	16	12	e4.5	.00	.00	.00	.00
24	.00	2.3	3.2	4.9	e25	15	11	e4.2	.00	.00	.00	.00
25	.00	2.4	3.2	15	e18	15	11	e3.9	.00	.00	.00	.00
26	.00	2.6	3.2	18	e17	15	11	e4.2	.00	.00	.00	.00
27	.06	2.6	3.2	12	e26	15	9.7	e4.2	.00	.00	.00	.00
28	.12	2.5	3.2	8.5	e49	15	9.6	e3.3	.00	.00	.00	.00
29	.20	2.6	3.5	7.0	e29	15	9.6	e3.9	.00	.00	.00	.00
30	.28	2.6	3.5	6.1	---	15	9.0	e3.6	.00	.00	.00	.00
31	.38	---	3.5	7.1	---	14	---	e3.6	---	.00	.00	---
TOTAL	1.04	60.22	93.2	164.3	641.6	893	375.9	191.0	55.38	0.00	0.00	0.00
MEAN	.034	2.01	3.01	5.30	22.1	28.8	12.5	6.16	1.85	.000	.000	.000
MAX	.38	2.6	3.5	18	130	70	36	9.2	7.0	.00	.00	.00
MIN	.00	.48	2.6	3.2	4.9	14	9.0	3.3	.00	.00	.00	.00
AC-FT	2.1	119	185	326	1270	1770	746	379	110	.00	.00	.00

e Estimated.

11199500 WHITE RIVER NEAR DUCOR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.56	2.50	6.05	14.0	21.4	34.7	24.0	12.9	5.38	1.31	.39	.31
MAX	8.05	20.6	36.5	97.0	155	260	165	87.9	58.8	20.6	8.30	5.36
(WY)	1984	1984	1984	1997	1998	1943	1998	1998	1998	1998	1983	1998
MIN	.000	.000	.000	.084	.76	1.79	.85	.19	.000	.000	.000	.000
(WY)	1943	1943	1948	1949	1991	1977	1977	1992	1950	1947	1943	1943

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1943 - 2000	
ANNUAL TOTAL	3073.95		2475.64			
ANNUAL MEAN	8.42		6.76		10.4	
HIGHEST ANNUAL MEAN					52.0	1998
LOWEST ANNUAL MEAN					.58	1977
HIGHEST DAILY MEAN	57	Jan 26	130	Feb 14	1320	Mar 9 1943
LOWEST DAILY MEAN	.00	Aug 18	.00	Oct 1	.00	Oct 1 1942
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 18	.00	Oct 1	.00	Oct 1 1942
INSTANTANEOUS PEAK FLOW			350	Feb 14	2720	Feb 23 1998
INSTANTANEOUS PEAK STAGE			7.49	Feb 14	7.49	Feb 14 2000
ANNUAL RUNOFF (AC-FT)	6100		4910		7520	
10 PERCENT EXCEEDS	22		18		23	
50 PERCENT EXCEEDS	3.2		2.9		2.2	
90 PERCENT EXCEEDS	.00		.00		.00	

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 mi^2.

PERIOD OF RECORD.—August 1968 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 980 ft above sea level, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,790 ft^3/s, Jan. 3, 1997, gage height, 10.32 ft, from rating curve extended above 600 ft^3/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 for periods in several years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 6, 1966, reached a stage of 12.54 ft, from floodmarks, discharge, 5,330 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	0230	1,110	6.75	Mar. 5	2315	298	4.74
Feb. 28	0215	255	4.56				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	5.2	9.2	9.4	21	89	42	25	12	4.9	1.1	3.0
2	3.2	6.2	9.4	10	17	70	38	24	12	4.0	1.1	3.2
3	2.0	5.6	9.6	11	15	64	39	24	11	5.5	1.4	2.5
4	2.5	5.5	9.8	10	13	60	37	23	8.5	6.1	1.3	2.8
5	4.7	6.1	8.9	11	13	139	37	23	9.9	5.6	1.5	3.2
6	4.6	6.5	9.5	11	12	171	37	22	9.7	5.7	.83	3.7
7	4.8	6.1	9.4	10	13	111	35	19	9.6	6.0	.76	3.2
8	5.9	9.7	9.4	10	12	119	35	23	13	6.3	1.5	2.6
9	5.1	11	9.5	10	12	109	32	24	18	5.0	1.6	2.4
10	4.3	8.8	9.8	11	20	91	34	23	14	4.5	1.7	1.5
11	3.5	8.4	10	9.7	41	86	33	23	12	5.4	1.5	1.5
12	4.7	8.0	9.4	10	40	83	32	23	13	5.4	1.5	1.4
13	4.0	7.7	11	10	245	79	32	21	12	4.4	.95	1.5
14	3.7	7.3	10	10	437	77	33	18	11	4.3	.87	1.3
15	3.4	7.4	9.9	11	98	77	34	19	9.1	4.5	1.6	1.3
16	3.9	7.6	10	9.3	64	74	31	31	8.5	3.0	1.3	1.7
17	3.1	8.5	9.5	9.2	99	71	38	29	7.8	2.3	1.2	1.7
18	3.7	9.3	9.8	15	64	68	66	26	6.0	4.1	1.1	1.5
19	5.0	9.0	9.2	15	53	65	45	25	7.6	3.4	1.4	1.0
20	4.7	17	9.7	12	47	63	41	22	8.1	2.9	.85	.91
21	4.7	13	9.4	11	56	57	38	17	7.6	2.8	.88	1.7
22	4.8	12	9.7	11	46	53	35	18	7.7	2.7	1.7	1.7
23	4.9	10	9.7	11	72	50	34	15	7.5	1.4	1.5	2.5
24	4.2	9.6	9.8	31	78	50	34	14	7.3	1.8	1.4	2.8
25	4.7	9.7	10	55	56	49	31	13	5.3	2.8	1.4	2.6
26	5.9	9.8	9.2	37	52	48	30	14	5.7	2.0	1.7	3.2
27	5.8	7.8	9.9	24	83	48	29	14	6.3	2.0	.96	2.0
28	5.5	9.9	9.6	17	156	48	28	11	6.2	2.3	.83	2.1
29	6.6	9.5	9.7	15	91	47	28	13	5.2	2.3	1.2	2.5
30	7.1	9.1	9.8	13	---	45	25	12	4.4	1.5	2.6	2.8
31	5.0	---	9.7	27	---	43	---	12	---	.89	2.5	---
TOTAL	138.9	261.3	299.5	466.6	2026	2304	1063	620	276.0	115.79	41.73	65.81
MEAN	4.48	8.71	9.66	15.1	69.9	74.3	35.4	20.0	9.20	3.74	1.35	2.19
MAX	7.1	17	11	55	437	171	66	31	18	6.3	2.6	3.7
MIN	2.0	5.2	8.9	9.2	12	43	25	11	4.4	.89	.76	.91
AC-FT	276	518	594	926	4020	4570	2110	1230	547	230	83	131

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.14	13.6	24.1	56.2	77.6	83.7	69.9	44.3	24.3	9.99	4.46	3.74
MAX	23.5	62.8	145	440	364	443	318	211	153	66.9	32.1	20.1
(WY)	1984	1984	1997	1997	1998	1983	1998	1998	1998	1998	1983	1998
MIN	.77	3.35	4.88	6.69	4.65	8.38	4.12	2.96	.71	.000	.000	.000
(WY)	1978	1991	1991	1991	1991	1977	1977	1992	1992	1972	1972	1972

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	7851.5		7678.63			
ANNUAL MEAN	21.5		21.0		34.6	
HIGHEST ANNUAL MEAN					143	1983
LOWEST ANNUAL MEAN					4.29	1977
HIGHEST DAILY MEAN	156	Jan 21	437	Feb 14	2080	Jan 3 1997
LOWEST DAILY MEAN	1.3	Aug 29	.76	Aug 7	.00	Jun 24 1972
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 23	1.1	Aug 1	.00	Jun 30 1972
INSTANTANEOUS PEAK FLOW			1110	Feb 14	3790	Jan 3 1997
INSTANTANEOUS PEAK STAGE			6.75	Feb 14	10.32	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	15570		15230		25060	
10 PERCENT EXCEEDS	50		54		78	
50 PERCENT EXCEEDS	11		9.7		12	
90 PERCENT EXCEEDS	3.4		1.6		1.0	

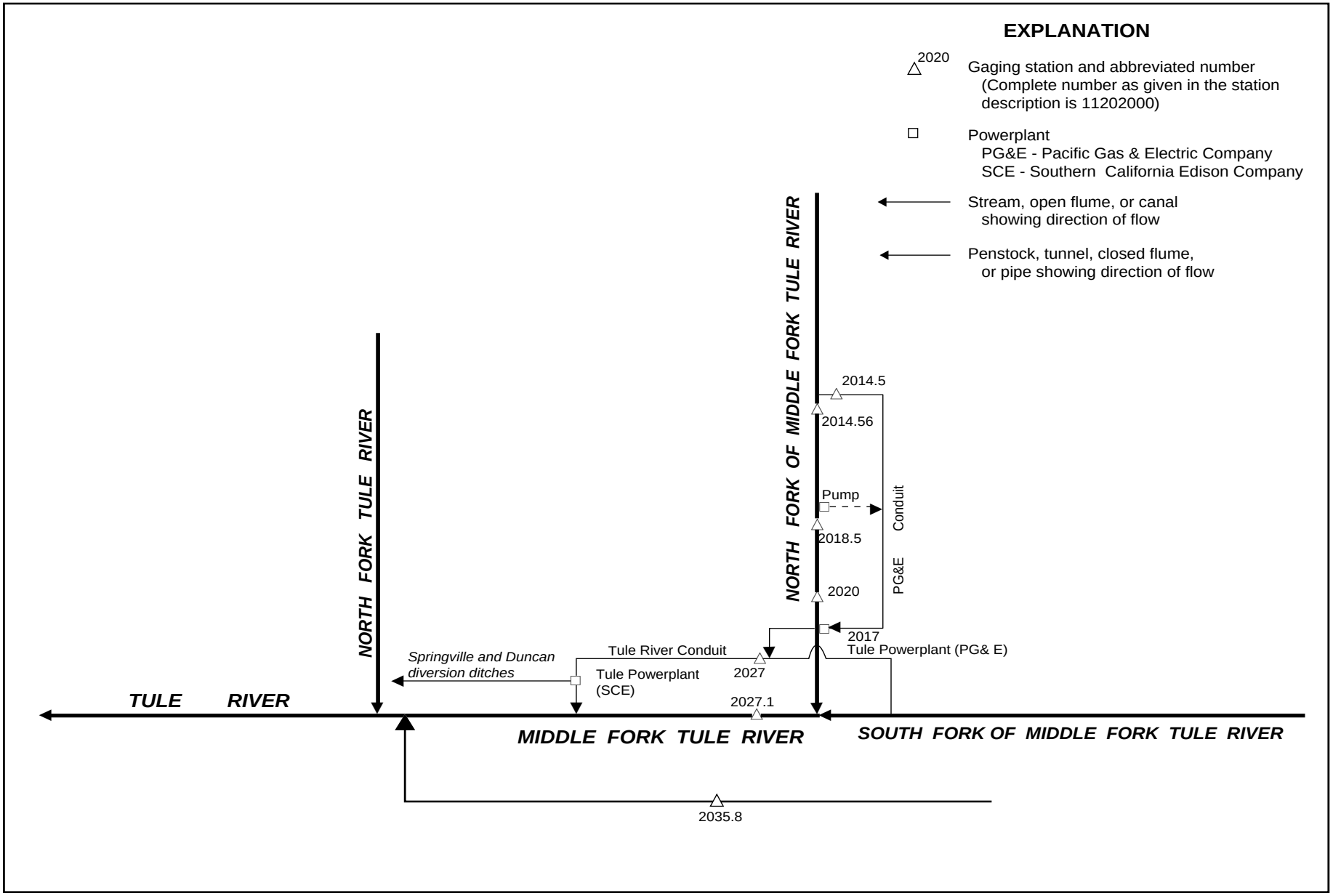

Figure 24. Diversions and storage in Tule River Basin.

11201450 PACIFIC GAS & ELECTRIC CO. TULE RIVER CONDUIT BELOW DIVERSION DAM, NEAR SPRINGVILLE, CA

LOCATION.—Lat 36°11'32", long 118°39'24", in SW 1/4 SE 1/4 sec.7, T.20 S., R.31 E., Tulare County, Hydrologic Unit 18030006, on left bank, 75 ft downstream from diversion dam, and 11 mi east of Springville.

PERIOD OF RECORD.—October 1994 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 4,040 ft above sea level, from topographic map.

REMARKS.—Water is returned to river 3.6 mi downstream after passing through Tule River Powerplant (station 11201700). See schematic diagram of Tule River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 63 ft^3/s, many days in 1995, minimum daily, 0.10 ft^3/s, Oct. 10, 1999.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.91	2.8	5.5	4.5	14	23	e50	62	53	13	4.1	4.1
2	e.78	2.8	5.1	5.1	15	22	e51	62	48	12	4.0	3.4
3	e.66	2.8	5.2	4.8	14	22	e56	62	46	12	3.9	2.9
4	e.61	2.8	5.3	4.9	13	23	e59	62	44	12	3.8	2.5
5	e.51	2.8	5.3	4.8	12	26	e59	62	41	11	3.7	2.3
6	e.42	2.8	5.2	4.7	11	24	e59	62	39	11	3.7	2.1
7	e.34	2.9	5.4	4.6	11	21	e59	62	37	11	3.5	1.8
8	e.24	6.5	5.4	4.6	11	21	e59	62	42	10	3.5	1.6
9	e.19	2.3	5.5	4.6	11	21	e58	62	38	9.7	3.3	1.6
10	e.10	2.9	5.6	4.6	18	21	e58	62	35	9.4	3.0	1.5
11	e.34	4.7	5.2	4.7	16	25	e58	61	32	9.0	3.0	1.4
12	.93	4.6	5.2	4.8	17	29	e58	59	30	8.6	2.8	1.4
13	1.7	4.6	5.2	5.3	33	35	e58	58	28	8.0	2.7	1.3
14	2.1	4.5	5.2	5.6	42	43	e59	57	27	7.5	2.7	1.2
15	1.8	4.6	5.1	5.9	46	50	e58	55	26	7.4	2.5	1.4
16	2.0	4.6	5.0	6.7	39	53	e56	59	25	7.5	1.9	1.2
17	2.1	6.1	5.0	8.3	31	57	e55	57	23	7.3	1.8	1.1
18	2.3	5.5	4.9	28	25	59	e59	59	22	7.0	1.7	3.1
19	2.3	5.8	4.9	14	24	61	e59	60	21	6.6	1.7	4.9
20	2.3	14	4.9	9.7	25	37	e53	61	20	6.3	1.7	4.9
21	2.3	7.5	4.7	8.5	26	13	e56	61	19	6.0	1.8	4.3
22	2.3	6.4	4.4	7.8	23	48	e52	62	18	5.7	1.7	4.0
23	2.3	5.9	4.4	9.3	24	47	e52	62	18	5.6	1.6	4.3
24	2.5	5.5	4.4	39	21	47	e55	62	17	5.4	1.6	4.1
25	2.5	5.3	4.4	36	20	48	e58	62	16	5.1	1.6	3.8
26	2.6	5.3	4.4	21	20	52	e59	62	16	5.1	1.7	3.6
27	2.8	5.3	4.4	14	25	e53	62	62	16	5.0	1.6	3.5
28	3.1	5.2	4.4	12	24	e52	62	61	15	4.7	1.5	3.5
29	3.3	5.3	4.4	11	24	e54	62	60	14	4.6	1.9	3.4
30	2.9	5.3	4.4	14	---	e54	62	58	13	4.5	2.1	3.6
31	2.9	---	4.4	19	---	e54	---	56	---	4.4	2.1	---
TOTAL	52.13	147.4	152.8	331.8	635	1195	1721	1874	839	242.4	78.2	83.8
MEAN	1.68	4.91	4.93	10.7	21.9	38.5	57.4	60.5	28.0	7.82	2.52	2.79
MAX	3.3	14	5.6	39	46	61	62	62	53	13	4.1	4.9
MIN	.10	2.3	4.4	4.5	11	13	50	55	13	4.4	1.5	1.1
AC-FT	103	292	303	658	1260	2370	3410	3720	1660	481	155	166

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

MEAN	5.81	10.0	16.7	25.4	40.7	48.2	56.0	59.5	44.0	29.0	13.7	9.71
MAX	13.5	20.0	50.0	55.0	58.5	59.8	61.1	62.4	62.8	59.3	31.7	19.2
(WY)	1999	1997	1997	1997	1997	1997	1996	1995	1995	1995	1998	1998
MIN	1.68	4.05	4.93	10.7	21.9	22.7	38.9	53.8	22.2	7.82	2.52	1.95
(WY)	2000	1995	2000	2000	2000	1999	1999	1999	1999	2000	2000	1999

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1995 - 2000	
ANNUAL TOTAL	6217.83		7352.53			
ANNUAL MEAN	17.0		20.1		29.8	
HIGHEST ANNUAL MEAN					37.8	1997
LOWEST ANNUAL MEAN					19.7	1999
HIGHEST DAILY MEAN	62	May 12	62	Apr 27	63	Apr 5 1995
LOWEST DAILY MEAN	.10	Oct 10	.10	Oct 10	.10	Oct 10 1999
ANNUAL SEVEN-DAY MINIMUM	.31	Oct 5	.31	Oct 5	.21	Oct 4 1995
ANNUAL RUNOFF (AC-FT)	12330		14580		21600	
10 PERCENT EXCEEDS	46		59		61	
50 PERCENT EXCEEDS	11		7.4		22	
90 PERCENT EXCEEDS	2.2		1.8		3.6	

e Estimated.

11201456 NORTH FORK OF MIDDLE FORK TULE RIVER BELOW DIVERSION DAM, NEAR SPRINGVILLE, CA

LOCATION.—Lat 36°11'33", long 118°39'25", in SW 1/4 SE 1/4 sec.7, T.20 S., R.31 E., Tulare County, Hydrologic Unit 18030006, on left bank, 375 ft downstream from diversion dam, 0.3 mi upstream from Hossack Creek, and 11 mi east of Springville.

DRAINAGE AREA.—30.9 mi^2.

PERIOD OF RECORD.—October 1994 to current year (low-flow records only).

GAGE.—Water-stage recorder and sharp-crested V-notch weir in concrete control. Elevation of gage is 4,000 ft above sea level, from topographic map.

REMARKS.—No records computed above 80 ft^3/s. Most of the flow is diverted at the diversion dam to Pacific Gas and Electric Co. Tule River Conduit (station 11201450). Water is returned to river 3.6 mi downstream after passing through Tule River Powerplant (station 11201700). See schematic diagram of Tule River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e8.7	5.9	4.9	4.9	4.3	4.3	5.6	39	9.4	7.4	7.4	8.4
2	e8.5	5.9	5.1	4.9	4.3	4.3	7.0	45	8.7	7.4	7.4	8.4
3	e8.2	5.9	4.9	4.9	4.1	4.3	14	53	8.5	7.4	7.4	8.2
4	e8.0	5.9	4.9	4.9	4.2	4.3	25	56	8.4	7.4	7.4	8.1
5	e7.9	5.9	4.8	4.9	4.2	4.3	30	51	8.2	7.3	7.4	8.1
6	e7.8	5.9	4.8	4.9	4.2	4.3	28	44	8.1	7.3	7.4	7.9
7	e7.7	5.9	4.8	4.9	4.2	4.3	29	44	7.9	7.4	7.5	7.8
8	e7.7	6.8	4.7	4.9	4.2	4.3	32	52	8.3	7.4	7.4	7.8
9	e7.6	7.9	4.7	4.9	4.2	4.3	28	52	7.9	7.4	7.5	7.8
10	e7.5	6.9	4.8	4.9	4.4	4.3	22	49	7.6	7.4	7.5	7.7
11	e7.5	5.0	4.9	4.9	4.3	4.3	22	34	7.4	7.3	7.5	7.6
12	7.4	5.0	4.9	4.9	4.4	4.4	25	23	7.4	7.2	7.5	7.6
13	6.8	5.0	4.9	4.5	---	4.4	27	18	7.4	7.3	7.4	7.5
14	6.4	5.0	4.9	4.3	---	4.8	22	14	7.5	7.5	7.4	7.5
15	6.7	4.9	4.9	4.2	22	5.6	10	12	7.6	7.5	7.4	7.5
16	6.7	4.9	4.9	4.3	5.8	7.3	6.5	19	7.5	7.5	7.9	7.5
17	6.6	5.0	4.9	4.3	5.3	10	7.7	15	7.4	7.4	7.8	7.4
18	6.5	5.0	4.9	5.4	5.3	12	5.8	22	7.3	7.4	7.8	5.8
19	6.5	5.0	4.9	4.5	5.3	15	5.4	23	7.4	7.4	7.8	4.6
20	6.4	5.5	4.9	4.3	5.1	34	6.4	27	7.5	7.5	7.8	4.5
21	6.4	5.0	5.0	4.3	5.2	45	5.9	33	7.5	7.5	7.8	4.8
22	6.3	5.0	5.0	4.3	5.1	5.8	5.5	40	7.4	7.4	7.8	5.4
23	6.3	4.9	5.0	4.3	5.1	5.4	5.6	47	7.5	7.4	7.8	5.5
24	6.3	5.0	5.0	6.9	5.1	5.4	6.9	44	7.5	7.5	7.8	5.5
25	6.3	5.0	5.0	8.3	5.1	5.9	12	42	7.4	7.6	7.9	5.4
26	6.2	4.9	5.0	4.5	5.1	8.8	25	37	7.4	7.5	7.8	5.3
27	6.1	4.9	5.0	4.7	5.2	11	33	34	7.4	7.5	7.7	5.3
28	6.0	4.9	4.9	4.5	4.7	8.2	36	29	7.3	7.4	7.7	5.3
29	5.9	4.8	4.9	4.2	4.3	6.4	30	24	7.2	7.4	7.7	5.5
30	5.9	4.7	4.9	4.2	---	6.4	32	18	7.4	7.4	7.9	5.1
31	5.9	---	4.9	4.4	---	6.0	---	12	---	7.5	7.9	---
TOTAL	214.7	162.3	152.0	149.2	---	259.1	550.3	1052	231.4	229.9	236.4	200.8
MEAN	6.93	5.41	4.90	4.81	---	8.36	18.3	33.9	7.71	7.42	7.63	6.69
MAX	8.7	7.9	5.1	8.3	---	45	36	56	9.4	7.6	7.9	8.4
MIN	5.9	4.7	4.7	4.2	---	4.3	5.4	12	7.2	7.2	7.4	4.5
AC-FT	426	322	301	296	---	514	1090	2090	459	456	469	398

e Estimated.

11201850 NORTH FORK OF MIDDLE FORK TULE RIVER BELOW DOYLE SPRINGS DIVERSION, NEAR SPRINGVILLE, CA

LOCATION.—Lat 36°11'19", long 118°40'01", unsurveyed, in T.20 S., R.31 E., Tulare County, Hydrologic Unit 18030006, on right bank, 600 ft downstream from diversion, 0.2 mi upstream from Meadow Creek, and 10 mi east of Springville.

DRAINAGE AREA.—34.1 mi^2.

PERIOD OF RECORD.—October 1994 to current year (low-flow records only).

GAGE.—Water-stage recorder and broad-crested weir in concrete control. Elevation of gage is 3,740 ft above sea level, from topographic map.

REMARKS.—No records computed above 5 ft^3/s. Pacific Gas and Electric Co. pumps up to 5 ft^3/s from river at Doyle Springs Diversion to Tule River Conduit (station 11201450); water is returned to river 2.6 mi downstream after passing through Tule River Powerplant (station 11201700). See schematic diagram of Tule River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with the Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	4.8	3.6	---	---	---	---	---	---	---
2	---	---	---	4.8	3.5	4.6	---	---	---	---	---	---
3	---	---	---	4.7	3.3	---	---	---	---	---	---	---
4	---	---	4.8	4.7	3.3	4.4	---	---	---	---	---	---
5	---	---	4.8	4.7	3.4	---	---	---	---	---	---	---
6	---	---	---	4.6	3.3	4.6	---	---	---	---	---	---
7	---	---	---	---	3.3	4.5	---	---	---	---	---	---
8	---	---	---	4.6	3.3	4.6	---	---	---	---	---	---
9	---	---	---	4.6	3.4	4.5	---	---	---	---	---	---
10	---	---	---	4.5	---	4.5	---	---	---	---	---	---
11	---	---	---	4.5	3.7	4.6	---	---	---	---	---	---
12	---	---	---	4.5	4.0	4.6	---	---	---	---	---	---
13	---	---	---	4.0	---	4.6	---	---	---	---	---	---
14	---	---	---	3.5	---	---	---	---	---	---	---	---
15	---	---	4.7	3.4	---	---	---	---	---	---	---	---
16	---	---	---	3.5	---	---	---	---	---	---	---	---
17	---	---	---	3.6	---	---	---	---	---	---	---	---
18	---	---	4.7	---	---	---	---	---	---	---	---	---
19	---	---	4.7	4.0	---	---	---	---	---	---	---	---
20	---	---	4.6	3.7	---	---	---	---	---	---	---	---
21	---	---	---	3.7	---	---	---	---	---	---	---	---
22	---	---	4.9	3.6	---	---	---	---	---	---	---	---
23	---	---	---	3.7	---	---	---	---	---	---	---	---
24	---	---	4.8	---	---	---	---	---	---	---	---	---
25	---	---	4.8	---	---	---	---	---	---	---	---	---
26	---	---	4.8	---	---	---	---	---	---	---	---	---
27	---	---	4.8	4.4	---	---	---	---	---	---	---	---
28	---	---	---	4.2	---	---	---	---	---	---	---	---
29	---	---	4.8	3.5	---	---	---	---	---	---	---	---
30	---	---	4.8	3.7	---	---	---	---	---	---	---	---
31	---	---	4.8	4.0	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER, NEAR SPRINGVILLE, CA

LOCATION.—Lat 36°10'29", long 118°41'41", unsurveyed, in T.20 S., R.30 E., 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 mi^2.

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 Pacific Gas & Electric Co. Conduit published separately; combined flow only, October 1954 to September 1960. Prior to October 1982, combined flow consisted of river and conduit. October 1982 to present, combined flow consists of river and Pacific Gas & Electric Co. Tule River Powerplant near Springville (station 11201700).

REVISED RECORDS.—WSP 1445: 1951. WSP 1930: Drainage area. WDR CA-91-3: Adjusted data for 1990.

GAGE.—Water-stage recorder. Concrete control on river since Aug. 6, 1958. Rectangular weir and concrete control on river since July 10, 1991. Elevation of gage is 2,920 ft above sea level, from topographic map.

REMARKS.—Pacific Gas and Electric Co. Conduit diverts 2.5 mi upstream from station; water is returned to river 1.1 mi downstream after passing through Tule River Powerplant (11201700). For records of combined discharge of river and powerplant, see station 11202001. See schematic diagram of Tule River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 16,900 ft^3/s, Dec. 6, 1966, gage height, 13.83 ft, from floodmarks, from rating curve extended above 1,820 ft^3/s on basis of critical-depth determinations at gage heights 9.67 and 12.47 ft; minimum daily, 0.06 ft^3/s, Nov. 2, 1979.

Combined flow: Maximum discharge, 16,900 ft^3/s, Dec. 6, 1966; minimum daily, 4.9 ft^3/s, Dec. 24, 26, 1999.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	6.7	5.3	6.6	15	9.1	45	12	8.2	7.9	13
2	12	10	5.9	5.3	6.2	12	9.4	53	10	8.2	7.9	13
3	12	10	5.9	5.3	5.8	11	16	62	11	8.2	7.9	12
4	12	11	5.5	5.3	5.5	10	28	68	11	8.2	7.9	12
5	12	10	5.5	5.3	e5.6	13	35	63	11	8.2	7.9	12
6	12	9.5	5.5	5.3	e5.5	14	34	54	11	8.2	7.9	12
7	12	9.5	5.7	5.3	e5.6	12	35	51	11	8.1	8.0	12
8	12	11	8.2	5.3	e5.6	14	40	61	13	8.2	8.1	12
9	12	12	8.3	5.3	e5.6	14	36	60	12	8.1	7.8	12
10	12	10	7.3	5.3	e5.8	13	29	58	11	8.1	9.4	12
11	12	5.5	5.8	5.3	e5.7	13	27	39	11	8.0	11	12
12	12	5.4	6.0	5.3	e5.8	13	28	25	9.6	8.0	11	12
13	11	5.5	5.9	5.3	e44	12	29	20	8.8	8.0	11	12
14	11	6.6	5.8	5.1	e160	12	31	17	8.7	8.1	11	12
15	11	6.7	5.8	5.0	e33	12	19	13	8.7	8.2	11	12
16	11	6.8	5.8	5.2	e13	14	14	28	8.7	8.2	12	11
17	11	5.8	5.7	5.6	e13	17	15	17	8.5	8.2	12	11
18	11	6.3	5.5	7.4	e13	19	12	24	8.5	8.2	12	10
19	11	5.6	5.5	6.1	e13	22	9.4	26	8.5	8.2	12	8.3
20	11	7.1	5.5	5.8	e12	43	9.2	27	8.3	8.3	12	8.2
21	11	6.3	5.6	5.6	e13	65	9.9	35	8.5	8.2	12	8.5
22	11	6.6	5.8	5.5	e13	11	8.9	44	8.4	8.2	12	9.5
23	11	5.7	5.3	5.8	e14	10	8.8	53	8.3	8.2	12	9.5
24	11	5.8	4.9	18	16	9.7	9.1	52	8.3	8.2	12	9.5
25	11	5.7	4.9	20	12	9.6	13	47	8.3	8.2	12	9.4
26	11	5.6	4.9	8.8	11	11	27	41	8.2	8.2	12	9.4
27	11	5.4	5.1	6.1	23	16	38	37	8.2	8.1	12	9.4
28	11	5.7	5.3	5.8	23	13	45	32	8.2	8.0	12	9.5
29	11	5.7	5.3	5.6	18	11	36	25	8.1	8.0	12	9.7
30	10	5.5	5.3	5.5	---	10	36	20	8.1	8.0	12	9.4
31	10	---	5.3	5.8	---	10	---	15	---	8.0	12	---
TOTAL	351	222.3	179.5	201.6	513.3	481.3	696.8	1212	284.9	252.4	327.7	324.3
MEAN	11.3	7.41	5.79	6.50	17.7	15.5	23.2	39.1	9.50	8.14	10.6	10.8
MAX	12	12	8.3	20	160	65	45	68	13	8.3	12	13
MIN	10	5.4	4.9	5.0	5.5	9.6	8.8	13	8.1	8.0	7.8	8.2
AC-FT	696	441	356	400	1020	955	1380	2400	565	501	650	643

e Estimated.

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER, NEAR SPRINGVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.54	12.5	26.5	29.6	27.8	34.3	50.4	82.2	49.1	12.7	4.80	3.90
MAX	19.1	362	786	353	182	337	229	381	316	136	16.2	22.7
(WY)	1953	1951	1967	1997	1986	1943	1969	1969	1983	1998	1996	1952
MIN	.53	.76	.73	.81	.80	1.21	1.13	1.03	.61	.34	.32	.31
(WY)	1965	1963	1991	1991	1991	1977	1977	1992	1992	1961	1964	1961

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1940 - 2000	
ANNUAL TOTAL	3750.5		5047.1			
ANNUAL MEAN	10.3		13.8		27.8	
HIGHEST ANNUAL MEAN					129	1967
LOWEST ANNUAL MEAN					1.25	1961
HIGHEST DAILY MEAN	84	Jan 20	160	Feb 14	13300	Dec 6 1966
LOWEST DAILY MEAN	4.9	Dec 24	4.9	Dec 24	.06	Nov 2 1979
ANNUAL SEVEN-DAY MINIMUM	5.1	Dec 23	5.1	Dec 23	.20	Aug 24 1964
INSTANTANEOUS PEAK FLOW			unknown	Feb 14	16900	Dec 6 1966
INSTANTANEOUS PEAK STAGE			unknown	Feb 14	13.83	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	7440		10010		20170	
10 PERCENT EXCEEDS	14		28		79	
50 PERCENT EXCEEDS	9.2		10		5.3	
90 PERCENT EXCEEDS	5.9		5.5		.80	

11202001 NORTH FORK OF MIDDLE FORK TULE RIVER, NEAR SPRINGVILLE, CA—Continued

NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS & ELECTRIC CO. TULE RIVER POWERPLANT, NEAR SPRINGVILLE, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	14	5.3	25	47	9.1	109	12	24	16	13
2	12	10	15	14	27	43	70	118	62	24	16	13
3	12	10	15	11	24	41	80	128	64	24	16	12
4	12	11	15	14	26	41	95	134	57	23	16	12
5	12	10	15	14	e22	47	100	63	55	23	15	12
6	12	9.5	15	14	e20	14	99	120	54	8.2	16	12
7	12	9.5	15	5.3	e23	40	102	117	53	8.1	16	12
8	12	11	8.2	5.3	e23	49	107	126	55	8.2	16	12
9	12	12	17	5.3	e22	35	102	126	57	8.1	14	12
10	12	10	12	5.3	e24	40	95	123	11	22	15	12
11	12	5.5	14	14	e5.7	46	93	104	42	21	11	12
12	12	14	15	15	e29	51	93	90	43	21	11	12
13	11	14	15	15	e90	56	95	85	40	20	11	12
14	11	14	14	15	e209	64	97	82	38	19	11	12
15	11	13	14	15	e33	77	85	78	37	20	11	12
16	11	13	14	16	e47	76	80	95	37	20	12	11
17	143	16	16	18	e13	84	70	78	36	19	12	11
18	11	15	15	7.4	e44	84	77	90	34	19	12	10
19	11	14	14	6.1	e44	87	74	91	34	19	12	8.3
20	11	28	14	24	e34	86	64	92	32	19	12	8.2
21	11	17	15	19	e47	74	9.9	100	30	18	12	8.5
22	11	20	14	18	e44	69	71	110	30	17	12	9.5
23	11	11	14	21	e45	66	71	118	29	17	12	9.5
24	11	11	4.9	66	38	68	72	117	29	17	12	9.5
25	11	15	13	69	42	68	80	112	28	17	12	9.4
26	11	5.6	4.9	39	41	71	92	106	26	17	12	9.4
27	11	5.4	14	24	57	81	103	102	28	17	12	9.4
28	11	15	14	23	55	78	111	97	27	17	12	9.5
29	11	14	14	23	52	75	36	90	26	16	12	9.7
30	10	16	14	22	---	71	104	83	25	16	12	9.4
31	10	---	5.3	36	---	76	---	76	---	16	12	---
TOTAL	483	379.5	413.3	599.0	1205.7	1905	2437.0	3160	1131	554.6	403	324.3
MEAN	15.6	12.6	13.3	19.3	41.6	61.5	81.2	102	37.7	17.9	13.0	10.8
MAX	143	28	17	69	209	87	111	134	64	24	16	13
MIN	10	5.4	4.9	5.3	5.7	14	9.1	63	11	8.1	11	8.2
AC-FT	958	753	820	1190	2390	3780	4830	6270	2240	1100	799	643

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2000, BY WATER YEAR (WY)

MEAN	17.8	28.0	49.1	55.1	61.4	75.4	105	141	94.4	41.0	22.0	18.0
MAX	44.3	375	794	417	241	381	296	445	384	202	72.3	42.6
(WY)	1983	1951	1967	1997	1980	1943	1969	1969	1983	1998	1983	1983
MIN	8.66	10.5	11.9	13.3	12.5	16.7	21.8	25.1	16.4	10.1	8.99	8.63
(WY)	1962	1962	1991	1961	1991	1977	1977	1977	1992	1961	1977	1961

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1940 - 2000	
ANNUAL TOTAL	11420.1		12995.4			
ANNUAL MEAN	31.3		35.5		58.9	
HIGHEST ANNUAL MEAN					157	1983
LOWEST ANNUAL MEAN					15.1	1977
HIGHEST DAILY MEAN	143	Oct 17	209	Feb 14	13300	Dec 6 1966
LOWEST DAILY MEAN	4.9	Dec 24	4.9	Dec 24	4.9	Dec 24 1999
ANNUAL SEVEN-DAY MINIMUM	9.6	Nov 5	9.0	Sep 19	5.2	Oct 1 1987
INSTANTANEOUS PEAK FLOW			unknown	Feb 14	16900	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	22650		25780		42680	
10 PERCENT EXCEEDS	70		92		135	
50 PERCENT EXCEEDS	24		17		29	
90 PERCENT EXCEEDS	11		10		13	

e Estimated.

11202710 MIDDLE FORK TULE RIVER BELOW INTAKE, ABOVE SPRINGVILLE, CA

LOCATION.—Lat 36°09'41", long 118°42'31", unsurveyed, T.20 S., R.30 E., Tulare County, Hydrologic Unit 18030006, Sequoia National Forest, on right bank, 700 ft downstream from confluence of North Fork Middle Fork Tule River and South Fork Middle Fork Tule River, and 6.5 mi northeast of Springville.

DRAINAGE AREA.—85.3 mi^2.

PERIOD OF RECORD.—October 1988 to September 1990, October 1991 to current year.

REVISED RECORD.—WDR CA-95-3: 1993(M).

GAGE.—Water-stage recorder and V-notch sharp-crested weir in concrete control on river; water-stage recorder and metal flume for conduit diversion. Elevation of gage is 2,370 ft above sea level, from topographic map.

REMARKS.—Southern California Edison Co.'s Tule River Conduit (station 11202700) diverts from the right bank of Middle Fork Tule River upstream from station. Flow from this conduit passes through Tule River Powerplant of Southern California Edison Co. Diversions are made from powerplant tailrace ditch to Springville Diversion and Duncan Diversion Ditches. Remaining water is returned to the Tule River 1.5 mi upstream from confluence of Middle and North Forks. For records of combined discharge of river and conduit, see station 11202711. See schematic diagram of Tule River Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only; maximum discharge, 19,400 ft^3/s, Jan. 2, 1997, gage height, 11.82 ft; minimum daily, 4.8 ft^3/s, Oct. 3, 1996.

Combined flow: Maximum daily discharge, 6,030 ft^3/s, Jan. 3, 1997; minimum daily, 6.5 ft^3/s, Dec. 12, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	6.2	5.8	7.5	35	66	81	119	68	11	12	13
2	8.5	6.0	5.8	7.8	31	55	82	126	62	11	12	14
3	5.7	6.3	5.8	7.7	22	51	92	136	57	11	12	12
4	5.6	6.5	5.9	7.7	15	49	106	141	54	11	11	12
5	5.5	6.4	5.9	7.2	14	61	115	136	50	11	11	12
6	5.5	6.1	5.9	6.7	13	61	114	127	47	11	11	12
7	6.3	6.6	5.9	6.7	14	54	115	122	45	11	11	12
8	6.1	12	5.8	6.7	16	59	119	135	56	11	11	11
9	5.6	6.1	5.8	6.7	11	58	114	135	59	11	11	11
10	5.4	6.2	6.0	12	23	55	104	136	49	11	11	11
11	5.4	5.8	5.9	24	27	59	102	115	43	11	11	11
12	5.4	5.8	5.8	24	31	63	105	100	37	11	11	11
13	5.6	5.8	5.8	17	164	68	108	96	34	11	11	11
14	5.8	5.7	5.8	6.7	445	77	110	93	29	11	11	11
15	6.0	6.0	6.3	6.7	155	87	94	86	25	11	12	11
16	6.2	6.1	6.6	6.8	95	93	87	114	22	11	12	11
17	6.3	7.0	6.6	8.1	86	99	95	97	21	11	12	11
18	6.0	6.0	6.6	64	63	101	95	104	19	11	12	11
19	5.8	5.9	6.6	31	55	105	86	101	19	11	12	11
20	6.4	25	6.6	16	51	102	88	97	17	11	12	11
21	6.2	9.1	6.7	14	59	91	88	100	16	11	12	11
22	5.7	7.1	6.6	12	49	84	84	116	14	11	12	11
23	5.9	6.0	7.1	13	64	80	85	134	13	11	11	11
24	6.2	5.8	7.5	121	57	80	86	135	12	11	10	11
25	6.6	5.8	7.5	127	47	79	91	131	11	11	10	11
26	6.3	5.8	7.5	72	44	84	104	125	10	11	10	11
27	6.3	5.8	7.5	30	82	94	114	119	10	11	10	11
28	7.1	5.8	7.5	20	90	93	124	115	11	11	10	11
29	7.5	5.7	7.4	16	73	89	112	98	12	11	10	14
30	6.1	5.7	7.4	20	---	87	111	86	12	11	12	13
31	5.9	---	7.5	55	---	86	---	77	---	12	12	---
TOTAL	193.9	210.1	201.4	781.0	1931	2370	3011	3552	934	342	348	345
MEAN	6.25	7.00	6.50	25.2	66.6	76.5	100	115	31.1	11.0	11.2	11.5
MAX	11	25	7.5	127	445	105	124	141	68	12	12	14
MIN	5.4	5.7	5.8	6.7	11	49	81	77	10	11	10	11
AC-FT	385	417	399	1550	3830	4700	5970	7050	1850	678	690	684

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	18.3	22.7	35.2	123	90.1	106	126	158	126	54.3	18.4	15.6
MAX	40.9	94.4	236	976	241	239	303	390	614	303	69.7	41.8
(WY)	1998	1997	1997	1997	1998	1995	1998	1998	1998	1998	1998	1998
MIN	6.25	6.04	5.75	6.41	8.21	15.5	32.9	22.6	12.1	11.0	10.8	10.4
(WY)	2000	1995	1995	1994	1990	1992	1990	1992	1992	2000	1996	1996

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	11858.4		14219.4			
ANNUAL MEAN	32.5		38.9		74.4	
HIGHEST ANNUAL MEAN					199	1998
LOWEST ANNUAL MEAN					15.6	1990
HIGHEST DAILY MEAN	187	Jan 20	445	Feb 14	6030	Jan 3 1997
LOWEST DAILY MEAN	5.4	Oct 10	5.4	Oct 10	4.8	Oct 3 1996
ANNUAL SEVEN-DAY MINIMUM	5.6	Oct 9	5.6	Oct 9	5.1	Oct 2 1996
INSTANTANEOUS PEAK FLOW			957	Feb 14	19400	Jan 2 1997
INSTANTANEOUS PEAK STAGE			4.80	Feb 14	11.82	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	23520		28200		53880	
10 PERCENT EXCEEDS	81		105		194	
50 PERCENT EXCEEDS	14		12		22	
90 PERCENT EXCEEDS	5.9		5.9		6.5	

11202711 MIDDLE FORK TULE RIVER BELOW INTAKE, ABOVE SPRINGVILLE, CA—Continued

MIDDLE FORK TULE RIVER BELOW INTAKE AND
SOUTHERN CALIFORNIA EDISON CO.'S TULE RIVER CONDUIT ABOVE SPRINGVILLE, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	27	34	32	57	104	120	160	109	45	30	31
2	24	27	34	33	53	93	121	167	103	44	29	34
3	27	27	34	33	49	89	131	177	98	44	28	31
4	27	28	33	33	49	87	146	182	95	45	27	30
5	26	27	33	32	47	99	155	177	91	44	27	29
6	28	27	32	32	46	99	154	168	88	44	27	28
7	28	28	32	31	43	92	155	163	86	43	27	27
8	27	40	32	31	41	97	159	176	97	43	27	26
9	27	36	33	31	41	96	154	176	100	42	27	25
10	25	34	35	28	60	93	144	177	90	42	25	25
11	25	32	34	26	64	97	142	156	84	41	26	24
12	25	31	33	26	69	101	145	140	78	39	26	24
13	26	30	33	28	199	106	148	131	75	38	26	24
14	26	30	33	31	475	115	150	128	70	38	25	23
15	26	30	32	31	192	125	134	121	66	37	25	24
16	26	30	33	32	132	131	127	149	63	37	25	24
17	26	35	32	36	124	137	135	134	62	36	25	23
18	27	34	32	91	101	139	135	145	60	35	24	23
19	27	33	32	57	92	143	126	142	60	34	25	23
20	26	58	32	41	88	140	128	138	58	34	25	22
21	26	41	31	39	97	129	128	141	57	34	25	22
22	27	37	31	37	87	122	124	142	55	32	25	24
23	27	36	31	38	102	119	125	146	54	32	24	25
24	26	35	32	149	95	119	126	147	53	31	22	25
25	27	34	32	159	85	118	131	143	52	31	23	24
26	27	34	32	102	82	123	144	137	50	31	23	23
27	27	34	32	63	120	133	155	130	50	31	22	23
28	28	33	32	52	128	132	165	126	48	30	22	23
29	28	33	30	48	111	128	153	126	47	29	23	23
30	28	33	31	52	---	126	152	126	46	29	27	22
31	28	---	32	82	---	125	---	118	---	30	28	---
TOTAL	822	994	1004	1536	2929	3557	4212	4589	2145	1145	790	754
MEAN	26.5	33.1	32.4	49.5	101	115	140	148	71.5	36.9	25.5	25.1
MAX	28	58	35	159	475	143	165	182	109	45	30	34
MIN	24	27	30	26	41	87	120	118	46	29	22	22
AC-FT	1630	1970	1990	3050	5810	7060	8350	9100	4250	2270	1570	1500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	30.4	41.4	57.7	151	124	142	163	193	157	78.0	36.5	29.7
MAX	62.5	121	266	999	275	276	337	420	650	340	106	77.8
(WY)	1999	1997	1997	1997	1997	1995	1998	1998	1998	1998	1998	1998
MIN	18.2	22.7	21.4	28.5	34.7	48.2	69.6	53.3	26.6	19.2	15.8	14.8
(WY)	1989	1990	1990	1992	1990	1992	1990	1992	1992	1990	1990	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	22220		24477			
ANNUAL MEAN	60.9		66.9		100	
HIGHEST ANNUAL MEAN					224	1998
LOWEST ANNUAL MEAN					34.0	1990
HIGHEST DAILY MEAN	220	Jan 20	475	Feb 14	6030	Jan 3 1997
LOWEST DAILY MEAN	23	Sep 29	22	Aug 24	6.5	Dec 12 1991
ANNUAL SEVEN-DAY MINIMUM	24	Sep 26	23	Aug 23	13	Oct 5 1992
ANNUAL RUNOFF (AC-FT)	44070		48550		72520	
10 PERCENT EXCEEDS	118		143		230	
50 PERCENT EXCEEDS	45		37		50	
90 PERCENT EXCEEDS	26		25		20	

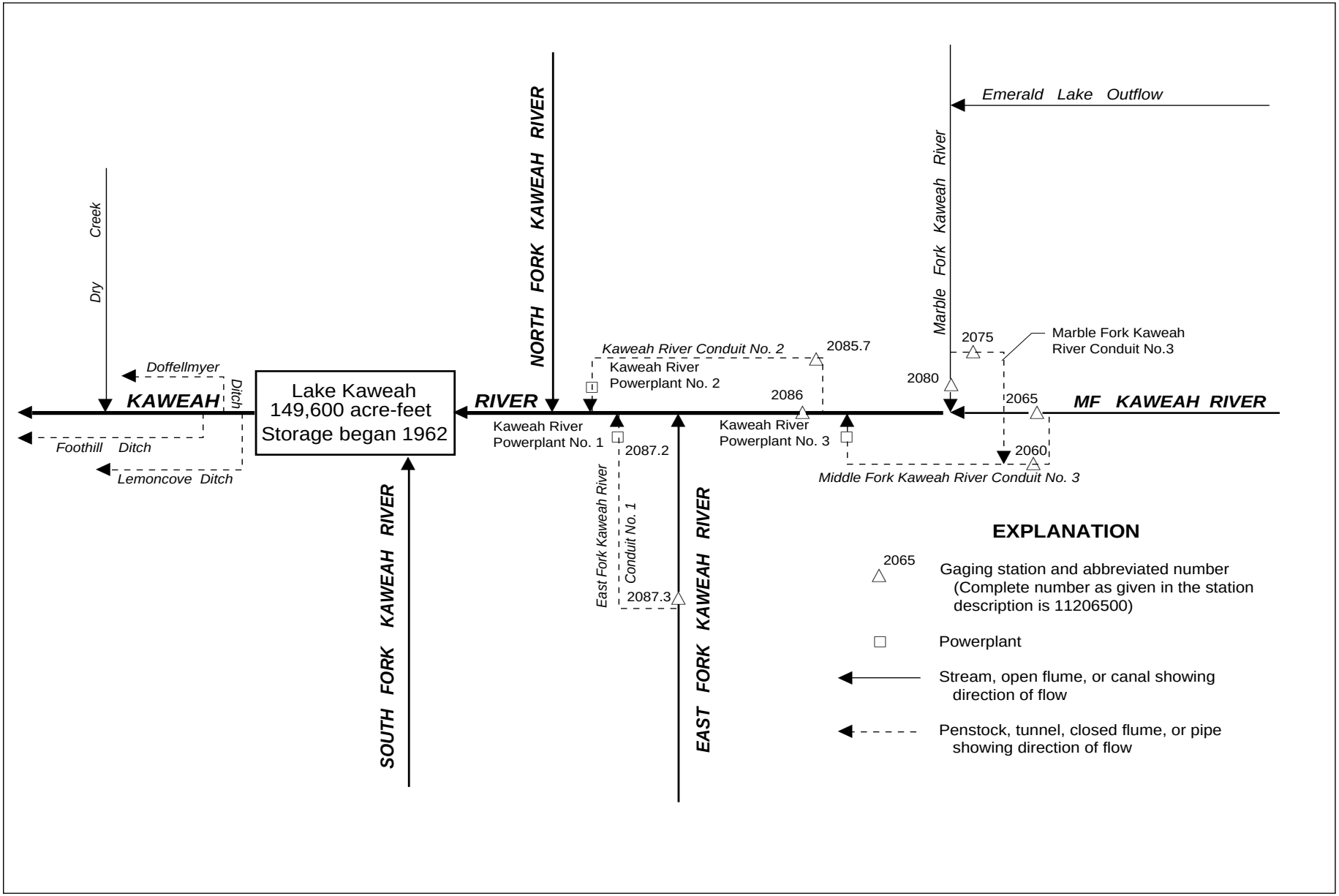

Figure 25. Diversions and storage in Kaweah River Basin.

11203580 SOUTH FORK TULE RIVER NEAR CHOLOLLO CAMPGROUND, NEAR PORTERVILLE, CA

LOCATION.—Lat 36°02'54", long 118°39'12", unsurveyed, T.22 S., R.31 E., Tulare County, Hydrologic Unit 18030005, Tule River Indian Reservation, on right bank at bridge, 20 mi southeast of Porterville, and 0.5 mi south of Cholollo Campground.

DRAINAGE AREA.—20.04 mi^2.

PERIOD OF RECORD.—January 2000 to September 2000.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 3,700 ft above sea level, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 60 ft^3/s, Apr. 17, 2000, gage height, 4.26 ft; minimum daily, 2.6 ft^3/s, Sept. 20, 2000.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	1345	52	4.18	Apr. 17	1730	60	4.26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	11	23	29	30	18	7.9	4.4	5.6
2	---	---	---	---	10	22	30	30	17	7.8	4.2	5.1
3	---	---	---	---	9.5	23	32	29	16	7.8	4.2	4.8
4	---	---	---	---	9.1	23	34	29	16	7.8	4.1	4.6
5	---	---	---	---	8.8	26	35	29	15	7.8	4.2	4.4
6	---	---	---	---	8.4	24	35	28	15	7.7	4.1	4.1
7	---	---	---	---	8.0	22	35	27	14	7.4	4.0	3.6
8	---	---	---	---	7.9	23	34	27	18	7.2	4.0	3.4
9	---	---	---	---	8.4	22	33	26	16	7.1	3.9	3.4
10	---	---	---	---	e11	23	32	26	15	6.9	3.7	3.4
11	---	---	---	---	e16	26	30	25	14	6.6	3.9	3.2
12	---	---	---	---	22	28	30	23	14	6.4	3.7	3.1
13	---	---	---	---	34	31	30	22	13	6.0	3.6	2.9
14	---	---	---	---	40	35	36	21	12	5.9	3.5	2.8
15	---	---	---	---	41	39	31	21	12	5.8	3.4	3.1
16	---	---	---	---	40	42	28	33	12	5.8	3.3	3.1
17	---	---	---	---	38	44	35	28	11	5.7	3.2	2.7
18	---	---	---	---	31	43	34	28	11	5.5	3.2	2.7
19	---	---	---	---	23	44	31	27	11	5.4	3.2	2.7
20	---	---	---	---	25	40	31	24	11	5.3	3.5	2.6
21	---	---	---	---	28	34	31	23	10	5.1	3.7	2.7
22	---	---	---	5.0	23	33	31	22	10	5.0	3.5	3.4
23	---	---	---	7.0	25	32	30	22	9.8	4.8	3.3	4.2
24	---	---	---	27	22	32	30	e22	9.6	4.8	3.1	4.1
25	---	---	---	28	21	33	30	22	9.4	4.6	3.2	3.4
26	---	---	---	25	21	34	30	21	9.0	4.6	3.3	3.1
27	---	---	---	13	28	36	31	20	8.8	4.6	3.0	3.0
28	---	---	---	9.7	28	35	33	20	8.5	4.3	2.9	3.1
29	---	---	---	9.0	26	33	32	19	8.3	4.2	3.5	3.3
30	---	---	---	14	---	31	30	18	8.1	4.1	4.2	3.0
31	---	---	---	22	---	31	---	18	---	4.2	4.1	---
TOTAL	---	---	---	---	624.1	967	953	760	372.5	184.1	113.1	104.6
MEAN	---	---	---	---	21.5	31.2	31.8	24.5	12.4	5.94	3.65	3.49
MAX	---	---	---	---	41	44	36	33	18	7.9	4.4	5.6
MIN	---	---	---	---	7.9	22	28	18	8.1	4.1	2.9	2.6
AC-FT	---	---	---	---	1240	1920	1890	1510	739	365	224	207

e Estimated.

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 mi^2.

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.
CHEMICAL ANALYSES: June to September 1980.
SPECIFIC CONDUCTANCE: October 1979 to September 1981.
WATER TEMPERATURE: October 1979 to September 1981.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder and rectangular flume on river; water-stage recorder and concrete-lined channel for conduit diversion. Elevation of gage is 2,100 ft above sea level, from topographic map. Prior to October 1955, at datum 0.70 ft higher.

REMARKS.—Middle Fork Kaweah River No. 3 Conduit (station 11206000) 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 passes through Kaweah River No. 3 Powerplant of Southern California Edison Co. Water is returned to Kaweah River 2.7 mi downstream from confluence of Marble and Middle Forks. For records of combined discharge of river and diversion to Middle Fork Kaweah No. 3 Conduit, see station 11206501. See schematic diagram of Kaweah River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 46,800 ft^3/s, Dec. 23, 1955, gage height, 29.0 ft, from floodmarks, datum then in use, on basis of slope-area measurement of peak flow; minimum daily, 0.1 ft^3/s, Nov. 12–15, 1949.
Combined flow, maximum discharge, 46,800 ft^3/s, Dec. 23, 1955; minimum daily, 7.0 ft^3/s, Sept. 16, 17, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e12	13	12	e16	e18	e100	174	482	375	93	16	32
2	e12	13	12	e17	e20	101	187	532	418	63	16	35
3	e12	13	12	e16	e21	95	231	574	415	37	23	31
4	e12	13	12	e17	e20	93	276	598	444	38	22	30
5	e12	13	12	e16	e19	109	292	571	411	55	16	29
6	e12	13	12	e17	e18	102	298	525	372	48	16	27
7	e12	13	e12	e16	e18	86	310	536	370	41	16	24
8	12	20	e12	e16	e18	94	322	566	350	37	16	22
9	12	15	e12	e16	e19	92	304	575	247	35	16	21
10	12	12	e12	e16	e30	91	279	545	220	32	16	20
11	12	12	e12	e16	e20	106	277	413	226	31	16	19
12	12	12	e12	e17	e21	120	293	302	244	29	16	19
13	12	12	e12	e17	e40	130	306	298	287	27	16	18
14	13	12	e12	e17	e400	152	277	310	318	25	16	17
15	14	12	e12	e16	e190	177	222	262	339	23	16	17
16	14	12	e12	e17	e120	192	193	325	360	23	16	17
17	14	12	e12	e16	e90	202	197	283	331	23	16	16
18	14	12	e12	e150	e75	210	187	300	280	19	16	15
19	14	12	e12	e18	e70	227	171	340	222	17	16	15
20	14	30	e12	e16	e60	215	187	443	200	17	16	15
21	14	12	e12	e16	e75	170	213	548	184	17	16	15
22	14	12	e12	e16	e60	158	198	648	172	17	16	15
23	13	12	e12	e15	e125	155	195	736	137	16	15	15
24	13	12	e12	e50	e100	160	230	745	134	16	15	15
25	13	12	e12	e115	e70	156	274	643	121	16	15	15
26	13	12	e12	e55	e60	183	346	581	121	16	18	15
27	14	12	e12	e35	e120	202	418	654	94	16	21	14
28	14	12	e12	e21	e110	191	431	634	100	16	20	14
29	14	12	e13	e16	e105	188	381	585	97	16	20	14
30	14	12	e15	e15	---	188	406	526	100	16	22	14
31	14	---	e16	e25	---	187	---	399	---	16	22	---
TOTAL	403	396	380	842	2112	4632	8075	15479	7689	891	533	585
MEAN	13.0	13.2	12.3	27.2	72.8	149	269	499	256	28.7	17.2	19.5
MAX	14	30	16	150	400	227	431	745	444	93	23	35
MIN	12	12	12	15	18	86	171	262	94	16	15	14
AC-FT	799	785	754	1670	4190	9190	16020	30700	15250	1770	1060	1160

e Estimated.

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.3	26.3	56.1	94.2	106	140	239	437	400	180	49.0	23.1
MAX	125	145	732	743	489	504	630	1178	1271	786	354	157
(WY)	1983	1983	1967	1997	1986	1986	1982	1969	1983	1983	1983	1982
MIN	.92	1.07	1.08	.36	.60	12.8	64.3	78.6	27.1	1.07	2.43	1.56
(WY)	1962	1962	1962	1961	1961	1961	1976	1977	1976	1961	1962	1962

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	29534		42017			
ANNUAL MEAN	80.9		115		147	
HIGHEST ANNUAL MEAN					417	1983
LOWEST ANNUAL MEAN					25.2	1961
HIGHEST DAILY MEAN	487	May 26	745	May 24	10500	Dec 6 1966
LOWEST DAILY MEAN	11	Jan 1	12	Oct 1	.30	Dec 27 1960
ANNUAL SEVEN-DAY MINIMUM	11	Aug 22	12	Oct 1	.30	Dec 27 1960
INSTANTANEOUS PEAK FLOW			983	May 23	46800	Dec 23 1955
INSTANTANEOUS PEAK STAGE			7.11	May 23	29.00	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	58580		83340		106700	
10 PERCENT EXCEEDS	234		353		432	
50 PERCENT EXCEEDS	18		20		34	
90 PERCENT EXCEEDS	12		12		10	

11206501 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA—Continued

MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAWEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e17	13	24	e16	e64	e157	232	538	431	151	38	41
2	e17	13	24	e17	e66	157	245	588	474	120	40	38
3	e17	13	22	e16	e66	151	288	630	471	91	52	31
4	e17	13	22	e17	e62	149	334	654	500	90	75	30
5	e16	13	22	e16	e58	165	350	627	467	107	57	29
6	e17	13	21	e17	e55	158	356	581	428	102	52	27
7	e18	13	e21	e16	e54	142	368	592	426	97	47	24
8	17	33	e21	e16	e54	150	380	622	406	92	43	22
9	16	24	e21	e16	e55	148	362	631	302	89	39	21
10	16	19	e21	e16	e85	147	336	601	275	85	36	20
11	15	18	e20	e16	e74	162	334	469	281	84	34	19
12	15	17	e21	e17	e76	176	350	357	299	81	32	19
13	15	17	e21	e18	e96	187	363	353	342	78	31	18
14	14	16	e20	e18	e450	209	334	365	374	74	30	17
15	14	17	e20	e17	e246	234	278	317	395	70	29	17
16	14	17	e20	e23	e176	250	249	380	417	70	28	17
17	14	25	e20	e30	e146	260	253	338	388	69	28	16
18	14	23	e20	e183	e132	268	243	355	337	65	27	15
19	14	20	e20	e57	e126	285	226	395	279	60	26	15
20	14	71	e19	e40	e116	273	242	499	256	56	26	16
21	14	34	e19	e39	e132	228	268	604	240	53	26	15
22	14	28	e19	e35	e116	216	253	705	228	50	26	16
23	13	28	e18	e38	e182	213	250	793	193	47	24	17
24	13	26	e18	e106	e156	218	284	802	190	45	23	17
25	13	25	e18	e170	e126	214	329	700	177	44	23	16
26	13	25	e18	e108	e116	241	401	638	177	43	24	16
27	14	24	e18	e86	e177	260	473	711	151	43	21	14
28	14	23	e17	e67	e167	249	487	691	157	41	20	14
29	14	22	e17	e55	e162	246	437	641	153	39	20	14
30	14	23	e15	e54	---	246	462	582	158	38	22	14
31	14	---	e16	e78	---	245	---	455	---	38	22	---
TOTAL	461	666	613	1418	3591	6404	9767	17214	9372	2212	1021	605
MEAN	14.9	22.2	19.8	45.7	124	207	326	555	312	71.4	32.9	20.2
MAX	18	71	24	183	450	285	487	802	500	151	75	41
MIN	13	13	15	16	54	142	226	317	151	38	20	14
AC-FT	914	1320	1220	2810	7120	12700	19370	34140	18590	4390	2030	1200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2000, BY WATER YEAR (WY)

MEAN	32.4	49.9	96.3	125	144	183	285	483	447	212	72.2	40.2
MAX	177	201	743	746	540	556	683	1225	1318	839	395	202
(WY)	1983	1983	1956	1997	1986	1986	1982	1969	1983	1998	1983	1982
MIN	9.58	11.1	12.2	18.9	17.2	40.4	124	139	75.6	25.1	13.7	8.93
(WY)	1991	1960	1991	1991	1991	1977	1976	1977	1976	1961	1990	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1955 - 2000	
ANNUAL TOTAL	37377		53344			
ANNUAL MEAN	102		146		181	
HIGHEST ANNUAL MEAN					468	1983
LOWEST ANNUAL MEAN					53.5	1977
HIGHEST DAILY MEAN	544	May 26	802	May 24	10500	Dec 6 1966
LOWEST DAILY MEAN	13	Oct 23	13	Oct 23	7.0	Sep 16 1990
ANNUAL SEVEN-DAY MINIMUM	13	Nov 1	13	Nov 1	7.1	Sep 11 1990
INSTANTANEOUS PEAK FLOW					46800	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	74140		105800		131000	
10 PERCENT EXCEEDS	284		409		481	
50 PERCENT EXCEEDS	52		54		85	
90 PERCENT EXCEEDS	17		16		17	

e Estimated.

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 mi^2.

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.
CHEMICAL ANALYSES: June to September 1980.
SPECIFIC CONDUCTANCE: October 1979 to September 1981.
WATER TEMPERATURE: October 1979 to September 1981.

REVISED RECORDS.—WP 1930: Drainage area.

GAGE.—Water-stage recorder on river; water-stage recorder and concrete control for conduit diversion. Elevation of gage is 2,150 ft above sea level, from topographic map.

REMARKS.—Marble Fork Kaweah River No. 3 Conduit (station 11207500) diverts from left bank of Marble Fork 0.3 mi upstream from station. Water is returned to Kaweah River 2.7 mi downstream from confluence of Marble and Middle Forks. For records of combined discharge of river and conduit, see station 11208001. See schematic diagram of Kaweah River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 12,500 ft^3/s, Dec. 23, 1955, gage height, 13.4 ft, from rating curve extended above 1,100 ft^3/s, on basis of slope-area measurement of peak flow; minimum daily, 0.10 ft^3/s at times in 1961–64.
Combined flow, maximum discharge, 12,500 ft^3/s, Dec. 23, 1955; minimum daily, 0.82 ft^3/s, Oct. 4, 5, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.6	2.6	8.0	8.0	17	79	344	318	30	8.7	7.6
2	2.7	4.3	2.6	8.5	8.0	15	90	369	292	23	7.4	15
3	2.7	4.2	2.5	7.6	8.0	14	123	406	296	24	7.4	10
4	2.6	4.2	2.5	8.8	8.0	15	156	433	315	26	9.4	9.0
5	2.7	3.9	2.5	8.1	8.0	19	168	414	275	26	9.8	8.6
6	2.7	3.7	2.5	7.2	8.0	17	170	377	252	16	8.8	7.9
7	3.0	3.7	2.5	8.6	8.0	11	178	396	244	9.4	8.3	7.2
8	3.2	12	2.7	7.7	8.0	12	191	452	206	9.4	8.0	6.6
9	3.0	6.7	2.8	8.6	8.0	14	184	455	130	9.4	7.6	6.5
10	2.7	1.7	2.8	8.4	11	13	164	397	133	9.4	7.6	6.4
11	2.7	1.6	3.0	8.4	7.4	15	175	276	150	9.4	7.8	6.4
12	2.7	1.6	3.2	9.4	7.6	21	187	206	160	9.4	7.6	6.2
13	2.7	1.6	3.4	9.1	26	29	195	211	196	9.7	6.9	5.8
14	3.6	1.6	3.5	7.9	227	43	153	216	200	10	5.9	5.5
15	4.7	1.7	3.4	7.8	105	55	121	166	207	9.5	5.3	5.6
16	5.0	1.9	3.0	13	54	62	106	178	209	8.0	5.3	5.5
17	5.0	4.5	3.0	15	36	67	103	169	173	7.6	5.4	5.3
18	5.0	2.0	3.1	53	26	73	99	195	140	6.9	5.7	5.2
19	4.7	1.6	3.2	9.3	21	87	94	234	107	6.7	5.7	3.6
20	4.7	5.4	3.2	5.6	19	84	106	319	96	6.7	5.6	1.5
21	4.7	1.6	3.3	5.7	22	63	122	411	83	6.7	5.7	1.5
22	4.7	1.6	3.6	5.7	16	59	113	489	76	6.8	5.6	1.5
23	4.6	1.9	3.7	5.7	18	60	114	563	56	6.6	5.5	1.6
24	4.4	2.4	3.7	29	15	64	142	591	54	6.0	5.2	1.6
25	4.4	2.5	3.7	33	11	62	179	495	47	6.0	4.7	1.6
26	4.5	2.5	3.8	11	14	72	234	461	43	7.9	5.0	1.5
27	4.7	2.4	3.9	7.3	26	88	274	536	36	11	4.9	1.5
28	4.8	2.3	4.0	7.6	24	84	282	493	38	12	4.6	1.5
29	4.9	2.3	6.0	7.6	23	81	242	431	42	11	4.6	1.5
30	4.8	2.3	8.0	7.6	---	87	282	387	32	11	5.2	1.5
31	4.7	---	8.7	7.9	---	87	---	337	---	9.7	5.5	---
TOTAL	120.0	94.3	110.4	348.1	781.0	1490	4826	11407	4606	361.2	200.7	150.7
MEAN	3.87	3.14	3.56	11.2	26.9	48.1	161	368	154	11.7	6.47	5.02
MAX	5.0	12	8.7	53	227	88	282	591	318	30	9.8	15
MIN	2.6	1.6	2.5	5.6	7.4	11	79	166	32	6.0	4.6	1.5
AC-FT	238	187	219	690	1550	2960	9570	22630	9140	716	398	299

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.11	10.0	29.6	43.0	46.9	64.3	139	288	256	99.5	19.8	9.39
MAX	60.5	72.5	385	417	259	278	396	812	799	578	135	103
(WY)	1983	1983	1956	1997	1986	1986	1982	1969	1998	1998	1983	1978
MIN	.38	.39	.44	.15	.17	.92	32.7	46.5	9.58	.57	.83	.38
(WY)	1963	1963	1962	1961	1961	1961	1975	1977	1976	1961	1962	1962

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1955 - 2000	
ANNUAL TOTAL	15832.7		24495.4			
ANNUAL MEAN	43.4		66.9		84.4	
HIGHEST ANNUAL MEAN					235	1969
LOWEST ANNUAL MEAN					10.9	1961
HIGHEST DAILY MEAN	357	May 12	591	May 24	5700	Dec 23 1955
LOWEST DAILY MEAN	1.6	Sep 3	1.5	Sep 20	.10	Jan 10 1961
ANNUAL SEVEN-DAY MINIMUM	1.7	Nov 10	1.5	Sep 24	.10	Jan 10 1961
INSTANTANEOUS PEAK FLOW			869	May 23	12500	Dec 23 1955
INSTANTANEOUS PEAK STAGE			5.95	May 23	13.40	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	31400		48590		61110	
10 PERCENT EXCEEDS	116		229		255	
50 PERCENT EXCEEDS	7.6		8.4		13	
90 PERCENT EXCEEDS	2.7		2.6		1.7	

11208001 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA—Continued

MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER CONDUIT NO. 3 AT POTWISHA CAMP, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.0	7.0	8.0	21	56	125	390	363	70	9.9	8.1
2	5.4	4.8	7.4	8.5	24	54	137	415	337	58	9.7	16
3	5.4	4.6	7.0	7.6	24	52	171	452	340	51	9.7	11
4	5.2	4.6	6.8	8.8	23	55	204	477	361	47	12	9.6
5	5.2	4.3	6.6	8.1	22	63	216	457	322	45	12	9.1
6	5.2	4.2	6.6	7.2	20	57	217	421	298	40	11	8.4
7	5.7	4.2	6.6	8.6	20	50	223	440	289	34	11	7.6
8	5.8	12	6.8	7.7	21	50	236	496	250	33	10	6.9
9	5.4	10	6.6	8.6	21	50	229	499	171	31	9.9	6.7
10	4.9	6.4	6.8	8.4	37	49	208	442	174	30	9.4	6.6
11	4.8	5.5	6.6	8.4	31	59	219	319	192	29	9.4	6.6
12	4.8	5.4	7.1	9.4	32	68	231	247	205	28	9.0	6.3
13	4.8	5.3	7.4	9.1	58	72	239	252	243	27	8.1	5.8
14	5.0	5.1	7.4	7.9	264	82	196	259	247	25	7.0	5.5
15	5.3	5.1	7.1	7.8	140	95	162	209	253	24	6.2	5.6
16	5.6	5.4	6.9	13	95	104	146	221	257	22	6.1	5.5
17	5.6	10	6.8	17	77	110	143	211	220	21	6.2	5.3
18	5.6	9.0	6.8	85	65	120	139	238	185	19	6.5	5.2
19	5.3	6.7	6.9	34	60	132	133	278	150	18	6.3	3.8
20	5.2	19	6.9	19	59	126	146	365	140	16	6.2	2.2
21	5.2	14	7.0	17	64	103	162	458	130	16	6.3	2.1
22	5.2	9.7	7.1	13	57	100	153	535	123	14	6.2	2.1
23	5.1	8.0	7.2	13	59	104	153	610	101	13	6.0	2.2
24	4.9	7.2	7.1	62	55	108	183	637	98	12	5.6	2.2
25	4.9	6.9	7.1	72	50	106	221	540	87	11	5.1	2.2
26	5.0	7.0	7.1	46	50	117	278	504	84	12	5.5	2.0
27	5.2	6.9	7.3	26	62	134	319	578	78	13	5.3	2.0
28	5.2	6.7	7.2	23	59	130	327	540	81	13	4.9	2.0
29	5.3	6.4	7.9	20	60	127	286	477	87	12	4.8	2.0
30	5.2	6.3	8.0	21	---	133	327	432	74	12	5.5	2.0
31	5.1	---	8.7	27	---	134	---	382	---	10	5.8	---
TOTAL	161.9	215.7	219.8	632.1	1630	2800	6129	12781	5940	806	236.6	162.6
MEAN	5.22	7.19	7.09	20.4	56.2	90.3	204	412	198	26.0	7.63	5.42
MAX	5.8	19	8.7	85	264	134	327	637	363	70	12	16
MIN	4.8	4.2	6.6	7.2	20	49	125	209	74	10	4.8	2.0
AC-FT	321	428	436	1250	3230	5550	12160	25350	11780	1600	469	323

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2000, BY WATER YEAR (WY)

MEAN	13.0	21.7	43.7	58.7	68.9	91.3	169	318	284	119	31.0	17.3
MAX	88.8	103	385	419	295	315	426	840	840	621	184	134
(WY)	1983	1983	1956	1997	1986	1986	1982	1969	1983	1998	1983	1978
MIN	2.02	2.77	2.61	5.25	6.67	16.9	57.2	78.4	24.9	4.09	2.43	1.40
(WY)	1962	1991	1991	1991	1991	1977	1975	1977	1976	1961	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1955 - 2000	
ANNUAL TOTAL	20261.5		31714.7			
ANNUAL MEAN	55.5		86.7		103	
HIGHEST ANNUAL MEAN					257	1969
LOWEST ANNUAL MEAN					24.7	1977
HIGHEST DAILY MEAN	374	May 26	637	May 24	5700	Dec 23 1955
LOWEST DAILY MEAN	4.2	Nov 6	2.0	Sep 26	.82	Oct 4 1977
ANNUAL SEVEN-DAY MINIMUM	4.5	Nov 1	2.1	Sep 24	1.0	Sep 2 1977
ANNUAL RUNOFF (AC-FT)	40190		62910		74570	
10 PERCENT EXCEEDS	162		268		285	
50 PERCENT EXCEEDS	22		17		35	
90 PERCENT EXCEEDS	5.2		5.2		5.2	

11208600 KAWEAH RIVER BELOW CONDUIT NO. 2, NEAR HAMMOND, CA

LOCATION.—Lat 36°29'04", long 118°50'06", in NW 1/4 NW 1/4 sec.37, T.17 S., R.29 E., Tulare County, Hydrologic Unit 18030007, on right bank, 0.4 mi upstream of confluence with East Fork Kaweah River, 1.9 mi northeast of Hammond, and 5.2 miles northeast of Three Rivers.

DRAINAGE AREA.—342 mi^2.

PERIOD OF RECORD.—October 1993 to current year.

GAGE.—Water-stage recorders on river and conduit diversion. Elevation of gage is 1,360 ft above sea level, from topographic map.

REMARKS.—Kaweah River conduit No. 2 (station 11208570) diverts up to 130 ft^3/s from right bank of river near diversion dam. Water is returned to Kaweah River 3.8 mi downstream of diversion and 1.9 mi upstream of confluence with North Fork Kaweah River. For records of combined discharges of river and conduit, see station 11208601. See schematic diagram of Kaweah River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 29,000 ft^3/s, Jan. 2, 1997, gage height, unknown; minimum daily, 5.5 ft^3/s, for several days in December 1994.

Combined flow, maximum daily discharge, 9,810 ft^3/s, Jan. 2, 1997; minimum daily, 12 ft^3/s, Oct. 23, 24, 1996.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	18	31	13	17	165	259	878	814	116	23	29
2	19	17	31	13	18	135	278	952	767	99	23	34
3	18	17	29	13	16	125	363	1030	757	82	23	30
4	19	17	28	13	14	123	458	1090	809	65	24	30
5	20	17	27	13	13	157	497	1040	749	53	21	30
6	21	17	24	13	13	151	504	960	674	46	22	30
7	22	17	20	13	13	123	524	978	674	40	25	29
8	21	40	14	13	13	133	550	1060	623	33	25	28
9	20	40	14	13	13	128	528	1080	414	28	24	27
10	19	26	14	13	81	121	475	1010	374	28	23	26
11	19	24	14	13	84	137	490	761	395	27	27	26
12	19	23	14	14	68	156	517	559	434	27	28	24
13	18	22	14	14	244	169	553	547	511	27	28	23
14	17	22	13	13	943	228	472	581	566	27	28	22
15	18	22	13	13	392	238	366	459	594	27	26	21
16	18	22	13	17	234	263	315	572	626	27	23	21
17	18	35	13	18	186	276	318	486	560	27	23	21
18	18	34	13	155	135	294	303	541	467	27	23	21
19	18	27	13	41	115	328	270	611	354	26	23	21
20	18	90	13	14	106	316	300	803	303	25	23	21
21	18	51	13	13	133	239	352	1000	276	25	23	20
22	17	39	13	13	120	222	323	1190	253	24	24	20
23	17	37	13	13	156	220	311	1340	194	24	24	20
24	17	34	13	175	130	233	385	1400	188	23	24	20
25	17	33	13	248	107	224	478	1200	164	23	24	20
26	18	32	13	110	100	259	612	1090	158	23	24	20
27	18	31	13	31	205	302	729	1220	144	23	24	20
28	18	30	13	16	207	284	772	1190	137	24	24	20
29	19	29	13	12	183	279	673	1080	142	24	24	20
30	18	29	13	18	---	283	725	973	129	24	25	20
31	18	---	13	56	---	284	---	866	---	23	25	---
TOTAL	574	892	508	1147	4059	6595	13700	28547	13250	1117	750	714
MEAN	18.5	29.7	16.4	37.0	140	213	457	921	442	36.0	24.2	23.8
MAX	22	90	31	248	943	328	772	1400	814	116	28	34
MIN	17	17	13	12	13	121	259	459	129	23	21	20
AC-FT	1140	1770	1010	2280	8050	13080	27170	56620	26280	2220	1490	1420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2000, BY WATER YEAR (WY)

MEAN	22.4	34.8	60.2	237	217	283	451	818	811	440	89.0	27.8
MAX	62.2	152	271	1250	439	521	633	1051	2009	1571	254	90.1
(WY)	1999	1997	1997	1997	1996	1995	1996	1996	1998	1998	1998	1998
MIN	11.8	5.70	5.93	20.1	32.1	81.1	230	451	250	11.7	11.2	8.05
(WY)	1996	1995	1995	1994	1994	1999	1999	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1994 - 2000	
ANNUAL TOTAL	44274		71853			
ANNUAL MEAN	121		196		291	
HIGHEST ANNUAL MEAN					512	1998
LOWEST ANNUAL MEAN					99.2	1994
HIGHEST DAILY MEAN	864	May 26	1400	May 24	9800	Jan 2 1997
LOWEST DAILY MEAN	13	Dec 14	12	Jan 29	5.5	Dec 21 1994
ANNUAL SEVEN-DAY MINIMUM	13	Dec 14	13	Dec 14	5.6	Dec 17 1994
INSTANTANEOUS PEAK FLOW			1940	May 23	29000	Jan 2 1997
INSTANTANEOUS PEAK STAGE			6.67	May 23	unknown	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	87820		142500		211000	
10 PERCENT EXCEEDS	361		624		822	
50 PERCENT EXCEEDS	31		28		82	
90 PERCENT EXCEEDS	17		13		11	

11208601 KAWEAH RIVER BELOW CONDUIT NO. 2, NEAR HAMMOND, CA—Continued

KAWEAH RIVER BELOW CONDUIT NO. 2 AND KAWEAH RIVER CONDUIT NO. 2, NEAR HAMMOND, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	e19	e32	22	94	253	349	968	905	209	49	44
2	21	e18	e32	22	97	222	368	1040	858	192	50	51
3	20	e18	e30	22	96	211	454	1120	847	174	53	40
4	e21	e18	e29	23	90	209	550	1180	899	156	88	38
5	e21	e18	e28	23	83	245	590	1130	838	145	65	37
6	e23	e18	e27	22	78	239	596	1050	761	138	61	e34
7	e27	e18	27	22	78	210	614	1060	763	130	57	e30
8	e24	e75	27	22	78	222	639	1140	715	123	52	e31
9	e22	e62	26	22	78	217	617	1170	499	120	47	e30
10	e20	e28	27	22	165	209	567	1100	461	116	43	e29
11	e20	e26	26	22	168	226	585	850	485	112	40	e29
12	e20	e25	27	25	152	246	611	646	526	108	37	e25
13	e19	e26	26	25	331	257	647	634	605	104	35	e25
14	e18	e26	25	22	1020	287	568	667	658	98	34	e24
15	e20	e25	25	22	477	326	459	545	684	94	32	e22
16	e20	e25	25	30	324	352	406	648	715	93	31	e23
17	e20	e40	24	45	274	364	410	572	647	92	30	e23
18	e20	e37	24	222	221	382	392	629	553	88	29	e22
19	e21	e29	24	113	200	417	360	701	442	81	28	e22
20	e20	e92	24	64	190	405	389	894	392	77	28	e22
21	e20	e53	23	61	219	325	441	1090	364	73	28	e21
22	e18	e40	23	53	205	310	413	1280	341	69	28	e21
23	e18	e38	23	55	242	309	400	1430	279	66	28	e22
24	e18	e35	22	262	214	322	474	1490	276	62	28	e22
25	e18	e34	22	335	192	311	568	1290	252	60	28	e22
26	e20	e33	22	196	186	346	704	1180	247	59	28	e22
27	e20	e32	22	113	293	392	821	1310	234	58	28	e21
28	e20	e31	21	94	296	375	861	1280	228	57	28	e21
29	e23	e30	20	81	272	370	761	1170	235	54	28	e21
30	e22	e30	21	83	---	374	814	1060	221	52	29	e21
31	e20	---	21	140	---	375	---	956	---	50	29	---
TOTAL	635	999	775	2285	6413	9308	16428	31280	15930	3110	1199	815
MEAN	20.5	33.3	25.0	73.7	221	300	548	1009	531	100	38.7	27.2
MAX	27	92	32	335	1020	417	861	1490	905	209	88	51
MIN	18	18	20	22	78	209	349	545	221	50	28	21
AC-FT	1260	1980	1540	4530	12720	18460	32580	62040	31600	6170	2380	1620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2000, BY WATER YEAR (WY)

MEAN	39.7	68.2	107	287	287	362	527	898	890	510	128	56.7
MAX	70.6	192	341	1283	514	600	710	1124	2076	1649	334	162
(WY)	1999	1997	1997	1997	1996	1995	1996	1996	1998	1998	1998	1998
MIN	20.5	30.7	25.0	44.6	86.4	158	304	532	324	55.5	20.8	19.7
(WY)	2000	1994	2000	1994	1994	1999	1999	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1994 - 2000	
ANNUAL TOTAL	60114		89177			
ANNUAL MEAN	165		244		347	
HIGHEST ANNUAL MEAN					575	1998
LOWEST ANNUAL MEAN					142	1994
HIGHEST DAILY MEAN	947	May 26	1490	May 24	9810	Jan 2 1997
LOWEST DAILY MEAN	17	Sep 16	18	Oct 14	12	Oct 23 1996
ANNUAL SEVEN-DAY MINIMUM	18	Sep 11	18	Nov 1	14	Sep 2 1994
ANNUAL RUNOFF (AC-FT)	119200		176900		251100	
10 PERCENT EXCEEDS	434		715		899	
50 PERCENT EXCEEDS	75		76		156	
90 PERCENT EXCEEDS	20		21		27	

e Estimated.

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA

LOCATION.—Lat 36°27'06", long 118°47'18", in NW 1/4 sec.14, T.17 S., R.29 E., Tulare County, Hydrologic Unit 18030007, 1.9 mi downstream of Grunigen Creek confluence, and 8.2 mi east of Three Rivers.

DRAINAGE AREA.—85.8 mi^2.

PERIOD OF RECORD.—May 1952 to September 1955, October 1957 to September 1978, October 1993 to current year. Prior to October 1962, combined only.
CHEMICAL ANALYSES: July 1968 to September 1971.
WATER TEMPERATURE: August 1968 to September 1976.
SEDIMENT DATA: August 1968 to September 1971.

GAGE.—Water-stage recorder and acoustic-flow meter on river; water-stage recorder and Parshall flume for conduit diversion. Elevation of gage is 2,500 ft above sea level, from topographic map. May 15, 1952, to Sept. 30, 1955, at site 200 ft downstream at different datum.

REMARKS.—East Fork Kaweah River Conduit No. 1 (station 11208720) diverts up to 30 ft^3/s from left bank of river near diversion dam. Water is returned to Middle Fork Kaweah River, 1.9 mi downstream from mouth of East Fork. For records of combined discharges of river and conduit, see station 11208731. See schematic diagram of Kaweah River Basin.

COOPERATION.—Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 13,000 ft^3/s, Dec. 6, 1966, gage height, 21 ft, from floodmarks, from rating curve extended above 850 ft^3/s, on basis of critical-depth measurement of peak flow over diversion dam; minimum daily, no flow Jan. 22, Oct. 18–20, 1962.
Combined flow, maximum discharge, 13,000 ft^3/s, Dec. 6, 1966; minimum daily, 3.5 ft^3/s, Sept. 28, 29, 1960.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	6.9	6.5	7.3	15	60	98	335	340	60	12	16
2	16	6.9	6.6	7.4	14	48	102	366	326	56	10	9.8
3	16	6.9	6.6	7.4	13	45	125	399	319	52	11	8.0
4	15	7.1	6.6	7.3	11	43	155	415	323	47	9.8	7.7
5	15	7.4	6.4	7.4	8.2	49	169	409	302	41	9.8	7.7
6	15	7.4	6.8	7.2	7.9	46	171	398	277	38	9.8	7.9
7	16	7.6	7.3	7.1	7.7	39	184	421	265	35	9.8	8.0
8	15	16	7.4	7.3	7.7	43	199	457	260	34	9.7	7.9
9	15	8.4	7.3	7.1	7.9	44	193	474	216	36	9.8	7.6
10	14	7.8	7.6	7.2	40	43	175	453	192	34	9.9	7.6
11	13	7.7	7.5	7.2	42	48	181	359	184	31	9.9	7.6
12	13	7.7	7.2	7.0	38	53	190	313	188	26	10	7.6
13	13	7.6	7.3	7.2	133	57	205	299	204	24	11	7.6
14	13	7.6	7.4	6.9	335	64	179	292	216	22	9.2	7.6
15	12	7.7	7.4	6.9	121	77	140	269	216	21	7.0	7.6
16	12	7.7	7.4	7.2	78	85	121	290	220	20	7.5	7.6
17	12	8.0	7.4	7.7	58	92	133	259	192	19	7.5	7.6
18	12	6.9	7.2	58	49	95	124	269	150	17	7.5	6.7
19	12	6.9	7.3	20	43	112	108	288	142	16	7.6	6.2
20	12	29	7.0	11	44	116	115	342	126	15	7.6	6.5
21	11	8.4	7.0	9.9	55	91	94	403	118	16	7.6	7.2
22	11	7.3	7.0	8.4	47	81	84	467	109	16	7.5	7.7
23	11	6.8	7.1	9.0	62	79	119	544	100	16	7.5	7.5
24	12	6.6	7.0	111	54	82	141	504	86	16	7.5	7.2
25	11	6.5	7.0	128	45	82	174	510	77	17	7.5	6.9
26	11	6.5	7.0	52	42	90	228	476	76	17	7.5	7.2
27	11	6.5	7.0	21	90	104	280	528	82	16	7.5	7.7
28	10	6.3	7.0	14	80	110	306	484	79	16	8.3	8.3
29	6.9	6.3	7.1	12	72	100	279	432	69	16	8.4	8.8
30	6.9	6.3	7.1	16	---	100	298	393	63	16	8.4	8.9
31	6.9	---	7.2	30	---	101	---	359	---	15	8.4	---
TOTAL	385.7	246.7	219.7	623.1	1620.4	2279	5070	12207	5517	821	272.5	238.2
MEAN	12.4	8.22	7.09	20.1	55.9	73.5	169	394	184	26.5	8.79	7.94
MAX	16	29	7.6	128	335	116	306	544	340	60	12	16
MIN	6.9	6.3	6.4	6.9	7.7	39	84	259	63	15	7.0	6.2
AC-FT	765	489	436	1240	3210	4520	10060	24210	10940	1630	541	472

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2000, BY WATER YEAR (WY)

MEAN	5.91	9.73	38.7	63.5	58.1	74.8	152	355	359	135	27.1	10.6
MAX	22.4	83.9	594	674	219	251	350	944	1017	775	148	73.9
(WY)	1970	1997	1967	1997	1969	1995	1969	1969	1998	1998	1967	1978
MIN	.32	.48	.23	.55	.37	2.28	45.2	54.8	21.3	.85	.34	.23
(WY)	1959	1963	1959	1961	1961	1977	1977	1977	1976	1959	1955	1953

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1952 - 2000	
ANNUAL TOTAL	20629.5		29500.3			
ANNUAL MEAN	56.5		80.6		107	
HIGHEST ANNUAL MEAN					300	1969
LOWEST ANNUAL MEAN					15.9	1977
HIGHEST DAILY MEAN	381	May 26	544	May 23	8000	Dec 6 1966
LOWEST DAILY MEAN	6.3	Aug 3	6.2	Sep 19	.00	Jan 22 1962
ANNUAL SEVEN-DAY MINIMUM	6.4	Nov 25	6.4	Nov 25	.10	Sep 28 1953
INSTANTANEOUS PEAK FLOW			910	Feb 14	13000	Dec 6 1966
INSTANTANEOUS PEAK STAGE			6.09	Feb 14	21.00	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	40920		58510		77180	
10 PERCENT EXCEEDS	170		282		325	
50 PERCENT EXCEEDS	24		16		22	
90 PERCENT EXCEEDS	7.0		7.0		.70	

11208731 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA—Continued

EAST FORK KAWEAH RIVER AND EAST FORK KAWEAH RIVER CONDUIT NO. 1 NEAR THREE RIVERS, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	13	18	13	33	80	121	359	364	85	23	32
2	17	13	17	15	32	70	125	390	350	81	26	27
3	17	13	16	14	30	67	148	422	343	76	28	23
4	16	13	16	15	28	65	178	440	347	72	25	22
5	16	13	16	14	26	71	193	433	326	65	24	20
6	16	13	15	13	25	68	195	422	301	62	23	23
7	17	13	16	14	25	61	208	442	289	59	22	24
8	16	26	15	13	25	65	223	481	284	58	22	23
9	16	18	16	13	26	67	217	499	240	60	21	22
10	15	16	16	14	60	68	199	478	215	58	20	22
11	14	16	15	14	49	73	204	383	207	55	20	21
12	14	16	16	15	38	78	214	337	212	50	19	21
13	14	15	16	14	133	82	229	323	228	48	19	20
14	14	15	16	14	335	88	203	316	240	46	18	19
15	13	15	16	14	121	100	164	293	240	45	17	19
16	13	15	16	18	87	108	144	314	244	44	17	19
17	13	19	16	20	78	115	157	283	216	42	17	17
18	13	16	15	74	69	118	148	293	174	39	17	16
19	13	16	15	34	63	135	131	312	165	36	17	15
20	13	48	15	24	63	139	139	366	150	35	17	15
21	12	25	14	22	75	113	118	427	142	35	17	14
22	12	21	14	20	67	103	108	491	133	32	16	15
23	12	20	14	22	81	101	143	568	124	30	16	16
24	13	18	14	128	72	104	165	528	110	28	16	16
25	13	18	14	142	64	104	198	534	101	28	16	14
26	13	18	14	71	61	112	252	499	100	28	18	14
27	13	18	14	39	109	127	304	552	107	26	16	14
28	14	17	13	31	99	133	330	508	104	25	17	14
29	14	17	13	27	91	123	303	456	94	24	18	14
30	13	17	13	32	---	123	322	417	88	24	19	14
31	13	---	13	49	---	124	---	383	---	22	18	---
TOTAL	439	531	467	962	2065	2985	5783	12949	6238	1418	599	565
MEAN	14.2	17.7	15.1	31.0	71.2	96.3	193	418	208	45.7	19.3	18.8
MAX	17	48	18	142	335	139	330	568	364	85	28	32
MIN	12	13	13	13	25	61	108	283	88	22	16	14
AC-FT	871	1050	926	1910	4100	5920	11470	25680	12370	2810	1190	1120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2000, BY WATER YEAR (WY)

MEAN	21.4	27.0	56.3	80.9	79.6	96.9	175	379	383	158	47.3	28.1
MAX	42.2	98.2	597	674	223	270	368	966	1036	793	174	99.5
(WY)	1970	1997	1967	1997	1969	1995	1969	1969	1998	1998	1967	1978
MIN	10.2	9.37	10.2	14.5	17.8	22.9	68.1	79.5	47.4	18.4	10.8	10.2
(WY)	1960	1960	1960	1961	1961	1977	1977	1977	1976	1977	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1952 - 2000	
ANNUAL TOTAL	26399		35001			
ANNUAL MEAN	72.3		95.6		127	
HIGHEST ANNUAL MEAN					317	1969
LOWEST ANNUAL MEAN					34.0	1977
HIGHEST DAILY MEAN	405	May 26	568	May 23	8000	Dec 6 1966
LOWEST DAILY MEAN	12	Oct 21	12	Oct 21	3.5	Sep 28 1960
ANNUAL SEVEN-DAY MINIMUM	13	Oct 17	13	Oct 17	6.3	Sep 27 1960
ANNUAL RUNOFF (AC-FT)	52360		69420		91810	
10 PERCENT EXCEEDS	193		306		344	
50 PERCENT EXCEEDS	43		28		45	
90 PERCENT EXCEEDS	14		14		15	

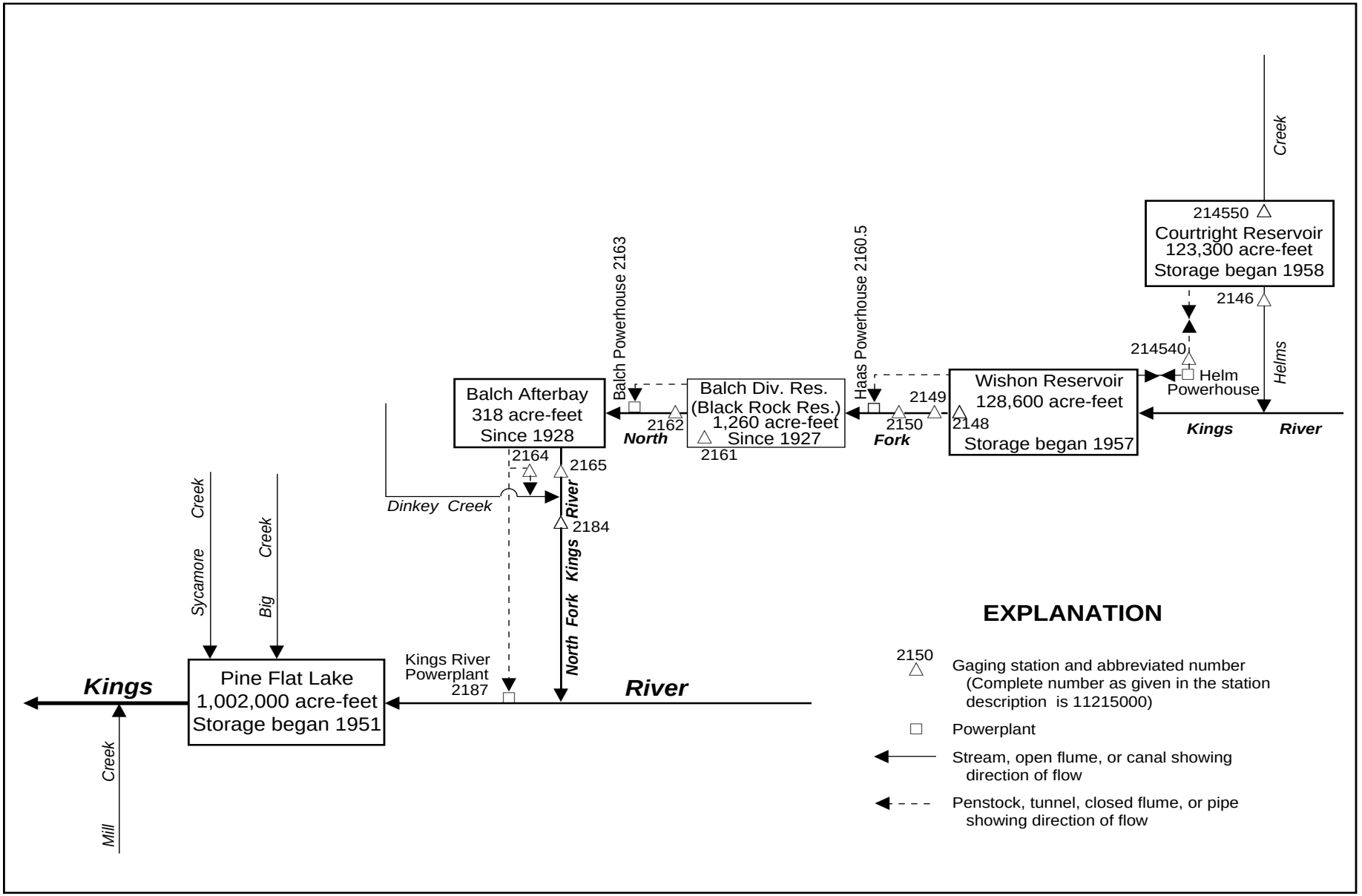

Figure 26. Diversions and storage in Kings River Basin.

11214540 HELMS POWERPLANT NEAR WISHON RESERVOIR, CA

LOCATION.—Lat 37°02'22", long 118°57'16", unsurveyed, T.10 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, underground facility, 2.4 mi north of Wishon Dam, and 2.8 mi south of Courtright Dam.

PERIOD OF RECORD.—October 1989 to current year.

GAGE.—Acoustic-velocity meter in penstock. Elevation of powerplant, approximately 1,000 ft below land surface, is 6,286.0 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Flow is diverted from Courtright Reservoir (station 11214550) through a tunnel to the powerplant which generates electricity during peak power demand, then to Wishon Reservoir (station 11214800). During periods of low power demand, reversible turbines pump water from Wishon Reservoir to Courtright Reservoir. Turbines draft up to 9,000 ft^3/s and pump up to 7,200 ft^3/s. Figures shown represent the net daily flow from Courtright Reservoir to Wishon Reservoir. Negative values represent net flow pumped to Courtright Reservoir. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 5,440 ft^3/s, Dec. 22, 1998; maximum daily pumpage, 6,860 ft^3/s, Jan. 5, 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2970	1310	413	-637	314	126	.00	1240	302	-1700	2710	-1230
2	-1960	869	704	525	405	698	159	871	983	-2430	2840	-1620
3	-3840	350	680	835	-1250	162	131	850	801	-1770	2840	-2160
4	-1810	-636	1140	392	-879	55	-682	-165	440	-1970	1430	-2200
5	-1370	-951	915	-118	-1110	56	-711	-399	-631	-1030	-47	-1040
6	-834	-1560	1260	-315	-856	811	-914	-1350	-248	-771	-958	-844
7	-819	-1250	210	373	-320	1390	-643	-1180	470	366	766	-314
8	-548	-1050	522	125	-320	-20	-1150	-341	24	50	979	-81
9	-531	-213	745	-757	-664	99	-1570	131	-31	-877	705	-445
10	-635	-691	950	-613	-685	290	-530	598	-828	388	418	132
11	705	-1090	34	-535	-799	-509	438	397	-306	-482	1720	664
12	1210	-1080	-963	101	-1230	-72	-94	-114	1050	1460	-1400	668
13	840	-1720	106	600	-574	104	-334	-557	1190	1150	-1630	946
14	638	-1720	-122	-274	57	677	-254	-774	2260	1450	1670	1260
15	-459	-542	-359	1450	-287	977	-602	302	610	18	1360	625
16	312	-1030	-190	-443	887	1170	-1060	-327	217	-1340	1510	-540
17	122	-897	-70	-10	-141	970	-308	242	-1150	711	753	-940
18	932	-339	-1310	857	-91	747	-418	42	-1150	390	-1090	1760
19	778	-328	-400	-78	-603	528	-192	1060	-714	379	-1140	2310
20	901	-302	-467	10	-1380	122	-240	801	-60	1320	-762	3240
21	867	-1530	1730	253	-225	-148	-1400	434	1050	829	-157	-488
22	504	-214	-105	728	-400	44	-2160	1720	335	-1920	-262	-910
23	-929	-298	-524	728	-35	-449	-2270	2070	914	-1430	-319	-1720
24	-1880	-370	-526	1520	-37	.00	831	-1340	-1020	1080	-218	-1470
25	-267	-2620	-180	109	-103	.00	495	-3160	-1740	1080	1210	-897
26	-87	-2080	545	893	187	.00	1960	-2700	1690	1230	-635	-811
27	842	-1490	347	810	187	.00	506	-1520	1890	1870	-1510	-1020
28	2410	-791	-11	-11	781	.00	561	-1520	2850	238	-64	1180
29	785	40	703	448	896	.00	510	-1360	2440	-872	-287	546
30	306	238	-819	360	---	.00	82	-806	503	1230	-836	339
31	-266	---	-1260	1120	---	.00	---	1030	---	2320	-1250	---
TOTAL	-1113	-21985	3698	8446	-8275	7828.00	-9859.00	-5825	12141	967	8346	-5060
MEAN	-35.9	-733	119	272	-285	253	-329	-188	405	31.2	269	-169
MAX	2970	1310	1730	1520	896	1390	1960	2070	2850	2320	2840	3240
MIN	-3840	-2620	-1310	-757	-1380	-509	-2270	-3160	-1740	-2430	-1630	-2200
AC-FT	-2210	-43610	7330	16750	-16410	15530	-19560	-11550	24080	1920	16550	-10040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	127	-150	39.0	-24.1	104	68.0	23.1	-301	19.9	143	344	343
MAX	499	247	358	272	469	371	370	194	405	627	850	894
(WY)	1996	1994	1999	2000	1999	1995	1995	1995	2000	1989	1999	1991
MIN	-110	-734	-203	-844	-285	-315	-342	-722	-239	-209	177	-169
(WY)	1993	1992	1996	1997	2000	1989	1999	1992	1997	1997	1990	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	14187.50		-10691.00			
ANNUAL MEAN	38.9		-29.2		61.0	
HIGHEST ANNUAL MEAN					177	1995
LOWEST ANNUAL MEAN					-77.5	1997
HIGHEST DAILY MEAN	5210	Aug 27	3240	Sep 20	5440	Dec 22 1998
LOWEST DAILY MEAN	-3840	Oct 3	-3840	Oct 3	-6860	Jan 5 1997
ANNUAL SEVEN-DAY MINIMUM	-1600	Oct 2	-1770	May 24	-2530	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	28140		-21210		44200	
10 PERCENT EXCEEDS	1530		1220		1190	
50 PERCENT EXCEEDS	-11		-11		.00	
90 PERCENT EXCEEDS	-1300		-1360		-991	

11214550 COURTRIGHT RESERVOIR NEAR NELSON MOUNTAIN, CA

LOCATION.—Lat 37°04'45", long 118°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 mi^2.

PERIOD OF RECORD.—October 1958 to September 1982 (monthend elevation and contents only), October 1982 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Pacific Gas & 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. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Records not rounded to U.S. 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, 121,969 acre-ft, June 11, elevation, 8,183.19 ft; minimum, 18,393 acre-ft, Oct. 1, elevation, 8,076.37 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated Apr. 13, 1959)

7,902	0	7,970	736	8,035	6,269	8,115	42,141
7,950	267	7,990	1,617	8,060	12,298	8,150	75,878
7,960	462	8,010	3,129	8,085	22,584	8,184	123,286

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18393	21857	66890	61076	42550	60781	45523	73648	119186	104617	97260	86321
2	21862	20224	65700	60011	41785	59398	45226	73046	117802	109341	91683	89451
3	29352	19500	64190	58360	44100	59064	45070	72659	116807	112749	86078	93604
4	33087	20679	61931	57556	46028	58946	46668	74218	116461	116607	83221	97845
5	35804	22598	60152	57759	48202	58985	48262	76017	118230	118516	83270	99839
6	37399	25561	57653	58340	49796	57354	50229	79911	119138	119714	85139	101390
7	38970	28238	57258	57575	50408	54543	51704	83445	118580	119138	83494	102036
8	40069	30305	56191	57287	51179	54590	54340	85400	118931	119010	81567	102108
9	41031	30756	54719	58740	52490	54423	57739	86500	119282	120580	80226	102901
10	41871	32118	52851	59912	53962	53761	59015	86545	121127	119810	79368	102568
11	40544	34274	52715	60966	55578	54775	58506	86871	121969	120693	75901	101219
12	38198	36213	54506	60746	58136	54942	59123	87747	120147	117786	78553	99853
13	36467	39546	54395	59547	59527	54775	60269	89555	118056	115475	81616	97943
14	35198	43110	54599	60070	59507	53368	61136	91737	113906	112564	78494	95426
15	33752	44366	55250	57200	60080	51432	62818	91710	112933	112564	75831	94186
16	33154	46393	55606	58233	58428	49093	65036	92862	112656	114961	72794	95166
17	32854	48185	55785	58120	58731	47112	65973	92781	115194	113674	71305	97000
18	30821	48792	58311	56579	58946	45580	66961	93293	117501	112918	73568	93509
19	29495	49434	58936	56761	59991	44539	67427	92177	119026	112043	75541	88954
20	27745	50046	59893	56532	62796	44406	68022	91923	119154	109432	77045	82650
21	26053	53095	56474	56021	63309	44564	70861	92486	117142	107783	77130	83494
22	25042	53386	56655	54617	64105	44450	75541	90648	116587	111416	77638	85379
23	26876	54027	57681	53578	64375	45358	80262	88213	114808	114123	78148	88486
24	30547	54645	58692	50843	64438	45358	78960	92124	116811	111997	77543	91390
25	31009	59695	59054	50658	64709	45358	78374	99486	120164	109402	75251	93091
26	31113	63962	58030	48904	64250	45366	75205	106182	116792	107331	76414	94621
27	30646	66836	57239	47204	64386	45374	74905	110519	113103	103509	79176	96485
28	26030	68337	57220	46986	62787	45392	74571	114510	107451	103161	79404	94077
29	24526	68185	55757	46077	61032	45508	74307	118167	102612	104720	80008	92956
30	23913	67708	57768	45382	---	45440	75031	120564	101304	107167	81457	92244
31	24449	---	59903	43317	---	45465	---	119170	---	102583	83969	---
MAX	41871	68337	66890	61076	64709	60781	80262	120564	121969	120693	97260	102901
MIN	18393	19500	52715	43317	41785	44406	45070	72659	101304	102583	71305	82650
a	8088.47	8142.70	8135.15	8116.49	8136.28	8119.14	8149.27	8181.45	8169.65	8170.54	8156.71	8163.10
b	+444	+43259	-7805	-16586	+17715	-15567	+29566	+44139	-17866	+1279	-18614	+8275

CAL YR 1999 b -7287
WTR YR 2000 b +68239

a Elevation, in feet, in 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 mi^2.

PERIOD OF RECORD.—October 1958 to February 1986, May 1986 to current year.

REVISED RECORDS.—WSP 1715: 1959. WSP 2130: 1959.

GAGE.—Water-stage recorder and broad-crested weir (with low-water 90° V-notch weir since Nov. 13, 1990). Elevation of gage is 7,836 ft above sea level, from photogrammetry survey.

REMARKS.—Flow regulated since October 1958 by Courtright Reservoir (station 11214550) 500 ft upstream. Water bypasses this gage through Helms Powerplant (station 11214540). See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,340 ft^3/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	5.9	20	20	18	22	18	24	37	35	36	32
2	4.5	4.9	20	20	18	21	18	24	37	36	35	33
3	6.9	4.8	20	20	18	20	18	24	37	37	34	33
4	9.7	4.5	20	19	17	20	18	24	36	38	33	34
5	11	4.9	20	20	17	20	18	24	37	39	33	34
6	11	5.6	20	20	17	20	19	24	37	40	33	34
7	12	6.4	19	20	18	20	19	26	38	40	33	35
8	13	6.8	19	20	18	20	20	26	38	40	32	35
9	13	7.0	19	20	18	20	20	26	38	40	32	35
10	14	7.1	19	20	18	20	21	26	38	41	32	35
11	14	8.1	18	20	19	20	20	26	39	41	31	35
12	13	8.9	18	20	19	20	21	26	40	41	30	35
13	12	9.7	19	20	19	20	21	26	39	40	31	34
14	12	11	19	20	19	20	21	27	38	39	32	34
15	11	12	19	20	20	19	21	27	38	39	31	34
16	11	13	19	20	20	19	21	27	37	39	30	34
17	10	13	19	20	22	18	21	27	37	39	30	34
18	10	13	19	20	20	18	21	27	38	39	30	34
19	9.5	14	20	20	20	18	22	28	38	39	30	34
20	8.9	14	20	20	20	18	22	28	39	38	30	33
21	8.3	15	20	20	20	17	22	28	39	38	30	32
22	7.7	16	19	20	20	18	23	28	38	38	30	32
23	7.5	16	19	19	20	18	24	28	38	39	30	33
24	8.7	16	19	19	21	18	24	28	38	39	30	33
25	9.2	16	20	19	21	18	24	30	39	39	30	33
26	9.1	17	20	19	22	18	24	31	40	38	30	34
27	9.1	18	19	19	21	18	24	33	39	37	30	34
28	8.5	19	19	19	22	18	24	34	38	37	31	34
29	7.4	20	19	18	22	18	23	36	37	37	31	34
30	6.3	20	19	18	---	18	24	37	36	37	31	34
31	6.3	---	20	18	---	18	---	37	---	37	31	---
TOTAL	301.8	347.6	599	607	564	590	636	867	1138	1196	972	1014
MEAN	9.74	11.6	19.3	19.6	19.4	19.0	21.2	28.0	37.9	38.6	31.4	33.8
MAX	14	20	20	20	22	22	24	37	40	41	36	35
MIN	4.5	4.5	18	18	17	17	18	24	36	35	30	32
AC-FT	599	689	1190	1200	1120	1170	1260	1720	2260	2370	1930	2010

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1983, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	32.4	25.7	25.0	43.0	31.3	43.3	77.0	83.9	73.4	111	209	146
MAX	235	145	212	373	408	642	645	488	410	576	734	890
(WY)	1970	1964	1979	1979	1979	1983	1983	1961	1961	1968	1980	1969
MIN	2.29	.42	.051	.095	.17	.42	1.53	3.35	4.02	3.38	2.39	1.97
(WY)	1973	1971	1971	1971	1971	1971	1971	1971	1971	1976	1977	1977

SUMMARY STATISTICS	WATER YEARS 1959 - 1983	
ANNUAL MEAN	75.4	
HIGHEST ANNUAL MEAN	185	1983
LOWEST ANNUAL MEAN	2.29	1971
HIGHEST DAILY MEAN	986	Aug 29 1969
LOWEST DAILY MEAN	.00	Nov 21 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Dec 3 1970
INSTANTANEOUS PEAK FLOW	1340	Aug 29 1969
INSTANTANEOUS PEAK STAGE	7.70	Aug 23 1978
ANNUAL RUNOFF (AC-FT)	54610	
10 PERCENT EXCEEDS	287	
50 PERCENT EXCEEDS	10	
90 PERCENT EXCEEDS	2.5	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2000, BY WATER YEAR (WY)

MEAN	11.3	7.75	7.37	7.40	7.79	6.97	7.70	10.7	16.4	17.9	16.4	12.5
MAX	58.3	24.0	22.0	20.6	19.7	19.0	21.2	28.0	37.9	38.6	38.8	33.8
(WY)	1985	1999	1999	1999	1999	2000	2000	2000	2000	2000	1999	2000
MIN	5.32	4.15	2.92	3.47	3.30	3.48	3.24	5.15	6.80	6.82	6.07	5.71
(WY)	1991	1986	1987	1987	1991	1991	1998	1990	1990	1990	1992	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1985 - 2000	
ANNUAL TOTAL	7783.8		8832.4			
ANNUAL MEAN	21.3		24.1		11.0	
HIGHEST ANNUAL MEAN					24.1	2000
LOWEST ANNUAL MEAN					5.65	1987
HIGHEST DAILY MEAN	44	Aug 11	41	Jul 10	679	Oct 13 1984
LOWEST DAILY MEAN	4.5	Oct 2	4.5	Oct 2	.90	Apr 17 1998
ANNUAL SEVEN-DAY MINIMUM	5.3	Oct 31	5.3	Oct 31	1.5	Apr 16 1998
INSTANTANEOUS PEAK FLOW			42	Jul 10	1340	Aug 29 1969
INSTANTANEOUS PEAK STAGE			4.48	Jul 10	7.70	Aug 23 1978
ANNUAL RUNOFF (AC-FT)	15440		17520		7970	
10 PERCENT EXCEEDS	32		38		22	
50 PERCENT EXCEEDS	20		20		7.2	
90 PERCENT EXCEEDS	10		11		4.1	

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 mi^2.

PERIOD OF RECORD.—December 1957 to September 1982 (monthend elevation and contents only), October 1982 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Pacific Gas & 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 Powerplant (station 11216050). Records, including extremes, represent contents at 2400 hours. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Records not rounded to U.S. 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, 125,671 acre-ft, June 29, elevation, 6,547.11 ft; minimum, 34,252 acre-ft, Sept. 27, elevation, 6,430.89 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated Apr. 13, 1959)

6,317	40	6,385	11,618	6,440	39,471	6,520	99,807
6,360	2,810	6,400	18,359	6,460	51,900	6,550	129,118
6,370	5,738	6,420	28,362	6,490	74,128	6,551.1	129,733

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120339	88183	39718	41480	61617	43921	49152	60314	115048	120606	86505	61914
2	115599	89652	40946	42394	62442	45020	49293	64973	117960	114172	90914	58025
3	106403	90304	42342	44047	60050	44749	49790	70316	120556	109279	95356	53294
4	101329	88977	44362	44768	58188	44428	48991	73884	122751	103857	97012	48400
5	97244	86874	45880	44459	55984	44059	48461	75241	122024	100540	95700	45427
6	94446	83668	48238	43777	54278	45205	47825	75541	121451	98022	92670	42895
7	92188	80867	48429	44484	53704	47294	47319	76462	122353	97288	93122	41408
8	89713	78808	49351	44700	52939	46678	45942	78600	122233	96059	93915	40588
9	87476	78463	50699	43153	51775	46259	43906	82500	121488	93030	94200	39254
10	85625	76749	52385	41872	50575	46428	43826	86326	119176	92241	93964	39055
11	85800	74472	52532	40755	49023	45119	45687	88571	118166	89852	96246	39754
12	86886	72398	50608	40929	46578	44194	46847	89418	120082	91751	92328	40487
13	87504	68904	50451	42099	45637	44188	48015	89375	122313	92811	87994	41577
14	87797	65011	50191	41480	46346	45051	48633	88761	125651	94291	90269	43161
15	88528	63831	49370	44317	45786	46390	48212	89687	124865	92925	91701	43771
16	88269	61688	48831	43460	47465	48320	46528	89721	124865	89227	93461	42038
17	87640	59944	48639	43679	46872	49906	46609	90496	122193	89357	93788	39589
18	89132	59101	45979	46371	46521	51742	46559	91159	120102	88864	90252	42315
19	89748	58375	45186	46303	45452	52945	45948	94406	118577	88356	86806	46103
20	91054	57750	44166	46584	42538	52979	45836	98417	117931	89687	83949	51762
21	91655	54590	47458	47118	42069	52292	44084	102493	119343	90147	82373	50308
22	91821	54204	47156	48467	41138	52299	40303	109599	119147	84886	80767	48111
23	89982	53468	46047	49680	40976	51039	36600	117491	120085	80701	78895	44607
24	85276	52765	44940	52750	40779	50445	39138	118126	116955	81635	78571	41547
25	84183	47597	44533	53318	40374	50088	40994	114249	112385	82752	79988	39201
26	83550	42919	45396	55136	40803	50003	46100	110845	114730	83837	77760	36962
27	83399	40090	46066	56814	40797	49809	48678	110772	117345	86197	73684	34252
28	87115	38521	45904	57017	42282	49854	51308	110504	121974	85685	72485	36698
29	87453	38400	47282	57953	43915	49971	53522	109938	125671	82608	70869	37314
30	86826	38957	45199	58692	---	49738	55602	110042	125529	79103	68388	37906
31	85937	---	42749	60791	---	49519	---	113261	---	82491	64878	---
MAX	120339	90304	52532	60791	62442	52979	55602	118126	125671	120606	97012	61914
MIN	83399	38400	39718	40755	40374	43921	36600	60314	112385	79103	64878	34252
a	6504.21	6439.12	6445.49	6472.76	6447.41	6456.35	6465.49	6534.49	6546.97	6500.14	6478.21	6437.32
b	-30010	-46980	+3792	+18042	-16876	+5604	+6083	+57659	+12268	-43038	-17613	-26972

CAL YR 1999 b -11299
WTR YR 2000 b -78041

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

11214900 NORTH FORK KINGS RIVER BELOW WISHON RESERVOIR, CA

LOCATION.—Lat 37°00'05", long 118°58'20", in SE 1/4 NE 1/4 sec.1, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank, 1,700 ft downstream from Wishon Dam, and 20 mi southeast of Big Creek.

DRAINAGE AREA.—178 mi^2.

PERIOD OF RECORD.—October 1986 to current year (since October 1990, low-flow records only).

GAGE.—Water-stage recorder and 90° V-notch steel weir and concrete control. Elevation of gage is 6,300 ft above sea level, from topographic map.

REMARKS.—No records computed above 25 ft^3/s. Flow regulated by Wishon Reservoir (station 11214800) and Courtright Reservoir (station 11214550). Water diverted for power from Wishon Reservoir by tunnel to Haas Powerplant (station 11216050). See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	20	21	---	21	23	23	---	---	---	---
2	---	---	20	20	---	22	---	24	---	---	---	---
3	---	---	20	21	---	22	---	25	---	---	---	25
4	---	---	21	21	25	22	24	---	---	---	---	24
5	---	---	21	21	25	22	23	---	---	---	---	23
6	---	---	22	21	24	22	23	---	---	---	---	22
7	---	---	22	21	24	22	22	---	---	---	---	22
8	---	---	22	21	24	23	22	---	---	---	---	22
9	---	---	22	21	---	22	22	---	---	---	---	21
10	---	---	23	21	---	22	21	---	---	---	---	19
11	---	---	23	20	23	22	21	---	---	---	---	19
12	---	---	22	20	23	23	21	---	---	---	---	19
13	---	---	22	20	---	23	22	---	---	---	---	19
14	---	---	22	20	---	---	23	---	---	---	---	19
15	---	---	22	21	---	---	22	---	---	---	---	19
16	---	---	22	21	23	---	22	---	---	---	---	19
17	---	---	22	22	23	---	23	---	---	---	---	19
18	---	25	21	---	22	---	---	---	---	---	---	19
19	---	25	21	22	22	---	---	---	---	---	---	19
20	---	25	21	22	22	---	22	---	---	---	---	20
21	---	24	21	22	22	25	22	---	---	---	---	21
22	---	24	21	22	21	25	21	---	---	---	---	21
23	---	24	21	22	21	---	20	---	---	---	---	20
24	---	24	21	24	21	24	19	---	---	---	---	19
25	---	23	21	---	21	---	20	---	---	---	---	19
26	---	22	21	---	21	---	21	---	---	---	---	18
27	---	21	21	24	21	---	22	---	---	---	---	18
28	---	20	21	24	21	24	22	---	---	---	---	18
29	---	20	21	24	21	24	23	---	---	---	---	18
30	---	20	21	24	---	24	23	---	---	---	---	18
31	---	---	21	25	---	24	---	---	---	---	---	---
TOTAL	---	---	662	---	---	---	---	---	---	---	---	---
MEAN	---	---	21.4	---	---	---	---	---	---	---	---	---
MAX	---	---	23	---	---	---	---	---	---	---	---	---
MIN	---	---	20	---	---	---	---	---	---	---	---	---
AC-FT	---	---	1310	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1990, BY WATER YEAR (WY)

MEAN	17.7	18.2	16.5	16.5	16.6	17.3	16.7	19.5	20.0	15.3	13.5	13.6
MAX	22.9	23.5	22.8	22.0	21.5	22.5	20.3	25.6	28.3	19.5	17.0	17.1
(WY)	1987	1987	1987	1987	1987	1987	1989	1987	1987	1989	1989	1989
MIN	14.9	16.2	8.60	8.23	8.52	9.84	8.74	10.2	8.67	9.01	8.40	8.20
(WY)	1988	1988	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	WATER YEARS 1987 - 1990	
ANNUAL MEAN	16.8	
HIGHEST ANNUAL MEAN	20.9	1987
LOWEST ANNUAL MEAN	10.1	1990
HIGHEST DAILY MEAN	30	Mar 6 1987
LOWEST DAILY MEAN	7.2	Feb 18 1990
ANNUAL SEVEN-DAY MINIMUM	7.8	Jan 5 1990
INSTANTANEOUS PEAK FLOW	35	Nov 23 1988
INSTANTANEOUS PEAK STAGE	3.59	Nov 23 1988
ANNUAL RUNOFF (AC-FT)	12150	
10 PERCENT EXCEEDS	23	
50 PERCENT EXCEEDS	17	
90 PERCENT EXCEEDS	8.6	

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 mi^2.

PERIOD OF RECORD.—August 1921 to current year (since October 1990, high-flow records only). 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 above sea level (levels by San Joaquin Light and Power Corp.). Prior to Nov. 24, 1922, at site 1 mi upstream at different datum.

REMARKS.—No records computed below 25 ft^3/s. 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 Powerplant (station 11216050) since Dec. 10, 1958. Monthly chemical, trace-element, biological, and sediment data are available in files of the U.S. Geological Survey and in U.S. Geological Survey Open-File Report 88-479. Also available in the same report are daily maximum, minimum, and mean specific-conductance and water-temperature values. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD (Prior to regulation by Wishon Reservoir).—Maximum discharge, 14,000 ft^3/s, Dec. 11, 1937, gage height, 18.0 ft, from floodmarks, from rating curve extended above 4,200 ft^3/s on basis of velocity-area studies.
From 1957 to 1990.—Maximum discharge, 5,110 ft^3/s, Sept. 5, 1978, gage height, 11.96 ft.

EXTREME FOR CURRENT YEAR (Maximum only).—Maximum discharge, 1,570 ft^3/s, June 14, gage height 7.95 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	31	---	---	32	28	41	33	38	38	31	29
2	35	31	---	---	34	28	45	34	38	38	32	27
3	34	32	---	---	33	30	48	34	39	37	32	26
4	33	31	---	---	32	33	50	35	39	36	33	25
5	33	31	---	---	31	32	49	35	224	35	33	---
6	32	31	---	---	31	30	46	34	420	34	33	---
7	32	30	---	---	30	29	44	35	294	34	32	---
8	32	31	---	---	30	29	43	37	355	34	32	---
9	31	30	---	---	33	29	40	35	317	33	32	---
10	31	29	---	---	39	30	38	35	213	33	32	---
11	31	29	---	---	32	33	37	36	65	33	32	---
12	31	29	---	---	30	35	37	35	46	33	33	---
13	31	29	---	---	39	38	47	35	212	33	32	---
14	31	28	---	---	151	43	49	34	841	33	32	---
15	31	27	---	---	55	47	39	35	1120	33	32	---
16	31	27	---	---	39	46	37	40	299	33	32	---
17	31	28	---	27	35	51	45	39	39	32	32	---
18	31	26	---	103	33	53	49	38	39	32	32	---
19	31	26	---	28	31	56	46	37	38	32	32	---
20	31	26	---	25	34	47	42	37	37	32	31	---
21	32	26	---	---	35	42	40	37	37	32	31	---
22	32	25	---	---	31	42	36	38	37	32	31	---
23	32	25	---	26	30	44	34	39	37	31	31	---
24	31	---	---	38	29	43	32	41	37	31	30	---
25	31	---	---	45	28	46	33	41	36	31	30	---
26	31	---	---	38	30	48	34	40	36	31	30	---
27	31	---	---	33	31	51	34	39	36	31	30	---
28	31	---	---	31	29	47	34	39	37	31	30	---
29	31	---	---	30	29	44	33	38	38	31	29	---
30	31	---	---	30	---	44	33	38	38	31	29	---
31	31	---	---	30	---	42	---	38	---	30	29	---
TOTAL	982	---	---	---	1076	1240	1215	1141	5082	1020	972	---
MEAN	31.7	---	---	---	37.1	40.0	40.5	36.8	169	32.9	31.4	---
MAX	35	---	---	---	151	56	50	41	1120	38	33	---
MIN	31	---	---	---	28	28	32	33	36	30	29	---
AC-FT	1950	---	---	---	2130	2460	2410	2260	10080	2020	1930	---
a	26780	834	2210	842	3030	19390	13440	36180	49100	40990	33580	15490

a Diversion, in acre-feet, to Haas Powerplant, provided by Pacific Gas and Electric Co.

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1957, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.3	49.3	84.9	62.2	93.6	197	709	1670	1177	211	27.7	9.45
MAX	121	550	605	300	212	402	1210	3232	3395	1161	131	37.4
(WY)	1946	1951	1956	1956	1945	1956	1926	1952	1938	1938	1938	1938
MIN	5.54	6.25	7.00	11.6	20.3	36.0	306	357	35.7	5.52	1.83	1.60
(WY)	1956	1930	1931	1924	1948	1924	1948	1934	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1922 - 1957	
ANNUAL MEAN	360	
HIGHEST ANNUAL MEAN	749	1938
LOWEST ANNUAL MEAN	80.2	1924
HIGHEST DAILY MEAN	7460	Dec 23 1955
LOWEST DAILY MEAN	1.3	Sep 9 1924
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 9 1924
INSTANTANEOUS PEAK FLOW	14000	Dec 11 1937
INSTANTANEOUS PEAK STATE	18.00	Dec 11 1937
ANNUAL RUNOFF (AC-FT)	260600	
10 PERCENT EXCEEDS	1240	
50 PERCENT EXCEEDS	63	
90 PERCENT EXCEEDS	6.5	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1990, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.3	17.5	15.8	17.8	18.4	20.7	36.1	96.1	173	97.3	17.9	19.1
MAX	24.5	29.4	41.0	49.8	66.9	49.2	298	1170	1339	918	27.0	84.1
(WY)	1987	1966	1967	1969	1986	1986	1986	1969	1983	1967	1986	1978
MIN	7.67	7.53	7.45	7.62	8.20	9.21	8.62	8.45	8.21	7.37	7.56	7.83
(WY)	1960	1960	1963	1964	1964	1961	1961	1961	1961	1964	1961	1964

SUMMARY STATISTICS	WATER YEARS 1960 - 1990		FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR
ANNUAL MEAN	45.5			
HIGHEST ANNUAL MEAN	241	1969		
LOWEST ANNUAL MEAN	10.0	1964		
HIGHEST DAILY MEAN	3040	Jul 1 1967		
LOWEST DAILY MEAN	3.9	Dec 9 1967		
ANNUAL SEVEN-DAY MINIMUM	4.2	Dec 6 1967		
INSTANTANEOUS PEAK FLOW	5110	Sep 5 1978		
INSTANTANEOUS PEAK STAGE	11.96	Sep 5 1978		
ANNUAL RUNOFF (AC-FT)	32970			
TOTAL DIVERSION (AC-FT)a			180900	241900
10 PERCENT EXCEEDS	29			
50 PERCENT EXCEEDS	17			
90 PERCENT EXCEEDS	8.6			

a Diversion, in acre-feet, to Haas Powerplant, provided by Pacific Gas and Electric Co.

11216100 BLACK ROCK RESERVOIR NEAR BALCH CAMP, CA

LOCATION.—Lat 36°55'13", long 119°01'20", in NW 1/4 NW 1/4 sec.6, T.12 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank, at intake tower on North Fork Kings River, and 5.6 mi east-northeast of Balch Camp.

DRAINAGE AREA.—233 mi^2.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete arch-type dam, completed to elevation 4,054 ft in 1927 and raised to 4,098 ft in 1958. Storage began in 1927. Spillway is ungated. Capacity, 1,260 acre-ft between elevation 4,054 ft, fish release valve, and 4,098 ft, top of spillway crest. Water is diverted from reservoir through tunnel to Balch Powerplant 3.7 mi downstream and returns to the North Fork Kings River at Balch Afterbay. Flow is again diverted from Balch Afterbay in a closed conduit to Kings River Powerplant. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Records not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 1,324 acre-ft, July 7, 1998, elevation, 4,099.81 ft; minimum, 359 acre-ft, Nov. 3, 1986, elevation 4,064.51 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 1,298 acre-ft, June 14, elevation, 4,099.08 ft; minimum, 466 acre-ft, June 27, elevation, 4,070.05 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas and Electric Co., dated Dec. 1, 1958)

4,050	165	4,065	367	4,080	706	4,095	1,157
4,055	219	4,070	465	4,085	846	4,100	1,331
4,060	286	4,075	579	4,090	996	4,108	1,635

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1096	1000	900	1056	855	908	1013	1185	1274	1052	536	543
2	1015	1021	941	1040	996	877	1165	1065	1274	1173	531	499
3	1018	1060	959	1005	1123	1094	1242	1248	1274	1072	509	518
4	986	1031	969	1051	1035	1144	1232	1114	1274	1075	554	534
5	1003	1025	933	1056	995	1121	1224	1104	1285	1045	497	567
6	984	1083	970	1062	998	1011	936	977	1285	1056	517	514
7	1019	997	1005	1037	1068	1025	1121	932	1282	1060	500	537
8	1046	1112	1044	1092	1094	1135	1194	1101	1282	992	515	475
9	1049	1124	1029	858	1168	1163	1183	1205	1282	970	504	506
10	963	1049	1038	917	1101	1103	1145	1121	1274	1062	531	500
11	993	1076	1071	976	1107	1011	1008	1074	1269	1039	537	524
12	1009	1142	1012	972	996	1073	1024	811	1269	559	490	552
13	994	1062	1028	991	1008	1089	1103	773	1284	548	525	545
14	979	1030	1046	1053	1257	976	1062	844	1298	551	504	545
15	890	989	952	1077	930	1102	1064	859	1281	568	480	494
16	930	1039	1012	1041	809	1179	873	952	1269	532	512	500
17	1192	1042	991	1107	880	1176	908	939	1269	581	487	479
18	858	995	962	1086	955	1143	932	853	892	591	527	522
19	1037	996	870	884	1119	1181	996	948	518	549	500	521
20	655	1038	890	1024	1001	1152	1169	1021	527	578	519	582
21	938	999	941	1163	917	1129	1123	1101	506	555	522	530
22	1027	998	975	1089	896	1058	1119	1218	479	610	511	515
23	1009	979	975	964	883	1031	1150	1282	476	539	526	534
24	1007	1040	975	940	1004	1078	943	1282	509	567	498	601
25	920	1014	990	1098	1084	1133	1105	1282	469	538	488	485
26	1021	1000	1012	1098	825	1054	1060	1285	469	528	483	476
27	828	999	998	922	1123	1215	1171	1285	466	535	527	470
28	957	998	998	1045	1167	1053	1132	1285	562	482	481	472
29	995	968	968	993	1154	931	1234	1277	681	525	482	515
30	993	1000	1012	788	---	931	1182	1277	922	510	507	554
31	984	---	1027	808	---	977	---	1277	---	540	531	---
MAX	1192	1142	1071	1163	1257	1215	1242	1285	1298	1173	554	601
MIN	655	968	870	788	809	877	873	773	466	482	480	470
a	4089.60	4090.13	4091.00	4083.67	4094.91	4089.38	4095.74	4098.48	4087.56	4073.38	4073.00	4073.99
b	-200	+16	+27	-219	+346	-177	+205	+95	-355	-382	-9	+23

CAL YR 1999 b -45
WTR YR 2000 b -630

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

11216200 NORTH FORK KINGS RIVER BELOW BALCH DIVERSION DAM, CA

LOCATION.—Lat 36°54'10", long 119°03'00", in NE 1/4 sec.8, T.12 S., R.27 E., Fresno County, Hydrologic Unit 18030010, on right bank, 2.0 mi downstream from Balch Diversion Dam (Black Rock Reservoir), 400 ft upstream from Weir Creek, and 4 mi east of Balch Camp.

DRAINAGE AREA.—238 mi^2.

PERIOD OF RECORD.—October 1983 to current year.

GAGE.—Water-stage recorder and sharp-crested rectangular weir. Elevation of gage is 2,890 ft above sea level, from topographic map.

REMARKS.—Flow regulated by Courtright Reservoir (station 11214550), Wishon Reservoir (station 11214800), and Black Rock Reservoir (station 11216100). Water diverted past station from Black Rock Reservoir through tunnel to Balch Powerplant (station 11216300) 1.7 mi downstream and returns to the North Fork Kings River at Balch Afterbay. Flow is again diverted from Balch Afterbay in a closed conduit to Kings River Powerplant. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,690 ft^3/s, Jan. 2, 1997, gage height, 10.54 ft, from rating curve extended above 827 ft^3/s on basis of computation of spill over Balch Diversion Dam; minimum daily, 0.89 ft^3/s, Oct. 21, 1984.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	12	12	7.1	17	9.3	6.4	431	11	8.7	9.0
2	11	11	11	12	6.5	13	9.1	6.2	405	12	8.7	8.6
3	11	11	11	12	6.4	12	8.7	6.1	393	11	8.6	8.6
4	11	11	11	12	6.4	12	7.8	6.6	389	11	8.7	8.6
5	11	11	11	12	5.6	17	7.4	5.9	489	10	8.6	8.7
6	11	11	11	12	3.2	15	7.1	5.7	916	8.0	8.4	8.5
7	11	11	11	12	3.5	13	6.6	5.7	719	6.2	8.4	8.2
8	11	13	12	12	3.5	15	6.6	6.6	868	6.0	8.6	8.4
9	11	12	12	12	4.0	14	6.7	6.0	758	6.3	8.6	8.4
10	11	12	12	11	12	13	6.5	5.9	586	6.4	8.6	8.4
11	11	11	12	11	8.6	13	6.3	5.7	338	6.5	8.6	8.7
12	11	11	12	12	12	13	6.0	5.4	239	6.2	8.3	8.7
13	11	12	12	12	43	13	6.7	5.1	302	8.7	8.3	8.8
14	11	12	12	12	186	13	8.0	5.0	1190	8.7	8.4	8.6
15	11	11	12	12	25	13	7.3	5.3	1860	8.8	8.3	8.6
16	11	11	12	14	21	13	6.8	13	856	8.7	8.4	8.7
17	11	13	12	12	15	12	12	8.0	204	8.9	8.4	8.5
18	11	11	12	19	12	12	12	6.8	21	8.8	8.3	8.6
19	11	11	12	12	11	14	9.3	6.0	8.1	8.8	8.4	8.8
20	11	11	11	10	11	13	8.6	5.7	11	8.7	8.3	8.6
21	10	11	11	5.5	16	12	8.4	5.4	10	8.7	8.3	8.8
22	11	11	11	5.6	11	11	8.1	5.2	10	8.9	8.4	8.7
23	11	11	12	7.2	19	11	7.8	392	10	8.8	8.4	8.9
24	11	11	12	39	13	11	7.4	634	10	8.7	8.0	8.9
25	11	12	12	24	11	11	7.3	665	10	8.6	8.1	8.4
26	11	11	12	10	11	10	7.5	629	10	8.6	8.3	8.4
27	11	11	12	8.1	31	10	7.0	648	10	8.5	8.2	8.3
28	10	11	12	6.6	20	10	7.2	610	9.8	8.6	8.3	8.4
29	11	11	12	6.4	23	9.7	7.2	543	9.9	8.4	8.3	8.7
30	11	11	12	9.4	---	9.5	6.9	496	10	8.6	8.2	8.7
31	11	---	12	10	---	9.3	---	452	---	8.6	8.4	---
TOTAL	339	339	363	376.8	557.8	384.5	233.6	5206.7	11082.8	265.7	260.5	258.2
MEAN	10.9	11.3	11.7	12.2	19.2	12.4	7.79	168	369	8.57	8.40	8.61
MAX	11	13	12	39	186	17	12	665	1860	12	8.7	9.0
MIN	10	11	11	5.5	3.2	9.3	6.0	5.0	8.1	6.0	8.0	8.2
AC-FT	672	672	720	747	1110	763	463	10330	21980	527	517	512
a	28590	3320	4180	6650	11670	29850	28370	49670	50500	44290	35730	1769

a Diversion, in acre-feet, to Balch Powerplant, provided by Pacific Gas and Electric Co.

11216200 NORTH FORK KINGS RIVER BELOW BALCH DIVERSION DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.62	8.52	7.72	34.5	35.6	51.5	84.5	192	339	151	7.40	6.56
MAX	10.9	26.4	23.5	440	201	441	541	1004	1792	1194	23.7	10.7
(WY)	2000	1984	1997	1997	1997	1986	1986	1995	1998	1998	1998	1998
MIN	3.48	3.54	3.18	3.16	4.69	4.61	3.59	3.25	2.84	3.10	3.14	3.06
(WY)	1988	1991	1987	1987	1985	1994	1987	1987	1987	1987	1987	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1984 - 2000	
ANNUAL TOTAL	3483.8		19667.6			
ANNUAL MEAN	9.54		53.7		77.0	
HIGHEST ANNUAL MEAN					353	1995
LOWEST ANNUAL MEAN					3.97	1987
HIGHEST DAILY MEAN	94	Apr 15	1860	Jun 15	4990	Jul 8 1998
LOWEST DAILY MEAN	5.5	Jan 6	3.2	Feb 6	.89	Oct 21 1984
ANNUAL SEVEN-DAY MINIMUM	5.6	Jun 27	4.7	Feb 3	2.5	May 24 1984
INSTANTANEOUS PEAK FLOW			2280	Jun 15	7690	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.90	Jun 15	10.54	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	6910		39010		55770	
TOTAL DIVERSION (AC-FT)a	71970		310500		259600	
10 PERCENT EXCEEDS	12		19		47	
50 PERCENT EXCEEDS	9.6		11		6.6	
90 PERCENT EXCEEDS	5.8		6.5		3.6	

a Diversion, in acre-feet, to Balch Powerplant, provided by Pacific Gas and Electric Co.

11216400 DINKEY CREEK SIPHON FISH RELEASE AT BALCH CAMP, CA

LOCATION.—Lat 36°54'29", long 119°07'27", in NW 1/4 NE 1/4 sec.10, T.12 S., R.26 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, in concrete vault, on right bank of Dinkey Creek, 200 ft downstream from Dinkey Creek Siphon, at invert of Kings River Powerplant Conduit, and 1,700 ft northwest of Balch Camp.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Ultrasonic flowmeter. Elevation of gage is 1,320 ft above sea level, from topographic map. Prior to August 1995, pressure-differential flowmeter at same site and datum.

REMARKS.—Water diverted from the North Fork Kings River is released into Dinkey Creek for fishery enhancement from June 1 to Sept. 30 when natural flow of Dinkey Creek is equal to or less than 60 ft^3/s. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 25 ft^3/s, several days in June and July 1997; no flow many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	6.1	11	.00	.00	.00	.00	.00	5.4	5.6	6.7
2	15	15	6.2	11	.00	.00	.00	.00	.00	5.4	5.6	6.5
3	14	16	6.2	11	.00	.00	.00	.00	.00	5.4	5.7	6.6
4	15	16	6.1	11	.00	.00	.00	.00	.00	5.4	5.7	6.8
5	14	16	6.3	11	.00	.00	.00	.00	.00	5.4	5.6	6.8
6	14	14	6.3	11	.00	.00	.00	.00	.00	5.4	5.8	6.5
7	14	12	6.2	4.6	.00	.00	.00	.00	.00	5.5	5.7	6.4
8	14	13	6.2	.00	.00	.00	.00	.00	.00	5.5	5.6	6.4
9	14	12	6.2	.00	.00	.00	.00	.00	.00	5.5	5.6	6.7
10	16	9.7	6.1	.00	.00	.00	.00	.00	.00	5.5	5.6	6.4
11	17	9.9	6.1	.00	.00	.00	.00	.00	.00	5.4	5.6	6.7
12	15	9.9	6.1	.00	.00	.00	.00	.00	.00	5.5	5.7	6.7
13	16	9.9	6.1	.00	.00	.00	.00	.00	.00	5.5	5.6	6.7
14	16	9.8	6.1	.00	.00	.00	.00	.00	.00	5.4	5.6	6.6
15	16	9.8	6.1	.00	.00	.00	.00	.00	.00	5.6	5.7	6.4
16	16	9.9	6.1	.00	.00	.00	.00	.00	.00	5.4	5.7	6.5
17	16	9.9	6.0	.00	.00	.00	.00	.00	.00	5.7	5.6	6.4
18	16	.00	6.0	.00	.00	.00	.00	.00	.00	5.9	5.8	7.0
19	16	.00	6.0	.00	.00	.00	.00	.00	.00	5.7	5.7	7.2
20	15	.00	6.0	.00	.00	.00	.00	.00	.00	5.7	5.6	7.2
21	16	.00	6.1	.00	.00	.00	.00	.00	.00	5.7	5.6	7.2
22	15	.00	6.1	.00	.00	.00	.00	.00	.00	5.6	5.7	7.6
23	16	.00	6.1	.00	.00	.00	.00	.00	.00	5.7	5.7	7.4
24	16	4.4	6.1	.00	.00	.00	.00	.00	.00	5.7	5.7	7.4
25	16	6.2	7.5	.00	.00	.00	.00	.00	.00	5.6	5.8	7.4
26	16	6.3	8.8	.00	.00	.00	.00	.00	.00	5.6	6.7	7.2
27	16	6.2	8.8	.00	.00	.00	.00	.00	.00	5.7	6.6	7.1
28	16	6.3	8.8	.00	.00	.00	.00	.00	.00	5.8	6.8	7.2
29	16	6.2	8.7	.00	.00	.00	.00	.00	2.1	5.8	6.6	7.3
30	16	6.2	8.7	.00	---	.00	.00	.00	5.5	5.6	6.6	7.3
31	16	---	9.8	.00	---	.00	---	.00	---	5.6	6.6	---
TOTAL	478	250.60	208.0	70.60	0.00	0.00	0.00	0.00	7.60	172.6	181.5	206.3
MEAN	15.4	8.35	6.71	2.28	.000	.000	.000	.000	.25	5.57	5.85	6.88
MAX	17	16	9.8	11	.00	.00	.00	.00	5.5	5.9	6.8	7.6
MIN	14	.00	6.0	.00	.00	.00	.00	.00	.00	5.4	5.6	6.4
AC-FT	948	497	413	140	.00	.00	.00	.00	15	342	360	409

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	6.57	2.25	.88	.29	.099	.000	.000	.000	1.97	6.09	7.69	8.83
MAX	15.4	8.35	6.71	2.28	1.41	.000	.000	.000	5.63	16.6	14.4	15.0
(WY)	2000	2000	2000	2000	1991	1987	1987	1987	1992	1997	1994	1992
MIN	.15	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.09	5.33
(WY)	1996	1987	1987	1987	1987	1987	1987	1987	1991	1993	1998	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	1466.60		1575.20			
ANNUAL MEAN	4.02		4.30		2.91	
HIGHEST ANNUAL MEAN					4.76	1991
LOWEST ANNUAL MEAN					.73	1995
HIGHEST DAILY MEAN	17	Oct 11	17	Oct 11	25	Jun 28 1997
LOWEST DAILY MEAN	.00	Jan 1	.00	Nov 18	.00	Oct 3 1986
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Jan 8	.00	Oct 3 1986
ANNUAL RUNOFF (AC-FT)	2910		3120		2110	
10 PERCENT EXCEEDS	14		14		10	
50 PERCENT EXCEEDS	.00		5.4		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

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 mi^2.

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.
WATER TEMPERATURE: Water years 1968–79.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder and Cipolletti weir since May 9, 1988. Concrete control Apr. 15, 1966, to May 9, 1988. Elevation of gage is 1,240 ft above sea level, 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), Wishon Reservoir (station 11214800), and Black Rock Reservoir (station 11216100); Balch Afterbay, capacity, 318 acre-ft; and Haas and Balch Powerplants. Water is diverted from Balch Afterbay to Kings River Powerplant, beginning Mar. 1, 1962. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD (prior to regulation by Wishon and Courtright Reservoirs).—Maximum discharge, 6,080 ft^3/s, June 4, 1922, gage height, 12.18 ft, site and datum then in use; minimum, 4.0 ft^3/s, Aug. 29 to Sept. 1, 1924.
From 1960 to current year: Maximum discharge, 14,000 ft^3/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 ft^3/s; minimum daily, 0.30 ft^3/s, Nov. 3, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	17	16	57	22	19	19	219	17	17	18
2	18	18	18	16	17	21	19	19	201	17	17	18
3	18	18	18	17	16	20	19	19	203	17	18	18
4	18	17	18	17	16	20	18	18	191	17	18	18
5	18	18	18	16	14	21	20	18	221	17	18	18
6	18	18	17	18	13	22	20	18	544	17	18	18
7	18	17	17	26	13	20	20	18	422	17	19	18
8	18	18	18	25	13	21	19	18	511	17	19	18
9	18	17	17	22	12	21	19	18	437	17	18	18
10	18	17	18	21	14	21	19	18	334	17	17	18
11	18	18	17	21	15	20	19	18	175	17	18	18
12	18	17	18	21	18	20	19	18	94	17	18	18
13	18	18	17	22	25	20	20	18	86	17	18	18
14	18	18	17	22	49	20	19	18	682	17	18	18
15	18	18	17	65	23	20	19	18	1230	17	18	18
16	18	18	18	68	24	19	19	19	550	17	40	18
17	18	18	19	100	23	19	21	18	70	17	18	17
18	18	18	19	498	20	19	20	18	26	17	18	18
19	18	18	19	266	19	19	20	18	17	17	18	18
20	18	18	17	27	19	19	19	18	17	17	30	18
21	18	18	17	19	20	19	19	18	17	17	18	18
22	18	18	17	110	19	19	20	18	17	16	18	18
23	18	17	17	159	23	18	19	114	17	17	18	18
24	18	18	17	461	21	18	19	345	17	17	18	18
25	18	17	17	283	20	18	19	360	17	17	18	18
26	18	18	17	163	19	18	20	337	17	17	18	18
27	18	18	16	271	104	18	19	350	17	17	18	18
28	18	18	17	35	100	18	20	334	17	17	18	17
29	18	18	17	98	22	18	19	292	17	17	18	18
30	18	18	17	236	---	18	19	260	17	16	18	17
31	18	---	16	145	---	18	---	233	---	17	18	---
TOTAL	558	533	539	3284	768	604	580	3025	6400	525	591	537
MEAN	18.0	17.8	17.4	106	26.5	19.5	19.3	97.6	213	16.9	19.1	17.9
MAX	18	18	19	498	104	22	21	360	1230	17	40	18
MIN	18	17	16	16	12	18	18	18	17	16	17	17
AC-FT	1110	1060	1070	6510	1520	1200	1150	6000	12690	1040	1170	1070

11216500 NORTH FORK KINGS RIVER ABOVE DINKEY CREEK, AT BALCH CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1930, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.2	69.3	65.4	66.4	132	280	779	1877	1136	164	29.0	15.3
MAX	52.1	225	130	111	397	498	1434	3040	3200	472	73.8	41.2
(WY)	1921	1928	1923	1923	1927	1921	1926	1922	1922	1922	1922	1923
MIN	10.0	11.2	18.7	24.1	42.2	54.6	389	552	42.2	9.50	5.40	5.09
(WY)	1922	1922	1930	1926	1924	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1920 - 1930	
ANNUAL MEAN	387	
HIGHEST ANNUAL MEAN	646	1922
LOWEST ANNUAL MEAN	102	1924
HIGHEST DAILY MEAN	4890	Jun 4 1922
LOWEST DAILY MEAN	4.0	Aug 29 1924
ANNUAL SEVEN-DAY MINIMUM	4.2	Aug 28 1924
INSTANTANEOUS PEAK FLOW	6080	Jun 4 1922
INSTANTANEOUS PEAK STAGE	12.18	Jun 4 1922
ANNUAL RUNOFF (AC-FT)	280500	
10 PERCENT EXCEEDS	1300	
50 PERCENT EXCEEDS	74	
90 PERCENT EXCEEDS	11	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.7	20.2	26.3	59.4	51.2	44.9	68.6	219	322	173	45.6	28.0
MAX	60.5	92.3	332	499	239	405	490	1838	2042	1176	822	331
(WY)	1962	1962	1967	1997	1962	1986	1986	1969	1983	1967	1960	1960
MIN	5.80	5.42	5.87	8.07	7.32	7.29	7.18	4.54	6.81	7.34	8.86	8.72
(WY)	1978	1978	1978	1977	1964	1971	1971	1977	1977	1968	1976	1964

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1960 - 2000	
ANNUAL TOTAL	20586		17944			
ANNUAL MEAN	56.4		49.0		86.8	
HIGHEST ANNUAL MEAN					406	1983
LOWEST ANNUAL MEAN					8.47	1977
HIGHEST DAILY MEAN	493	Mar 30	1230	Jun 15	7680	Dec 6 1966
LOWEST DAILY MEAN	12	Jan 1	12	Feb 9	.30	Nov 3 1964
ANNUAL SEVEN-DAY MINIMUM	17	Dec 25	13	Feb 5	4.3	May 30 1977
INSTANTANEOUS PEAK FLOW			1670	Jun 15	14000	Feb 1 1963
INSTANTANEOUS PEAK STAGE			3.97	Jun 15	13.24	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	40830		35590		62870	
10 PERCENT EXCEEDS	176		99		198	
50 PERCENT EXCEEDS	18		18		16	
90 PERCENT EXCEEDS	17		17		8.5	

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 mi^2.

PERIOD OF RECORD.—March 1960 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 1,035 ft above sea level, from river-profile map.

REMARKS.—Flow regulated by Courtright Reservoir (station 11214550), Wishon Reservoir (station 11214800), and Black Rock Reservoir (station 11216100); Balch Afterbay, capacity, 318 acre-ft; and Haas and Balch Powerplants. Water is diverted from Balch Afterbay to Kings River Powerplant (station 11218700), beginning Mar. 1, 1962. Some water diverted from Balch Afterbay returns upstream from station at a release to Dinkey Creek. See schematic diagram of Kings River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 27,400 ft^3/s, Feb. 1, 1963, gage height, 19.20 ft, from rating curve extended above 10,100 ft^3/s; minimum daily, 6.4 ft^3/s, Oct. 3, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	44	41	42	166	245	452	1030	748	98	43	43
2	44	44	43	42	129	223	520	1070	680	93	43	57
3	44	44	42	43	131	214	630	1170	653	91	44	47
4	44	43	41	42	117	229	723	1180	646	89	46	45
5	44	44	41	41	108	286	773	1080	650	86	45	44
6	44	42	40	42	99	262	764	978	909	85	45	44
7	45	40	40	56	100	219	792	1170	766	82	45	43
8	45	73	41	51	101	234	803	1490	932	79	45	42
9	44	68	39	43	101	222	775	1200	809	77	43	42
10	45	48	41	41	175	212	722	1020	668	75	39	41
11	46	45	40	42	163	237	751	805	472	73	43	40
12	44	43	40	45	172	267	758	660	386	70	42	40
13	44	42	40	50	319	277	1010	650	375	67	42	40
14	44	43	41	50	1580	313	772	654	936	64	41	40
15	44	43	40	90	758	362	571	551	1480	63	41	40
16	44	44	41	89	479	383	516	642	828	62	71	39
17	44	60	44	226	355	396	548	577	320	61	41	38
18	44	58	44	1420	278	429	516	638	237	60	39	39
19	44	42	43	571	243	476	478	751	199	58	38	40
20	44	45	40	164	242	457	529	885	182	56	58	40
21	43	51	40	139	293	371	574	987	164	55	39	40
22	44	44	39	191	244	380	549	1060	151	52	39	39
23	44	38	39	229	291	387	578	1160	141	52	38	41
24	44	39	39	968	243	417	633	1320	131	50	38	41
25	44	41	39	779	212	402	707	1240	123	49	38	41
26	43	42	41	409	204	444	871	1150	118	48	38	41
27	44	42	40	406	442	482	966	1200	117	48	38	40
28	44	42	41	189	394	472	990	1140	111	47	38	38
29	45	42	40	192	283	459	849	996	107	45	38	39
30	45	42	40	355	---	478	956	893	104	44	40	39
31	44	---	40	293	---	489	---	802	---	44	40	---
TOTAL	1369	1378	1260	7340	8422	10724	21076	30149	14143	2023	1318	1243
MEAN	44.2	45.9	40.6	237	290	346	703	973	471	65.3	42.5	41.4
MAX	46	73	44	1420	1580	489	1010	1490	1480	98	71	57
MIN	43	38	39	41	99	212	452	551	104	44	38	38
AC-FT	2720	2730	2500	14560	16710	21270	41800	59800	28050	4010	2610	2470
a	29480	1910	2110	503	11600	31470	31300	54730	54020	46270	36760	16860

a Diversion, in acre-feet, to Kings River Powerplant, provided by Pacific Gas and Electric Co.

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	49.1	87.9	137	247	289	367	620	1036	879	317	60.9	49.4
MAX	288	347	920	1492	1269	1329	2163	4253	4210	1894	422	233
(WY)	1983	1984	1967	1997	1986	1986	1982	1969	1983	1983	1961	1978
MIN	10.6	17.6	19.3	26.3	30.0	48.1	111	129	47.3	21.9	16.2	14.1
(WY)	1978	1978	1977	1991	1991	1977	1977	1977	1976	1976	1968	1968

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	79784		100445			
ANNUAL TOTAL a	108979		159817			
ANNUAL MEAN	219		274		345	
HIGHEST ANNUAL MEAN					1045	1983
LOWEST ANNUAL MEAN					49.2	1977
HIGHEST DAILY MEAN	1050	Feb 8	1580	Feb 14	14900	Dec 6 1966
LOWEST DAILY MEAN	36	Sep 8	38	Nov 23	6.4	Oct 3 1977
ANNUAL SEVEN-DAY MINIMUM	37	Sep 12	38	Aug 23	9.6	Oct 2 1977
INSTANTANEOUS PEAK FLOW			2700	Feb 14	27400	Feb 1 1963
INSTANTANEOUS PEAK STAGE			7.70	Feb 14	19.20	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	158300		199200		249800	
ANNUAL RUNOFF (AC-FT) a	216200		317000			
10 PERCENT EXCEEDS	597		806		869	
50 PERCENT EXCEEDS	73		68		96	
90 PERCENT EXCEEDS	40		40		29	

a Diversion, in acre-feet, to Kings River Powerplant, provided by Pacific Gas and Electric Co.

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 left 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 mi^2.

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 and crest-stage gage. Datum of gage is 1,065.2 ft above sea level. Aug. 2, 1959, to Jan. 11, 1985, at site on right bank at datum 2.00 ft higher. Prior to Aug. 2, 1959, at site 100 ft downstream on right bank at datum 2.00 ft higher.

REMARKS.—Records fair. Minor diversion for irrigation and stock ponds.

EXTREMES FOR PERIOD OF RECORD (SINCE 1950).—Maximum discharge, 5,700 ft^3/s, Mar. 10, 1995, gage height, 12.77 ft, present datum, in gage well, 13.41 ft from floodmarks, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height 12.77 ft; maximum gage height, 13.95 ft from floodmarks, Jan. 16, 1978; no flow for several months in most years.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	1445	336	5.36	Feb. 27	1330	62	4.57
Feb. 23	1045	139	4.87	Mar. 8	0915	48	4.49

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.09	.25	.28	1.7	9.0	3.2	1.2	.09	.00	.00	.00
2	.08	.09	.23	.28	1.5	6.6	3.0	1.2	.07	.00	.00	.00
3	.08	.09	.23	.28	1.3	6.7	2.7	1.3	.07	.00	.00	.00
4	.08	.09	.23	.28	1.1	5.4	2.5	1.3	.06	.00	.00	.00
5	.09	.09	.23	.32	1.0	6.0	2.5	1.2	.05	.00	.00	.00
6	.11	.09	.23	.35	.89	5.5	2.2	1.3	.04	.00	.00	.00
7	.13	.09	.23	.43	.79	4.4	2.2	1.5	.02	.00	.00	.00
8	.12	.11	.26	.51	.70	20	2.1	1.7	.01	.00	.00	.00
9	.10	.15	.28	.52	.62	20	2.1	1.7	.01	.00	.00	.00
10	.09	.21	.28	.59	.69	11	2.1	1.7	.00	.00	.00	.00
11	.07	.22	.31	.59	.98	7.9	2.0	1.7	.00	.00	.00	.00
12	.07	.21	.28	.61	14	6.7	1.8	1.7	.00	.00	.00	.00
13	.07	.21	.28	.61	51	6.0	1.7	1.8	.00	.00	.00	.00
14	.07	.19	.28	.61	125	5.4	2.2	1.8	.00	.00	.00	.00
15	.08	.16	.32	.61	27	4.8	2.9	1.8	.00	.00	.00	.00
16	.09	.22	.35	.61	8.5	4.8	2.6	1.9	.00	.00	.00	.00
17	.09	.19	.35	.63	22	4.3	10	2.1	.00	.00	.00	.00
18	.09	.16	.35	1.1	6.1	4.0	14	2.4	.00	.00	.00	.00
19	.09	.20	.35	1.0	3.8	4.2	6.3	2.6	.00	.00	.00	.00
20	.09	.23	.34	.96	3.9	4.2	4.2	2.1	.00	.00	.00	.00
21	.09	.23	.33	.97	40	4.2	3.1	1.7	.00	.00	.00	.00
22	.09	.23	.28	.91	11	3.9	2.9	1.3	.00	.00	.00	.00
23	.09	.23	.27	1.5	48	3.6	2.7	.96	.00	.00	.00	.00
24	.10	.26	.27	7.9	18	3.6	2.4	.76	.00	.00	.00	.00
25	.11	.28	.28	15	9.4	3.9	1.9	.59	.00	.00	.00	.00
26	.10	.28	.28	5.5	5.8	3.7	1.7	.50	.00	.00	.00	.00
27	.09	.28	.28	3.2	28	3.5	1.6	.46	.00	.00	.00	.00
28	.09	.28	.28	2.3	26	3.7	1.5	.38	.00	.00	.00	.00
29	.09	.28	.28	2.0	11	3.7	1.4	.26	.00	.00	.00	.00
30	.09	.28	.28	2.1	---	3.5	1.3	.15	.00	.00	.00	.00
31	.08	---	.28	3.0	---	3.4	---	.12	---	.00	.00	---
TOTAL	2.79	5.72	8.77	55.55	469.77	187.6	92.8	41.18	0.42	0.00	0.00	0.00
MEAN	.090	.19	.28	1.79	16.2	6.05	3.09	1.33	.014	.000	.000	.000
MAX	.13	.28	.35	15	125	20	14	2.6	.09	.00	.00	.00
MIN	.07	.09	.23	.28	.62	3.4	1.3	.12	.00	.00	.00	.00
AC-FT	5.5	11	17	110	932	372	184	82	.8	.00	.00	.00

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.29	.93	3.72	13.8	24.8	20.9	9.22	3.27	1.13	.31	.11	.26
MAX	7.18	18.2	36.3	139	287	236	160	43.0	16.4	5.71	2.92	8.33
(WY)	1946	1966	1967	1969	1978	1995	1958	1998	1983	1983	1983	1976
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1947	1948	1948	1948	1948	1961	1949	1948	1948	1947	1945	1945

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1945 - 2000	
ANNUAL TOTAL	451.66		864.60			
ANNUAL MEAN	1.24		2.36		6.47	
HIGHEST ANNUAL MEAN					48.5	1983
LOWEST ANNUAL MEAN					.000	1989
HIGHEST DAILY MEAN	15	Apr 12	125	Feb 14	2940	Mar 10 1995
LOWEST DAILY MEAN	.00	Jul 31	.00	Jun 10	.00	Jul 5 1945
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 31	.00	Jun 10	.00	Jul 5 1945
INSTANTANEOUS PEAK FLOW			336	Feb 14	5700	Mar 10 1995
INSTANTANEOUS PEAK STAGE			5.36	Feb 14	13.95	Jan 16 1978
ANNUAL RUNOFF (AC-FT)	896		1710		4690	
10 PERCENT EXCEEDS	3.3		4.8		7.0	
50 PERCENT EXCEEDS	.28		.23		.01	
90 PERCENT EXCEEDS	.00		.00		.00	

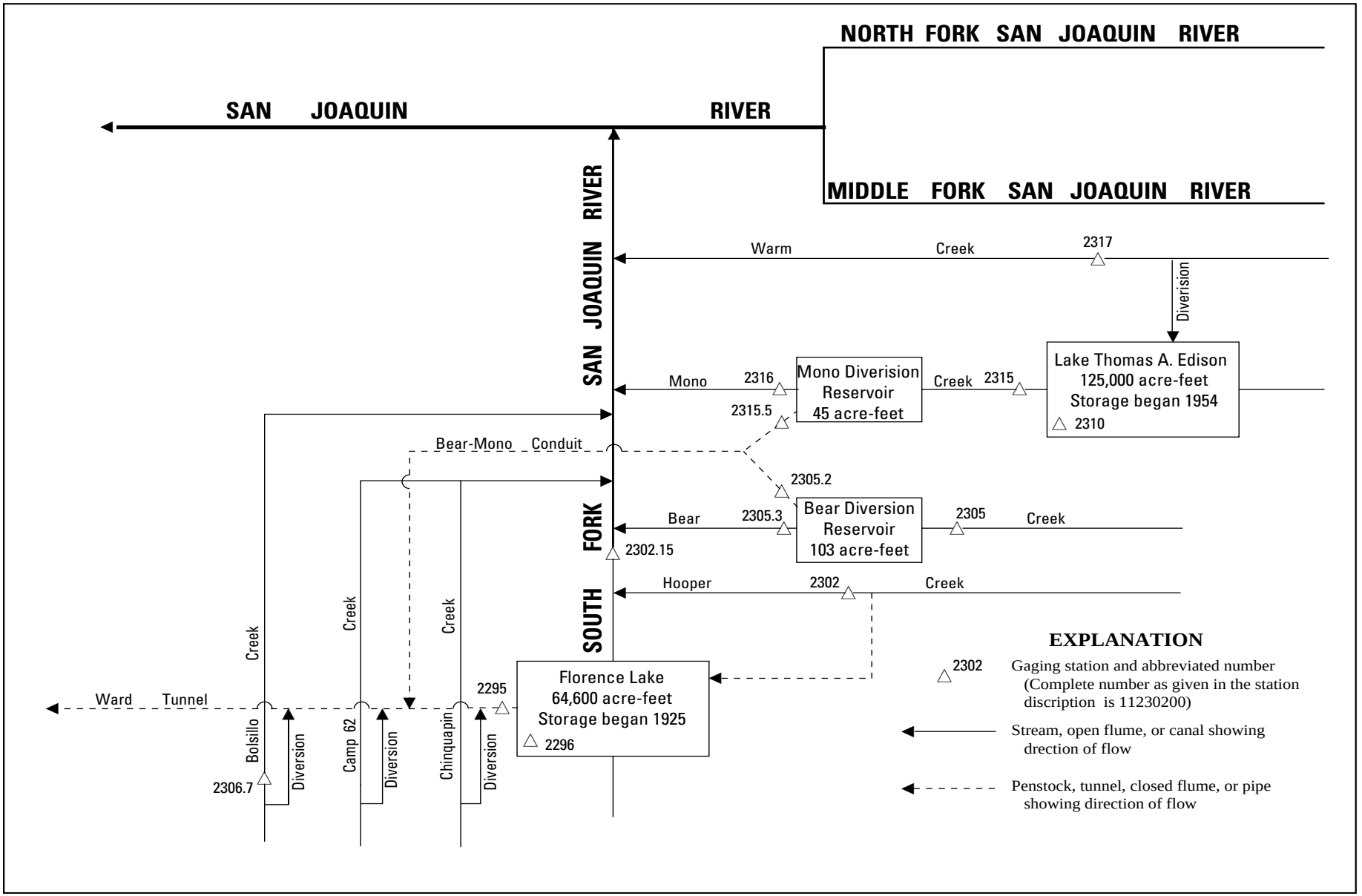

Figure 27. Diversions and storage in upper San Joaquin River Basin.

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CA

LOCATION.—Lat 37°16'20", long 118°58'17", unsurveyed, T.8 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in gatehouse at entrance of tunnel, 0.4 mi south of left abutment of Florence Lake Dam, and 16 mi northeast of town of Big Creek.

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 above sea level (levels by Southern California Edison Co.).

REMARKS.—Ward Tunnel diverts from Florence Lake (station 11229600), a reservoir on South Fork San Joaquin River, to Huntington Lake (station 11236000) via Portal Powerplant (station 11235500). Water used again in Big Creek powerplants. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,990 ft^3/s, Apr. 30, 1926; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	6.2	6.0	.21	41	72	132	580	961	934	544	4.9
2	65	6.9	4.2	.21	48	70	152	631	1140	936	543	4.8
3	65	7.3	3.6	.21	51	68	219	677	1150	935	542	4.8
4	65	7.1	4.4	.21	48	66	296	708	1160	934	676	4.7
5	114	6.8	4.4	.21	43	72	333	734	1020	e1020	667	100
6	478	6.4	3.8	.21	36	67	323	761	954	e1160	665	78
7	636	6.3	3.9	.21	34	60	332	785	1150	e774	621	218
8	609	9.3	1.4	.21	33	60	364	802	1160	445	305	387
9	578	9.9	1.3	.21	31	57	358	822	1110	445	291	386
10	544	11	1.2	.19	32	57	312	768	1240	538	290	383
11	485	12	.25	.18	33	65	310	653	1330	706	290	380
12	473	11	.53	.18	38	75	339	655	1240	702	258	376
13	419	10	1.9	.11	46	86	413	655	1230	586	253	354
14	196	9.7	1.6	.11	90	102	432	655	995	399	232	384
15	48	11	1.2	.15	85	126	374	655	873	400	231	381
16	24	11	1.1	.15	104	142	261	655	1300	311	231	378
17	13	11	1.2	.15	99	141	240	653	1460	188	231	375
18	11	9.8	1.5	.29	92	150	242	698	1570	189	231	446
19	9.2	10	1.5	63	84	186	215	749	1260	229	230	576
20	8.0	12	1.7	62	79	169	228	753	1220	378	230	571
21	8.0	11	.94	41	78	123	259	769	1330	448	158	547
22	6.8	7.5	.33	29	76	108	273	862	1330	447	137	438
23	6.0	5.1	.24	28	77	115	291	988	1170	446	136	2.8
24	5.3	4.7	.22	46	70	135	319	1020	1060	540	135	2.8
25	4.5	5.5	.21	54	77	130	370	811	1090	865	137	2.8
26	4.0	7.3	.21	48	73	156	426	260	1070	743	301	2.8
27	3.6	8.0	.21	47	80	195	469	211	959	547	306	2.8
28	4.0	6.6	.23	47	77	175	531	106	814	547	305	2.8
29	6.4	6.8	.24	46	79	158	541	3.9	868	547	278	2.8
30	7.0	7.1	.21	44	---	159	551	176	932	547	101	2.8
31	6.7	---	.21	42	---	149	---	594	---	546	5.0	---
TOTAL	4967.5	254.3	49.93	600.40	1834	3494	9905	19849.9	34146	18432	9560.0	6799.6
MEAN	160	8.48	1.61	19.4	63.2	113	330	640	1138	595	308	227
MAX	636	12	6.0	63	104	195	551	1020	1570	1160	676	576
MIN	3.6	4.7	.21	.11	31	57	132	3.9	814	188	5.0	2.8
AC-FT	9850	504	99	1190	3640	6930	19650	39370	67730	36560	18960	13490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2000, BY WATER YEAR (WY)

MEAN	236	128	106	77.1	76.7	113	274	467	564	543	429	347
MAX	634	745	1064	546	240	297	588	949	1161	1199	856	897
(WY)	1996	1938	1946	1939	1986	1986	1997	1974	1974	1967	1995	1998
MIN	.000	.47	1.61	2.13	.64	22.5	35.4	.85	1.49	90.1	48.3	1.50
(WY)	1946	1965	2000	1991	1991	1977	1991	1939	1938	1931	1977	1949

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1925 - 2000	
ANNUAL TOTAL	91655.53		109892.63			
ANNUAL MEAN	251		300		282	
HIGHEST ANNUAL MEAN					460	1956
LOWEST ANNUAL MEAN					98.1	1977
HIGHEST DAILY MEAN	1200	Jun 22	1570	Jun 18	1990	Apr 30 1926
LOWEST DAILY MEAN	.21	Dec 25	.11	Jan 13	.00	Oct 7 1925
ANNUAL SEVEN-DAY MINIMUM	.22	Dec 25	.15	Jan 11	.00	Nov 5 1925
ANNUAL RUNOFF (AC-FT)	181800		218000		204400	
10 PERCENT EXCEEDS	694		870		679	
50 PERCENT EXCEEDS	70		136		164	
90 PERCENT EXCEEDS	3.9		1.4		12	

e Estimated.

11229600 FLORENCE LAKE NEAR BIG CREEK, CA

LOCATION.—Lat 37°16'20", long 118°58'17", unsurveyed, T.8 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in gatehouse of Ward Tunnel intake, 0.3 mi west of dam on South Fork San Joaquin River, and 16 mi northeast of town of Big Creek.

DRAINAGE AREA.—171 mi^2.

PERIOD OF RECORD.—November 1925 to current year. Prior to October 1931, published in WSP 721. Maximum and minimum daily contents (water years 1926–39) summarized in WSP 881. Prior to 1960, maximum and minimum daily contents were published.

REVISED RECORDS.—WDR CA-78-3: 1977.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Southern California Edison Co.).

REMARKS.—Lake is formed by multiple-arch concrete dam; storage began in April 1925. Usable capacity, 64,406 acre-ft, between elevations, 7,220.94 ft, throat of Venturi tube in Ward Tunnel intake (station 11229500), and 7,327.50 ft, top of spillway drum gates. Additional storage of 168 acre-ft is not available for diversion. Water is diverted through Ward Tunnel to Huntington Lake (station 11236000) via Portal Powerplant (station 11235500) and used for further power development in Big Creek powerplants. Records, including extremes, represent contents at 2400 hours. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

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.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 64,445 acre-ft, June 25, elevation, 7,327.54 ft; minimum, 899 acre-ft (estimated), Jan. 11, elevation, unknown.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Southern California Edison Co., dated Aug. 26, 1926)

7,220.94	0	7,240	2,976	7,270	17,755
7,222	63	7,245	4,66	7,280	24,588
7,225	281	7,250	6,648	7,290	31,966
7,230	887	7,255	8,950	7,310	48,284
7,235	1,774	7,260	11,608	7,330	66,826

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10807	e1054	e1054	e931	e1134	e1187	1305	3817	49707	64358	49354	36486
2	10698	e1054	e1051	e927	e1142	e1183	1305	4833	50771	64012	48669	36644
3	10562	e1054	e1049	e923	e1151	e1178	1305	6004	51933	63427	48058	36771
4	e10455	e1054	e1049	e920	e1151	e1173	1305	6890	53532	62653	47215	36867
5	e10236	e1054	e1051	e913	e1144	e1178	1305	7865	55501	61862	46284	36731
6	e9262	e1054	e1041	e909	e1134	e1178	1305	8760	57145	61122	45327	36620
7	e8046	e1052	e1036	e906	e1127	e1168	1305	9881	58271	60678	44418	36201
8	e6865	e1052	e1031	e904	e1125	e1166	1725	10742	58861	60479	44046	35421
9	e5729	e1059	e1028	e903	e1122	e1159	1554	11586	58692	60281	43667	34646
10	e4594	e1057	e1023	e901	e1119	e1161	1312	12554	57982	59979	43264	33875
11	e3489	e1059	e1020	e899	e1127	e1166	1284	12987	57229	59358	42830	33094
12	e2459	e1059	e1016	e913	e1132	e1181	1307	13016	57043	58730	42429	32326
13	e1600	e1059	e1011	e910	e1132	e1192	1276	12998	57489	58299	42031	31586
14	e1212	e1057	e1008	e975	e1163	e1207	1251	13016	59039	58169	41650	30783
15	e1210	e1057	e1003	e1040	e1202	e1232	1251	12802	61169	58001	41253	29999
16	e1207	e1062	e999	e1112	e1202	e1259	1251	12631	62738	58057	40866	29192
17	e1205	e1059	e996	e1183	e1219	e1262	1251	12348	63130	58355	40480	28383
18	e1204	e1062	e991	e1257	e1205	e1262	1251	12080	63427	58543	40104	27442
19	e1202	e1056	e986	e1327	e1202	e1260	1251	12114	64002	58571	39697	26284
20	e1200	e1059	e982	e1200	e1192	e1260	1251	12998	64291	58252	39283	25124
21	e1144	e1061	e979	e1144	e1188	e1259	1251	14617	64281	57778	39015	24014
22	e1125	e1059	e975	e1125	e1187	e1226	1251	16934	64108	57275	38781	23127
23	e1108	e1052	e971	e1108	e1190	e1221	1251	19422	64156	56738	38539	23120
24	e1124	e1051	e966	e1124	e1180	e1242	1251	21736	64252	56036	38297	23120
25	e1161	e1051	e961	e1161	e1187	e1248	1251	23936	64445	54730	38072	23113
26	e1151	e1054	e958	e1149	e1183	e1251	1764	27618	64233	53605	37591	23160
27	e1142	e1056	e954	e1142	e1185	e1251	2194	32249	64079	52945	37105	23160
28	e1147	e1056	e949	e1147	e1187	e1251	2522	37375	64281	52230	36620	23092
29	e1147	e1052	e945	e1147	e1190	1255	2649	41583	64426	51503	36209	23085
30	e1142	e1054	e940	e1142	---	1255	3020	45684	64407	50771	36169	23078
31	e1142	---	e935	e1142	---	1327	---	48101	---	50051	36328	---
MAX	10807	1062	1054	1327	1219	1327	3020	48101	64445	64358	49354	36867
MIN	1108	1051	935	899	1119	1159	1251	3817	49707	50051	36169	23078
a						7232.64	7240.14	7309.79	7327.50	7312.01	7295.61	7277.86
b	+9665	-88	-119	+207	+48	+137	+1693	+45081	+16306	-14356	-13723	-13250

CAL YR 1999 b -136
WTR YR 2000 b +12271

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

11230200 HOOPER CREEK BELOW DIVERSION DAM, NEAR FLORENCE LAKE, CA

LOCATION.—Lat 37°18'21", long 118°56'59", unsurveyed, T.7 S., R.28 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank, 300 ft downstream from diversion dam, 0.7 mi upstream from mouth, 2.5 mi north of Florence Lake, and 17.6 mi northeast of town of Big Creek.

DRAINAGE AREA.—7.22 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Prior to October 1991, published as Hooper Creek at diversion dam near Florence Lake.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 7,440 ft above sea level, from topographic map.

REMARKS.—Flow regulated by diversion dam 300 ft upstream. Most of the water is diverted at the diversion dam to Florence Lake (station 11229600). See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 112 ft^3/s, July 17, 1995; minimum daily, 1.2 ft^3/s, Apr. 25, 1989.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.3	2.4	1.8	2.4	2.5	4.4	e22	3.8	5.0	4.1	4.4
2	3.4	2.3	2.4	1.8	2.3	2.4	4.9	e24	3.7	5.0	4.1	4.4
3	3.2	2.3	2.3	1.9	2.3	2.4	5.8	e27	3.7	4.9	5.1	4.0
4	3.2	2.3	2.3	1.9	2.2	2.5	6.8	e29	3.6	4.9	5.8	3.6
5	3.1	2.3	2.3	1.8	2.2	2.9	6.5	e30	3.7	4.9	5.2	3.4
6	3.2	2.3	2.3	1.7	2.1	2.7	7.3	e30	3.6	4.9	4.9	3.2
7	3.0	2.3	2.1	1.8	2.2	2.5	8.5	e30	3.6	4.9	4.8	3.1
8	2.9	2.7	e2.2	1.7	2.1	2.4	8.9	e29	3.6	4.8	4.6	3.0
9	2.8	2.6	e2.2	1.7	2.1	2.4	8.8	e34	2.9	4.8	4.4	2.9
10	2.8	2.5	e2.2	1.7	2.1	2.5	8.7	e35	3.0	4.8	4.1	2.9
11	2.7	2.5	e2.2	1.8	2.2	2.6	8.7	e29	3.8	4.8	3.9	2.8
12	2.6	2.4	2.2	1.8	2.3	2.8	9.1	e28	3.7	4.8	3.8	2.7
13	2.6	2.4	2.2	1.8	2.9	3.2	10	e26	3.7	4.8	3.7	2.6
14	2.6	2.4	2.1	1.9	3.2	3.4	8.7	e25	3.3	4.8	3.5	2.6
15	2.6	2.6	2.2	2.0	2.7	3.8	7.8	e22	4.1	4.7	3.5	2.4
16	2.5	2.4	2.2	1.9	2.4	3.9	7.3	e23	5.2	4.7	3.4	2.3
17	2.5	2.5	2.2	2.6	2.5	4.0	7.3	e20	5.2	4.7	3.4	2.3
18	2.5	2.5	2.1	2.9	2.4	4.3	7.4	e22	5.1	4.7	3.4	2.3
19	2.4	2.6	2.2	2.2	2.3	4.5	7.3	e23	5.2	4.6	3.4	2.3
20	2.4	2.6	2.1	2.2	2.3	3.9	7.6	e34	5.1	4.6	3.3	2.3
21	2.4	2.3	2.0	2.1	2.3	3.7	7.6	e40	5.1	4.4	3.2	2.3
22	2.4	2.4	2.0	2.2	2.3	3.8	7.3	e46	5.1	4.4	3.2	2.4
23	2.4	2.4	2.0	2.2	2.3	4.0	7.6	e50	5.1	4.3	3.1	2.4
24	2.4	2.5	2.0	2.3	3.1	3.9	9.6	e55	5.2	4.3	3.1	2.4
25	2.3	2.7	1.9	2.3	2.4	4.1	12	e30	5.2	4.3	3.9	2.3
26	2.4	2.6	1.9	2.3	2.5	4.6	12	2.8	5.1	4.3	4.0	2.3
27	2.4	2.4	1.9	2.2	2.6	4.6	15	2.6	5.1	4.3	3.8	2.3
28	2.7	2.4	1.9	2.2	2.5	4.4	18	3.3	5.1	4.2	3.9	2.3
29	2.5	2.5	1.9	2.3	2.4	4.4	17	4.7	5.1	4.1	4.0	2.3
30	2.4	2.4	1.9	2.2	---	4.5	e20	4.4	5.0	4.1	4.3	2.3
31	2.3	---	1.9	2.2	---	4.3	---	4.0	---	4.1	4.0	---
TOTAL	83.1	73.4	65.7	63.4	69.6	107.9	277.9	784.8	130.7	142.9	122.9	82.8
MEAN	2.68	2.45	2.12	2.05	2.40	3.48	9.26	25.3	4.36	4.61	3.96	2.76
MAX	3.5	2.7	2.4	2.9	3.2	4.6	20	55	5.2	5.0	5.8	4.4
MIN	2.3	2.3	1.9	1.7	2.1	2.4	4.4	2.6	2.9	4.1	3.1	2.3
AC-FT	165	146	130	126	138	214	551	1560	259	283	244	164

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	2.78	2.64	2.44	2.85	2.70	3.82	6.88	11.7	14.4	13.6	5.04	2.89
MAX	4.75	4.54	3.57	10.2	5.14	8.03	18.8	60.9	45.7	68.3	18.8	4.76
(WY)	1996	1999	1999	1997	1997	1997	1997	1997	1998	1995	1995	1998
MIN	1.68	1.82	1.59	1.55	1.55	2.10	3.07	2.50	2.46	2.66	2.32	1.91
(WY)	1991	1991	1989	1991	1991	1990	1996	1991	1989	1989	1989	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	1546.3		2005.1			
ANNUAL MEAN	4.24		5.48		5.99	
HIGHEST ANNUAL MEAN					15.6	1995
LOWEST ANNUAL MEAN					2.42	1991
HIGHEST DAILY MEAN	11	May 19	55	May 24	112	Jul 17 1995
LOWEST DAILY MEAN	1.9	Dec 25	1.7	Jan 6	1.2	Apr 25 1989
ANNUAL SEVEN-DAY MINIMUM	1.9	Dec 25	1.7	Jan 5	1.3	Oct 10 1990
ANNUAL RUNOFF (AC-FT)	3070		3980		4340	
10 PERCENT EXCEEDS	7.8		8.7		7.8	
50 PERCENT EXCEEDS	3.2		3.0		3.0	
90 PERCENT EXCEEDS	2.3		2.2		1.9	

e Estimated.

11230215 SOUTH FORK SAN JOAQUIN RIVER BELOW HOOPER CREEK, NEAR FLORENCE LAKE, CA

LOCATION.—Lat 37°18'35", long 118°57'40", unsurveyed, T.7 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 0.1 mi downstream from Hooper Creek, 3.5 mi downstream from Florence Lake Dam, and 17 mi northeast of town of Big Creek.

DRAINAGE AREA.—184 mi^2.

PERIOD OF RECORD.—October 1978 to September 1997, October 1998 to current year. October 1946 to September 1978, operated as a low-flow station only, in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder, Parshall flume, and concrete control. Datum of gage is 6,949.41 ft above sea level (levels by Southern California Edison Co.).

REMARKS.—Flow regulated by Florence Lake (station 11229600) 3.5 mi upstream, and Hooper Creek Diversion Dam (capacity less than 2 acre-ft) 0.7 mi upstream. Most of the water is diverted at Florence Lake to Ward Tunnel (station 11229500). See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 5,950 ft^3/s, Sept. 26, 1982, gage height, 11.42 ft; minimum daily, 3.9 ft^3/s, Oct. 24, 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	20	19	18	20	24	33	55	48	39	32	35
2	30	17	18	17	20	23	36	57	48	34	31	35
3	30	17	18	18	20	23	38	63	48	34	31	35
4	30	17	18	18	20	24	41	67	48	33	32	34
5	30	17	18	17	20	25	40	69	49	33	31	34
6	30	17	18	e14	20	24	39	69	48	33	30	34
7	30	16	18	11	20	23	38	69	48	32	30	33
8	29	19	18	e12	20	23	38	68	49	32	30	33
9	28	17	18	13	20	23	37	75	48	32	30	33
10	28	17	18	13	21	22	35	76	47	32	29	33
11	27	17	19	13	20	24	35	68	47	32	29	33
12	26	17	18	11	21	28	35	67	46	31	29	32
13	24	17	18	11	23	30	46	63	45	31	28	32
14	23	17	18	11	47	34	46	62	45	31	30	32
15	23	17	18	12	35	40	38	57	45	31	34	32
16	22	17	18	13	29	41	35	59	56	31	34	31
17	22	17	18	13	25	44	39	56	371	31	34	31
18	22	17	18	32	24	47	42	56	169	30	34	30
19	22	17	18	18	23	47	39	61	82	30	34	28
20	22	17	18	21	24	39	38	72	119	30	34	30
21	22	16	18	20	25	34	37	85	37	30	34	30
22	22	16	18	19	24	34	36	100	35	30	34	30
23	22	18	18	20	23	36	34	109	36	30	34	30
24	22	18	18	23	24	36	36	112	36	30	34	30
25	22	19	18	23	22	36	38	90	43	30	35	30
26	22	19	18	22	23	39	39	45	39	29	35	30
27	22	19	18	21	26	40	45	46	35	29	34	30
28	23	19	18	20	24	39	48	48	35	28	34	30
29	23	19	18	20	24	37	47	49	39	27	35	29
30	23	19	18	20	---	36	49	49	39	27	35	29
31	22	---	18	20	---	33	---	48	---	32	35	---
TOTAL	773	526	560	534	687	1008	1177	2070	1880	964	1005	948
MEAN	24.9	17.5	18.1	17.2	23.7	32.5	39.2	66.8	62.7	31.1	32.4	31.6
MAX	30	20	19	32	47	47	49	112	371	39	35	35
MIN	22	16	18	11	20	22	33	45	35	27	28	28
AC-FT	1530	1040	1110	1060	1360	2000	2330	4110	3730	1910	1990	1880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

MEAN	19.0	16.8	16.1	18.1	20.7	26.6	30.8	46.4	373	312	69.4	38.4
MAX	30.5	24.9	25.3	53.0	42.6	49.0	53.1	164	2429	1799	661	268
(WY)	1990	1996	1984	1997	1986	1995	1995	1983	1983	1995	1983	1982
MIN	7.87	11.8	8.93	11.9	12.2	17.8	18.4	20.9	20.5	21.4	13.1	7.19
(WY)	1980	1979	1979	1979	1991	1990	1990	1981	1981	1981	1979	1979

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1979 - 2000	
ANNUAL TOTAL	9900		12132			
ANNUAL MEAN	27.1		33.1		82.4	
HIGHEST ANNUAL MEAN					396	1983
LOWEST ANNUAL MEAN					18.5	1979
HIGHEST DAILY MEAN	57	May 24	371	Jun 17	5200	Sep 26 1982
LOWEST DAILY MEAN	16	Nov 7	11	Jan 7	3.9	Oct 24 1979
ANNUAL SEVEN-DAY MINIMUM	17	Nov 16	12	Jan 7	4.4	Oct 13 1979
INSTANTANEOUS PEAK FLOW			625	Jun 17	5950	Sep 26 1982
INSTANTANEOUS PEAK STAGE			5.73	Jun 17	11.42	Sep 26 1982
ANNUAL RUNOFF (AC-FT)	19640		24060		59670	
10 PERCENT EXCEEDS	38		48		50	
50 PERCENT EXCEEDS	28		30		23	
90 PERCENT EXCEEDS	18		18		14	

e Estimated.

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CA

LOCATION.—Lat 37°20'22", long 118°58'21", unsurveyed, T.7 S., R.27 E., 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 mi^2.

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 Vermilion 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 above sea level (levels by Southern California Edison Co.).

REMARKS.—No storage or diversion upstream from station. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,660 ft^3/s, Sept. 26, 1982, gage height, 8.35 ft, from rating curve extended above 570 ft^3/s; minimum daily, 1.2 ft^3/s, Sept. 29 to Oct. 5, 1924.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	10	9.4	e6.0	e23	e29	e54	268	447	254	55	42
2	24	9.5	9.2	e5.8	e26	e28	e81	302	447	211	59	40
3	22	9.4	10	e6.2	e27	e27	e106	347	467	175	85	36
4	21	9.0	9.4	e6.2	e25	e27	e118	354	533	148	104	31
5	19	9.0	8.0	e6.0	e24	e27	e110	340	542	133	80	26
6	18	8.6	7.7	e6.0	e21	e25	e114	318	472	125	69	24
7	18	8.2	8.6	e6.5	e21	e24	e128	337	462	116	60	21
8	16	9.0	e6.1	e5.2	e20	e24	e118	312	383	108	54	19
9	15	11	e7.7	e4.5	e20	e25	e105	319	270	110	48	18
10	14	13	e5.6	e4.5	e19	e25	e105	315	227	118	42	17
11	14	12	e7.9	e4.7	e18	e26	e111	221	253	119	38	17
12	13	12	e8.2	e4.8	e20	e27	e121	171	318	121	34	16
13	12	11	e7.5	e5.0	e21	e31	e130	163	415	114	31	16
14	12	12	e6.6	e5.1	e28	e39	e99	160	529	105	29	15
15	12	12	e6.8	e5.7	e29	e49	e84	137	556	102	27	14
16	11	11	e7.0	e6.1	e33	e49	e73	140	597	106	27	13
17	11	12	e7.1	e6.4	e42	e50	e73	135	525	108	27	12
18	11	11	e7.0	e12	e38	e56	e71	153	487	94	26	12
19	10	13	e7.3	e9.1	e31	e64	e78	208	430	82	25	12
20	10	12	e7.5	e8.6	e28	e50	e88	305	374	75	23	12
21	9.9	12	e6.7	e8.8	e27	e41	e89	412	368	73	22	12
22	9.5	9.3	e6.2	e11	e27	e42	e85	533	328	71	21	12
23	9.5	14	e6.0	e16	e26	e45	e91	605	293	67	20	11
24	9.5	13	e5.8	e17	e28	e43	e103	573	296	66	20	11
25	9.0	13	e5.7	e15	e28	e53	e127	522	356	66	20	11
26	8.8	11	e5.9	e14	e27	e69	171	469	276	66	33	11
27	8.6	10	e6.5	e19	e27	e55	204	627	256	64	37	10
28	10	8.8	e6.2	e26	e29	e53	201	710	255	58	36	10
29	13	9.7	e6.1	e25	e28	e59	177	645	254	54	40	10
30	11	9.9	e6.2	e26	---	e53	214	547	245	52	45	9.7
31	10	---	e6.6	e24	---	e46	---	476	---	53	44	---
TOTAL	418.8	325.4	222.5	326.2	761	1261	3429	11124	11661	3214	1281	520.7
MEAN	13.5	10.8	7.18	10.5	26.2	40.7	114	359	389	104	41.3	17.4
MAX	27	14	10	26	42	69	214	710	597	254	104	42
MIN	8.6	8.2	5.6	4.5	18	24	54	135	227	52	20	9.7
AC-FT	831	645	441	647	1510	2500	6800	22060	23130	6370	2540	1030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2000, BY WATER YEAR (WY)

MEAN	15.1	15.4	19.6	22.5	23.8	33.3	87.1	254	350	205	66.8	28.7
MAX	62.2	56.1	71.2	107	61.0	79.8	172	586	740	747	349	260
(WY)	1983	1951	1956	1997	1986	1986	1926	1969	1983	1995	1983	1982
MIN	2.71	3.10	4.86	4.50	5.80	9.00	33.1	71.3	42.2	12.2	3.15	1.63
(WY)	1925	1930	1930	1924	1991	1924	1975	1977	1924	1924	1924	1924

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1922 - 2000	
ANNUAL TOTAL	31407.7		34544.6			
ANNUAL MEAN	86.0		94.4		93.7	
HIGHEST ANNUAL MEAN					201	1983
LOWEST ANNUAL MEAN					29.2	1924
HIGHEST DAILY MEAN	544	May 25	710	May 28	2610	Sep 26 1982
LOWEST DAILY MEAN	5.6	Dec 10	e4.5	Jan 9	1.2	Sep 29 1924
ANNUAL SEVEN-DAY MINIMUM	6.0	Dec 23	4.8	Jan 8	1.2	Sep 29 1924
INSTANTANEOUS PEAK FLOW			940	May 27	3660	Sep 26 1982
INSTANTANEOUS PEAK STAGE			5.90	May 27	8.35	Sep 26 1982
ANNUAL RUNOFF (AC-FT)	62300		68520		67890	
10 PERCENT EXCEEDS	291		318		294	
50 PERCENT EXCEEDS	27		27		30	
90 PERCENT EXCEEDS	9.1		7.4		7.0	

e Estimated.

11230520 BEAR CREEK CONDUIT NEAR LAKE THOMAS A. EDISON, CA

LOCATION.—Lat 37°20'10", long 118°58'28", unsurveyed, T.7 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, at diversion dam, 2.2 mi northeast of Mono Hot Springs, and 2.5 mi south of Lake Thomas A. Edison.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Discharge computed as difference between flows at Bear Creek near Lake Thomas A. Edison (station 11230500) and Bear Creek below diversion dam (station 11230530). Datum of conduit invert is 7,340 ft above sea level (levels by Southern California Edison Co.).

REMARKS.—Conduit diverts at diversion dam on Bear Creek to Ward Tunnel and Huntington Lake (station 11236000) via Portal Powerplant (station 11235500) for further power development in Big Creek powerplants. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 504 ft^3/s, May 24, 1999, May 27, 2000; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	e7.2	e6.8	e1.4	e20	e26	e51	275	405	244	47	36
2	20	e7.5	e6.6	e1.3	e23	e25	e78	305	404	208	50	35
3	18	e7.0	e6.5	e1.6	e24	e24	e103	357	407	175	72	30
4	16	e6.7	e6.8	e1.7	e22	e24	e115	381	410	147	103	26
5	e15	e6.2	e5.8	e1.5	e21	e24	e107	351	393	132	74	23
6	e13	e5.9	e5.3	e1.4	e18	e22	e111	330	382	125	61	20
7	e12	e5.6	e5.7	e1.9	e18	e21	e125	348	387	114	52	18
8	e11	e7.0	e3.1	e1.5	e17	e21	e115	309	372	103	46	16
9	e9.9	e8.1	e4.7	e1.5	e17	e22	e102	323	259	105	42	15
10	e9.4	e9.3	e2.6	e1.5	e16	e22	e102	329	219	116	36	14
11	e8.6	e9.0	e4.9	e1.7	e15	e23	e108	233	238	118	31	13
12	e7.5	e8.2	e5.2	e1.8	e17	e24	e118	181	291	120	29	13
13	e7.0	e7.4	e4.5	e2.0	e18	e28	e127	167	371	110	26	12
14	e6.7	e7.9	e3.6	e2.1	e25	e36	e96	164	e426	100	25	11
15	e6.6	e8.9	e3.8	e2.6	e26	e46	e81	139	e113	98	23	10
16	e6.2	e8.0	e4.0	e3.0	e30	e46	e70	141	e3.0	101	23	9.1
17	e5.6	e8.9	e4.1	e3.3	e39	e47	e70	135	e3.0	103	23	8.4
18	e5.4	e6.8	e4.0	e9.3	e35	e53	e68	153	e3.0	89	23	8.4
19	e5.0	e9.3	e4.3	e6.0	e28	e61	e75	207	e18	75	21	8.4
20	e4.8	e9.1	e4.5	e5.5	e25	e47	e85	300	e9.0	68	20	8.3
21	e4.4	e9.5	e3.7	e5.7	e24	e38	e86	399	e25	65	19	e7.6
22	e4.1	e5.1	e3.2	e7.6	e24	e39	e82	467	e41	62	18	e7.4
23	e3.9	e6.9	e3.0	e13	e23	e42	e88	e428	e168	58	16	e6.4
24	e3.7	e5.7	e2.8	e14	e25	e40	e100	e430	273	57	16	e6.4
25	e3.7	e8.3	e2.7	e12	e25	e50	e124	e408	e282	57	16	e6.3
26	e4.0	e8.6	e2.4	e11	e24	e66	170	e436	e176	58	27	e6.3
27	e5.5	e7.8	e2.5	e16	e24	e52	207	e504	e168	55	31	e5.3
28	e7.8	e6.4	e2.0	e23	e26	e50	210	e470	e32	50	31	e3.7
29	e9.8	e7.7	e1.7	e22	e25	e56	182	e452	e151	46	34	e3.6
30	e8.1	e8.0	e1.6	e23	---	e50	214	e433	236	44	39	e3.6
31	e7.5	---	e2.0	e21	---	e43	---	409	---	46	39	---
TOTAL	272.2	228.0	124.4	220.9	674	1168	3370	9964	6665.0	3049	1113	391.2
MEAN	8.78	7.60	4.01	7.13	23.2	37.7	112	321	222	98.4	35.9	13.0
MAX	22	9.5	6.8	23	39	66	214	504	426	244	103	36
MIN	3.7	5.1	1.6	1.3	15	21	51	135	3.0	44	16	3.6
AC-FT	540	452	247	438	1340	2320	6680	19760	13220	6050	2210	776

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	13.9	12.6	12.0	17.3	18.7	32.4	89.7	208	185	75.8	50.3	22.9
MAX	45.3	26.5	32.5	50.8	41.3	52.4	138	345	343	168	181	84.1
(WY)	1995	1995	1997	1997	1996	1995	1989	1997	1999	1996	1995	1995
MIN	3.23	3.68	3.23	3.46	.000	.000	43.2	59.2	.000	.000	10.6	4.53
(WY)	1989	1991	1991	1991	1997	1997	1991	1995	1995	1995	1989	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	29222.6		27239.7			
ANNUAL MEAN	80.1		74.4		61.5	
HIGHEST ANNUAL MEAN					82.4	1999
LOWEST ANNUAL MEAN					49.2	1990
HIGHEST DAILY MEAN	504	May 24	e504	May 27	504	May 24 1999
LOWEST DAILY MEAN	1.6	Dec 30	e1.3	Jan 2	.00	Oct 18 1988
ANNUAL SEVEN-DAY MINIMUM	2.1	Dec 25	1.5	Jan 1	.00	May 18 1995
ANNUAL RUNOFF (AC-FT)	57960		54030		44550	
10 PERCENT EXCEEDS	286		248		203	
50 PERCENT EXCEEDS	24		23		23	
90 PERCENT EXCEEDS	5.6		3.7		3.4	

e Estimated.

11230530 BEAR CREEK BELOW DIVERSION DAM, NEAR LAKE THOMAS A. EDISON, CA

LOCATION.—Lat 37°20'08", long 118°58'29", unsurveyed, T.7 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 60 ft downstream from diversion dam, 2.5 mi south of Lake Thomas A. Edison, and 18.3 mi east of town of Big Creek.

DRAINAGE AREA.—52.8 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Prior to October 1991, published as "at Diversion Dam."

GAGE.—Water-stage recorder, Parshall flume, and concrete control. Datum of gage is 7,338.30 ft above sea level (levels by Southern California Edison Co.).

REMARKS.—Low and medium flow regulated at diversion dam. Most of the flow is diverted at the diversion dam to Bear Creek Conduit (station 11230520), then to Ward Tunnel and Huntington Lake (station 11236000) via Portal Powerplant (station 11235500) for further power development in Big Creek powerplants. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,730 ft^3/s, July 9, 1995, gage height, 14.75 ft; minimum daily, 0.94 ft^3/s, Oct. 15, 1987.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	e3.0	e2.6	4.6	3.0	3.0	2.8	4.7	39	4.7	4.8	4.5
2	5.5	e2.5	e2.6	4.5	3.1	3.1	2.8	4.7	38	4.7	4.8	4.5
3	5.5	e2.4	e3.5	4.6	3.0	3.0	2.8	4.7	55	4.6	4.9	4.5
4	5.4	e3.0	e2.6	4.5	3.1	3.1	2.6	4.7	101	4.5	4.9	4.4
5	e4.0	e3.0	e2.2	4.5	3.1	3.1	2.6	4.7	125	4.5	4.9	4.4
6	e4.0	e2.6	e2.4	4.6	3.1	3.1	2.6	4.7	67	4.6	4.8	4.4
7	e4.0	e2.2	e2.9	4.6	3.1	3.1	2.6	4.7	75	4.5	4.8	4.4
8	e5.0	e3.0	e3.0	3.7	3.1	3.1	2.6	4.7	18	4.5	4.7	4.4
9	e5.0	e4.0	e3.0	3.0	3.2	3.1	2.7	4.7	4.6	4.5	4.7	4.4
10	e4.0	e4.0	e3.0	3.0	3.1	3.1	2.6	4.7	4.5	4.6	4.5	4.5
11	e5.0	e3.0	e3.0	3.0	3.1	3.1	2.6	4.6	4.5	4.7	4.5	4.5
12	e5.0	e3.0	e3.0	3.0	3.1	3.1	2.7	4.6	4.6	4.7	4.5	4.5
13	e5.0	e2.0	e3.0	3.0	3.1	3.1	2.7	4.5	29	4.7	4.5	4.4
14	e5.0	e3.0	e3.0	3.0	3.2	3.1	2.7	4.5	103	4.7	4.5	4.4
15	e5.0	e3.0	e3.0	3.1	3.1	3.2	2.7	4.5	443	4.7	4.5	4.4
16	e5.0	e4.0	e3.0	3.1	3.2	3.1	2.7	4.5	599	4.8	4.5	4.4
17	e5.0	e3.0	e3.0	3.1	3.1	3.1	2.6	4.5	535	4.8	4.5	4.4
18	e5.0	e2.0	e3.0	3.1	3.1	3.0	2.6	4.5	486	4.8	4.4	4.4
19	e5.0	e3.0	e3.0	3.1	3.1	3.0	2.6	4.5	412	4.7	4.4	4.4
20	e5.0	e3.0	e3.0	3.1	3.0	3.0	2.6	4.6	365	4.7	4.4	4.4
21	e5.9	e3.0	e3.0	3.1	3.0	3.0	2.6	5.0	343	4.9	4.4	4.4
22	e5.5	e3.3	e3.0	3.1	3.0	3.0	2.6	61	287	4.9	4.4	4.6
23	e5.5	e6.0	e3.0	3.2	3.0	3.0	2.6	177	125	4.9	4.4	4.6
24	e5.5	e7.0	e3.0	3.1	3.0	3.0	2.6	143	6.1	4.9	4.4	4.6
25	e5.0	e5.0	e3.0	3.1	3.0	3.0	2.8	114	74	4.9	4.4	4.7
26	e4.8	e2.5	e3.5	3.1	3.0	2.9	4.8	33	100	4.8	4.4	4.7
27	e2.6	e2.5	e4.0	3.1	3.0	2.9	4.9	123	88	4.8	4.4	4.7
28	e3.0	e2.5	e4.2	3.1	3.0	2.9	4.7	240	222	4.8	4.4	6.3
29	e3.0	e2.7	e4.4	3.1	2.9	2.9	4.6	193	103	4.9	4.5	6.4
30	e3.0	e2.5	e4.6	3.1	---	2.8	4.6	114	4.6	4.9	4.5	6.1
31	e2.0	---	e4.6	3.0	---	2.8	---	61	---	4.9	4.5	---
TOTAL	143.6	95.7	98.1	106.3	88.9	93.8	90.0	1356.3	4860.9	146.6	141.2	139.7
MEAN	4.63	3.19	3.16	3.43	3.07	3.03	3.00	43.8	162	4.73	4.55	4.66
MAX	5.9	7.0	4.6	4.6	3.2	3.2	4.9	240	599	4.9	4.9	6.4
MIN	2.0	2.0	2.2	3.0	2.9	2.8	2.6	4.5	4.5	4.5	4.4	4.4
AC-FT	285	190	195	211	176	186	179	2690	9640	291	280	277

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	2.48	2.28	2.78	5.99	3.43	6.30	8.58	27.0	125	118	14.7	4.08
MAX	4.63	6.16	12.5	55.8	20.4	59.8	67.1	121	555	747	109	11.1
(WY)	2000	1996	1996	1997	1997	1997	1997	1995	1995	1995	1995	1996
MIN	1.33	1.38	1.41	1.48	1.35	1.48	1.42	2.57	2.43	2.25	2.25	2.44
(WY)	1988	1990	1993	1995	1995	1988	1990	1991	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	2220.5		7361.1			
ANNUAL MEAN	6.08		20.1		26.9	
HIGHEST ANNUAL MEAN					131	1995
LOWEST ANNUAL MEAN					1.98	1990
HIGHEST DAILY MEAN	105	Jun 19	599	Jun 16	1420	Jul 9 1995
LOWEST DAILY MEAN	2.0	Oct 31	e2.0	Oct 31	.94	Oct 15 1987
ANNUAL SEVEN-DAY MINIMUM	2.6	Nov 26	2.6	Nov 26	1.0	Nov 5 1992
INSTANTANEOUS PEAK FLOW			825	Jun 15	1730	Jul 9 1995
INSTANTANEOUS PEAK STAGE			2.61	Jun 15	14.75	Jul 9 1995
ANNUAL RUNOFF (AC-FT)	4400		14600		19480	
10 PERCENT EXCEEDS	5.8		6.3		9.4	
50 PERCENT EXCEEDS	3.5		4.4		2.5	
90 PERCENT EXCEEDS	2.9		2.7		1.5	

e Estimated.

11230670 BOLSILLO CREEK BELOW DIVERSION DAM, NEAR BIG CREEK, CA

LOCATION.—Lat 37°18'43", long 119°02'23", unsurveyed, T.7 S, R.27 E, Fresno County, Hydrologic Unit 18040006, Sierra National Forest, 50 ft downstream from diversion dam, 1.5 mi upstream from mouth, 1.7 mi southwest of Mono Hot Springs, and 13.3 mi northeast of town of Big Creek.

DRAINAGE AREA.—1.40 mi^2.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Water-stage recorder and 90° V-notch weir control. Elevation of gage is 7,600 ft above sea level, from topographic map.

REMARKS.—Records of fishery release normally computed only during periods of diversion to Ward Tunnel. Diversion during the current water year occurred May 24, 25, 27, 28, 31, and June 1 to July 25. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

NOTE.—No diversion during 2000 water year.

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CA

LOCATION.—Lat 37°22'09", long 118°59'17", unsurveyed, T.6 1/2 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in outlet works of Vermillion Valley Dam, on Mono Creek, and 18.1 mi northeast of town of Big Creek.

DRAINAGE AREA.—90.0 mi^2.

PERIOD OF RECORD.—October 1954 to current year. Prior to 1960, maximum and minimum daily contents were published.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Southern California Edison Co.).

REMARKS.—Lake is formed by earthfill dam; dam completed and storage began 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. Water is diverted at times into lake from Warm Creek (station 11231700). Water is released for diversion to Ward Tunnel via Mono Creek Conduit (station 11231550). Records, including extremes, represent contents at 2400 hours. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 125,983 acre-ft, Sept. 26, 1982, elevation, 7,643.55 ft; minimum since appreciable storage was attained, 4,553 acre-ft, Dec. 27, 1987, elevation, 7,552.07 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 116,289 acre-ft, July 5, 6, elevation, 7,637.74 ft; minimum, 41,803 acre-ft, Apr. 6, elevation, 7,591.06 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Southern California Edison Co., dated July 22, 1955)

7,550	3,567	7,580	28,515	7,620	85,006
7,555	6,147	7,590	40,454	7,630	102,367
7,560	9,521	7,600	53,769	7,640	120,424
7,570	18,137	7,610	68,616	7,644	127,820

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71837	70737	60259	49931	49672	51740	e43128	48767	83754	114759	108652	89035
2	71837	70737	60185	49931	49672	51809	e42857	49658	85174	115196	108005	88829
3	71837	70721	60141	49917	49672	51850	e42600	50722	86503	115633	107467	88726
4	71837	70705	60126	49904	49713	51891	e42330	51712	87938	115961	107145	88520
5	71837	70689	60111	49877	49726	51960	e42073	52793	89585	116289	106823	88212
6	71837	70673	59905	49863	49740	52029	41803	53630	91033	116289	106179	87596
7	71837	70657	59317	49849	49767	51629	41880	54813	92277	116052	105643	87083
8	71837	70689	58749	49836	49795	51285	42112	55836	93420	115943	104983	86367
9	71837	70386	58195	49836	49836	50831	42343	56867	94254	115834	104251	86857
10	71837	69848	57602	49836	49972	50381	42497	57818	94984	115706	103504	85346
11	71837	69611	57054	49822	50013	49958	42728	58516	95716	115506	102758	84837
12	71837	69090	56507	49822	50095	49564	42960	59128	96677	115506	102013	84431
13	71885	68585	55965	49863	50463	49118	43271	59743	97307	115269	101270	84126
14	71869	68069	55423	49863	50559	48727	43582	60273	99204	115269	100526	83720
15	71869	67569	54870	49877	50599	48335	43660	60804	100686	115269	99786	83314
16	71853	67069	54319	49958	50736	47947	43816	61160	102172	115269	98940	82708
17	71614	66605	53783	50013	50777	47572	43972	61607	103558	115087	98308	82203
18	71359	66203	53225	50245	50831	47211	43816	62174	104733	114686	97570	81497
19	71327	65771	52667	50245	50900	46865	44049	62804	105910	114542	96520	80795
20	71279	65279	52222	50286	50981	46494	44127	63800	106877	114215	95786	80193
21	71247	64775	51988	50286	51050	46083	44049	64546	107898	113779	95158	79893
22	71215	64256	51657	50286	51119	e45819	44049	66373	108760	113452	94532	79693
23	71183	63906	51409	50408	51243	e45541	44153	68053	109514	112908	94532	79594
24	71135	63453	51147	50559	51285	e45266	44702	69784	110271	112365	93385	79594
25	71056	62985	50872	50627	51326	e45004	45174	71502	111136	111352	92762	79594
26	70992	62517	50599	50613	51381	e44729	45568	73140	111786	111136	92138	79594
27	70944	62040	50340	50395	51547	e44466	46123	74888	112438	110703	91412	79395
28	70928	61562	50054	50190	51602	e44192	46759	76850	113089	110271	90687	79395
29	70880	61011	49972	49972	51712	e43933	47318	78930	113779	109947	89963	79395
30	70833	60509	49972	49877	---	e43660	47960	80427	114324	109406	89276	79395
31	70785	---	49958	49754	---	e43387	---	82035	---	108867	89139	---
MAX	71885	70737	60259	50627	51712	52029	47960	82035	114324	116289	108652	89035
MIN	70785	60509	49958	49754	49672	43387	41803	48767	83754	108867	89139	79395
a	7611.37	7604.68	7597.24	7597.09	7598.52		7595.76	7618.24	7636.66	7633.64	7622.42	7616.66
b	-1052	-10276	-10551	-204	+1958	-8325	+4573	+34075	+32289	-5457	-19728	-9744

CAL YR 1999 b -26809
WTR YR 2000 b +7558

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

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CA

LOCATION.—Lat 37°21'41", long 118°59'28", unsurveyed, T.6 1/2 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank, 0.5 mi upstream from diversion dam, 0.9 mi downstream from Vermilion Valley Dam, and 1.0 mi south of Lake Thomas A. Edison.

DRAINAGE AREA.—92.5 mi^2.

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 Vermilion Valley."

REVISED RECORDS.—WSP 1011: 1943. WSP 1515: 1956. WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 7,380 ft above sea level, from topographic map.

REMARKS.—Flow regulated by Lake Thomas A. Edison (station 11231000) 1 mi upstream beginning Oct. 12, 1954. Water is diverted at times into the basin from Warm Creek (station 11231700) to Lake Thomas A. Edison. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,160 ft^3/s, Sept. 26, 1982, gage height, 8.87 ft; minimum daily, 0.3 ft^3/s, Nov. 11, 12, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	35	152	16	68	17	245	28	27	29	280	101
2	19	17	40	16	17	17	245	28	27	29	338	101
3	19	17	29	16	17	17	245	28	27	29	430	101
4	19	17	23	16	17	17	218	28	28	29	298	101
5	19	17	21	16	17	17	161	29	28	114	308	182
6	19	17	129	16	17	62	161	28	28	272	347	310
7	19	17	295	16	17	259	117	28	28	228	384	273
8	19	17	295	16	17	259	112	29	28	205	428	273
9	19	167	295	16	17	259	86	28	29	205	428	266
10	19	262	295	16	17	259	82	28	29	268	428	276
11	19	143	295	16	17	259	95	28	29	277	428	277
12	18	269	295	16	17	259	108	28	29	200	428	277
13	49	269	295	16	18	259	110	28	29	154	427	179
14	17	269	295	16	18	259	82	27	29	117	423	277
15	17	269	293	16	17	256	92	27	29	175	423	276
16	17	269	292	16	17	255	92	27	29	175	423	271
17	242	269	292	16	17	255	92	27	29	175	423	312
18	20	213	292	17	17	252	92	27	29	223	423	418
19	22	264	292	16	17	252	92	27	29	252	423	382
20	25	266	245	16	17	249	92	27	29	295	400	257
21	28	266	150	16	17	248	93	27	29	297	342	212
22	28	266	148	16	17	248	93	27	29	307	339	95
23	28	168	148	16	17	248	93	27	29	341	339	23
24	33	262	148	16	17	248	93	27	29	392	344	23
25	39	262	148	16	17	248	94	27	29	410	418	23
26	39	262	148	62	17	248	98	27	29	266	418	23
27	39	262	148	146	17	248	30	27	29	266	418	22
28	40	262	147	146	17	248	29	27	29	266	418	22
29	40	262	48	136	17	248	28	27	29	266	418	22
30	40	262	16	128	---	248	28	27	29	269	339	22
31	40	---	16	128	---	246	---	27	---	280	173	---
TOTAL	1030	5617	5725	1147	546	6464	3298	852	859	6811	11856	5397
MEAN	33.2	187	185	37.0	18.8	209	110	27.5	28.6	220	382	180
MAX	242	269	295	146	68	259	245	29	29	410	430	418
MIN	17	17	16	16	17	17	28	27	27	29	173	22
AC-FT	2040	11140	11360	2280	1080	12820	6540	1690	1700	13510	23520	10700

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1954, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.4	29.4	31.4	33.3	39.8	59.4	170	457	548	270	79.6	31.3
MAX	60.8	124	127	76.8	74.4	94.8	282	714	1135	672	233	86.6
(WY)	1946	1951	1951	1951	1951	1934	1926	1952	1938	1938	1938	1938
MIN	11.3	10.5	12.0	14.0	17.0	25.0	77.8	197	79.6	36.6	17.6	11.5
(WY)	1925	1930	1931	1949	1949	1924	1948	1933	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1922 - 1954		
ANNUAL MEAN	148		
HIGHEST ANNUAL MEAN	268		1938
LOWEST ANNUAL MEAN	52.8		1924
HIGHEST DAILY MEAN	1550	Jun 3	1938
LOWEST DAILY MEAN	8.0	Sep 29	1924
ANNUAL SEVEN-DAY MINIMUM	8.1	Sep 28	1924
INSTANTANEOUS PEAK FLOW	1760	Jun 2	1938
INSTANTANEOUS PEAK STAGE	8.62	Jun 2	1938
ANNUAL RUNOFF (AC-FT)	107300		
10 PERCENT EXCEEDS	470		
50 PERCENT EXCEEDS	48		
90 PERCENT EXCEEDS	18		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	102	168	200	212	207	187	127	68.4	84.8	211	234	181
MAX	324	436	437	467	472	479	647	515	577	684	424	450
(WY)	1998	1999	1968	1984	1973	1973	1983	1983	1969	1995	1999	1994
MIN	11.0	12.1	9.05	9.95	10.4	13.8	12.7	12.7	11.5	12.1	12.2	14.0
(WY)	1972	1982	1991	1991	1991	1990	1966	1966	1977	1977	1981	1966

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1956 - 2000	
ANNUAL TOTAL	66740		49602			
ANNUAL MEAN	183		136		165	
HIGHEST ANNUAL MEAN					366	1983
LOWEST ANNUAL MEAN					53.2	1977
HIGHEST DAILY MEAN	512	Sep 18	430	Aug 3	2080	Sep 26 1982
LOWEST DAILY MEAN	15	Sep 28	16	Dec 30	4.1	Dec 12 1990
ANNUAL SEVEN-DAY MINIMUM	17	Nov 2	16	Dec 30	4.2	Dec 12 1990
INSTANTANEOUS PEAK FLOW			502	Oct 13	2160	Sep 26 1982
INSTANTANEOUS PEAK STAGE			6.52	Oct 13	8.87	Sep 26 1982
ANNUAL RUNOFF (AC-FT)	132400		98390		119500	
10 PERCENT EXCEEDS	432		301		427	
50 PERCENT EXCEEDS	84		75		100	
90 PERCENT EXCEEDS	24		17		14	

11231550 MONO CREEK CONDUIT NEAR MONO HOT SPRINGS, CA

LOCATION.—Lat 37°21'36", long 118°59'51", unsurveyed, T.6 1/2 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank, 40 ft upstream from diversion dam, 1.0 mi southwest of Lake Thomas A. Edison, and 2.5 mi northeast of Mono Hot Springs.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Discharge computed as difference between flow at Mono Creek below Lake Thomas A. Edison (station 11231500) and Mono Creek below diversion dam (station 11231600). Datum of conduit invert is 7,338 ft above sea level (levels by Southern California Edison Co.).

REMARKS.—Conduit diverts at diversion dam on Mono Creek to Ward Tunnel and Huntington Lake (station 11236000) via Portal Powerplant (station 11235500) for further power development in Big Creek powerplants. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 499 ft^3/s, Apr. 7, 1995; minimum daily, −18 ft^3/s, June 11, 1993 (reverse flow from Bear Creek Conduit).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	24	e140	6.2	58	7.3	233	11	10	14	266	85
2	7.0	7.0	e28	6.2	7.3	7.3	233	11	10	14	324	85
3	7.0	7.0	e17	6.2	7.3	7.3	233	11	10	14	408	85
4	7.0	7.0	e11	6.2	7.2	7.3	206	11	11	14	284	85
5	7.0	7.0	e9.0	6.2	7.2	7.3	149	12	11	100	295	167
6	7.0	7.0	e117	6.2	7.3	52	149	11	11	258	333	297
7	7.0	7.0	283	6.2	7.3	247	106	11	11	214	370	e260
8	7.0	7.0	283	6.2	7.3	247	101	12	11	191	414	e260
9	7.0	156	283	6.2	7.3	247	75	11	12	191	414	e253
10	7.0	e251	283	6.3	7.2	247	71	11	12	254	414	e263
11	7.0	e132	283	6.2	7.3	247	84	11	12	263	413	e264
12	6.0	e258	283	6.2	7.3	247	97	11	12	186	414	e264
13	37	e258	283	6.2	8.3	247	99	11	12	141	413	e166
14	7.0	e258	283	6.2	8.3	247	71	10	12	104	409	e264
15	7.0	e258	281	6.2	7.3	244	81	10	12	161	409	e263
16	7.0	e258	280	6.2	7.3	243	81	10	12	161	409	e258
17	230	e258	280	6.2	7.3	243	81	10	12	161	409	e299
18	10	e202	280	7.2	7.3	240	81	10	12	209	409	e405
19	12	e253	280	6.2	7.3	240	81	10	12	238	409	e369
20	15	e255	233	6.2	7.3	237	81	10	12	281	386	244
21	18	e255	139	6.3	7.3	236	82	10	12	283	328	199
22	18	e255	137	6.3	7.3	236	82	10	12	293	325	82
23	18	e157	137	6.3	7.3	236	82	10	12	326	325	5.0
24	22	e250	137	6.3	7.3	236	82	10	12	377	330	.00
25	28	e250	137	6.3	7.3	236	82	10	12	395	404	.00
26	28	e250	137	52	7.3	236	85	10	12	252	404	.00
27	28	e250	137	135	7.3	236	16	10	12	252	404	.00
28	29	e250	136	135	7.3	236	12	10	12	252	404	.00
29	29	e250	38	125	7.3	236	11	10	12	252	404	.00
30	29	e250	6.2	117	---	236	11	10	13	255	325	.00
31	29	---	6.2	117	---	234	---	10	---	266	159	---
TOTAL	684.0	5287.0	5367.4	837.6	264.1	6105.5	2938	325	350	6372	11414	4922.00
MEAN	22.1	176	173	27.0	9.11	197	97.9	10.5	11.7	206	368	164
MAX	230	258	283	135	58	247	233	12	13	395	414	405
MIN	6.0	7.0	6.2	6.2	7.2	7.3	11	10	10	14	159	.00
AC-FT	1360	10490	10650	1660	524	12110	5830	645	694	12640	22640	9760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	111	160	130	93.9	93.6	167	128	65.0	69.9	176	269	202
MAX	311	426	421	364	395	464	400	207	203	417	409	440
(WY)	1998	1999	1987	1999	1996	1996	1996	1995	1997	1989	1999	1994
MIN	13.8	12.6	1.39	4.08	.000	8.00	14.8	6.07	6.91	.000	93.0	11.8
(WY)	1990	1989	1991	1991	1997	1990	1992	1989	1995	1995	1996	1989

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	62183.4		44866.60			
ANNUAL MEAN	170		123		139	
HIGHEST ANNUAL MEAN					227	1997
LOWEST ANNUAL MEAN					50.5	1990
HIGHEST DAILY MEAN	496	Sep 18	414	Aug 8	499	Apr 7 1995
LOWEST DAILY MEAN	2.0	Sep 28	.00	Sep 24	-18	Jun 11 1993
ANNUAL SEVEN-DAY MINIMUM	6.0	Sep 28	.00	Sep 24	.00	Dec 5 1990
ANNUAL RUNOFF (AC-FT)	123300		88990		100800	
10 PERCENT EXCEEDS	417		287		411	
50 PERCENT EXCEEDS	75		64		68	
90 PERCENT EXCEEDS	9.0		7.0		7.0	

e Estimated.

11231600 MONO CREEK BELOW DIVERSION DAM, NEAR MONO HOT SPRINGS, CA

LOCATION.—Lat 37°21'36", long 118°59'51", unsurveyed, T.6 1/2 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank, 20 ft downstream from diversion dam, 1.0 mi southwest of Lake Thomas A. Edison, and 2.5 mi northeast of Mono Hot Springs.

DRAINAGE AREA.—92.8 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Prior to October 1991, published as "at Diversion Dam."

GAGE.—Acoustic-velocity meter on low-flow discharge, and water-stage recorder on diversion reservoir. Elevation of gage is 7,340 ft above sea level, from topographic map. Prior to Oct. 1, 1991, at datum 10 ft higher.

REMARKS.—Flow regulated by diversion reservoir and Lake Thomas A. Edison (station 11231000). Most of the flow is diverted at the diversion dam to Mono Creek Conduit (station 11231550), then to Ward Tunnel and Huntington Lake (station 11236000) via Portal Powerplant (station 11235500) for further power development in Big Creek powerplants. Discharge, including extremes, represents the combined flow at Mono Creek and spill at diversion dam. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,300 ft^3/s, July 11, 12, 1995; minimum daily, 4.1 ft^3/s, Dec. 12–16, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	e12	9.8	10	9.7	12	17	17	15	14	16
2	12	10	e12	9.8	9.7	9.7	12	17	17	15	14	16
3	12	10	e12	9.8	9.7	9.7	12	17	17	15	22	16
4	12	10	e12	9.8	9.8	9.7	12	17	17	15	14	16
5	12	10	e12	9.8	9.8	9.7	12	17	17	14	13	15
6	12	10	e12	9.8	9.7	10	12	17	17	14	14	13
7	12	10	12	9.8	9.7	12	11	17	17	14	14	e13
8	12	10	12	9.8	9.7	12	11	17	17	14	14	e13
9	12	11	12	9.8	9.7	12	11	17	17	14	14	e13
10	12	e11	12	9.7	9.8	12	11	17	17	14	14	e13
11	12	e11	12	9.8	9.7	12	11	17	17	14	15	e13
12	12	e11	12	9.8	9.7	12	11	17	17	14	14	e13
13	12	e11	12	9.8	9.7	12	11	17	17	13	14	e13
14	10	e11	12	9.8	9.7	12	11	17	17	13	14	e13
15	10	e11	12	9.8	9.7	12	11	17	17	14	14	e13
16	10	e11	12	9.8	9.7	12	11	17	17	14	14	e13
17	12	e11	12	9.8	9.7	12	11	17	17	14	14	e13
18	10	e11	12	9.8	9.7	12	11	17	17	14	14	e13
19	10	e11	12	9.8	9.7	12	11	17	17	14	14	e13
20	10	e11	12	9.8	9.7	12	11	17	17	14	14	13
21	10	e11	11	9.7	9.7	12	11	17	17	14	14	13
22	10	e11	11	9.7	9.7	12	11	17	17	14	14	13
23	10	e11	11	9.7	9.7	12	11	17	17	15	14	18
24	11	e12	11	9.7	9.7	12	11	17	17	15	14	23
25	11	e12	11	9.7	9.7	12	12	17	17	15	14	23
26	11	e12	11	10	9.7	12	13	17	17	14	14	23
27	11	e12	11	11	9.7	12	14	17	17	14	14	23
28	11	e12	11	11	9.7	12	17	17	17	14	14	23
29	11	e12	10	11	9.7	12	17	17	17	14	14	23
30	11	e12	9.8	11	---	12	17	17	16	14	14	23
31	11	---	9.8	11	---	12	---	17	---	14	14	---
TOTAL	346	330	357.6	309.4	281.9	358.5	360	527	509	439	442	479
MEAN	11.2	11.0	11.5	9.98	9.72	11.6	12.0	17.0	17.0	14.2	14.3	16.0
MAX	12	12	12	11	10	12	17	17	17	15	22	23
MIN	10	10	9.8	9.7	9.7	9.7	11	17	16	13	13	13
AC-FT	686	655	709	614	559	711	714	1050	1010	871	877	950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	9.40	9.12	9.00	8.41	8.72	8.50	9.48	12.9	45.3	77.9	23.5	13.0
MAX	12.6	23.1	27.0	20.9	25.5	17.7	18.5	18.6	336	684	141	16.9
(WY)	1998	1996	1996	1997	1997	1997	1995	1995	1997	1995	1995	1998
MIN	6.72	5.62	5.69	5.66	5.69	5.84	5.88	9.45	9.98	9.91	9.85	9.67
(WY)	1995	1992	1993	1993	1993	1990	1992	1994	1990	1991	1994	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	4539.4		4739.4			
ANNUAL MEAN	12.4		12.9		19.7	
HIGHEST ANNUAL MEAN					79.4	1995
LOWEST ANNUAL MEAN					7.83	1992
HIGHEST DAILY MEAN	35	Sep 27	23	Sep 24	1300	Jul 11 1995
LOWEST DAILY MEAN	8.5	Apr 3	9.7	Jan 10	4.1	Dec 12 1990
ANNUAL SEVEN-DAY MINIMUM	8.6	Mar 29	9.7	Feb 11	4.2	Dec 12 1990
ANNUAL RUNOFF (AC-FT)	9000		9400		14260	
10 PERCENT EXCEEDS	16		17		16	
50 PERCENT EXCEEDS	12		12		10	
90 PERCENT EXCEEDS	8.6		9.8		5.9	

e Estimated.

11231700 WARM CREEK BELOW DIVERSION DAM, NEAR LAKE THOMAS A. EDISON, CA

LOCATION.—Lat 37°23'31", long 119°01'39", unsurveyed, T.6 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank, 40 ft downstream from diversion dam, 1.5 mi northwest of Lake Thomas A. Edison, and 17.4 mi northeast of town of Big Creek.

DRAINAGE AREA.—2.14 mi^2.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Water-stage recorder and 90° V-notch weir control. Elevation of gage is 8,030 ft above sea level, from topographic map.

REMARKS.—Records normally computed only in summer months or during periods of diversion to Lake Thomas A. Edison. Diversion occurred May 15 to July 26 and Aug. 6, 7. See schematic diagram of upper San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

NOTE.—No diversion during 2000 water year.

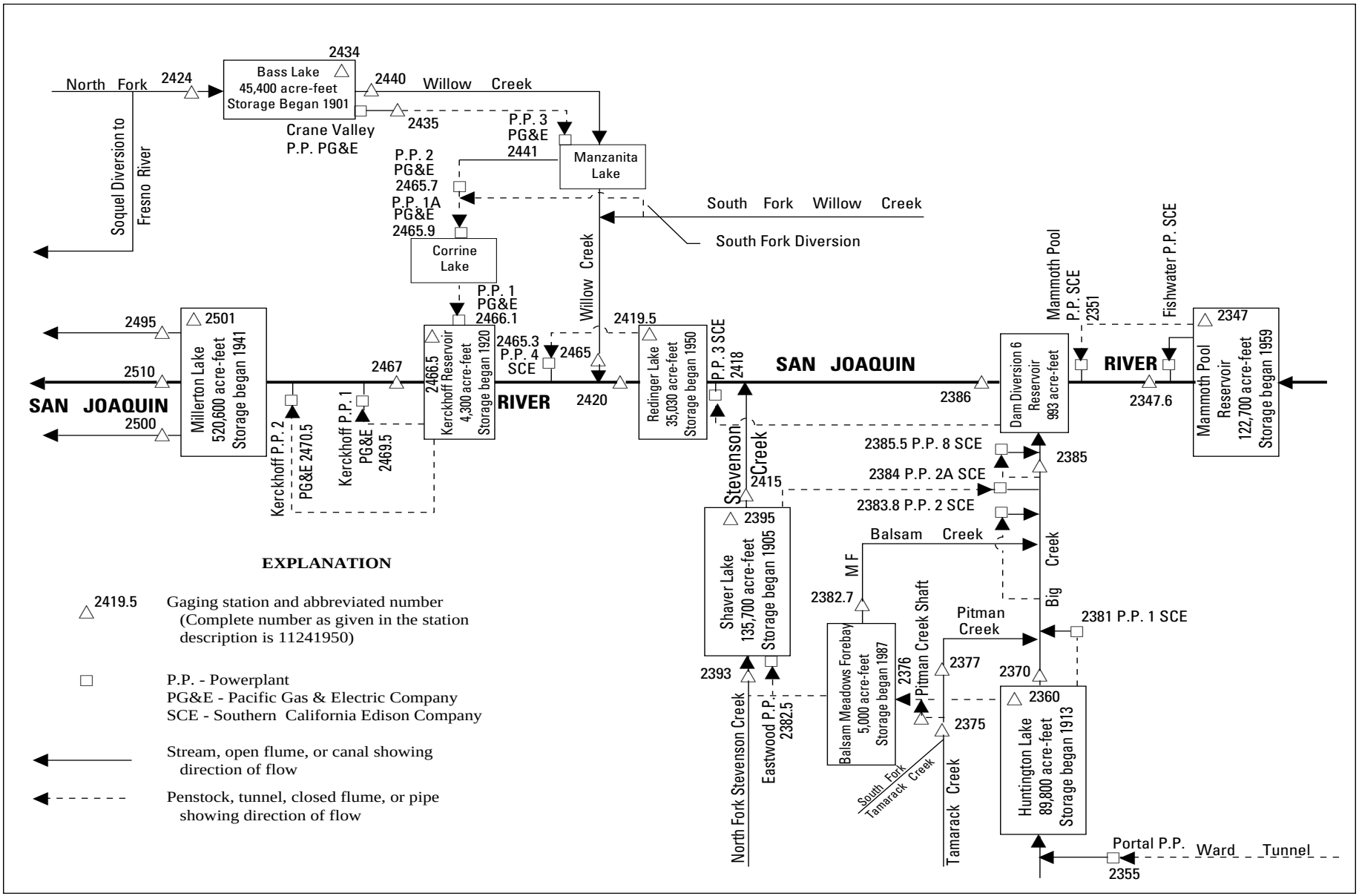

Figure 28. Diversions and storage in lower San Joaquin River Basin.

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CA

LOCATION.—Lat 37°19'40", long 119°19'38", in SE 1/4 SE 1/4 sec.10, T.7 S., R.24 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, in gatehouse of power tunnel intake, 0.7 mi northwest of dam on San Joaquin River, and 9.0 mi northwest of town of Big Creek.

DRAINAGE AREA.—995 mi^2.

PERIOD OF RECORD.—October 1959 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (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. Additional storage of 2,780 acre-ft is not available for release. Water is diverted from basin through Ward Tunnel (stations 11229500 and 11235500). Water is diverted from Mammoth Pool through tunnel for power development and returned to river 8.5 mi downstream from dam. Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Records not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 128,944 acre-ft, Jan. 2, 1997, elevation, 3,338.00 ft; minimum contents since appreciable storage was attained, 1,134 acre-ft, Sept. 25, 1992, elevation, 3,112.82 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 122,764 acre-ft, May 27, elevation, 3,332.54 ft; minimum, 11,801 acre-ft, Nov. 2, elevation, 3,172.30 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Southern California Edison Co., dated Nov. 6, 1959)

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	3,340	131,255

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25917	12086	20477	14088	31744	50086	14029	55798	121425	117307	81107	47393
2	25811	11801	19593	14306	32472	47685	13594	60509	121359	115421	78073	47884
3	25546	11961	19172	14496	32346	47340	14054	66524	121414	113612	75968	48372
4	25869	12189	18598	14717	32214	44370	15419	73035	121648	111385	73897	48809
5	25507	12395	18261	14940	32263	42391	16875	78759	121514	109450	70835	48775
6	25512	12610	17236	15120	33062	40212	17580	83229	121270	107243	69589	48660
7	25570	12835	16691	15346	32858	37808	18455	88292	121214	106338	68025	48399
8	24162	13291	15780	15549	32687	35270	19613	97092	121136	105924	66508	47546
9	23273	13610	15195	15760	33495	32703	20415	103159	120471	105318	65006	47373
10	22514	13891	14557	15971	33868	29873	20963	106318	120051	104674	63804	46299
11	21759	14164	14344	16201	34080	27278	21552	107448	120117	104332	62317	44988
12	21955	14436	13928	16526	35270	24802	22740	107376	120527	104262	60994	43499
13	22178	14704	13309	16779	35859	23482	27945	107468	121414	103771	59979	42234
14	22381	14963	12940	17002	43403	22620	30905	107591	121514	103299	58601	40738
15	22183	15225	12849	17262	46242	22253	31288	106592	121514	103149	56971	39427
16	22104	15532	12659	17993	48600	22095	31082	105833	121759	103059	55211	37867
17	21746	15944	12515	18551	50376	22043	31310	104453	121548	102949	54169	36204
18	21539	16242	12550	23093	51866	21725	31098	103841	121214	102510	54070	34785
19	21277	16578	12579	24583	53055	20922	30329	104895	120870	101623	53828	33395
20	20930	17076	12564	24713	54384	20855	29831	108503	120682	101136	53699	31804
21	20055	17501	12429	23541	56068	19314	29673	113697	120427	100216	53020	30996
22	19295	17837	12046	23758	56780	17425	29657	120914	120383	99339	52350	31212
23	18590	18142	12297	24312	56425	15659	30927	122082	120383	98462	50708	30798
24	17403	18439	12538	27960	55052	14853	31646	122361	120006	96699	49618	29794
25	16052	18735	12774	30648	53232	14882	33450	122238	119820	94641	48439	28526
26	15244	19049	13013	32742	52006	15676	36518	122127	120029	92722	47367	27369
27	14846	19358	13237	33389	51915	16300	41405	122764	120372	90269	47811	26408
28	14879	19656	13464	32775	52801	16279	45767	122562	119907	87886	46915	26115
29	14069	19946	13679	31848	52463	15556	48546	122171	119219	86118	46001	25941
30	13576	20218	13875	31190	---	15225	51719	121904	118383	85218	46673	25946
31	13175	---	13995	31093	---	14765	---	121526	---	83779	46934	---
MAX	25917	20218	20477	33389	56780	50086	51719	122764	121759	117307	81107	48809
MIN	13175	11801	12046	14088	31744	14765	13594	55798	118383	83779	46001	25941
a	3177.08	3197.17	3179.79	3219.97	3254.53	3182.22	3253.47	3331.43	3328.57	3293.44	3246.43	3210.00
b	-13074	+7043	-6223	+17098	+21370	-37698	+36954	+69807	-3143	-34604	-36845	-20988

CAL YR 1999 b -16991
WTR YR 2000 b -303

a Elevation, in feet, 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°19'43", in NE 1/4 SE 1/4 sec.15, 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 9.0 mi northwest of town of Big Creek.

DRAINAGE AREA.—1,003 mi^2.

PERIOD OF RECORD.—October 1959 to current year.

GAGE.—Water-stage recorder. Datum of gage is 2,865.50 ft above sea level (levels by Southern California Edison Co.). Since 1961, supplementary water-stage recorder and sharp-crested weir at different datum at outlet of dam 4,900 ft upstream, used for low flows of 60 ft^3/s or less.

REMARKS.—Flow regulated by Mammoth Pool Reservoir (station 11234700) 4,900 ft upstream. Diversions upstream through Ward Tunnel (see stations 11229500 and 11235500). Since March 1960, most of the water is diverted past this station to Mammoth Pool Powerplant (station 11235100). See schematic diagrams of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 80,000 ft^3/s, Jan. 2, 1997, gage height, 32.00 ft, from floodmarks, from rating curve extended above 20,300 ft^3/s; minimum daily, 0.3 ft^3/s, Oct. 14, Dec. 5, 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	19	11	11	12	13	12	35	2020	59	36	33
2	28	11	11	11	12	13	12	36	1870	59	36	37
3	28	11	11	11	12	13	12	37	1870	59	36	37
4	28	11	11	11	12	13	12	40	2060	59	35	37
5	28	11	11	11	12	13	12	45	2310	59	34	37
6	28	11	11	11	12	13	12	45	1800	60	34	37
7	28	11	11	11	12	13	12	46	1650	60	34	37
8	28	11	11	11	12	13	12	47	1670	60	34	37
9	27	11	11	11	12	12	12	254	768	60	34	37
10	27	11	11	11	12	12	12	782	221	60	34	37
11	27	11	11	11	12	12	12	784	75	60	34	37
12	27	11	11	11	12	12	12	785	311	60	34	37
13	27	11	11	11	12	12	12	785	875	59	34	37
14	27	11	11	11	11	12	11	786	2090	59	33	37
15	27	11	11	11	11	12	23	777	2150	59	35	37
16	27	11	11	11	12	12	33	761	2500	59	39	37
17	27	11	11	11	13	12	33	768	2370	59	39	36
18	27	11	11	11	13	12	33	781	1870	59	39	36
19	27	11	11	11	13	12	33	782	1480	59	38	35
20	27	11	11	11	13	12	33	786	976	50	38	35
21	27	11	11	11	13	12	33	793	556	37	38	35
22	26	11	11	11	13	12	33	823	463	37	38	34
23	26	11	11	11	13	12	33	4050	647	37	37	34
24	26	11	11	11	13	12	33	3760	233	37	37	34
25	26	11	11	11	13	12	33	4050	79	37	37	34
26	26	11	11	12	13	12	34	3340	109	37	37	34
27	26	11	11	12	13	12	35	3700	197	37	37	34
28	26	11	11	12	13	12	34	4730	154	37	37	34
29	26	11	11	12	13	12	35	3960	68	37	37	34
30	26	11	11	12	---	12	35	3170	59	36	37	34
31	26	---	11	12	---	12	---	2550	---	36	37	---
TOTAL	835	338	341	347	359	380	693	44088	33501	1583	1119	1071
MEAN	26.9	11.3	11.0	11.2	12.4	12.3	23.1	1422	1117	51.1	36.1	35.7
MAX	28	19	11	12	13	13	35	4730	2500	60	39	37
MIN	26	11	11	11	11	12	11	35	59	36	33	33
AC-FT	1660	670	676	688	712	754	1370	87450	66450	3140	2220	2120
a	18960	2500	14610	14890	33090	115800	132700	137400	126000	75550	52770	31150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2000, BY WATER YEAR (WY)

MEAN	24.5	13.0	15.1	96.5	67.4	96.8	207	1425	2159	957	76.5	23.6
MAX	61.9	20.1	66.3	2872	754	1111	2489	9681	12400	7169	1184	45.3
(WY)	1960	1974	1967	1997	1980	1995	1995	1969	1983	1995	1983	1978
MIN	12.6	.82	3.06	10.2	10.8	10.9	12.3	12.9	11.8	12.4	12.8	12.4
(WY)	1961	1960	1960	1986	1985	1960	1964	1961	1961	1961	1972	1960

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1960 - 2000	
ANNUAL TOTAL	37179		84655			
ANNUAL MEAN	102		231		431	
HIGHEST ANNUAL MEAN					2022	1983
LOWEST ANNUAL MEAN					13.2	1961
HIGHEST DAILY MEAN	3110	May 29	4730	May 28	26000	Jan 3 1997
LOWEST DAILY MEAN	11	Nov 2	11	Nov 2	.30	Oct 14 1959
ANNUAL SEVEN-DAY MINIMUM	11	Nov 2	11	Nov 2	.57	Dec 1 1959
INSTANTANEOUS PEAK FLOW			5690	May 28	80000	Jan 2 1997
INSTANTANEOUS PEAK STAGE			12.11	May 28	32.00	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	73740		167900		312200	
TOTAL DIVERSION (AC-FT) a	717300		755500			
10 PERCENT EXCEEDS	52		771		591	
50 PERCENT EXCEEDS	27		27		15	
90 PERCENT EXCEEDS	11		11		12	

a Diversion, in acre-feet, to Mammoth Pool Powerplant, provided by Southern California Edison Co.

11235500 PORTAL POWERPLANT AT HUNTINGTON LAKE, CA

LOCATION.—Lat 37°15'25", long 119°09'30", in SE 1/4 SW 1/4 sec.5, T.8 S., R.26 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in powerplant at tunnel outlet, at east end of Huntington Lake, 0.9 mi east of Lakeshore Post Office, and 6 mi northeast of town 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. October 1960 to September 1991, published as Ward Tunnel Outlet at Huntington Lake.

GAGE.—Acoustic-velocity meter in tunnel since Dec. 1, 1987. Elevation of gage is 6,980 ft above sea level, from topographic map. Oct. 1, 1968, to Nov. 30, 1987, pressure-differential recorder recorded discharge through penstock. November 1927 to May 23, 1956, water-stage recorder at datum 6,999.00 ft above sea level (levels by Southern California Edison Co.). May 24, 1956, to Sept. 30, 1968, no recorder, see REMARKS below.

REMARKS.—Daily discharge for the 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. Powerplant receives water from Florence Lake (station 11229600) via Ward Tunnel, receives diversions from Bear and Mono Creeks (stations 11230520 and 11231550), and at times from several other small tributaries to South Fork San Joaquin River. See schematic diagram lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 2,080 ft^3/s, June 21, 1935; no flow at times many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	32	102	.00	151	118	499	1000	1480	1260	867	98
2	84	74	139	.00	50	115	504	1080	1640	1250	938	101
3	121	50	33	.00	67	169	539	1170	1640	1160	1060	140
4	97	38	5.0	.00	140	118	721	1180	1690	1150	1080	147
5	157	8.6	.00	.00	16	133	645	1210	1580	1140	1100	273
6	450	4.5	98	.00	130	137	635	1250	1430	1310	1020	485
7	731	12	319	.00	.00	310	620	1280	1660	998	1070	462
8	595	8.6	309	.00	121	417	686	1310	1680	766	832	726
9	650	217	293	.00	78	314	600	1290	1500	837	807	701
10	590	286	311	102	47	395	595	1280	1560	943	787	877
11	555	195	314	.00	129	322	595	983	1660	1040	771	731
12	498	278	313	.00	10	411	625	963	1650	1010	792	726
13	539	310	309	.00	113	356	686	862	1660	892	761	555
14	265	290	308	.00	189	457	741	908	1560	691	706	792
15	183	282	307	.00	198	416	580	847	1120	751	716	645
16	.00	362	301	.00	156	502	476	807	1380	635	716	716
17	230	324	299	6.1	133	494	483	908	1550	485	716	741
18	157	159	322	15	174	503	486	867	1650	539	716	892
19	43	371	308	102	224	529	404	1190	1360	605	716	1040
20	42	276	310	121	144	509	398	1380	1240	787	711	812
21	48	335	151	56	57	487	343	1290	1390	842	550	827
22	49	284	135	44	144	467	514	1440	1450	892	545	645
23	44	172	139	.00	121	635	595	1580	1390	822	481	37
24	48	267	260	121	110	412	585	1580	1500	1030	580	15
25	50	305	139	86	125	445	615	988	1370	1380	555	28
26	20	181	133	76	116	472	736	432	1140	1070	691	16
27	42	262	131	217	165	620	837	812	1040	903	766	.00
28	40	335	245	212	123	550	862	600	1020	832	771	.00
29	40	257	74	219	121	459	837	479	1190	882	802	.00
30	43	317	29	207	---	484	756	721	1250	847	473	.00
31	43	---	.00	253	---	477	---	1120	---	908	283	---
TOTAL	6484.00	6292.7	6136.00	1837.10	3352.00	12233	18198	32807	43430	28657	23379	13228.00
MEAN	209	210	198	59.3	116	395	607	1058	1448	924	754	441
MAX	731	371	322	253	224	635	862	1580	1690	1380	1100	1040
MIN	.00	4.5	.00	.00	.00	115	343	432	1020	485	283	.00
AC-FT	12860	12480	12170	3640	6650	24260	36100	65070	86140	56840	46370	26240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2000, BY WATER YEAR (WY)

MEAN	333	268	271	254	257	297	524	858	924	840	667	504
MAX	757	908	1102	793	806	815	953	1459	1665	1321	1386	1104
(WY)	1996	1983	1946	1985	1985	1985	1936	1946	1974	1956	1995	1983
MIN	.82	.81	5.29	13.4	10.3	78.8	98.9	119	3.93	150	147	2.00
(WY)	1946	1946	1991	1991	1991	1976	1991	1983	1938	1931	1934	1949

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1928 - 2000	
ANNUAL TOTAL	195066.70		196033.80			
ANNUAL MEAN	534		536		501	
HIGHEST ANNUAL MEAN					748	1997
LOWEST ANNUAL MEAN					196	1977
HIGHEST DAILY MEAN	1690	Jun 23	1690	Jun 4	2080	Jun 21 1935
LOWEST DAILY MEAN	.00	Oct 16	.00	Oct 16	.00	Sep 18 1961
ANNUAL SEVEN-DAY MINIMUM	28	Nov 2	.00	Dec 31	.00	Dec 2 1969
ANNUAL RUNOFF (AC-FT)	386900		388800		362900	
10 PERCENT EXCEEDS	1110		1250		1100	
50 PERCENT EXCEEDS	415		470		466	
90 PERCENT EXCEEDS	103		26		63	

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CA

LOCATION.—Lat 37°14'04", long 119°12'44", 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 No. 1 on Big Creek, and 2.7 mi northeast of town of Big Creek.

DRAINAGE AREA.—80.5 mi^2.

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. Maximum and minimum daily contents (water years 1913–39) were summarized in WSP 881. Prior to 1960, maximum and minimum daily contents were published.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is sea level (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. Additional storage of 600 acre-ft is not available for release. Lake receives water from South Fork San Joaquin River Basin via Ward Tunnel through Portal Powerplant (station 11235500). Water is diverted from lake through Huntington–Shaver Conduit and Eastwood Powerplant (station 11238250) to Shaver Lake (station 11239500) since Apr. 21, 1928. Water is also diverted to Big Creek Powerplant No. 1 (station 11238100) on Big Creek. Records, including extremes, represent contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Records not rounded to U.S. Geological Survey standards.

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.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 88,851 acre-ft, July 17, elevation, 6,949.78 ft; minimum, 33,058 acre-ft, Jan. 15, elevation, 6,902.48 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Southern California Edison Co., dated Sept. 24, 1964)

6,835	1,552	6,870	11,293	6,920	50,812
6,840	2,354	6,880	16,370	6,930	62,555
6,845	3,324	6,890	22,882	6,940	75,344
6,850	4,480	6,900	30,861	6,950	89,166
6,860	7,427	6,910	40,216	6,951	90,606

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82679	49183	41101	e35030	36566	39510	41061	59037	87622	87580	87908	88237
2	81256	48283	40097	e34835	36623	39689	41071	60592	88036	87722	87836	86473
3	80201	47586	39232	e34649	36642	39085	41415	62543	88294	88079	87296	87836
4	78906	46702	38506	34453	36919	39153	42118	63925	88465	87908	86742	87466
5	77675	45910	37796	34215	36900	39134	42693	65407	88308	87779	86800	87282
6	77433	45187	37263	34013	37024	38967	43280	67534	87779	87822	86927	87083
7	77312	44281	37187	33812	36795	39124	43812	70015	87594	87779	87467	87097
8	76679	43447	36967	33720	36795	39381	44491	72560	87779	88008	87922	87580
9	75958	43043	36843	33665	36642	39163	45218	74006	87594	87498	88666	87623
10	75504	42837	36805	33656	36527	39202	45856	75558	87808	87282	88837	87793
11	74960	42549	36747	33546	36537	39055	46272	76025	87395	87424	88666	87893
12	74205	42487	36785	33393	36585	39351	46960	75905	87353	87140	88508	88437
13	73559	42498	36900	33221	36709	39600	48000	76706	87452	88008	88108	87922
14	72326	42549	37024	33077	37149	39719	49039	76800	87908	88351	87979	87722
15	71037	42498	37244	33058	37409	39699	49480	77042	88465	88608	88022	87211
16	69579	42498	37399	33077	37602	40186	49767	77056	88694	88737	87481	87268
17	68694	42580	37341	33086	37612	40468	49700	76345	88237	88851	87395	87225
18	67471	42590	37496	33411	37709	40789	49756	75998	87922	88766	87395	87027
19	65921	42899	37670	33574	37951	41232	49767	75985	87979	88136	87339	86587
20	64273	42868	37699	33711	38047	41324	49238	76921	88408	87183	87708	87239
21	62396	42910	37534	33665	38028	41568	49337	78228	88065	87055	87850	87879
22	60701	42961	36986	33784	38105	41741	49678	80242	87693	86941	88408	88079
23	59193	42642	36661	33867	38261	41142	50323	82998	87693	86388	87979	88508
24	57893	42559	36719	34297	38270	40900	50490	85205	87951	86856	88008	88165
25	56652	42601	36527	34481	38437	40769	51138	86956	88279	86998	87381	87140
26	55704	42364	36298	34593	38437	40820	52186	87395	88523	86842	87140	86162
27	55041	42384	36166	34956	38859	41142	53519	88065	88780	86998	86771	85824
28	54404	42322	35968	35207	39055	41242	55064	87936	88422	87325	86913	85698
29	53152	42118	35610	35544	39321	41091	56441	87651	88265	87310	87168	85529
30	51677	41904	e35412	35978	---	41212	57845	87637	87779	87197	87708	85374
31	50412	---	e35225	36327	---	41061	---	87509	---	87498	88222	---
MAX	82679	49183	41101	36327	39321	41741	57845	88065	88780	88851	88837	88508
MIN	50412	41904	35225	33058	36527	38967	41061	59037	87353	86388	86742	85374
a	6919.64	6911.67		6906.01	6909.10	6910.84	6926.10	6948.84	6949.03	6948.83	6949.34	6947.33
b	-33476	-8508	-6679	+1102	+2994	+1740	+16784	+29664	+270	-281	+724	-2848

CAL YR 1999 b -11326
WTR YR 2000 b +1486

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

11237000 BIG CREEK BELOW HUNTINGTON LAKE, CA

LOCATION.—Lat 37°13'17", long 119°12'42", in SE 1/4 NW 1/4 sec.23, T.8 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 800 ft upstream from Grouse Creek, 1.0 mi south of main dam of Huntington Lake, and 2.1 mi northeast of town of Big Creek.

DRAINAGE AREA.—81.1 mi^2.

PERIOD OF RECORD.—June 1925 to September 1970, October 1986 to current year.
WATER TEMPERATURE: Water years 1961–70.

REVISED RECORDS.—WSP 1315-A: 1943(M). WSP 1635: 1925–29. WSP 1930: Drainage area.

GAGE.—Water-stage recorder and Parshall flume. Elevation of gage is 6,630 ft above sea level, from topographic map. Prior to Oct. 1, 1942, at datum 1.00 ft lower and Oct. 1, 1942, to Sept. 30, 1948, at datum 1.00 ft higher.

REMARKS.—Flow regulated by Huntington Lake (station 11236000). Diversions to Big Creek Powerplant No. 1 (station 11238100) and Eastwood Powerplant (station 11238250) bypass this station. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,040 ft^3/s, June 23, 1925, gage height, 11.3 ft, present datum; minimum daily, 0.1 ft^3/s, many days in 1931.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.2	3.0	2.6	2.2	2.4	3.5	4.2	4.4	4.8	4.4	4.3
2	3.0	2.2	3.0	2.6	2.2	2.4	3.6	4.2	4.3	4.8	4.4	4.2
3	2.9	2.2	2.9	2.6	2.3	2.3	3.8	4.2	4.3	4.7	4.3	4.2
4	2.8	2.2	2.9	2.2	2.3	2.2	4.0	4.2	4.3	4.6	4.3	4.1
5	2.8	2.1	2.9	1.8	2.4	2.2	4.1	4.2	4.3	4.6	4.4	4.1
6	2.8	2.1	2.8	1.7	2.2	2.2	4.1	4.1	4.3	4.5	4.5	4.1
7	2.8	2.1	2.8	1.7	2.2	2.2	4.2	4.5	4.3	4.5	4.5	4.0
8	2.8	2.4	2.8	1.7	2.3	2.3	4.2	5.3	4.8	4.5	7.8	4.1
9	2.8	2.5	2.8	1.7	2.3	2.5	4.2	4.7	4.5	4.4	6.8	4.1
10	2.8	3.1	2.8	1.7	2.4	2.5	4.1	4.5	4.4	4.4	4.8	4.2
11	2.8	3.1	2.8	1.8	2.4	2.5	4.1	4.4	4.3	4.4	4.4	4.2
12	2.8	3.1	2.8	1.8	2.4	2.5	4.0	4.2	5.5	4.4	4.2	4.1
13	2.8	3.1	2.8	1.8	2.6	2.5	4.6	4.1	7.6	4.5	4.2	4.1
14	2.7	3.1	2.8	1.7	4.5	2.6	4.4	4.1	7.8	4.9	4.2	4.1
15	2.7	3.1	2.8	1.8	3.2	2.7	4.2	4.1	7.8	6.9	4.1	4.1
16	2.7	3.1	2.8	1.9	2.7	2.8	4.1	4.3	7.3	7.4	4.1	4.1
17	2.7	3.3	2.8	2.1	2.6	2.9	4.3	4.3	6.9	4.7	4.1	4.1
18	2.6	3.1	2.8	4.5	2.5	3.1	4.2	4.2	6.7	4.5	4.1	4.0
19	2.6	3.2	2.8	2.4	2.5	3.2	4.2	4.1	6.5	4.4	4.1	4.1
20	2.6	3.2	2.8	2.2	2.5	3.2	4.4	4.0	6.0	4.5	4.2	4.2
21	2.6	3.1	2.8	2.1	2.5	3.1	4.4	3.9	5.9	4.5	4.2	4.2
22	2.5	3.1	2.7	2.0	2.4	3.1	4.3	3.9	5.8	4.5	4.1	4.3
23	2.5	3.1	2.7	2.0	2.4	3.1	4.3	3.9	5.6	4.5	4.1	4.3
24	2.5	3.1	2.7	2.8	2.5	3.2	4.3	4.8	5.5	4.5	4.1	4.1
25	2.4	3.1	2.7	3.1	2.5	3.3	4.3	5.0	5.6	4.4	4.1	4.0
26	2.4	3.1	2.7	2.7	2.5	3.5	4.3	4.9	5.4	4.5	4.0	4.0
27	2.4	3.1	2.7	2.3	2.4	3.5	4.4	4.8	5.2	4.5	4.0	4.0
28	2.3	3.1	2.7	2.2	2.4	3.5	4.3	4.7	5.0	4.4	4.1	3.9
29	2.3	3.1	2.7	2.2	2.4	3.4	4.3	4.6	4.9	4.4	4.1	3.9
30	2.3	3.1	2.6	2.2	---	3.5	4.2	4.5	4.8	4.5	4.2	3.9
31	2.3	---	2.6	2.2	---	3.4	---	4.4	---	4.5	4.2	---
TOTAL	82.1	85.5	86.3	68.1	72.7	87.8	125.4	135.3	164.0	145.6	137.1	123.1
MEAN	2.65	2.85	2.78	2.20	2.51	2.83	4.18	4.36	5.47	4.70	4.42	4.10
MAX	3.1	3.3	3.0	4.5	4.5	3.5	4.6	5.3	7.8	7.4	7.8	4.3
MIN	2.3	2.1	2.6	1.7	2.2	2.2	3.5	3.9	4.3	4.4	4.0	3.9
AC-FT	163	170	171	135	144	174	249	268	325	289	272	244
a	22200	9100	11250	2330	3920	19220	28240	39040	38810	30090	25760	19990

a Diversion, in acre-feet, to Big Creek Powerplant No. 1, provided by Southern California Edison Co.

11237000 BIG CREEK BELOW HUNTINGTON LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.48	1.51	1.53	1.36	1.36	1.72	2.79	9.02	9.06	10.0	2.04	1.59
MAX	4.79	4.55	4.70	6.45	3.53	5.90	7.09	297	242	293	8.34	4.86
(WY)	1994	1994	1956	1997	1995	1995	1995	1926	1926	1925	1969	1993
MIN	.16	.23	.18	.20	.30	.38	.47	.46	.43	.31	.16	.12
(WY)	1932	1932	1932	1932	1931	1948	1934	1934	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1925 - 2000	
ANNUAL TOTAL	1244.1		1313.0			
ANNUAL MEAN	3.41		3.59		3.22	
HIGHEST ANNUAL MEAN					45.9	1926
LOWEST ANNUAL MEAN					.35	1931
HIGHEST DAILY MEAN	9.1	May 25	7.8	Jun 14	1160	May 23 1926
LOWEST DAILY MEAN	1.7	Jan 14	1.7	Jan 6	.10	Jan 18 1931
ANNUAL SEVEN-DAY MINIMUM	1.8	Jan 8	1.7	Jan 5	.10	Aug 21 1931
INSTANTANEOUS PEAK FLOW			14	Aug 8	2040	Jun 23 1925
INSTANTANEOUS PEAK STAGE			2.82	Aug 8	11.30	Jun 23 1925
ANNUAL RUNOFF (AC-FT)	2470		2600		2340	
TOTAL DIVERSION (AC-FT) a	240600		249900			
10 PERCENT EXCEEDS	5.5		4.7		4.1	
50 PERCENT EXCEEDS	3.2		3.7		1.5	
90 PERCENT EXCEEDS	2.2		2.2		.40	

a Diversion, in acre-feet, to Big Creek Powerplant No. 1, provided by Southern California Edison Co.

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CA

LOCATION.—Lat 37°11'55", long 119°12'46", 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 and South Fork Tamarack Creeks, 1.4 mi upstream from mouth, and 1.9 mi east of town of Big Creek.

DRAINAGE AREA.—22.9 mi^2.

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. WSP 1930: Drainage area.

GAGE.—Water-stage recorder, Parshall flume and concrete control. Elevation of gage is 7,020 ft above sea level, from topographic map. Prior to Sept. 28, 1940, at site 10 ft downstream at same datum.

REMARKS.—No diversion upstream from station; practically all flow is diverted downstream from station to Huntington–Shaver Conduit. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,500 ft^3/s, Jan. 2, 1997, gage height, 12.65 ft, from rating curve extended above 1,100 ft^3/s on basis of slope-area measurement at gage height 10.77 ft; no flow, Oct. 15–18, 1931.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	.31	.80	e.46	7.5	13	63	295	101	11	1.1	.76
2	.37	.29	.74	e.46	6.6	13	74	317	92	9.4	1	1
3	.36	.29	.67	e.46	7	12	95	336	86	9.1	1	.81
4	.34	.29	.68	e.46	6.1	13	120	328	83	8.7	1	.68
5	.33	.29	.67	e.46	6.2	12	137	324	77	8.3	.89	.61
6	.34	.29	.62	e.46	6.2	12	140	283	69	8.3	.81	.54
7	.37	.30	.67	e.46	5.9	12	147	388	63	7.6	.73	.47
8	.37	1.2	.51	e.46	5.7	13	160	469	82	6.4	.71	.43
9	.36	.86	.59	e.46	5.6	12	159	341	82	6	.68	.39
10	.35	.67	.5	e.46	5.5	11	162	280	69	5.8	.64	.37
11	.33	.67	.48	e.46	5.2	11	159	206	56	5.6	.59	.35
12	.32	.67	.52	e.46	4.7	12	171	173	50	5.3	.54	.33
13	.3	.63	.61	e.46	7	14	279	175	48	4.9	.52	.31
14	.29	.63	.54	e.46	28	16	173	168	44	4.4	.47	.29
15	.29	.67	e.47	e.46	31	18	131	150	40	4.2	.47	.27
16	.29	.69	e.47	e.46	23	20	121	147	37	3.9	.45	.25
17	.29	1.8	e.47	e.46	20	22	105	153	32	3.7	.45	.24
18	.29	1.1	e.47	e1.0	21	26	95	175	28	3.2	.41	.24
19	.29	1	e.47	e7.3	19	33	90	207	25	2.9	.37	.24
20	.29	1.6	e.47	12	18	36	105	233	23	2.7	.37	.24
21	.29	1.2	e.46	10	16	33	119	245	21	2.5	.37	.24
22	.29	.82	e.46	11	14	35	127	251	20	2.2	.35	.24
23	.29	.72	e.46	5.7	14	36	144	236	18	2	.35	.27
24	.29	.64	e.46	3.4	12	37	167	211	16	1.9	.33	.29
25	.29	.69	e.46	8.4	11	38	202	189	15	1.8	.31	.29
26	.29	.75	e.46	17	11	44	252	170	15	1.6	.31	.25
27	.29	.78	e.46	7.1	13	51	287	176	16	1.6	.31	.25
28	.33	.74	e.46	4.4	12	53	260	158	14	1.4	.29	.24
29	.34	.78	e.46	4.2	12	56	234	137	12	1.3	.31	.24
30	.33	.84	e.46	9.2	---	60	274	121	12	1.2	.33	.24
31	.32	---	e.46	12	---	62	---	109	---	1.2	.37	---
TOTAL	9.89	22.21	16.48	120.52	354.2	836	4752	7151	1346	140.1	16.83	11.37
MEAN	.32	.74	.53	3.89	12.2	27.0	158	231	44.9	4.52	.54	.38
MAX	.37	1.8	.80	17	31	62	287	469	101	11	1.1	1.0
MIN	.29	.29	.46	.46	4.7	11	63	109	12	1.2	.29	.24
AC-FT	20	44	33	239	703	1660	9430	14180	2670	278	33	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2000, BY WATER YEAR (WY)

MEAN	1.89	5.45	10.7	12.0	14.2	27.8	93.6	200	119	20.8	2.41	1.39
MAX	42.0	110	135	194	91.1	136	264	550	648	180	21.4	18.9
(WY)	1983	1951	1951	1997	1986	1986	1982	1969	1983	1995	1983	1978
MIN	.13	.18	.20	.20	.20	.30	16.6	24.3	7.82	.67	.11	.10
(WY)	1989	1930	1932	1930	1949	1949	1975	1977	1976	1934	1931	1928

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1928 - 2000	
ANNUAL TOTAL	11787.67		14776.60			
ANNUAL MEAN	32.3		40.4		42.8	
HIGHEST ANNUAL MEAN					118	1983
LOWEST ANNUAL MEAN					6.16	1977
HIGHEST DAILY MEAN	281	May 12	469	May 8	2200	Jan 2 1997
LOWEST DAILY MEAN	.29	Oct 14	.24	Sep 17	.00	Oct 15 1931
ANNUAL SEVEN-DAY MINIMUM	.29	Oct 14	.24	Sep 16	.04	Oct 13 1931
INSTANTANEOUS PEAK FLOW			575	May 8	5500	Jan 2 1997
INSTANTANEOUS PEAK STAGE			6.74	May 8	12.65	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	23380		29310		31010	
10 PERCENT EXCEEDS	119		159		131	
50 PERCENT EXCEEDS	6.0		2.8		5.5	
90 PERCENT EXCEEDS	.34		.29		.30	

e Estimated.

11237600 PITMAN CREEK SHAFT 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 left bank, at Huntington–Shaver Conduit Tunnel, 0.8 mi downstream from confluence of Tamarack and South Fork Tamarack Creeks, 1.4 mi upstream from mouth, and 1.9 mi east of town of Big Creek.

PERIOD OF RECORD.—October 1986 to February 1989, March 1989 to December 1995, April to November 1996, and March 1997 to current year.

GAGE.—Discharge computed as difference between Pitman Creek below Tamarack Creek (station 11237500) and Pitman Creek near Tamarack Mountain (station 11237700). Elevation of diversion point is 7,010 ft above sea level, from topographic map.

REMARKS.—Flow is diversion from Pitman Creek into Huntington–Shaver Conduit for power development in Big Creek powerplants. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, unknown, Jan. 2, 1997; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	e.00	e.15	e5.7	e9.9	e62	293	100	9.7	.10	.00
2	.00	.00	e.00	e.15	e4.9	e10	e73	315	91	8.1	.01	.00
3	.00	.00	e.00	e.15	e5.3	e9.3	e94	334	85	7.8	.01	.00
4	.00	.00	e.00	e.15	e4.4	e10	e119	326	82	7.4	.04	.00
5	.00	.00	e.00	e.15	e4.6	e9.5	e136	322	76	7.1	.00	.00
6	.00	.00	e.00	e.15	e4.6	e9.5	e138	281	68	7.1	.00	.00
7	.00	.00	e.00	e.15	e4.3	e9.5	e145	386	62	6.4	.00	.00
8	.00	.84	e.00	e.15	e4.1	e11	e158	458	81	5.2	.00	.00
9	.00	.32	e.00	e.15	e4.1	e9.6	e157	339	81	4.8	.00	.00
10	.00	.00	e.00	e.15	e3.0	e8.6	e160	278	68	4.6	.00	.00
11	.00	.00	e.00	e.11	e2.5	e8.7	e158	204	55	4.4	.00	.00
12	.00	.00	e.04	e.09	e1.8	e9.7	e170	171	49	4.2	.00	.00
13	.00	.00	e.16	e.07	e3.8	e12	e278	173	47	3.8	.00	.00
14	.00	.00	e.11	e.08	e25	e14	171	166	43	3.3	.00	.00
15	.00	.00	e.05	e.10	e28	e16	129	148	39	3.1	.00	.00
16	.00	.00	e.08	e.13	e20	e18	119	145	36	2.8	.00	.00
17	.00	.70	e.09	e.14	e17	e20	103	151	31	2.6	.00	.00
18	.00	.16	e.10	e.00	e18	e24	93	173	27	2.1	.00	.00
19	.00	.17	e.11	e5.4	e16	e31	88	205	24	1.8	.00	.00
20	.00	.73	e.12	e10	e15	e34	103	231	22	1.6	.00	.00
21	.00	.35	e.13	e8.3	e13	e31	117	243	19	1.4	.00	.00
22	.00	.00	e.14	e9.3	e11	e33	125	249	18	1.1	.00	.00
23	.00	.00	e.15	e3.4	e11	e34	142	234	16	.90	.00	.00
24	.00	.00	e.15	e.90	e9.0	e35	165	209	14	.80	.00	.00
25	.00	.00	e.15	e6.1	e7.9	e36	200	187	13	.70	.00	.00
26	.00	.00	e.15	e15	e8.0	e42	250	168	13	.50	.00	.00
27	.00	.00	e.15	e5.0	e9.9	e49	285	174	14	.50	.00	.00
28	.00	.00	e.15	e2.4	e8.8	e51	258	157	12	.30	.00	.00
29	.00	.00	e.15	e2.3	e8.9	e54	232	136	10	.20	.00	.00
30	.00	.00	e.15	e7.0	---	e58	272	120	11	.10	.00	.00
31	.00	---	e.15	e10	---	e60	---	108	---	.20	.00	---
TOTAL	0.00	3.27	2.48	87.32	279.6	767.3	4700	7084	1307	104.60	0.16	0.00
MEAN	.000	.11	.080	2.82	9.64	24.8	157	229	43.6	3.37	.005	.000
MAX	.00	.84	.16	15	28	60	285	458	100	9.7	.10	.00
MIN	.00	.00	.00	.00	1.8	8.6	62	108	10	.10	.00	.00
AC-FT	.00	6.5	4.9	173	555	1520	9320	14050	2590	207	.3	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	.52	1.02	1.43	3.77	6.97	23.8	83.4	136	64.7	10.7	1.47	.15
MAX	3.22	6.24	7.33	22.5	25.6	78.5	157	440	365	76.0	13.7	.90
(WY)	1995	1995	1995	1995	1995	1995	2000	1993	1995	1995	1995	1995
MIN	.000	.000	.000	.000	.000	.000	40.7	53.3	9.14	.83	.000	.000
(WY)	1989	1989	1989	1987	1987	1992	1995	1997	1992	1994	1988	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	11321.89		14335.73			
ANNUAL MEAN	31.0		39.2		30.0	
HIGHEST ANNUAL MEAN					67.8	1993
LOWEST ANNUAL MEAN					13.5	1987
HIGHEST DAILY MEAN	280	May 12	458	May 8	888	May 16 1996
LOWEST DAILY MEAN	.00	Aug 25	.00	Oct 1	.00	Nov 12 1986
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 25	.00	Oct 1	.00	Dec 5 1986
ANNUAL RUNOFF (AC-FT)	22460		28430		21740	
10 PERCENT EXCEEDS	118		158		95	
50 PERCENT EXCEEDS	5.4		1.5		1.5	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated.

11237700 PITMAN CREEK NEAR TAMARACK MOUNTAIN, CA

LOCATION.—Lat 37°11'57", long 119°12'51", 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, 400 ft downstream from Huntington–Shaver Conduit Tunnel, 0.9 mi downstream from confluence of Tamarack and South Fork Tamarack Creeks, 1.3 mi upstream from mouth, and 1.8 mi east of town of Big Creek.

DRAINAGE AREA.—23.0 mi^2.

PERIOD OF RECORD.—October 1986 to February 1989, March 1989 to December 1995, April to November 1996, and March 1997 to current year.

GAGE.—Water-stage recorder and concrete control with V-notch sharp-crested weir. Elevation of gage is 7,000 ft above sea level, from topographic map.

REMARKS.—Most of flow is diverted upstream from station at Pitman Creek Shaft below Tamarack Creek (station 11237600) to Huntington–Shaver Conduit. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, unknown, Jan. 2, 1997; no flow Feb. 15 to Apr. 4, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.34	e.75	e.31	e1.8	e3.1	e1.5	1.8	1.2	1.3	1.0	.73
2	.34	.32	e.73	e.31	e1.7	e2.9	e1.4	1.9	1.2	1.3	.99	1.0
3	.32	.32	e.70	e.31	e1.7	e2.7	e1.5	1.9	1.2	1.3	.99	.81
4	.32	.31	e.68	e.31	e1.7	e2.6	e1.4	2.0	1.2	1.3	.96	.68
5	.30	.31	e.65	e.31	e1.6	e2.5	e1.3	1.9	1.2	1.2	.90	.60
6	.32	.29	e.63	e.31	e1.6	e2.5	e1.6	1.9	1.1	1.2	.83	.53
7	.36	.32	e.60	e.31	e1.6	e2.5	e1.9	2.1	1.1	1.2	.75	.46
8	.36	.36	e.58	e.31	e1.6	e2.4	e1.7	11	1.2	1.2	.70	.41
9	.35	.54	e.55	e.31	e1.5	e2.4	e1.7	2.4	1.2	1.2	.68	.37
10	.34	.69	e.53	e.31	e2.5	e2.4	e1.6	1.9	1.1	1.2	.63	.34
11	.32	.70	e.50	e.35	e2.7	e2.3	e1.5	1.8	1.1	1.2	.58	.32
12	.30	.70	e.48	e.37	e2.9	e2.3	e1.5	1.7	1.1	1.1	.54	.32
13	.30	.65	e.45	e.39	e3.2	e2.2	e1.4	1.6	1.0	1.1	.51	.30
14	.29	.64	e.43	e.38	e3.0	e2.2	1.9	1.6	1.0	1.1	.47	.28
15	.29	.70	e.42	e.36	e2.9	e2.2	1.8	1.6	1.0	1.1	.44	.25
16	.29	.71	e.39	e.33	e2.8	e2.1	1.7	1.6	1.0	1.1	.40	.23
17	.29	1.1	e.38	e.32	e2.7	e2.0	1.7	1.6	1.0	1.1	.37	.21
18	.29	.94	e.37	e1.0	e2.6	e2.0	1.6	1.7	1.0	1.1	.35	.21
19	.30	.83	e.36	e1.9	e2.5	e2.0	1.6	1.7	1.0	1.1	.33	.21
20	.30	.87	e.35	e1.9	e2.6	e1.9	1.6	1.8	.99	1.1	.32	.21
21	.30	.85	e.33	e1.7	e2.7	e1.9	1.6	1.8	1.6	1.1	.32	.21
22	.30	.86	e.32	e1.7	e2.8	e1.9	1.6	1.7	2.3	1.1	.31	.21
23	.30	.86	e.31	e2.3	e2.9	e1.8	1.6	1.7	2.0	1.1	.29	.24
24	.30	.85	e.31	e2.5	e3.0	e1.8	1.6	1.6	1.8	1.1	.28	.25
25	.30	.77	e.31	e2.3	e3.1	e1.8	1.7	1.6	1.7	1.1	.27	.25
26	.30	.73	e.31	e2.3	e3.0	e1.7	1.8	1.5	1.6	1.1	.27	.24
27	.30	.76	e.31	e2.1	e3.1	e1.7	1.9	1.5	1.6	1.1	.26	.22
28	.34	.86	e.31	e2.0	e3.2	e1.7	1.8	1.4	1.5	1.1	.24	.22
29	.36	.80	e.31	e1.9	e3.1	e1.6	1.7	1.3	1.5	1.1	.25	.22
30	.34	.84	e.31	e2.2	---	e1.6	1.8	1.3	1.4	1.1	.30	.22
31	.34	---	e.31	e1.9	---	e1.5	---	1.2	---	1.0	.34	---
TOTAL	9.80	19.82	13.97	33.30	72.1	66.2	49.0	62.1	38.89	35.5	15.87	10.75
MEAN	.32	.66	.45	1.07	2.49	2.14	1.63	2.00	1.30	1.15	.51	.36
MAX	.36	1.1	.75	2.5	3.2	3.1	1.9	11	2.3	1.3	1.0	1.0
MIN	.29	.29	.31	.31	1.5	1.5	1.3	1.2	.99	1.0	.24	.21
AC-FT	19	39	28	66	143	131	97	123	77	70	31	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	.67	.90	.98	1.29	1.84	4.58	24.2	40.9	51.0	19.4	1.08	.65
MAX	1.61	1.74	1.50	2.17	5.19	24.8	126	265	506	132	6.17	2.92
(WY)	1999	1990	1990	1990	1992	1990	1997	1995	1998	1998	1998	1998
MIN	.13	.31	.41	.56	.35	.000	.99	1.22	.66	.52	.16	.13
(WY)	1989	1991	1991	1991	1991	1991	1999	1990	1990	1992	1994	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	456.07		427.30			
ANNUAL MEAN	1.25		1.17		11.8	
HIGHEST ANNUAL MEAN					56.5	1998
LOWEST ANNUAL MEAN					.79	1991
HIGHEST DAILY MEAN	120	May 11	11	May 8	762	May 16 1996
LOWEST DAILY MEAN	.29	Sep 17	.21	Sep 17	.00	Feb 15 1991
ANNUAL SEVEN-DAY MINIMUM	.29	Oct 12	.21	Sep 16	.00	Feb 15 1991
ANNUAL RUNOFF (AC-FT)	905		848		8580	
10 PERCENT EXCEEDS	1.1		2.3		4.2	
50 PERCENT EXCEEDS	.79		1.1		1.1	
90 PERCENT EXCEEDS	.32		.30		.28	

e Estimated.

11238250 EASTWOOD POWERPLANT ABOVE SHAVER LAKE, NEAR BIG CREEK, CA

LOCATION.—Lat 37°07'55", long 119°15'39", in NE 1/4 SW 1/4 sec.20, T.9 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, 0.25 mi upstream from Shaver Lake and 5.0 mi south of Big Creek.

PERIOD OF RECORD.—October 1987 to current year.

GAGE.—Acoustic-flow meter in powerplant penstock. Elevation of gage is 5,400 ft above sea level, from topographic map.

REMARKS.—Flow is diverted from Huntington Lake (station 11236000) and Pitman Creek (station 11237600) to Balsam Meadows Forebay, then through a tunnel to the powerplant. Water is returned to Shaver Lake (station 11239500) 0.25 mi downstream for further power development in Big Creek powerplants. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,910 ft^3/s, May 24, 1993; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	467	280	305	290	.00	1.5	244	837	1580	491	887	434
2	408	286	230	.00	.00	1.0	48	701	1380	645	973	.00
3	756	385	148	.00	.00	666	.00	983	1360	640	978	215
4	426	359	279	.00	.00	.00	.00	1130	1310	655	953	234
5	428	402	187	.00	.00	.00	.00	1140	1610	645	761	206
6	454	309	173	.00	.00	.00	.00	771	1120	661	842	248
7	539	395	154	.00	.00	.00	.00	903	1600	661	555	248
8	457	590	96	.00	.00	213	.00	1100	1560	371	605	570
9	463	411	107	.00	212	195	.00	1120	1530	519	570	595
10	696	43	197	1.0	147	153	.00	1270	1550	534	580	246
11	539	255	115	201	.00	129	.00	1160	1510	661	787	746
12	741	43	121	194	.00	.00	.00	1120	1190	485	635	635
13	436	193	368	26	240	149	26	741	1220	414	787	376
14	495	142	102	.00	89	164	233	716	1250	279	797	565
15	448	390	98	.00	431	.00	386	1060	983	276	570	545
16	441	245	102	.00	305	151	241	933	998	391	605	234
17	449	193	158	.00	1.0	188	271	1110	968	405	681	440
18	509	344	281	.00	45	355	354	1300	1040	711	570	503
19	615	440	171	298	54	.00	191	1240	1010	476	630	625
20	545	198	314	15	219	152	496	1180	822	550	711	645
21	661	364	127	273	311	153	343	1250	817	503	721	478
22	726	311	.00	193	1.0	150	369	1270	716	225	640	640
23	302	196	.00	136	.00	215	274	1180	620	229	711	186
24	284	199	277	1.0	.00	151	610	1110	731	842	746	191
25	292	166	118	225	.00	.00	504	1070	635	963	736	.00
26	414	194	100	135	268	.00	620	1110	771	625	575	.00
27	354	415	235	66	78	216	565	1010	807	706	565	.00
28	303	198	118	.00	1.0	153	312	1310	585	701	610	.00
29	289	189	203	23	1.0	148	321	1090	761	661	610	.00
30	282	226	138	202	---	148	296	1010	529	640	655	.00
31	377	---	.00	153	---	148	---	1110	---	862	595	---
TOTAL	14596	8361	5022.00	2432.00	2403.00	3999.50	6704.00	33035	32563	17427	21641	9805.00
MEAN	471	279	162	78.5	82.9	129	223	1066	1085	562	698	327
MAX	756	590	368	298	431	666	620	1310	1610	963	978	746
MIN	282	43	.00	.00	.00	.00	.00	701	529	225	555	.00
AC-FT	28950	16580	9960	4820	4770	7930	13300	65520	64590	34570	42920	19450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2000, BY WATER YEAR (WY)

MEAN	338	231	273	286	241	268	451	808	913	717	568	431
MAX	600	571	540	534	574	684	1081	1605	1502	1343	837	702
(WY)	1996	1996	1997	1997	1997	1997	1996	1993	1993	1995	1997	1996
MIN	.000	.000	21.4	6.19	.000	19.5	29.3	159	270	156	181	81.7
(WY)	1988	1988	1991	1990	1996	1991	1991	1991	1990	1992	1992	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1988 - 2000	
ANNUAL TOTAL	156204.00		157988.50			
ANNUAL MEAN	428		432		462	
HIGHEST ANNUAL MEAN					720	1997
LOWEST ANNUAL MEAN					141	1990
HIGHEST DAILY MEAN	1680	May 25	1610	Jun 5	1910	May 24 1993
LOWEST DAILY MEAN	.00	Jan 4	.00	Dec 22	.00	Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 31	.00	Jan 2	.00	Oct 1 1987
ANNUAL RUNOFF (AC-FT)	309800		313400		334400	
10 PERCENT EXCEEDS	843		1020		1010	
50 PERCENT EXCEEDS	408		318		406	
90 PERCENT EXCEEDS	8.0		.00		.00	

11238270 MIDDLE FORK BALSAM CREEK BELOW BALSAM MEADOWS FOREBAY, NEAR BIG CREEK, CA

LOCATION.—Lat 37°09'46", long 119°15'12", in NE 1/4 NW 1/4 sec.9, T.9 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on left bank, 80 ft downstream from control house at base of Balsam Meadows Dam, and 2.6 mi south of Big Creek.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—January 1989 to current year.

GAGE.—Water-stage recorder, 90° V-notch weir and concrete control. Elevation of gage is 6,560 ft above sea level, from topographic map.

REMARKS.—Flow consists of fishery maintenance release and spill over Balsam Meadows Dam. No record of flow over spillway Apr. 15, 1989. Diversion from Balsam Meadows Dam through penstock to Eastwood Powerplant (station 11238250). See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, unknown, Apr. 15, 1989, as there was no record of flow over spillway; minimum daily, 0.31 ft^3/s, Feb. 4, 1989.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.72	.73	.71	.71	.75	.75	.75	1.2	1.2	1.2	1.3
2	1.2	.72	.73	.71	.71	.77	.73	.86	1.2	1.2	1.2	1.2
3	1.2	.71	.73	.71	.71	.75	.75	.87	1.2	1.2	1.2	1.2
4	1.2	.71	.73	.72	.71	.75	.76	.84	1.2	1.2	1.2	1.2
5	1.2	.70	.73	.73	.71	.75	.76	.82	1.2	1.2	1.2	1.3
6	1.3	.68	.73	.73	.71	.75	.75	.84	1.2	1.2	1.1	1.2
7	1.4	.78	.73	.73	.71	.75	.79	.84	1.2	1.2	1.2	1.3
8	1.4	.81	.73	.73	.71	.75	.77	.82	1.2	1.3	1.2	1.2
9	1.5	.80	.73	.73	.71	.75	.73	.80	1.1	1.3	1.2	1.3
10	1.2	.75	.73	.73	.71	.75	.73	.79	1.1	1.3	1.1	1.2
11	1.1	.76	.73	.73	.71	.75	.72	.75	1.1	1.3	1.2	1.2
12	1.1	.74	.73	.73	.71	.75	.72	.73	1.1	1.2	1.2	1.3
13	1.1	.67	.73	.72	.72	.75	.71	.73	1.1	1.2	1.2	1.2
14	1.1	.59	.72	.71	.81	.75	.71	.73	1.1	1.2	1.2	1.2
15	1.1	.67	.71	.71	.75	.75	.69	.75	1.1	1.3	1.2	1.2
16	1.0	.70	.72	.71	.71	.77	.64	.78	1.1	1.3	1.2	1.2
17	1.1	.71	.73	.71	.71	.78	.66	.78	1.1	1.3	1.1	1.2
18	1.1	.87	.73	.79	.71	.78	.69	.78	1.1	1.3	1.2	1.2
19	1.1	.87	.73	.78	.71	.78	.68	.77	1.1	1.4	1.2	1.3
20	1.2	.81	.73	.78	.72	.78	.70	.77	1.1	1.3	1.2	1.2
21	.97	.80	.73	.78	.75	.78	.71	.75	1.1	1.2	1.2	1.2
22	.75	.76	.73	.76	.72	.78	.72	.76	1.1	1.2	1.2	1.2
23	.75	.73	.73	.75	.73	.79	.72	.75	1.2	1.2	1.3	1.2
24	.75	.73	.73	.88	.75	.81	.73	.78	1.2	1.3	1.3	1.2
25	.75	.73	.73	.84	.75	.80	.73	.79	1.2	1.3	1.2	1.2
26	.74	.73	.73	.82	.75	.78	.72	.80	1.2	1.3	1.3	1.3
27	.72	.73	.73	.78	.75	.78	.72	.86	1.1	1.3	1.2	1.4
28	.71	.73	.73	.78	.75	.78	.71	.92	1.2	1.3	1.2	1.3
29	.70	.73	.73	.77	.75	.78	.72	.95	1.2	1.3	1.3	1.2
30	.68	.73	.73	.73	---	.76	.71	.90	1.2	1.2	1.2	1.2
31	.67	---	.72	.73	---	.75	---	1.1	---	1.2	1.2	---
TOTAL	31.99	22.17	22.58	23.22	21.06	23.75	21.63	25.16	34.5	38.9	37.3	37.0
MEAN	1.03	.74	.73	.75	.73	.77	.72	.81	1.15	1.25	1.20	1.23
MAX	1.5	.87	.73	.88	.81	.81	.79	1.1	1.2	1.4	1.3	1.4
MIN	.67	.59	.71	.71	.71	.75	.64	.73	1.1	1.2	1.1	1.2
AC-FT	63	44	45	46	42	47	43	50	68	77	74	73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	.80	.71	.76	.74	.76	.90	1.00	.86	1.27	1.30	1.31	1.32
MAX	1.03	1.15	1.44	1.10	1.10	2.20	2.75	1.28	1.45	1.38	1.48	1.50
(WY)	2000	1992	1992	1993	1993	1992	1992	1995	1995	1990	1992	1992
MIN	.59	.57	.58	.56	.57	.56	.57	.60	1.10	1.17	1.20	1.21
(WY)	1998	1997	1998	1996	1996	1996	1996	1996	1998	1997	1999	1997

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	324.93		339.26			
ANNUAL MEAN	.89		.93		.98	
HIGHEST ANNUAL MEAN					1.38	1992
LOWEST ANNUAL MEAN					.81	1996
HIGHEST DAILY MEAN	1.5	Oct 9	1.5	Oct 9	3.4	Apr 2 1992
LOWEST DAILY MEAN	.57	May 15	.59	Nov 14	.31	Feb 4 1989
ANNUAL SEVEN-DAY MINIMUM	.60	May 14	.68	Apr 14	.51	Nov 1 1996
INSTANTANEOUS PEAK FLOW			1.7	Oct 9		
INSTANTANEOUS PEAK STAGE			.87	Oct 9		
ANNUAL RUNOFF (AC-FT)	644		673		707	
10 PERCENT EXCEEDS	1.2		1.2		1.4	
50 PERCENT EXCEEDS	.73		.78		.84	
90 PERCENT EXCEEDS	.62		.71		.61	

11238500 BIG CREEK NEAR MOUTH, NEAR BIG CREEK, CA

LOCATION.—Lat 37°12'28", long 119°19'13", in SE 1/4 NW 1/4 sec.26, T.8 S., R.24 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 0.6 mi upstream from mouth, and 3.9 mi west of town of Big Creek.

DRAINAGE AREA.—131 mi^2.

PERIOD OF RECORD.—June 1923 to May 1932, October 1986 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.—Water-stage recorder. Elevation of gage is 2,620 ft above sea level, from topographic map.

REMARKS.—Flow regulated by Huntington Lake (station 11236000) and diversions for power development in Big Creek powerplants. Most of the water is diverted past this station to Big Creek Powerplant No. 8 (station 11238550). Big Creek Powerplant No. 2 (station 11238380) diverts water from Big Creek and then returns it between Big Creek below Huntington Lake (station 11237000) and this station. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records collected by the Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,400 ft^3/s, Jan. 2, 1997, gage height, 10.34 ft, from rating curve extended above 900 ft^3/s; no flow several days in 1925 and 1931.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.9	3.6	4.7	4.3	8.0	4.1	13	4.4	3.9	4.8	4.4
2	4.1	3.7	3.5	4.1	4.1	6.8	4.1	5.3	11	3.9	5.0	4.4
3	4.1	3.5	3.5	4.1	4.1	6.2	4.1	6.0	8.8	3.9	4.8	4.2
4	4.1	3.5	3.5	4.1	4.1	5.9	4.1	23	3.7	4.1	4.7	4.2
5	4.1	3.5	3.5	4.1	4.0	6.4	4.8	56	3.8	4.1	4.7	4.3
6	4.1	3.8	3.4	4.0	4.0	6.1	5.7	81	3.7	4.1	4.7	4.3
7	4.1	3.9	3.3	3.7	4.0	5.7	4.2	18	3.6	4.1	4.7	4.2
8	4.1	4.4	3.3	3.7	3.9	6.1	4.1	71	4.2	4.1	4.7	4.2
9	4.1	3.9	3.3	4.0	4.0	5.7	4.1	106	3.8	424	4.6	4.2
10	4.1	3.9	3.3	3.9	4.5	5.4	4.1	133	3.8	605	4.5	4.2
11	4.1	3.9	3.3	3.8	4.2	5.3	4.2	101	3.8	14	4.5	4.2
12	4.1	3.9	3.3	3.9	6.6	5.2	6.2	87	3.8	632	4.6	4.2
13	4.1	3.9	3.3	3.7	19	5.0	4.5	37	3.8	125	4.5	4.4
14	4.0	3.9	3.3	3.7	18	4.9	4.3	72	3.8	6.4	4.4	4.4
15	3.9	4.0	3.7	3.7	7.8	4.8	4.1	41	3.8	6.8	4.5	4.4
16	3.9	3.9	4.3	4.4	8.1	4.8	4.1	111	3.8	6.0	4.2	4.2
17	3.9	4.4	4.2	4.2	7.0	4.7	6.4	7.1	3.8	6.0	7.2	4.2
18	3.9	4.4	4.9	5.5	5.9	4.6	5.6	11	3.8	5.7	4.4	4.2
19	3.9	4.2	4.2	3.9	5.3	4.5	4.8	7.3	3.8	5.6	4.4	4.2
20	3.9	4.3	4.2	3.8	5.6	4.5	4.5	22	3.8	6.1	4.3	4.2
21	3.9	4.1	4.1	3.9	8.5	4.4	4.4	5.8	3.8	5.4	4.4	4.2
22	3.9	4.1	4.0	3.7	6.9	4.4	4.3	11	3.8	5.6	4.4	4.2
23	3.9	4.1	3.8	4.7	11	4.4	4.2	3.9	4.2	5.3	4.3	4.2
24	3.9	4.1	4.1	18	8.0	4.4	4.2	3.8	5.1	5.0	4.4	4.2
25	3.9	4.1	4.1	12	6.5	4.3	4.5	3.9	3.9	5.9	4.4	4.2
26	3.9	4.1	4.1	5.6	6.0	4.2	7.9	5.6	3.9	5.2	4.4	4.3
27	3.9	4.1	4.1	4.6	11	4.2	4.1	4.1	3.9	5.1	4.3	4.2
28	3.9	4.1	4.0	4.3	8.7	4.2	4.1	3.8	3.9	4.9	4.2	4.2
29	3.9	4.0	3.9	4.2	9.3	4.2	4.1	3.8	3.9	5.0	4.2	4.2
30	3.9	3.9	4.1	4.6	---	4.2	4.1	3.8	4.0	4.9	4.2	4.2
31	3.9	---	4.0	4.4	---	4.1	---	4.0	---	4.9	4.7	---
TOTAL	123.6	119.5	117.2	151.0	204.4	157.6	138.0	1062.2	129.2	1932.0	142.1	127.3
MEAN	3.99	3.98	3.78	4.87	7.05	5.08	4.60	34.3	4.31	62.3	4.58	4.24
MAX	4.1	4.4	4.9	18	19	8.0	7.9	133	11	632	7.2	4.4
MIN	3.9	3.5	3.3	3.7	3.9	4.1	4.1	3.8	3.6	3.9	4.2	4.2
AC-FT	245	237	232	300	405	313	274	2110	256	3830	282	252
a	22070	9090	11270	2540	4190	19340	28510	33850	32550	28750	24380	20030
b	47360	33290	34670	10470	12830	45390	56700	74780	76090	59600	53010	45170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	9.77	47.2	65.7	62.4	28.7	46.6	12.5	38.4	66.7	29.3	5.70	5.55
MAX	88.9	357	554	786	331	377	58.3	327	569	137	26.7	25.4
(WY)	1999	1999	1997	1997	1997	1995	1995	1995	1998	1998	1998	1998
MIN	2.44	1.97	1.28	1.61	1.69	2.03	2.35	2.23	2.23	2.20	2.27	2.33
(WY)	1988	1988	1995	1989	1988	1992	1989	1987	1987	1987	1988	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	1856.5		4404.1			
ANNUAL MEAN	5.09		12.0		35.0	
HIGHEST ANNUAL MEAN					171	1997
LOWEST ANNUAL MEAN					2.34	1988
HIGHEST DAILY MEAN	96	Jul 3	632	Jul 12	3540	Jan 2 1997
LOWEST DAILY MEAN	3.3	Dec 7	3.3	Dec 7	1.0	Dec 8 1994
ANNUAL SEVEN-DAY MINIMUM	3.3	Dec 7	3.3	Dec 7	1.1	Dec 4 1994
INSTANTANEOUS PEAK FLOW			1370	Jul 9	7400	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.39	Jul 9	10.34	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	3680		8740		25320	
TOTAL DIVERSION (AC-FT) a	122453.2		119275.60			
TOTAL DIVERSION (AC-FT) b	534500		549300		499800	
10 PERCENT EXCEEDS	5.9		7.9		19	
50 PERCENT EXCEEDS	4.2		4.2		3.9	
90 PERCENT EXCEEDS	3.8		3.8		1.9	

a Diversion, in acre-feet, to Big Creek Powerplant No. 2, provided by Southern California Edison Co.
b Diversion, in acre-feet, to Big Creek Powerplant No. 8, provided by Southern California Edison Co.

11238600 SAN JOAQUIN RIVER ABOVE STEVENSON CREEK, NEAR BIG CREEK, CA

LOCATION.—Lat 37°12'28", long 119°19'44", unsurveyed, T.8 S., R.24 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, in intake structure near left bank, 300 ft upstream from Dam 6, 3.5 mi upstream from Stevenson Creek, and 4.4 mi west of town of Big Creek at mile 313.6.

DRAINAGE AREA.—1,197 mi^2.

PERIOD OF RECORD.—Water years 1987, 1993–94, October 1995 to current year. Records for water years 1951 to 1972 in files of Southern California Edison Co. Records for water years 1974 to 1986 in files of the U.S. Geological Survey.

GAGE.—Acoustic-velocity meter and water-stage recorder on Dam 6 since Oct. 1, 1992. Water-stage recorders at various sites downstream prior to 1992. Elevation of gage is 2,200 ft above sea level, from topographic map.

REMARKS.—Record consists of computed flow over spillway at Dam 6 and flow through fish-water release valve. At times the sluice valve leaks and this flow bypasses the station. Flow regulated by Mammoth Pool Reservoir and Huntington Lake (stations 11234700 and 11236000) and diversions for power development in Big Creek powerplants. Most of the water is diverted past this station to Big Creek Powerplant No. 3 (station 11241800). See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records collected by the Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 72,500 ft^3/s, Jan. 2, 1997; minimum daily, 3.0 ft^3/s, at times in several years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	e3.4	3.5	3.5	3.4	3.4	3.4	251	2050	136	e3.4	3.4
2	3.5	e3.4	3.4	3.5	3.5	3.4	3.4	255	2020	234	e3.4	3.4
3	3.5	e3.4	3.5	3.5	3.5	3.4	3.4	143	1940	106	e3.4	3.4
4	e3.5	e3.4	3.4	3.5	3.5	3.4	9.4	58	2120	124	e3.4	3.4
5	e3.5	e3.5	3.4	3.4	3.5	3.4	219	121	2450	5.2	e3.4	3.4
6	e3.5	e3.5	3.5	3.4	3.5	3.4	423	278	2010	3.4	e3.4	3.5
7	e3.5	e3.5	3.5	3.4	3.5	3.4	326	110	1830	3.4	e3.4	3.5
8	e3.4	e3.4	3.4	3.4	3.5	3.4	300	488	1770	3.4	3.4	3.4
9	e3.4	e3.4	3.4	3.3	3.5	3.4	195	502	1120	e3.4	70	3.4
10	e3.5	e3.4	3.4	3.2	3.5	3.4	160	1200	556	e3.4	48	3.4
11	e3.5	e3.4	3.5	3.2	3.4	3.4	279	980	324	e3.5	89	3.4
12	e3.5	e3.4	3.4	3.2	3.5	3.4	106	936	322	e3.5	120	3.4
13	e3.5	e3.4	3.5	3.3	3.6	3.4	179	620	636	e3.5	3.5	3.4
14	e3.4	e3.4	3.5	3.4	11	3.4	132	828	2090	e3.5	120	3.4
15	e3.4	e3.4	3.5	3.4	3.4	3.4	195	957	2220	e3.5	131	3.4
16	e3.4	e3.4	3.5	3.5	3.4	3.4	68	1020	2400	e3.4	120	19
17	e3.4	e3.4	3.4	3.4	33	3.4	197	1010	2570	e3.4	40	33
18	e3.4	e3.4	3.5	3.4	3.4	3.4	126	843	2040	e3.5	3.4	34
19	e3.4	e3.4	3.5	3.4	3.4	3.4	129	1190	1730	e3.5	3.4	68
20	e3.4	e3.5	3.5	3.4	3.4	3.4	176	1020	1240	e3.5	3.4	109
21	e3.4	e3.4	3.5	3.4	3.4	3.4	57	1080	854	e3.4	3.4	3.6
22	e3.4	e3.4	3.5	3.4	3.4	3.4	178	600	642	e3.4	7.4	3.4
23	e3.4	3.4	3.4	3.5	3.4	3.4	45	3500	663	e3.4	162	3.4
24	e3.4	3.4	3.4	3.4	3.4	3.4	188	3680	330	e3.4	3.4	3.4
25	e3.4	3.5	3.4	3.2	15	3.4	39	4060	116	e3.4	3.4	3.5
26	e3.4	3.5	3.4	3.1	3.4	3.4	98	3450	174	e3.4	3.4	5.2
27	e3.4	3.6	3.4	3.1	9.7	3.4	3.4	3690	405	e3.4	3.4	3.8
28	e3.4	3.5	3.4	3.1	3.5	3.4	3.4	4770	400	e146	3.4	3.5
29	e3.4	3.4	3.4	3.1	3.4	3.4	3.4	4100	228	e3.4	3.4	3.5
30	e3.4	3.5	3.5	3.1	---	3.4	3.4	3320	152	e3.4	3.4	3.5
31	e3.4	---	3.4	3.2	---	3.4	---	2610	---	e3.4	3.4	---
TOTAL	106.5	103.0	106.9	103.3	155.0	105.4	3848.2	47670	37402	837.0	978.9	351.0
MEAN	3.44	3.43	3.45	3.33	5.34	3.40	128	1538	1247	27.0	31.6	11.7
MAX	3.5	3.6	3.5	3.5	33	3.4	423	4770	2570	234	162	109
MIN	3.4	3.4	3.4	3.1	3.4	3.4	3.4	58	116	3.4	3.4	3.4
AC-FT	211	204	212	205	307	209	7630	94550	74190	1660	1940	696
a	67780	35820	49260	31760	54380	164200	179900	197800	182400	132500	103200	74970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	7.29	3.40	28.0	829	364	270	218	1471	2256	666	44.3	4.86
MAX	34.5	3.95	200	6605	1841	954	621	3726	7614	3623	291	11.7
(WY)	1999	1987	1997	1997	1997	1996	1996	1993	1998	1998	1998	2000
MIN	3.14	3.20	3.25	3.26	3.30	3.20	3.25	3.39	3.60	3.29	3.30	3.29
(WY)	1993	1993	1993	1993	1993	1994	1994	1994	1994	1997	1997	1993

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	31862.7		91767.2			
ANNUAL MEAN	87.3		251		513	
HIGHEST ANNUAL MEAN					1202	1997
LOWEST ANNUAL MEAN					3.38	1994
HIGHEST DAILY MEAN	2670	May 29	4770	May 28	32000	Jan 3 1997
LOWEST DAILY MEAN	3.2	Jan 27	3.1	Jan 26	3.0	Dec 4 1993
ANNUAL SEVEN-DAY MINIMUM	3.4	Jan 21	3.1	Jan 25	3.1	Oct 6 1992
INSTANTANEOUS PEAK FLOW			5750	May 28	72500	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	63200		182000		372000	
TOTAL DIVERSION (AC-FT) a	1271000		1274000		1165000	
10 PERCENT EXCEEDS	66		832		1750	
50 PERCENT EXCEEDS	3.4		3.4		3.4	
90 PERCENT EXCEEDS	3.4		3.4		3.3	

e Estimated.
a Diversion, in acre-feet, to Big Creek Powerplant No. 3, provided by Southern California Edison Co.

11239300 NORTH FORK STEVENSON CREEK AT PERIMETER ROAD, NEAR BIG CREEK, CA

LOCATION.—Lat 37°08'13", long 119°15'13", in SE 1/4 NW 1/4 sec.21, T.9 S., R.25 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 100 ft upstream from Perimeter Road, and 4.8 mi south of town of Big Creek.

DRAINAGE AREA.—4.42 mi^2.

PERIOD OF RECORD.—January 1989 to current year.

GAGE.—Water-stage recorder, modified Parshall flume, and concrete control. Elevation of gage is 5,740 ft above sea level, from topographic map.

REMARKS.—Releases for fishery maintenance from Balsam Meadows Forebay on Balsam Creek enter creek upstream from station. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,220 ft^3/s, May 16, 1996, gage height, 9.58 ft; minimum daily, 1.6 ft^3/s, Feb. 14, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	7.0	6.1	5.6	7.4	9.6	14	21	9.1	6.7	7.0	6.5
2	7.3	7.0	6.0	5.9	7.5	9.4	15	22	8.7	6.6	7.2	6.1
3	7.3	7.0	6.0	7.0	7.3	10	17	23	8.5	6.7	7.0	6.1
4	7.4	7.0	5.8	5.6	6.9	9.6	19	22	8.3	6.6	6.9	6.1
5	7.4	7.0	5.8	6.0	7.1	9.8	41	22	8.1	6.6	6.7	6.1
6	7.4	6.9	5.8	7.1	6.7	9.1	147	19	7.9	6.6	6.7	6.0
7	7.4	7.0	5.7	5.6	6.7	9.4	157	23	7.8	6.6	6.3	6.1
8	7.4	8.2	5.9	6.0	6.7	9.4	174	28	11	6.3	6.5	6.1
9	7.6	7.1	5.9	5.6	7.0	9.3	180	22	9.0	6.2	6.6	6.1
10	7.4	6.8	5.9	5.6	8.3	9.4	172	22	8.2	6.4	6.6	5.7
11	7.4	6.7	5.9	5.8	7.5	9.9	184	17	7.7	6.1	6.7	6.4
12	7.4	6.7	5.9	5.8	7.6	10	190	16	7.4	6.1	6.4	6.1
13	7.4	6.7	5.9	5.7	11	11	140	16	7.0	5.8	6.2	6.0
14	7.4	6.8	5.9	5.6	40	12	22	15	6.6	5.4	6.6	5.9
15	7.4	6.9	5.9	5.8	21	13	18	15	6.4	5.3	6.2	5.9
16	7.4	6.8	5.9	6.9	14	14	17	16	6.4	5.3	6.2	6.0
17	7.2	8.0	5.9	7.4	12	14	18	16	6.2	5.4	6.4	6.3
18	7.5	6.9	5.9	26	11	15	17	16	5.9	5.7	6.1	5.7
19	7.5	7.1	5.9	9.0	10	17	17	16	5.9	5.2	6.4	6.0
20	7.4	7.2	5.9	7.4	12	16	21	15	5.5	5.4	6.1	5.9
21	7.5	7.0	5.8	7.1	12	15	21	15	5.4	5.5	6.6	5.8
22	7.6	6.9	5.8	6.5	10	16	20	14	5.8	4.9	6.2	6.2
23	7.0	6.6	5.7	7.6	10	17	19	13	8.2	4.8	6.5	6.0
24	6.8	5.9	5.8	23	9.7	14	19	13	8.4	5.3	6.4	6.0
25	6.8	5.8	5.8	18	9.3	12	20	12	8.3	6.3	6.4	6.0
26	6.8	6.0	5.8	11	9.6	13	23	12	8.5	7.8	6.4	6.4
27	6.5	6.0	5.8	8.5	10	13	24	11	7.9	7.0	6.3	55
28	6.8	5.9	5.8	7.8	9.8	13	22	11	7.5	6.8	6.0	57
29	7.0	5.9	5.7	7.4	9.4	13	20	10	7.2	6.4	6.3	38
30	7.1	5.9	5.6	7.4	---	13	21	9.5	7.0	6.3	6.3	37
31	7.1	---	5.6	7.5	---	13	---	9.4	---	6.8	6.4	---
TOTAL	225.0	202.7	181.1	257.2	307.5	378.9	1789	511.9	225.8	188.9	200.6	344.5
MEAN	7.26	6.76	5.84	8.30	10.6	12.2	59.6	16.5	7.53	6.09	6.47	11.5
MAX	7.6	8.2	6.1	26	40	17	190	28	11	7.8	7.2	57
MIN	6.5	5.8	5.6	5.6	6.7	9.1	14	9.4	5.4	4.8	6.0	5.7
AC-FT	446	402	359	510	610	752	3550	1020	448	375	398	683

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	5.00	7.55	6.77	12.7	11.5	16.2	28.8	31.0	27.8	9.27	6.00	5.79
MAX	7.26	22.1	14.1	71.8	52.2	40.7	59.6	108	178	36.2	11.3	11.5
(WY)	2000	1998	1992	1997	1996	1995	2000	1996	1995	1995	1996	2000
MIN	3.65	3.80	4.29	4.59	3.89	7.15	8.99	5.80	4.66	4.00	4.08	4.14
(WY)	1991	1993	1993	1992	1991	1991	1994	1990	1989	1989	1989	1991

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	2717.3		4813.1			
ANNUAL MEAN	7.44		13.2		14.6	
HIGHEST ANNUAL MEAN					34.7	1995
LOWEST ANNUAL MEAN					5.57	1990
HIGHEST DAILY MEAN	13	Jun 5	190	Apr 12	1750	May 16 1996
LOWEST DAILY MEAN	4.0	Jan 7	4.8	Jul 23	1.6	Feb 14 1991
ANNUAL SEVEN-DAY MINIMUM	4.2	Jan 3	5.3	Jul 18	2.0	Feb 14 1991
INSTANTANEOUS PEAK FLOW			290	Apr 13	3220	May 16 1996
INSTANTANEOUS PEAK STAGE			4.83	Apr 13	9.58	May 16 1996
ANNUAL RUNOFF (AC-FT)	5390		9550		10610	
10 PERCENT EXCEEDS	9.8		19		27	
50 PERCENT EXCEEDS	7.3		7.1		6.2	
90 PERCENT EXCEEDS	5.3		5.8		4.3	

11239500 SHAVER LAKE NEAR BIG CREEK, CA

LOCATION.—Lat 37°08'41", long 119°18'06", in SW 1/4 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, and 5.2 mi southwest of town of Big Creek.

DRAINAGE AREA.—29.1 mi^2.

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. Maximum and minimum daily contents (water years 1928–39) summarized in WSP 881. Prior to 1960, maximum and minimum daily contents were published.

REVISED RECORDS.—WSP 1565: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Southern California Edison Co.). Prior to Jan. 11, 1927, gage on rockfill dam a short distance upstream at different datum.

REMARKS.—Storage began prior to 1905. Original lake formed by rockfill dam, usable capacity, 5,500 acre-ft. Water diverted by Fresno Flume and Lumber Co.'s Flumes No. 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. 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) via Huntington–Shaver Conduit and Eastwood Powerplant (station 11238250). Water is released for power development in Big Creek powerplants. Records, including extremes, represent contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

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.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 134,783 acre-ft, July 19, elevation, 5,369.77 ft; minimum, 79,398 acre-ft, Apr. 20, elevation, 5,341.57 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Southern California Edison Co., dated Oct. 1, 1967)

5,245	379	5,270	4,748	5,320	46,797
5,250	700	5,280	9,189	5,330	60,942
5,255	1,254	5,290	15,598	5,340	76,741
5,260	2,070	5,300	24,004	5,350	94,568
5,265	3,206	5,310	34,455	5,371	137,476

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113976	e112092	103483	91711	92661	e95996	86320	83095	118321	133217	130653	124872
2	114017	e111422	103463	91022	92661	e96177	86051	83796	119211	133195	130588	124851
3	114159	110778	103365	90192	92140	96359	85370	84185	120060	133152	130524	124618
4	114058	110697	103346	89347	92121	96359	84591	85460	120621	133152	130524	124703
5	114690	110778	103307	88543	92084	96016	83813	86625	e122605	133195	130481	124261
6	114670	110778	103268	87817	92121	95425	83130	88035	e124529	133217	130203	123590
7	115099	e110706	e103174	87109	92028	95387	82676	88670	126901	133260	130118	123296
8	114853	e110637	e103073	86966	91916	94701	82169	89567	128601	133000	129519	123149
9	115466	e110568	e102971	86966	92252	94379	81717	90707	129968	133043	128963	122666
10	115364	110496	e102869	86948	e92853	93907	81493	91804	131383	133195	128282	122352
11	115282	110254	e102767	86589	e93140	93284	81114	93133	132806	134022	128516	121685
12	115589	109371	e102665	87217	e93427	92793	80510	94266	133456	134326	128409	121622
13	115609	109030	e102564	87617	e93713	92102	80097	95292	133978	134587	127857	121309
14	116018	108810	e102462	87109	e94000	91730	79756	95921	134283	134283	127836	120061
15	115854	108689	e102360	87145	e94287	91208	79654	96340	134109	133978	127793	119481
16	116202	108228	e102258	87326	e94574	90413	79620	97258	133956	134022	127177	118818
17	116592	107571	e102156	87435	94816	89898	79466	97985	133739	134196	126646	118404
18	116592	107034	101689	88543	94720	89604	79585	98984	133674	134696	126540	118404
19	117189	106955	101126	88997	94720	89586	79585	100719	133695	134783	126202	117621
20	117231	106239	100584	88779	94568	89181	79398	101980	134022	134609	126076	117251
21	117251	105311	100043	89163	94739	89347	79688	103248	134391	134370	126097	116592
22	117251	105449	99465	89512	94587	89475	79739	104541	134565	133652	126118	116079
23	117313	104620	98406	90302	94739	89512	79671	106159	134544	132871	126054	115793
24	117045	104128	97449	90780	94644	89622	79995	107392	134696	132936	126097	115752
25	116572	103776	96894	91283	94587	89108	80528	108489	134674	133195	125970	115119
26	116100	103815	96225	91264	95063	88198	81390	109572	134761	132742	125907	114343
27	115139	103874	95501	91450	e95451	87417	82274	110617	134565	132181	125569	113469
28	114772	103639	94663	91413	e95633	87490	82938	111464	133956	132095	125210	112799
29	e114103	103385	93794	91450	e95814	87581	82868	112982	133826	e131694	124829	111988
30	e113433	103307	93209	91991	---	87381	82972	114037	133521	e131286	124597	111121
31	e112763	---	92475	92196	---	86840	---	114935	---	130845	124618	---
MAX	117313	112092	103483	92196	95814	96359	86320	114935	134761	134783	130653	124872
MIN	112763	103307	92475	86589	91916	86840	79398	83095	118321	130845	124597	111121
a		5354.54	5348.89	5348.74		5345.82	5343.64	5360.35	5369.19	5367.95	5365.02	5358.47
b	-1132	-9456	-10832	-279	+3618	-8974	-3868	+31963	+18586	-2676	-6227	-13497

CAL YR 1999 b -356
WTR YR 2000 b -2774

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

11241500 STEVENSON CREEK AT SHAVER LAKE, CA

LOCATION.—Lat 37°08'41", long 119°18'27", in NE 1/4 SW 1/4 sec.13, T.9 S., R.24 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank, 400 ft downstream from Highway 168, 1,600 ft downstream from Shaver Lake Dam, 2.6 mi north of town of Shaver Lake, and 5.1 mi southwest of town of Big Creek.

DRAINAGE AREA.—29.4 mi^2.

PERIOD OF RECORD.—October 1916 to August 1919, October 1919 to September 1920, May 1922 to September 1928, and October 1986 to current year. Prior to October 1986, published as "at Shaver."

GAGE.—Water-stage recorder, Parshall flume, and concrete control; auxiliary gage, accoustic-velocity meters on Shaver Lake Dam. Elevation of gage is 5,200 ft above sea level, from topographic map. See WSP 1315-A for history of changes prior to October 1986.

REMARKS.—Flow regulated by Shaver Lake (station 11239500). Flow diverted into basin through Eastwood Powerplant (station 11238250). Diversion to Big Creek Powerplant No. 2A (station 11238400) bypasses station and returns to Big Creek. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,390 ft^3/s, Nov. 27, 1926, gage height, 3.65 ft, site and datum then in use; maximum gage height, 7.64 ft, Apr. 26, 1993; no flow at times in 1924, 1925, 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.4	2.2	2.1	2.8	3.2	4.5	4.5	3.4	4.3	4.1	4.2
2	3.7	3.2	2.2	2.1	2.7	3.1	4.5	4.5	138	4.2	4.1	4.2
3	3.7	3.2	2.2	2.1	2.7	3.2	4.5	4.3	231	4.2	4.1	4.2
4	3.7	3.2	2.2	2.1	2.7	3.2	4.5	3.9	229	4.2	4.1	4.2
5	3.7	3.3	2.2	2.1	2.7	3.3	4.5	3.9	227	4.2	4.1	4.2
6	3.8	3.3	2.2	2.1	2.7	3.2	4.5	3.9	231	4.2	4.1	4.2
7	3.8	3.3	2.2	2.1	2.7	3.1	4.5	3.9	228	4.2	4.1	4.2
8	3.8	3.5	2.2	2.1	2.6	3.1	4.5	4.1	230	4.2	4.1	4.2
9	3.8	3.3	2.2	2.1	2.6	3.0	4.5	4.0	231	4.2	4.1	4.2
10	3.8	3.3	2.2	2.1	2.9	3.0	4.5	3.9	231	4.1	4.2	4.2
11	3.8	3.3	2.2	2.3	2.8	3.1	4.5	3.8	233	4.1	4.2	4.2
12	3.8	3.3	2.2	2.5	2.9	3.1	4.5	3.8	233	4.1	4.2	4.3
13	3.8	3.3	2.2	2.5	3.9	3.1	4.5	3.7	307	4.1	4.2	4.3
14	3.8	3.3	2.2	2.5	5.8	3.1	4.6	3.7	362	4.1	4.2	4.3
15	3.7	3.3	2.2	2.5	3.8	3.2	4.5	3.6	356	4.1	4.2	4.3
16	3.3	3.3	2.2	2.7	3.4	3.2	4.5	3.6	356	4.1	4.2	4.3
17	3.4	3.5	2.2	2.6	3.2	3.2	4.7	3.5	358	4.1	4.2	4.3
18	3.4	3.3	2.2	4.0	3.1	3.2	4.7	3.4	360	4.1	4.2	4.3
19	3.4	3.3	2.2	2.8	3.0	3.2	4.6	3.4	255	4.1	4.2	4.3
20	3.4	3.4	2.2	2.7	3.2	3.1	4.6	3.4	4.1	4.1	4.2	4.3
21	3.6	3.4	2.2	2.6	3.5	3.1	4.6	3.4	3.8	4.1	4.2	4.3
22	3.4	3.1	2.2	2.6	3.2	3.1	4.5	3.4	3.7	4.1	4.2	4.3
23	3.4	2.2	2.2	3.0	3.3	3.0	4.5	3.4	3.6	4.1	4.2	4.3
24	3.5	2.2	2.2	5.7	3.0	3.0	4.5	3.4	3.6	4.1	4.2	4.3
25	3.5	2.2	2.2	4.4	3.0	2.9	4.5	3.4	3.6	4.1	4.2	4.3
26	3.5	2.2	2.1	3.2	3.0	2.9	4.5	3.4	77	4.1	4.2	4.3
27	3.5	2.2	2.1	2.9	3.7	2.9	4.5	3.4	190	4.1	4.2	4.3
28	3.5	2.2	2.1	2.8	3.4	2.9	4.5	3.4	189	4.1	4.2	4.3
29	3.5	2.2	2.1	2.7	3.4	2.8	4.5	3.4	130	4.1	4.2	4.3
30	3.6	2.2	2.1	2.9	---	2.8	4.5	3.4	4.3	4.1	4.2	4.3
31	3.6	---	2.1	2.8	---	3.7	---	3.4	---	4.1	4.2	---
TOTAL	111.8	90.4	67.6	83.7	91.7	96.0	135.8	114.2	5412.1	128.1	129.3	127.9
MEAN	3.61	3.01	2.18	2.70	3.16	3.10	4.53	3.68	180	4.13	4.17	4.26
MAX	3.8	3.5	2.2	5.7	5.8	3.7	4.7	4.5	362	4.3	4.2	4.3
MIN	3.3	2.2	2.1	2.1	2.6	2.8	4.5	3.4	3.4	4.1	4.1	4.2
AC-FT	222	179	134	166	182	190	269	227	10730	254	256	254
a	24890	23720	22880	7170	6210	23770	25810	34330	36950	32590	26950	24370

a Diversion, in acre-feet, to Big Creek Powerplant No. 2A, provided by Southern California Edison Co.

11241500 STEVENSON CREEK AT SHAVER LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1928, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.54	8.14	7.53	5.13	12.9	38.7	66.8	59.8	20.3	5.73	4.76	3.51
MAX	9.76	45.5	33.5	15.1	40.7	147	245	203	61.3	16.5	12.7	10.9
(WY)	1917	1927	1927	1920	1927	1917	1917	1922	1922	1920	1927	1927
MIN	.48	.30	.13	.15	.25	.37	.46	.27	.070	.000	.000	.000
(WY)	1926	1928	1928	1928	1928	1924	1928	1928	1924	1924	1924	1924

SUMMARY STATISTICS WATER YEARS 1917 - 1928

ANNUAL TOTAL		
ANNUAL MEAN	19.6	
HIGHEST ANNUAL MEAN	61.9	1917
LOWEST ANNUAL MEAN	.76	1928
HIGHEST DAILY MEAN	854	Nov 27 1926
LOWEST DAILY MEAN	.00	Jun 11 1924
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 20 1924
ANNUAL RUNOFF (AC-FT)	14170	
10 PERCENT EXCEEDS	46	
50 PERCENT EXCEEDS	4.5	
90 PERCENT EXCEEDS	.20	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	13.8	3.28	2.70	20.6	30.5	47.6	50.1	86.1	137	89.0	15.7	3.59
MAX	147	3.84	3.73	253	280	304	289	382	556	495	98.4	4.90
(WY)	1999	1988	1994	1997	1997	1997	1997	1996	1995	1995	1995	1997
MIN	3.26	2.92	2.18	2.21	2.39	2.53	3.43	3.45	3.23	3.03	3.16	3.11
(WY)	1997	1993	2000	1996	1990	1996	1989	1992	1994	1997	1996	1998

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	1151.0		6588.6			
ANNUAL MEAN	3.15		18.0		41.7	
HIGHEST ANNUAL MEAN					156	1995
LOWEST ANNUAL MEAN					3.06	1990
HIGHEST DAILY MEAN	4.4	Apr 15	362	Jun 14	688	Jun 25 1995
LOWEST DAILY MEAN	2.1	Dec 26	2.1	Dec 26	1.2	Dec 1 1991
ANNUAL SEVEN-DAY MINIMUM	2.1	Dec 25	2.1	Dec 26	1.9	Nov 26 1991
INSTANTANEOUS PEAK FLOW			373	Jun 13	816	Jun 13 1995
INSTANTANEOUS PEAK STAGE			6.10	Jun 13	7.64	Apr 26 1993
ANNUAL RUNOFF (AC-FT)	2280		13070		30170	
TOTAL DIVERSION (AC-FT) a	283200		289600		245100	
10 PERCENT EXCEEDS	3.8		4.5		212	
50 PERCENT EXCEEDS	3.4		3.7		3.4	
90 PERCENT EXCEEDS	2.2		2.2		2.5	

a Diversion, in acre-feet, to Big Creek Powerplant No. 2A, provided by Southern California Edison Co.

11241950 REDINGER LAKE NEAR AUBERRY, CA

LOCATION.—Lat 37°08'42", long 119°26'58", in NE 1/4 SW 1/4 sec.15, T.9 S., R.23 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, at intake structure on dam No. 7, on San Joaquin River, and 4.2 mi northeast of Auberry.

DRAINAGE AREA.—1,295 mi^2.

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 sea level (levels by Southern California Edison Co.).

REMARKS.—Lake is formed by a concrete dam; storage began Nov. 19, 1950. Usable capacity, 26,120 acre-ft, between elevations, 1,320.00 ft, invert of tunnel, and 1,403.00 ft, top of radial gates. Additional storage of 8,914 acre-ft not available for release. Water is used for power development in Big Creek Powerplant No. 4 (station 11246530). Records, including extremes, represent contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

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, 26,119 acre-ft, Feb. 14, elevation, 1,403.11 ft; minimum, 13,376 acre-ft, Mar. 22, elevation, 1,371.50 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Southern California Edison Co., dated Oct. 27, 1950)

1,340	4,284	1,380	16,455
1,350	6,809	1,390	20,427
1,360	9,651	1,400	24,748
1,370	12,858	1,405	27,058

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18876	24367	24278	24225	22641	25132	22572	23508	25006	24100	25073	24993
2	19547	23627	24920	24269	22641	24879	23097	23843	25264	24969	24448	24748
3	19686	23702	25342	24256	22559	23720	24016	23958	24198	24681	23385	25069
4	19580	23447	25250	24349	23075	25860	24649	23985	24911	24082	24983	24974
5	19186	23276	25492	24412	23049	25195	25214	23711	24636	24627	25200	24390
6	19928	23219	24757	24884	23202	23869	25465	23464	24100	23940	24744	24992
7	20410	23167	24726	24974	23442	22914	25173	23530	23887	23971	24645	25105
8	22318	23276	25502	24825	23605	22340	24933	24331	25538	24038	24488	24685
9	22490	23544	25570	24820	22936	21689	24856	24969	24069	24296	25132	24780
10	25634	24114	25488	24920	23062	21333	24640	25897	24291	24825	24296	24287
11	25182	24717	25001	24852	22801	20307	24979	24798	25137	24515	24394	24920
12	24189	24762	25323	24870	20731	19567	25051	24829	24220	24524	24911	24358
13	23931	24843	25511	24753	22633	18799	25006	24649	24528	23093	24618	25282
14	24136	24938	25365	24591	26119	18452	24730	24838	24775	24439	24676	24605
15	24564	25019	25323	24336	25227	18532	24712	25220	24520	24852	25566	24269
16	24614	25123	25064	24220	25470	18396	24730	25524	24893	24735	25155	24721
17	25442	24947	25282	23994	24372	17186	25250	25110	24798	24596	24434	25132
18	24956	24884	25566	24757	22206	16952	25643	24694	24020	24564	23856	24906
19	25182	24502	25328	24820	20051	17438	25708	25374	24636	25205	24291	24807
20	24879	24372	24789	25051	17954	15616	25851	24780	23896	25033	25069	25092
21	24627	24515	25110	24256	16319	14474	25566	25033	24560	24412	25205	24717
22	24685	24497	25287	23689	15354	13376	24942	25015	24167	24207	24645	24614
23	24434	24425	25365	23403	15933	15289	24852	25342	24448	24229	24974	24336
24	25241	24600	25046	25191	16802	18735	24965	25110	25001	24412	24712	25223
25	25383	24924	25465	24875	17644	19752	24829	23684	25132	24717	24354	24318
26	24555	24920	25246	22550	17868	20031	24074	23535	24834	23830	24502	24470
27	23640	24627	24933	21341	19073	20769	23491	23825	24251	24211	23267	25282
28	23372	24726	24838	21809	21625	21617	24296	24114	25096	24340	24403	24829
29	24475	24065	24897	22620	25073	22464	23931	23132	24829	23940	23905	25191
30	25128	23561	25073	23372	---	22784	23364	24131	24229	25209	24110	24793
31	24546	---	24802	23460	---	22918	---	24640	---	24884	24367	---
MAX	25634	25123	25570	25191	26119	25860	25851	25897	25538	25209	25566	25282
MIN	18876	23167	24278	21341	15354	13376	22572	23132	23887	23093	23267	24269
a	1399.55	1397.33	1400.12	1397.10	1400.72	1395.86	1396.88	1399.76	1398.84	1400.30	1399.15	1400.10
b	+6855	-985	+1241	-1342	+1613	-2155	+446	+1276	-411	+655	-517	+426

CAL YR 1999 b +220
WTR YR 2000 b +7102

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

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 mi^2.

PERIOD OF RECORD.—March 1951 to current year.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 1,175.54 ft above sea level (levels by Southern California Edison Co.).

REMARKS.—Flow regulated by Redinger Lake (station 11241950). Most of the flow, since June 1951, is diverted at Redinger Lake to Big Creek Powerplant No. 4 (station 11246530). See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 99,200 ft^3/s, Jan. 2, 1997, gage height, 65.17 ft, from floodmarks, from rating curve extended above 7,000 ft^3/s on basis of computed flow over dam; no flow, Sept. 25, 1951.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	37	22	22	21	3210	21	22	1810	e21	e21	e21
2	36	37	22	22	21	3170	21	22	2200	e21	e21	e21
3	36	36	22	22	21	2570	22	22	2890	e21	e21	e21
4	36	36	22	22	21	54	22	22	1990	e21	e21	e21
5	36	36	22	22	22	1100	22	22	3290	e21	e21	e21
6	36	36	22	22	22	585	124	22	2870	e21	e21	e21
7	36	29	22	22	22	21	484	22	e2450	e20	e21	e21
8	36	172	22	22	22	21	479	22	e1050	e21	e21	e21
9	37	122	22	22	22	21	478	22	e2030	e21	e21	e21
10	37	23	22	22	22	21	300	799	e427	e21	e21	e21
11	37	23	22	22	22	21	42	1670	e197	e21	e21	e21
12	37	23	22	22	22	21	30	940	e890	e23	e21	e21
13	37	22	22	22	22	21	30	808	e865	e20	e21	e21
14	37	22	22	22	22	20	55	808	e2350	e20	e21	e21
15	37	23	22	22	22	20	55	813	e2530	e21	e21	e21
16	40	23	22	22	22	20	55	1060	e2570	e21	e21	e21
17	37	23	22	22	22	20	56	1400	e3090	e21	e21	e28
18	37	23	22	22	21	20	55	1090	e2930	e21	e21	e37
19	37	23	22	22	21	20	37	908	e1820	e21	e20	e37
20	37	22	22	22	20	20	204	1470	e1460	e21	e21	e37
21	37	22	22	22	20	20	466	948	e465	e21	e21	e37
22	37	22	22	22	20	20	395	557	e566	e21	e21	e37
23	37	22	22	22	20	20	22	3470	e207	e21	e21	e36
24	37	22	22	22	20	20	22	4380	e23	e21	e21	e37
25	37	22	22	22	20	21	22	5450	e569	e21	e21	e37
26	37	22	22	21	20	21	22	4270	e245	e20	e21	e31
27	37	22	22	21	21	21	22	4010	e123	e21	e21	e36
28	37	22	22	21	21	21	22	5500	e34	e21	e21	e33
29	37	22	22	21	256	21	22	5170	e176	e21	e21	e32
30	37	22	22	21	---	21	22	3380	e23	e21	e21	e23
31	37	---	22	21	---	21	---	2810	---	e21	e21	---
TOTAL	1142	1011	682	676	850	11203	3629	51909	42140	649	650	814
MEAN	36.8	33.7	22.0	21.8	29.3	361	121	1674	1405	20.9	21.0	27.1
MAX	40	172	22	22	256	3210	484	5500	3290	23	21	37
MIN	36	22	22	21	20	20	21	22	23	20	20	21
AC-FT	2270	2010	1350	1340	1690	22220	7200	103000	83580	1290	1290	1610
a	61470	36860	49250	38280	68120	155900	189900	216100	206700	138900	108600	76040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2000, BY WATER YEAR (WY)

MEAN	20.6	20.6	109	160	119	159	414	1659	2251	913	73.2	22.1
MAX	36.8	76.2	3501	4156	1255	1456	2739	10410	12700	7739	1343	46.9
(WY)	2000	1983	1956	1997	1986	1983	1951	1969	1983	1995	1983	1997
MIN	8.15	8.55	5.66	3.83	3.38	2.86	3.27	4.76	8.59	13.5	16.5	2.79
(WY)	1983	1985	1966	1965	1966	1968	1955	1971	1971	1979	1984	1951

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1951 - 2000	
ANNUAL TOTAL	24219		115355			
ANNUAL MEAN	66.4		315		488	
HIGHEST ANNUAL MEAN					2409	1983
LOWEST ANNUAL MEAN					11.4	1966
HIGHEST DAILY MEAN	1810	Jun 16	5500	May 28	47700	Dec 23 1955
LOWEST DAILY MEAN	12	Jul 24	20	Feb 20	.00	Sep 25 1951
ANNUAL SEVEN-DAY MINIMUM	19	Jul 18	20	Feb 20	.38	Oct 17 1982
INSTANTANEOUS PEAK FLOW			15100	Mar 6	99200	Jan 2 1997
INSTANTANEOUS PEAK STAGE			23.01	Mar 6	65.17	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	48040		228800		353800	
TOTAL DIVERSION (AC-FT) a	1265000		1346000			
10 PERCENT EXCEEDS	37		918		1230	
50 PERCENT EXCEEDS	21		22		20	
90 PERCENT EXCEEDS	20		21		5.1	

e Estimated.
a Diversion, in acre-feet, to Big Creek No. 4 Powerplant, provided by Southern California Edison Co.

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 mi^2.

PERIOD OF RECORD.—August 1965 to current year.

REVISED RECORDS.—WDR CA-72-2: 1970, 1971. WDR CA-85-3: 1983, 1984(P). WDR CA-93-3: 1992.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 5,200 ft above sea level, from topographic map.

REMARKS.—Records good. No storage upstream from station. Madera Irrigation District has water rights to divert up to 50 ft^3/s from North Fork Willow Creek through Soquel Ditch into Nelder Creek (Fresno River Basin) from October through July each year. See schematic diagram of lower San Joaquin River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,750 ft^3/s, Jan. 13, 1980, gage height, 7.41 ft, from rating curve extended above 1,100 ft^3/s on basis of a step-backwater survey; minimum daily, 0.27 ft^3/s, Oct. 4, 1987.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 18	1200	288	4.28	Feb. 14	1315	298	4.30
Jan. 24	1915	288	4.27	May 8	0645	221	4.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.3	4.3	3.7	22	28	50	84	58	13	5.6	8.7
2	2.9	3.2	4.2	3.7	21	28	53	89	56	13	5.6	8.5
3	2.9	3.1	4.1	3.9	18	28	58	95	53	13	5.6	6.8
4	2.9	3.1	4.1	3.8	17	30	61	95	49	13	5.6	4.5
5	2.9	3.0	4.0	3.7	16	31	64	93	46	12	5.5	4.6
6	3.2	3.0	3.9	4.0	15	27	64	88	42	12	5.4	4.2
7	3.4	3.2	4.2	3.8	14	25	64	104	40	12	5.4	3.6
8	3.2	19	4.3	3.9	13	27	65	182	54	11	5.2	3.5
9	2.9	4.9	4.2	3.8	14	25	63	125	48	11	5.3	3.5
10	2.9	4.0	4.4	3.8	31	25	60	103	42	11	5.2	3.5
11	2.9	3.6	4.3	5.3	23	27	61	88	37	10	5.0	3.5
12	2.9	3.5	4.2	9.1	28	30	62	79	35	10	4.9	3.5
13	2.9	3.4	4.2	4.8	44	32	88	77	33	9.6	4.8	3.5
14	2.9	3.4	4.1	4.4	181	37	80	74	30	9.2	4.8	3.3
15	2.9	3.5	4.1	5.2	75	43	66	69	28	9.0	4.8	3.4
16	2.9	3.7	4.1	13	53	45	63	72	26	8.6	4.7	3.5
17	2.9	11	4.1	26	41	46	74	69	21	8.5	4.6	3.3
18	2.9	4.9	4.1	132	35	50	67	72	14	8.3	4.6	3.2
19	2.9	6.2	4.1	33	31	55	65	79	15	8.0	4.6	3.3
20	2.9	13	4.1	21	43	52	66	89	14	7.8	4.6	3.4
21	2.9	6.1	3.8	17	46	46	68	97	12	7.7	4.6	3.5
22	2.9	4.8	3.7	12	36	45	69	104	15	7.4	4.5	3.8
23	2.9	4.4	3.7	30	37	46	65	98	17	7.2	4.4	4.4
24	2.9	4.3	3.7	215	31	48	65	93	17	7.0	4.3	4.4
25	2.9	4.3	3.7	139	28	50	67	90	16	6.7	4.3	4.0
26	2.9	4.3	3.7	61	29	52	73	84	16	6.6	4.3	3.9
27	3.0	4.2	3.6	36	45	54	81	83	15	6.4	4.3	3.8
28	4.3	4.1	3.6	26	38	52	80	79	15	6.2	4.1	3.8
29	4.1	4.0	3.6	22	31	48	73	72	15	6.1	4.3	3.8
30	3.5	4.0	3.7	26	---	50	79	66	14	6.0	4.9	3.7
31	3.4	---	3.6	27	---	50	---	61	---	5.8	5.2	---
TOTAL	94.7	150.5	123.5	902.9	1056	1232	2014	2753	893	283.1	151.0	124.4
MEAN	3.05	5.02	3.98	29.1	36.4	39.7	67.1	88.8	29.8	9.13	4.87	4.15
MAX	4.3	19	4.4	215	181	55	88	182	58	13	5.6	8.7
MIN	2.8	3.0	3.6	3.7	13	25	50	61	12	5.8	4.1	3.2
AC-FT	188	299	245	1790	2090	2440	3990	5460	1770	562	300	247

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.62	9.46	14.9	31.4	30.5	41.5	51.7	78.8	52.6	18.1	6.05	4.42
MAX	17.8	43.0	78.2	268	178	151	176	228	219	109	26.9	14.3
(WY)	1983	1984	1997	1997	1986	1986	1982	1995	1995	1983	1983	1978
MIN	.41	1.63	1.20	1.84	2.08	2.04	1.78	2.40	1.84	.99	.66	.38
(WY)	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1965 - 2000	
ANNUAL TOTAL	8644.9		9778.1			
ANNUAL MEAN	23.7		26.7		28.6	
HIGHEST ANNUAL MEAN					82.7	1983
LOWEST ANNUAL MEAN					1.57	1977
HIGHEST DAILY MEAN	122	Apr 9	215	Jan 24	1600	Jan 2 1997
LOWEST DAILY MEAN	2.8	Oct 1	2.8	Oct 1	.27	Oct 4 1987
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 28	2.9	Oct 9	.29	Oct 11 1977
INSTANTANEOUS PEAK FLOW			298	Feb 14	2750	Jan 13 1980
INSTANTANEOUS PEAK STAGE			4.30	Feb 14	7.41	Jan 13 1980
ANNUAL RUNOFF (AC-FT)	17150		19390		20760	
10 PERCENT EXCEEDS	65		73		80	
50 PERCENT EXCEEDS	11		9.4		8.4	
90 PERCENT EXCEEDS	3.2		3.3		1.9	

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 mi^2.

PERIOD OF RECORD.—January 1911 to September 1982 (monthend contents only), October 1982 to current year. Bass Lake was formerly called Crane Valley Reservoir.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Pacific Gas & 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 Powerplant below dam for use in three small powerplants before being discharged into Kerckhoff Reservoir (station 11246650) at Wishon Powerplant. 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 ft^3/s from North Fork Willow Creek through Soquel Ditch into Nelder Creek (Fresno River Basin) from October through July each year. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. 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, 44,303 acre-ft, June 10, 11, elevation, 3,375.45 ft; minimum, 22,372 acre-ft, Oct. 26, elevation, 3,353.45 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated March 1937)

3,280	290	3,310	3,404	3,340	13,227	3,370	38,218
3,290	890	3,320	5,584	3,350	19,663	3,376.4	45,410
3,300	1,896	3,330	8,717	3,360	28,121		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28677	22421	23130	23468	29418	31816	30302	37944	43150	43069	37955	34788
2	28417	22413	23130	23493	29295	31728	30503	38240	43290	43069	37671	34798
3	28158	22397	23147	23493	29164	31620	30706	38543	43419	43080	37399	34798
4	27898	22388	23147	23518	29060	31492	30938	38837	43536	43092	37117	34798
5	27638	22380	23139	23535	28920	31571	31171	39133	43641	43103	36824	34788
6	27380	22388	23139	23561	28798	31473	31395	39416	43747	43080	36543	34798
7	27123	22455	23156	23569	28668	31405	31630	39775	43817	43092	36252	34788
8	26869	22596	23164	23586	28519	31395	31855	40387	44066	43092	35973	34777
9	26616	22629	23156	23595	28426	31317	32082	40767	44196	43115	35685	34777
10	26365	22646	23164	23620	28547	31200	32251	41083	44303	43127	35398	34777
11	26104	22654	23189	23671	28547	31073	32480	41356	44303	43150	35113	34767
12	25845	22662	23223	23696	28593	30947	32690	41588	44196	43022	34871	34767
13	25586	22671	23206	23722	29484	30851	33011	41799	44054	42801	34777	34767
14	25321	22687	23223	23747	31112	30802	33376	42011	43912	42548	34777	34767
15	25058	22696	23248	23781	31356	30744	33621	42279	43735	42290	34767	34757
16	24805	22762	23257	23918	31522	30715	33826	42559	43559	42033	34777	34757
17	24544	22804	23282	24037	31492	30667	34403	42674	43383	41777	34777	34746
18	24286	22829	23282	24883	31405	30629	34694	42708	43173	41521	34767	34757
19	24029	22879	23299	25049	31297	30619	34955	42731	42987	41269	34767	34757
20	23764	22954	23324	25137	31336	30561	35197	42789	42836	41050	34777	34652
21	23510	22979	23324	25207	31385	30523	35451	42859	42766	40821	34777	34445
22	23240	22996	23341	25259	31395	30455	35685	42941	42801	40582	34767	34186
23	22979	23013	23358	25560	31630	30388	35920	43022	42836	40343	34757	33898
24	22721	23021	23366	27325	31561	30321	36145	43069	42871	40080	34757	33621
25	22455	23038	23383	28389	31463	30264	36370	43115	42906	39829	34746	33336
26	22372	23063	23400	28705	31346	30216	36608	43150	42941	39568	34746	33051
27	22380	23080	23408	28864	31826	30168	36878	43173	42975	39297	34746	32770
28	22397	23097	23417	28995	31875	30101	37160	43173	43010	39045	34736	32480
29	22405	23105	23434	29089	31895	30082	37421	43162	43034	38772	34725	32192
30	22413	23114	23442	29305	---	30101	37671	43115	43057	38500	34725	31924
31	22421	---	23468	29437	---	30072	---	43057	---	38229	34715	---
MAX	28677	23114	23468	29437	31895	31816	37671	43173	44303	43150	37955	34798
MIN	22372	22380	23130	23468	28426	30072	30302	37944	42766	38229	34715	31924
a	3353.51	3354.34	3354.76	3361.41	3363.96	3362.08	3369.50	3374.39	3374.39	3370.01	3366.74	3363.99
b	-6518	+693	+354	+5969	+2458	-1823	+7599	+5386	0	-4828	-3514	-2791

CAL YR 1999 b +1105
WTR YR 2000 b +2985

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

11243500 PACIFIC GAS & 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 Powerplant 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. Elevation of gage is 3,300 ft above sea level, from topographic map.

REMARKS.—Conduit diverts from Bass Lake in sec.26, T.7 S., R.22 E. Water passes through Crane Valley Powerplant, then to Powerplant No. 3 (station 11244100), and is stored temporarily at Manzanita Lake on North Fork Willow Creek; flow then diverts to Powerplants No. 2 and No. 1A (stations 11246570 and 11246590), before it enters San Joaquin River at Kerckhoff Reservoir through San Joaquin Powerplant No. 1 (station 11246610). See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 167 ft^3/s, June 23, 24, 1965; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	1.5	4.5	.41	66	154	.86	.82	33	1.8	150	.00
2	145	3.1	4.5	.41	109	155	1.2	.82	.66	1.8	150	.00
3	146	15	4.5	.41	102	155	1.2	.82	.66	1.8	150	.00
4	148	4.7	4.5	.41	102	155	1.2	.82	.68	1.8	150	.00
5	148	3.2	4.5	.41	102	155	1.2	.81	.72	1.8	150	.00
6	149	1.0	4.5	.41	102	155	1.2	1.3	1.7	1.8	149	.00
7	149	.81	4.5	.41	102	155	1.2	1.8	1.8	1.6	149	.00
8	150	.44	4.5	.41	102	155	1.2	1.9	1.8	1.3	149	.00
9	150	.42	4.5	.41	102	156	1.4	1.9	1.8	.52	149	.00
10	151	.35	2.9	.41	102	156	.67	1.6	1.8	.00	149	.00
11	151	.31	1.2	.41	102	156	.90	1.1	48	.13	148	.00
12	151	.29	1.2	.41	102	156	2.5	1.1	111	64	148	.00
13	151	.37	1.2	.41	102	150	2.1	1.1	116	126	46	.00
14	151	.41	1.2	.41	103	143	1.5	1.1	121	141	.00	.00
15	151	.45	1.2	.41	132	143	1.7	1.1	128	144	.00	.00
16	151	.40	1.2	.42	147	143	2.3	1.1	128	143	.00	.00
17	151	.40	.93	.41	153	143	1.6	51	128	143	.00	.00
18	151	.38	.82	.43	152	143	.29	107	129	143	.00	.00
19	150	.46	.62	.41	152	143	.29	110	118	143	.00	.00
20	150	.66	.32	.41	152	143	.34	109	106	143	.00	49
21	149	.74	.34	.41	152	143	1.4	109	58	143	.00	105
22	149	.97	.57	.41	153	144	2.0	109	.51	143	.00	133
23	148	1.3	.57	.41	153	144	1.2	109	.57	143	.00	144
24	148	2.2	.57	.44	153	144	.00	109	.57	147	.00	144
25	147	2.4	.57	.42	153	144	.30	109	.57	150	.00	145
26	52	.38	.59	.41	153	144	.82	109	1.4	150	.00	146
27	.33	.35	.62	.41	154	144	.82	109	1.8	150	.00	146
28	.34	.35	.58	.41	154	144	.82	109	1.8	150	.00	145
29	.33	.72	.61	.41	154	127	.82	109	1.8	150	.00	145
30	.33	2.5	.46	.40	---	113	.82	109	1.8	150	.00	146
31	.31	---	.41	.35	---	77	---	109	---	150	.00	---
TOTAL	3782.64	46.56	59.18	12.71	3667	4482	33.85	1595.19	1246.44	2830.35	1837.00	1448.00
MEAN	122	1.55	1.91	.41	126	145	1.13	51.5	41.5	91.3	59.3	48.3
MAX	151	15	4.5	.44	154	156	2.5	110	129	150	150	146
MIN	.31	.29	.32	.35	66	77	.00	.81	.51	.00	.00	.00
AC-FT	7500	92	117	25	7270	8890	67	3160	2470	5610	3640	2870
a	5400	8.1	.00	.00	5800	7600	.00	2530	2010	4790	3130	2450
b	6070	.00	.00	291	6430	8630	32	3020	2090	5130	3360	2700
c	7410	.00	.00	1610	8550	9510	7710	7250	2850	5850	3800	2970
d	6890	705	1080	2810	9100	10170	7350	7750	4390	6300	3690	2940

a Discharge, in acre-feet, to San Joaquin Powerplant No. 3, provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, to San Joaquin Powerplant No. 2, provided by Pacific Gas & Electric Co.
c Discharge, in acre-feet, to San Joaquin Powerplant No. 1A, provided by Pacific Gas & Electric Co.
d Discharge, in acre-feet, to San Joaquin Powerplant No. 1, provided by Pacific Gas & Electric Co.

11243500 PACIFIC GAS & ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	67.3	44.7	56.9	59.9	72.0	77.4	63.3	61.0	60.8	83.3	101	86.2
MAX	152	148	157	157	161	162	158	157	160	153	155	154
(WY)	1951	1984	1983	1956	1956	1956	1956	1958	1952	1983	1958	1980
MIN	.000	.000	.042	.19	.079	.12	.12	.090	.060	.52	9.43	.23
(WY)	1988	1968	1954	1954	1977	1947	1947	1977	1942	1977	1977	1996

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1941 - 2000	
ANNUAL TOTAL	16579.50		21040.92			
ANNUAL MEAN	45.4		57.5		69.5	
HIGHEST ANNUAL MEAN					128	1983
LOWEST ANNUAL MEAN					14.4	1977
HIGHEST DAILY MEAN	151	Oct 10	156	Mar 9	167	Jun 23 1965
LOWEST DAILY MEAN	.00	Jun 7	.00	Apr 24	.00	Nov 6 1940
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7	.00	Aug 14	.00	Feb 8 1941
ANNUAL RUNOFF (AC-FT)	32890		41730		50370	
TOTAL DIVERSION (AC-FT) a	29110		33720			
TOTAL DIVERSION (AC-FT) b	33780		37760			
TOTAL DIVERIOSN (AC-FT) c	55640		57510			
TOTAL DIVERIOSN (AC-FT) d	67940		63170			
10 PERCENT EXCEEDS	135		150		151	
50 PERCENT EXCEEDS	1.5		1.8		69	
90 PERCENT EXCEEDS	.32		.00		.03	

a Discharge, in acre-feet, to San Joaquin Powerplant No. 3, provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, to San Joaquin Powerplant No. 2, provided by Pacific Gas & Electric Co.
c Discharge, in acre-feet, to San Joaquin Powerplant No. 1A, provided by Pacific Gas & Electric Co.
d Discharge, in acre-feet, to San Joaquin Powerplant No. 1, provided by Pacific Gas & Electric Co.

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 mi^2.

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. Elevation of gage is 3,200 ft above sea level, from topographic map.

REMARKS.—Flow regulated by Bass Lake (station 11243400), 1,500 ft upstream and by diversion into Pacific Gas & Electric Co. Conduit No. 3 near Bass Lake (station 11243500). Soquel ditch diverts up to 50 ft^3/s from North Fork Willow Creek into Nelder Creek in Fresno River Basin. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,770 ft^3/s, Jan. 2, 1997, gage height, 9.10 ft; minimum daily, 0.01 ft^3/s, Dec. 4, 1989.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.7	1.7	1.7	1.4	9.6	1.3	1.4	1.0	1.1	1.3	1.6
2	1.6	1.7	1.7	1.7	1.3	8.9	1.3	1.3	1.0	1.1	1.3	1.5
3	1.6	1.7	1.7	1.7	1.3	8.8	1.3	1.4	1.0	1.1	1.3	1.5
4	1.6	1.7	1.7	1.7	1.3	8.8	1.3	1.9	1.2	1.1	1.2	1.5
5	1.6	1.7	1.7	1.7	1.2	9.6	1.3	2.2	1.1	1.1	.89	1.5
6	1.6	1.7	1.7	1.7	1.2	9.6	1.4	2.2	1.1	1.1	1.0	1.5
7	1.6	1.7	1.7	1.7	1.2	9.1	1.5	2.0	1.1	1.1	1.2	1.5
8	1.6	2.0	1.7	1.7	1.2	9.9	1.3	2.0	1.2	1.1	1.2	1.5
9	1.6	1.7	1.7	1.7	1.2	9.6	1.4	2.1	1.2	1.1	1.2	1.5
10	1.6	1.7	1.7	1.7	1.7	9.6	1.3	2.2	1.1	1.2	1.2	1.5
11	1.6	1.7	1.8	1.7	1.6	9.2	1.5	2.4	1.1	1.1	1.2	1.5
12	1.6	1.7	1.7	1.7	2.4	8.8	1.8	2.6	1.1	1.1	1.2	1.5
13	1.6	1.7	1.7	1.4	7.5	5.8	2.9	2.4	1.1	1.1	1.2	1.5
14	1.6	1.7	1.8	1.1	9.9	1.5	2.5	2.3	1.1	1.1	1.4	1.5
15	1.6	1.7	1.7	1.1	7.5	1.5	2.5	2.1	1.1	1.0	1.4	1.5
16	1.6	1.7	1.7	1.3	14	1.4	2.8	1.9	1.0	1.0	1.5	1.5
17	1.6	1.9	1.7	1.2	8.1	1.4	3.1	1.8	1.0	1.1	1.5	1.5
18	1.6	1.7	1.8	2.6	8.8	1.4	3.0	1.5	1.0	1.1	1.5	1.5
19	1.6	1.8	1.8	1.4	8.8	1.3	3.1	1.4	.99	1.1	1.5	1.5
20	1.6	1.9	1.8	1.2	9.0	1.3	3.4	1.6	.96	1.0	1.5	1.3
21	1.6	1.8	1.7	1.2	9.4	1.3	3.0	1.5	.96	1.1	1.5	1.2
22	1.6	1.7	1.8	1.2	9.1	1.3	2.6	1.4	.99	1.0	1.5	1.1
23	1.6	1.7	1.7	1.8	12	1.3	2.6	1.3	.98	1.1	1.5	1.1
24	1.6	1.7	1.7	8.2	9.6	1.2	2.6	1.2	1.0	1.0	1.5	1.3
25	1.6	1.7	1.9	5.6	8.8	1.2	2.3	1.2	1.0	1.0	1.5	1.8
26	1.7	1.7	2.0	2.3	8.8	1.2	2.0	1.1	1.0	.97	1.5	1.7
27	1.7	1.7	1.7	1.7	12	1.2	1.9	1.1	1.1	.98	1.5	1.7
28	1.7	1.7	1.7	1.5	9.9	1.2	1.7	1.0	1.1	1.1	1.5	1.7
29	1.7	1.7	1.7	1.4	9.6	1.2	1.6	1.0	1.1	1.0	1.5	1.7
30	1.7	1.7	1.7	1.7	---	1.2	1.5	1.0	1.1	1.2	1.5	1.7
31	1.7	---	1.7	1.7	---	1.2	---	1.0	---	1.3	1.5	---
TOTAL	50.2	51.9	53.8	60.0	179.8	140.6	61.8	51.5	31.78	33.55	42.19	44.9
MEAN	1.62	1.73	1.74	1.94	6.20	4.54	2.06	1.66	1.06	1.08	1.36	1.50
MAX	1.7	2.0	2.0	8.2	14	9.9	3.4	2.6	1.2	1.3	1.5	1.8
MIN	1.6	1.7	1.7	1.1	1.2	1.2	1.3	1.0	.96	.97	.89	1.1
AC-FT	100	103	107	119	357	279	123	102	63	67	84	89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2000, BY WATER YEAR (WY)

MEAN	3.33	4.12	7.33	24.3	28.1	35.7	20.1	30.2	24.6	5.09	4.07	4.24
MAX	77.8	54.6	106	524	380	387	272	317	244	73.6	66.4	103
(WY)	1949	1958	1947	1997	1986	1995	1982	1995	1998	1983	1963	1963
MIN	.18	.26	.21	.22	.18	.24	.30	.23	.24	.21	.24	.26
(WY)	1991	1992	1987	1991	1991	1977	1977	1977	1977	1977	1977	1976

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1941 - 2000	
ANNUAL TOTAL	1813.05		802.02			
ANNUAL MEAN	4.97		2.19		15.9	
HIGHEST ANNUAL MEAN					92.4	1995
LOWEST ANNUAL MEAN					.26	1977
HIGHEST DAILY MEAN	94	Jun 9	14	Feb 16	2880	Jan 2 1997
LOWEST DAILY MEAN	.96	Sep 6	.89	Aug 5	.01	Dec 4 1989
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 31	.98	Jun 17	.11	Oct 1 1990
INSTANTANEOUS PEAK FLOW			29	Feb 14	3770	Jan 2 1997
INSTANTANEOUS PEAK STAGE			2.30	Feb 14	9.10	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	3600		1590		11500	
10 PERCENT EXCEEDS	3.8		3.0		24	
50 PERCENT EXCEEDS	1.7		1.6		.80	
90 PERCENT EXCEEDS	1.3		1.1		.30	

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 mi^2.

PERIOD OF RECORD.—January 1952 to September 1988, October 1989 to current year.
WATER TEMPERATURE: Water years 1961–72.

GAGE.—Water-stage recorder. Concrete control since Oct. 22, 1964. Datum of gage is 1,174.69 ft above sea level (levels by Southern California Edison Co.).

REMARKS.—Flow regulated by Bass Lake (station 11243400) 10 mi upstream. Soquel Ditch diverts up to 50 ft^3/s from North Fork Willow Creek into Nelder Creek in Fresno River Basin. Flow diverted out of basin by Pacific Gas & Electric Co. Conduit No. 3. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were collected by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,700 ft^3/s, Dec. 23, 1955, gage height, 28.5 ft, from floodmarks, from rating curve extended above 4,700 ft^3/s; maximum gage height, 31.65 ft, Jan. 2, 1997 (backwater from San Joaquin River); no flow at times some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	1.3	4.3	2.3	27	239	69	33	14	5.5	1.8	7.0
2	.56	.99	3.2	2.4	23	194	73	35	13	5.4	1.7	12
3	.56	.84	2.9	2.3	21	176	92	35	13	5.5	1.7	9.5
4	.56	.79	2.7	2.3	18	170	109	32	12	5.6	1.5	8.3
5	1.7	.73	2.5	2.7	17	273	117	30	12	5.5	1.4	7.6
6	2.8	.73	2.4	2.5	15	251	107	29	11	5.5	1.3	4.3
7	2.3	.73	2.7	2.4	14	185	98	31	11	5.5	1.3	4.9
8	1.8	7.2	4.7	2.4	13	276	92	120	20	5.4	1.3	5.8
9	2.5	5.1	4.5	2.3	12	221	84	74	22	5.3	1.4	9.5
10	1.2	2.7	3	2.4	26	177	70	38	17	5.1	1.3	5.3
11	.81	2.1	2.6	2.4	95	174	66	31	15	4.8	1.3	4.9
12	.66	1.8	2.4	3.4	88	176	59	29	14	4.6	1.2	4.6
13	.56	1.6	2.4	4.3	424	172	84	27	27	4.3	1.1	4.5
14	.56	1.5	2.4	3.2	1720	163	110	25	12	4.2	1.0	4.4
15	.54	1.4	2.4	2.8	576	176	80	25	10	4.0	3.5	3.5
16	.49	1.4	2.4	3.7	410	204	57	43	9.9	3.8	4.4	1.8
17	.53	6.8	2.4	12	321	181	145	41	9.2	3.8	4.4	1.2
18	.59	5.4	2.4	238	213	184	138	66	8.7	3.8	4.0	.90
19	.64	3.3	2.4	102	178	208	91	59	8.7	3.7	3.9	.67
20	.64	4.9	2.3	16	182	199	81	54	e2.9	3.5	3.9	1.4
21	.64	5.1	2.3	12	304	154	88	47	e2.7	3.3	5.3	.98
22	.64	3.6	2.2	8.7	207	152	82	35	7.6	3.1	7.7	.66
23	.64	2.9	2.1	10	369	158	71	32	7.2	2.9	5.3	.67
24	.64	2.4	2.1	687	265	165	61	30	6.9	2.7	4.3	.89
25	.60	2.4	2.1	760	188	166	54	29	6.7	2.6	3.7	1.0
26	.56	2.5	2.1	212	164	177	54	28	6.5	2.4	3.4	.95
27	.56	2.6	2.1	53	584	190	48	25	6.3	2.4	3.2	.74
28	.61	2.7	2.1	31	403	176	45	21	6.1	2.3	3.1	.65
29	.64	2.4	2.1	25	294	152	41	17	5.9	2.1	3.2	.64
30	.81	4.3	2.1	23	---	127	37	15	5.8	2.0	3.7	.64
31	1.1	---	2.1	44	---	123	---	15	---	1.8	4.3	---
TOTAL	28.04	82.21	80.4	2277.5	7171	5739	2403	1151	324.1	122.4	90.6	109.89
MEAN	.90	2.74	2.59	73.5	247	185	80.1	37.1	10.8	3.95	2.92	3.66
MAX	2.8	7.2	4.7	760	1720	276	145	120	27	5.6	7.7	12
MIN	.49	.73	2.1	2.3	12	123	37	15	2.7	1.8	1.0	.64
AC-FT	56	163	159	4520	14220	11380	4770	2280	643	243	180	218

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2000, BY WATER YEAR (WY)

MEAN	3.53	16.4	55.9	125	139	152	144	153	63.1	10.6	2.58	2.91
MAX	24.6	150	652	1108	1255	1033	995	747	614	102	12.6	28.3
(WY)	1983	1997	1956	1997	1986	1983	1982	1967	1998	1998	1983	1982
MIN	.000	.54	1.13	2.13	1.89	2.63	2.36	3.61	1.93	.000	.000	.000
(WY)	1956	1978	1991	1991	1991	1977	1977	1977	1961	1961	1959	1960

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1952 - 2000	
ANNUAL TOTAL	10453.68		19579.14			
ANNUAL MEAN	28.6		53.5		70.5	
HIGHEST ANNUAL MEAN					344	1983
LOWEST ANNUAL MEAN					1.71	1977
HIGHEST DAILY MEAN	566	Feb 9	1720	Feb 14	7500	Dec 23 1955
LOWEST DAILY MEAN	.49	Oct 16	.49	Oct 16	.00	Sep 4 1955
ANNUAL SEVEN-DAY MINIMUM	.56	Oct 13	.56	Oct 13	.00	Sep 4 1955
INSTANTANEOUS PEAK FLOW			3120	Feb 14	15700	Dec 23 1955
INSTANTANEOUS PEAK STAGE			13.21	Feb 14	31.65	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	20730		38840		51040	
10 PERCENT EXCEEDS	74		176		181	
50 PERCENT EXCEEDS	8.0		5.4		8.5	
90 PERCENT EXCEEDS	1.1		.88		.40	

e Estimated.

11246650 KERCKHOFF RESERVOIR NEAR AUBERRY, CA

LOCATION.—Lat 37°07'40", long 119°31'25", in SE 1/4 SW 1/4 sec.24, R.9 S., T.22 E., Fresno County, Hydrologic Unit 18040006, near center of Kerckhoff Dam, on San Joaquin River, 2.0 mi downstream from A.G. Wishon Powerplant, and 7.9 mi northwest of Auberry.

DRAINAGE AREA.—1,460 mi^2.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete-arch dam with spillway completed in 1920. Usable contents, 4,247 acre-ft, between elevations, 900.14 ft, invert of sluice gates, and 985.68 ft, top of spillway gates. Water is released for use in Kerckhoff Powerplants No. 1 (station 11246950) and No. 2 (station 11247050) before being discharged into the San Joaquin River above Millerton Lake. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 5,700 acre-ft, Jan. 2, 1997, elevation, unknown; minimum, 2,104 acre-ft, Nov. 14–17, 1988, elevation, 970.10 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 4,441 acre-ft, May 18, elevation, 986.87 ft; minimum, 3,362 acre-ft, Jan. 31, elevation, 979.82 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas and Electric Co., dated July 16, 1919)

960	1,090	970	2,092	980	3,387	990	4,964
965	1,549	975	2,703	985	4,140		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3860	3856	3937	3746	3897	3513	3692	3459	3517	3778	3976	3557
2	3816	3902	4032	3724	3651	3830	3710	3547	3746	3675	3968	3984
3	3908	3658	3860	3972	3654	3679	3469	3501	3574	3838	3876	3830
4	3953	3927	3992	3654	3856	3709	3845	3490	3728	3819	3922	4010
5	3821	3798	3754	3487	3804	3491	3609	3718	3876	3777	3906	4054
6	3806	3864	3754	3709	3743	3479	3825	3592	3752	3654	3891	4037
7	3896	3916	3707	3541	3697	3990	3995	3596	3605	3792	3958	4033
8	3725	3882	3964	3679	3759	3728	3734	3700	3795	3718	3954	4068
9	3801	3736	3692	3620	3815	3519	3950	3561	3557	3689	4040	4068
10	3842	3838	3740	3609	3906	3587	3549	3746	3485	3937	3789	3859
11	3953	3927	3958	3753	3841	3605	3742	3503	3479	3856	3970	3769
12	3845	3593	3611	3871	3561	3698	3571	3449	3768	3818	3612	3669
13	3576	3916	3787	3838	3694	3620	3661	3793	3620	3799	3778	3942
14	3830	3824	3688	3890	3701	3778	3541	3743	3879	3615	3793	3982
15	3885	3644	3551	3769	3446	3757	3520	3742	3838	3539	3833	3731
16	3733	4038	3987	3835	3772	3772	3664	3920	3982	3617	3981	3975
17	3620	3992	3806	3844	3476	3731	3694	3786	3973	3593	3905	4010
18	3697	3739	3870	3964	3939	3712	3835	4441	3990	4018	3986	3663
19	3953	3778	3948	3947	3900	3583	3806	3860	3517	3752	3992	3917
20	4046	3792	3709	3854	3928	3547	3561	4015	3561	3999	3922	3850
21	3970	3590	3605	3865	3580	3637	3691	3968	3739	3968	3992	4066
22	3664	3796	3576	3712	3531	3615	3927	3770	3526	4030	4001	4044
23	4065	3620	3583	3682	3598	3523	3765	3984	3532	3968	3897	4004
24	3968	3827	3545	3614	3473	3793	3507	3987	3644	4058	3964	3995
25	3832	3842	3533	3876	3670	3937	3804	3673	3546	3876	3865	3913
26	3784	3740	3736	3739	3832	3676	3520	3686	3557	3841	4046	4033
27	3989	3686	3703	3940	4001	3692	3885	3680	3860	3796	4001	3970
28	3427	3757	3473	3621	3620	3854	3523	3680	3497	3847	3769	3715
29	3679	3757	3592	3775	3473	3672	3706	3663	3627	3780	3870	3893
30	3845	3891	3491	3456	---	3676	3589	3953	3755	3876	3774	3854
31	3906	---	3871	3362	---	3755	---	3682	---	3682	3830	---
MAX	4065	4038	4032	3972	4001	3990	3995	4441	3990	4058	4046	4068
MIN	3427	3590	3473	3362	3446	3479	3469	3449	3479	3539	3612	3557
a	983.49	983.40	983.27	979.82	980.59	982.50	981.39	982.02	982.50	982.02	983.00	983.15
b	+295	-15	-20	-509	+111	+282	-166	+93	+73	-73	+148	+24

CAL YR 1999 b +210
WTR YR 2000 b +243

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

11246700 SAN JOAQUIN RIVER NEAR AUBERRY, CA

LOCATION.—Lat 37°07'56", long 119°31'50", in NW 1/4 SW 1/4 sec.24, T.9 S., R.22 E., Fresno County, Hydrologic Unit 18040006, on left bank, 2,300 ft downstream from Kerckhoff Dam, 2.8 mi northwest of Auberry, and 6.7 mi south of town of North Fork.

DRAINAGE AREA.—1,461 mi^2.

PERIOD OF RECORD.—October 1986 to current year.

GAGE.—Water-stage recorder. Datum of gage is 870.11 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Flow regulated by nine powerplants and eight reservoirs with combined capacity of about 609,300 acre-ft. Diversions to Kerckhoff Powerplant No. 1 and Kerckhoff Powerplant No. 2 (stations 11246950 and 11247050) bypass this station. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 80,600 ft^3/s, Jan. 3, 1997, gage height, 35.62 ft; minimum daily, 16 ft^3/s, May 9–18, 1987, Sept. 29, 30, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	570	42	35	36	33	35	33	33	32	32	32
2	42	652	43	35	36	33	35	33	33	32	33	32
3	41	436	43	35	36	33	34	33	34	32	33	33
4	42	42	43	34	37	34	36	34	33	32	32	33
5	40	71	43	35	37	248	36	34	33	32	32	33
6	39	43	42	35	36	34	35	34	34	32	34	33
7	40	43	142	34	36	155	36	34	33	31	34	33
8	40	44	290	33	36	36	36	34	33	46	34	34
9	39	92	41	32	32	37	36	34	33	33	36	34
10	39	41	41	32	32	37	35	33	33	33	35	34
11	40	41	41	32	32	37	35	33	32	33	33	34
12	40	41	41	31	31	36	35	33	32	33	33	33
13	39	80	41	30	35	36	36	35	33	33	33	34
14	38	44	41	30	31	36	37	127	32	33	33	34
15	39	44	40	30	32	36	37	34	33	33	33	34
16	39	44	40	31	110	36	36	94	121	33	33	33
17	39	45	40	31	37	36	38	34	579	33	33	34
18	39	65	40	31	36	36	36	33	1210	33	33	34
19	38	45	40	32	36	36	1930	33	166	34	33	33
20	391	44	40	32	36	34	231	33	32	33	33	34
21	946	44	40	116	34	34	33	33	31	33	33	34
22	386	43	39	32	262	35	34	33	31	33	33	34
23	287	42	38	32	35	35	33	234	31	33	33	34
24	451	43	38	34	34	35	33	1080	32	33	33	34
25	547	43	37	32	34	36	33	1980	32	33	33	34
26	577	43	37	168	36	35	32	1190	32	33	33	34
27	501	43	36	38	44	35	33	596	32	32	33	35
28	120	42	37	38	36	35	33	1340	32	33	33	34
29	36	42	37	37	35	35	32	1960	32	32	33	34
30	36	43	36	36	---	35	33	440	32	32	32	34
31	139	---	36	35	---	35	---	34	---	32	32	---
TOTAL	5172	2955	1585	1248	1320	1424	3134	9745	2919	1025	1026	1009
MEAN	167	98.5	51.1	40.3	45.5	45.9	104	314	97.3	33.1	33.1	33.6
MAX	946	652	290	168	262	248	1930	1980	1210	46	36	35
MIN	36	41	36	30	31	33	32	33	31	31	32	32
AC-FT	10260	5860	3140	2480	2620	2820	6220	19330	5790	2030	2040	2000
a	25200	39220	14590	.00	561	305	.00	43670	54470	298	6590	.00
b	28790	.00	26510	36700	81950	179500	186100	217000	199800	125800	96540	75930

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

MEAN	39.0	51.2	32.4	254	40.7	98.5	81.8	470	954	671	36.8	32.2
MAX	167	173	51.1	2571	144	881	534	2683	5452	5217	89.3	45.6
(WY)	2000	1999	2000	1997	1996	1995	1995	1995	1995	1995	1995	1993
MIN	17.5	17.4	18.2	18.0	18.0	17.8	19.1	18.7	17.3	17.2	17.3	17.1
(WY)	1988	1988	1988	1989	1988	1988	1988	1988	1987	1987	1988	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	27394		32562			
ANNUAL MEAN	75.1		89.0		231	
HIGHEST ANNUAL MEAN					1263	1995
LOWEST ANNUAL MEAN					18.2	1988
HIGHEST DAILY MEAN	1750	Apr 2	1980	May 25	35200	Jan 3 1997
LOWEST DAILY MEAN	33	Jul 14	30	Jan 13	16	May 9 1987
ANNUAL SEVEN-DAY MINIMUM	35	Jul 8	31	Jan 12	16	May 9 1987
INSTANTANEOUS PEAK FLOW			12300	Apr 19	80600	Jan 3 1997
INSTANTANEOUS PEAK STAGE			16.34	Apr 19	35.62	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	54340		64590		167400	
TOTAL DIVERSION (AC-FT) a	166300		184900		151900	
TOTAL DIVERSION (AC-FT) b	1118000		1255000		1311000	
10 PERCENT EXCEEDS	47		99		43	
50 PERCENT EXCEEDS	39		35		31	
90 PERCENT EXCEEDS	36		32		19	

a Discharge, in acre-feet, to Kerckhoff Powerplant No. 1, provided by Pacific Gas & Electric Co.
b Discharge, in acre-feet, to Kerckhoff Powerplant No. 2, provided by Pacific Gas & Electric Co.

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 1948 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 megawatt meter reading, efficiency of the generator coefficiant, and net head on the turbines. 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. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,330 ft^3/s, Jul. 2, 3, 1973, and May 21, 1983; no flow for many days in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	.00	.00	.00	.00	.00	723	579	841	971	878	373
2	244	.00	.00	.00	.00	.00	750	715	807	901	945	331
3	242	.00	.00	.00	.00	.00	847	840	718	868	963	303
4	241	.00	.00	.00	.00	.00	932	825	659	772	898	301
5	240	.00	.00	.00	.00	.00	982	790	810	667	735	335
6	284	.00	.00	.00	.00	.00	1010	742	939	760	671	366
7	315	.00	.00	.00	.00	.00	1020	598	1010	972	690	382
8	310	.00	.00	.00	.00	.00	930	580	1040	953	767	338
9	279	.00	.00	.00	.00	.00	880	615	884	688	784	352
10	265	.00	.00	.00	.00	.00	790	634	734	746	731	374
11	291	.00	.00	.00	.00	.00	740	681	650	909	707	349
12	305	.00	.00	.00	.00	.00	701	700	749	1030	674	452
13	305	.00	.00	.00	.00	.00	699	700	820	981	618	572
14	258	.00	.00	.00	.00	.00	684	700	888	846	563	649
15	231	.00	.00	.00	.00	.00	612	765	1020	931	545	647
16	231	.00	.00	.00	.00	.00	554	832	1030	907	573	560
17	256	.00	.00	.00	.00	.00	413	882	958	889	589	402
18	169	.00	.00	.00	.00	.00	308	842	896	929	538	395
19	.00	.00	.00	.00	.00	.00	232	771	875	972	445	395
20	.00	.00	.00	.00	.00	.00	181	737	875	1020	401	400
21	.00	.00	.00	.00	.00	.00	170	730	846	926	390	402
22	.00	.00	.00	.00	.00	.00	170	850	830	866	444	366
23	.00	.00	.00	.00	.00	259	286	890	831	866	528	332
24	.00	.00	.00	.00	.00	367	386	855	876	920	489	299
25	.00	.00	.00	.00	.00	348	434	855	833	1010	453	310
26	.00	.00	.00	.00	.00	382	476	855	932	990	453	331
27	.00	.00	.00	.00	.00	465	509	839	1030	971	434	269
28	.00	.00	.00	.00	.00	626	546	766	1000	1010	437	234
29	.00	.00	.00	.00	.00	747	508	796	987	946	581	232
30	.00	.00	.00	.00	---	710	461	855	988	900	604	230
31	.00	---	.00	.00	---	675	---	833	---	830	495	---
TOTAL	4716.00	0.00	0.00	0.00	0.00	4579.00	17934	23652	26356	27947	19023	11281
MEAN	152	.000	.000	.000	.000	148	598	763	879	902	614	376
MAX	315	.00	.00	.00	.00	747	1020	890	1040	1030	963	649
MIN	.00	.00	.00	.00	.00	.00	170	579	650	667	390	230
AC-FT	9350	.00	.00	.00	.00	9080	35570	46910	52280	55430	37730	22380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2000, BY WATER YEAR (WY)

MEAN	117	19.1	8.56	29.2	108	318	369	516	797	976	724	352
MAX	599	266	357	527	659	1094	1258	1261	1277	1293	1233	1153
(WY)	1984	1999	1999	1997	1986	1980	1980	1982	1978	1973	1967	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	13.8	356	76.7	.000
(WY)	1950	1949	1949	1949	1949	1952	1964	1961	1977	1981	1977	1959

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1949 - 2000	
ANNUAL TOTAL	140802.00		135488.00			
ANNUAL MEAN	386		370		363	
HIGHEST ANNUAL MEAN					736	1983
LOWEST ANNUAL MEAN					43.8	1977
HIGHEST DAILY MEAN	1060	May 28	1040	Jun 8	1330	Jul 2 1973
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 19	.00	Oct 3 1948
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 19	.00	Oct 3 1948
ANNUAL RUNOFF (AC-FT)	279300		268700		262800	
10 PERCENT EXCEEDS	860		903		1060	
50 PERCENT EXCEEDS	352		304		153	
90 PERCENT EXCEEDS	.00		.00		.00	

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 megawatt meter reading, efficiency of generator coefficient, and net head on turbines. Prior to January 1986, discharge computed on basis of valve openings 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. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation and reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 5,330 ft^3/s, June 25, 1982; no flow for many days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	811	.00	.00	.00	307	3500	2790	4560	3450	3500	1740
2	1230	859	.00	.00	.00	309	3590	3100	4210	3570	3560	1440
3	1370	792	.00	.00	.00	346	3830	3450	3380	3650	3660	1380
4	1480	700	.00	.00	.00	400	4190	3550	3000	3800	3490	1490
5	1530	550	.00	.00	.00	400	4350	3550	3240	3840	3030	1610
6	1620	330	.00	.00	151	354	3740	3710	3920	3650	2850	1750
7	1540	322	.00	.00	284	506	3370	3980	4120	3430	2890	1800
8	1030	322	.00	.00	302	721	2780	4350	4080	3430	3000	1630
9	700	301	.00	.00	330	950	2380	4600	3500	3090	3000	1430
10	817	302	.00	.00	351	1050	2300	4660	2970	3370	2940	1530
11	958	271	.00	.00	299	1080	2200	4670	2980	3590	2690	1630
12	1030	221	.00	.00	263	1160	1980	4590	3310	3710	2470	1810
13	1050	198	.00	.00	110	1260	1610	4370	3580	3740	2560	1930
14	942	196	.00	.00	.00	1120	1210	4250	3890	3580	2830	1930
15	733	197	.00	.00	.00	1270	942	4460	4100	3120	3100	1710
16	650	197	.00	792	.00	1810	958	4480	4280	3100	3140	1360
17	738	197	.00	1500	.00	1880	913	4460	3700	3290	3100	1570
18	900	198	.00	1300	.00	2020	704	4500	3800	3380	2910	1810
19	1120	199	.00	425	.00	2160	542	4380	4000	3500	2530	1850
20	1260	199	.00	.00	.00	2380	471	4190	3710	3560	2600	1890
21	1210	83.0	.00	147	.00	2700	400	4140	3500	3290	2690	1790
22	921	.00	.00	253	.00	2940	374	4250	3420	2990	2670	1570
23	671	.00	.00	253	.00	3000	490	4360	3150	3110	2550	1290
24	767	.00	.00	255	.00	3160	593	4550	2860	3370	2320	1290
25	879	.00	.00	259	.00	3300	854	4600	2980	3480	2090	1440
26	900	.00	.00	262	.00	3420	1480	4540	3330	3440	1740	1520
27	929	.00	.00	264	163	3650	2210	4280	3640	3310	1790	1640
28	863	.00	.00	160	304	3950	2340	4240	3750	3210	2010	1700
29	742	.00	.00	.00	305	3870	2300	4420	3640	3090	2070	1470
30	642	.00	.00	.00	---	3560	2430	4560	3500	3140	2020	1220
31	688	---	.00	.00	---	3500	---	4600	---	3370	1990	---
TOTAL	31190	7445.00	0.00	5870.00	2862.00	58533	59031	130630	108100	105650	83790	48220
MEAN	1006	248	.000	189	98.7	1888	1968	4214	3603	3408	2703	1607
MAX	1620	859	.00	1500	351	3950	4350	4670	4560	3840	3660	1930
MIN	642	.00	.00	.00	.00	307	374	2790	2860	2990	1740	1220
AC-FT	61870	14770	.00	11640	5680	116100	117100	259100	214400	209600	166200	95640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2000, BY WATER YEAR (WY)

MEAN	871	325	92.9	223	1230	1249	1404	1712	2683	2968	2592	1524
MAX	3085	1364	926	1349	4505	3551	4476	4238	4529	4905	4339	4033
(WY)	1979	1979	1999	1966	1965	1965	1962	1993	1993	1993	1967	1967
MIN	.000	.000	.000	.000	.000	5.13	32.2	87.5	598	262	384	1.33
(WY)	1950	1950	1950	1950	1950	1991	1998	1977	1977	1949	1949	1950

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1949 - 2000	
ANNUAL TOTAL	583725.00		641321.00			
ANNUAL MEAN	1599		1752		1417	
HIGHEST ANNUAL MEAN					2356	1993
LOWEST ANNUAL MEAN					270	1950
HIGHEST DAILY MEAN	4210	Jul 14	4670	May 11	5330	Jun 25 1982
LOWEST DAILY MEAN	.00	Jan 26	.00	Nov 22	.00	Jul 5 1949
ANNUAL SEVEN-DAY MINIMUM	.00	Nov 22	.00	Nov 22	.00	Sep 11 1949
ANNUAL RUNOFF (AC-FT)	1158000		1272000		1027000	
10 PERCENT EXCEEDS	3480		3900		3560	
50 PERCENT EXCEEDS	1210		1480		1000	
90 PERCENT EXCEEDS	.00		.00		.00	

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 mi^2.

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 sea level (levels by U.S. 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 the Central Valley Project. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of lower San Joaquin River Basin.

COOPERATION.—Records and capacity table were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 528,800 acre-ft, Jul. 21, 1998, elevation, 579.68 ft, (maximum instantaneous contents, 530,500 acre-ft, at 1300 hours, Jan. 3, 1997, elevation 580.01 ft); minimum since lake first filled, 133,600 acre-ft, Apr. 11, 1969, elevation, 467.81 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 521,200 acre-ft, Jun. 6, elevation, 578.14 ft; minimum, 209,800 acre-ft, Oct. 20, elevation, 498.00 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Bureau of Reclamation, dated 1921)

400	36,400	440	83,300	480	161,700	520	279,400	560	436,500
420	57,000	460	117,500	500	215,000	540	353,000	580	530,400

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	232100	221100	236700	279300	312600	429400	460400	516500	511400	498900	368400	262800
2	230300	221800	237300	280100	314500	435000	458000	516000	511300	495700	365500	258900
3	227800	221500	238800	280600	315500	440400	454700	513700	514900	495400	362600	255700
4	226300	220900	240100	281700	316300	444400	450000	512000	517300	491300	358300	252600
5	225500	220800	241400	282700	317800	453600	446300	509700	520700	487800	355200	250400
6	221900	220800	244200	282700	317800	462200	443700	508300	521200	485900	353300	246600
7	219000	221200	246100	283000	318800	469400	442700	506300	520800	481500	351200	243600
8	217400	221700	247500	283000	319600	476900	443200	503300	519200	476900	348100	242500
9	216100	222100	249200	283100	320600	482300	443700	500400	521100	472700	344100	240500
10	215300	222100	250800	283300	321200	486500	445400	497500	520900	468100	341400	239700
11	215700	221800	252300	283400	323900	490100	446500	496800	519700	464000	337700	238400
12	215400	222600	253800	283200	327100	493600	448500	495100	519600	456000	335300	237900
13	215300	222600	255100	283300	333400	495700	450900	492800	519200	450200	331900	236100
14	213700	222800	256500	283500	344800	497500	454600	491100	519700	443700	328700	234300
15	213000	223500	257900	283800	351600	499200	459000	489100	520800	438400	324600	233400
16	212600	223700	259100	282600	355900	499700	463000	487000	519800	433300	321300	232400
17	211900	224500	260500	280900	361400	500300	468700	485900	521100	430100	317700	231700
18	211300	225300	261300	279900	365600	500600	474500	484600	520000	422200	313300	231300
19	210500	225900	262400	280200	370400	500700	479800	483100	519100	416600	307900	229700
20	209800	226900	264700	281300	375100	501400	487000	482800	518600	410900	302600	228400
21	210600	227700	265800	284400	380700	501200	493100	482300	517100	407700	298200	226600
22	211800	228300	267900	285300	385700	500300	498800	480100	516900	404100	294900	224600
23	212700	229800	269000	286200	393700	497000	502800	481000	515700	400400	291600	223300
24	214300	230700	270300	290700	399100	491000	508000	484800	514400	396800	288600	222100
25	217000	231200	270800	298200	403700	486500	510600	490200	513100	393200	286900	221900
26	217900	231700	271800	302100	408200	482000	514000	493700	511600	390400	285000	220000
27	218700	232500	273200	304400	417100	476400	514100	497600	508300	387100	282900	218400
28	219000	233200	274700	306300	421000	470200	514300	503100	505900	384500	279700	215600
29	218700	234600	275800	307400	423200	466000	515200	509100	503700	381400	276300	213100
30	218400	235700	276600	309500	---	464000	516300	510600	501400	375200	271800	211900
31	219000	---	277500	311500	---	462000	---	511500	---	371600	266900	---
MAX	232100	235700	277500	311500	423200	501400	516300	516500	521200	498900	368400	262800
MIN	209800	220800	236700	279300	312600	429400	442700	480100	501400	371600	266900	211900
a	501.13	506.65	519.46	529.07	556.97	565.65	577.13	576.15	574.05	544.68	516.31	498.72
b	-15900	+16700	+41800	+34000	+111700	+38800	+54300	-4800	-10100	-129800	-104700	-55000

CAL YR 1999 b -140200
WTR YR 2000 b -23000

a Elevation, in feet, at end of month.
b Change in contents, 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, and 2 mi downstream from Friant Dam at mile 268.1.

DRAINAGE AREA.—1,676 mi^2.

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 above sea level (levels by U.S. Bureau of Reclamation). Oct. 18, 1907, to Nov. 9, 1913, nonrecording gage at site 4.5 mi upstream at different datum. Nov. 10, 1913, to Sept. 30, 1938, 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 nine powerplants and eight reservoirs with combined capacity of about 609,300 acre-ft. Diversion for irrigation to Madera and Friant–Kern Canals (stations 11249500 and 11250000) began in 1943 and 1949, respectively. See schematic diagram of lower San Joaquin River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 77,200 ft^3/s, Dec. 11, 1937, gage height, 23.8 ft, site and datum then in use; minimum daily, 54 ft^3/s, Sept. 15, 1924. Maximum discharge since construction of Friant Dam in 1941, 60,300 ft^3/s, Jan. 3, 1997, gage height, 22.97 ft (provided by U.S. Bureau of Reclamation); minimum daily, 11 ft^3/s, Jan. 8, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	84	86	85	75	173	144	132	188	212	255	262
2	176	85	85	84	75	129	144	130	188	212	258	260
3	168	85	86	85	72	115	168	130	191	219	257	260
4	169	88	75	91	72	99	203	130	194	220	248	260
5	183	86	65	96	72	230	203	133	393	214	236	257
6	169	80	65	98	72	178	218	135	1030	215	234	257
7	151	78	65	96	72	111	204	135	796	215	229	249
8	151	65	66	100	72	603	179	133	209	215	219	244
9	151	86	64	100	e72	885	170	131	364	214	209	242
10	151	88	64	98	e73	1150	171	131	661	212	209	241
11	151	87	64	99	e81	1380	159	132	419	220	209	244
12	150	88	64	100	e89	1380	134	133	210	227	209	247
13	150	88	65	100	e97	1370	134	133	212	222	206	245
14	151	88	67	101	e105	1360	164	133	212	221	220	244
15	151	89	67	102	e113	1360	121	134	535	219	241	244
16	151	92	69	102	e121	1360	116	134	919	224	243	244
17	151	91	69	102	e132	1360	140	134	1290	223	255	244
18	157	93	69	105	93	1360	121	129	2190	222	264	244
19	147	96	69	104	79	1360	88	124	1160	221	264	245
20	124	96	71	105	75	1340	84	124	601	228	264	244
21	115	98	72	105	138	1340	85	124	357	224	266	244
22	96	94	91	104	81	1330	88	119	182	222	264	247
23	96	84	132	109	335	1320	90	118	181	224	262	244
24	96	85	135	116	170	1310	90	117	183	225	261	244
25	88	86	137	121	116	1310	89	119	182	225	264	244
26	69	87	137	98	92	1310	102	120	182	222	264	241
27	74	87	125	74	408	1300	131	120	200	210	264	241
28	84	88	99	71	300	1300	132	120	215	209	264	240
29	88	90	98	71	208	833	130	127	215	248	263	244
30	84	92	93	73	---	148	131	171	213	250	265	241
31	84	---	90	75	---	146	---	187	---	253	263	---
TOTAL	4108	2624	2604	2970	3560	28950	4133	4072	14072	6887	7629	7407
MEAN	133	87.5	84.0	95.8	123	934	138	131	469	222	246	247
MAX	183	98	137	121	408	1380	218	187	2190	253	266	262
MIN	69	65	64	71	72	99	84	117	181	209	206	240
AC-FT	8150	5200	5170	5890	7060	57420	8200	8080	27910	13660	15130	14690

e Estimated.

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1940, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	628	609	868	1276	1704	2246	3805	5876	6085	2765	1166	772
MAX	1678	1317	3589	4507	4391	6854	8010	11170	15870	9635	2312	1361
(WY)	1919	1928	1910	1909	1937	1938	1916	1938	1911	1911	1914	1938
MIN	164	196	301	333	393	419	1262	1703	635	335	264	156
(WY)	1932	1932	1909	1918	1924	1924	1912	1934	1924	1924	1924	1931

SUMMARY STATISTICS	WATER YEARS 1908 - 1940	
ANNUAL TOTAL		
ANNUAL MEAN	2343	
HIGHEST ANNUAL MEAN	4961	1938
LOWEST ANNUAL MEAN	698	1924
HIGHEST DAILY MEAN	38800	Jan 31 1911
LOWEST DAILY MEAN	54	Sep 15 1924
ANNUAL SEVEN-DAY MINIMUM	105	Sep 16 1931
INSTANTANEOUS PEAK FLOW	77200	Dec 11 1937
INSTANTANEOUS PEAK STAGE	23.80	Dec 11 1937
ANNUAL RUNOFF (AC-FT)	1698000	
10 PERCENT EXCEEDS	6100	
50 PERCENT EXCEEDS	1190	
90 PERCENT EXCEEDS	394	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	355	262	405	751	1090	1229	1744	1900	1707	1048	589	464
MAX	1663	1623	3798	9144	7100	7705	7701	9107	9438	5322	2807	2392
(WY)	1946	1983	1983	1997	1969	1969	1983	1941	1941	1995	1945	1948
MIN	47.2	37.3	32.5	30.0	33.9	33.0	43.2	43.9	78.6	101	91.1	67.2
(WY)	1970	1972	1971	1966	1966	1968	1971	1971	1970	1970	1970	1969

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1941 - 2000	
ANNUAL TOTAL	82787		89016			
ANNUAL MEAN	227		243		960	
HIGHEST ANNUAL MEAN					4385	1983
LOWEST ANNUAL MEAN					66.9	1971
HIGHEST DAILY MEAN	1210	Jun 18	2190	Jun 18	36800	Jan 3 1997
LOWEST DAILY MEAN	37	Apr 8	64	Dec 9	11	Jan 8 1977
ANNUAL SEVEN-DAY MINIMUM	44	Apr 7	65	Dec 6	20	Jan 22 1990
INSTANTANEOUS PEAK FLOW			2590	Jun 18	60300	Jan 3 1997
INSTANTANEOUS PEAK STAGE			6.03	Jun 18	22.97	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	164200		176600		695500	
10 PERCENT EXCEEDS	505		342		2930	
50 PERCENT EXCEEDS	150		148		151	
90 PERCENT EXCEEDS	72		75		52	

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 mi^2.

PERIOD OF RECORD.—Water years 1958–65 (annual maximum), October 1966 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 680 ft above sea level, 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 upstream from station. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,420 ft^3/s, Mar. 1, 1983, gage height, 5.72 ft; maximum gage height, 7.38 ft, from floodmarks, Mar. 10, 1995; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	1030	126	2.03	Feb. 23	0515	67	1.65

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	e1.3	5.3	1.6	1.1	.34	.00	.00	.00
2	.00	.00	.00	e.00	e1.0	4.9	1.5	1.0	.28	.00	.00	.00
3	.00	.00	.00	e.00	e.80	5.8	1.4	1.0	.24	.00	.00	.00
4	.00	.00	.00	e.00	e.50	5.1	1.4	1.1	.20	.00	.00	.00
5	.00	.00	.00	e.05	e.30	5.2	1.3	1.0	.16	.03	.00	e.00
6	.00	.00	.00	e.10	e.24	4.7	1.3	1.1	.18	.03	.00	e.00
7	.00	.00	.00	e.15	e.18	4.4	1.1	1.1	.19	.06	.00	.00
8	.00	.00	e.00	e.20	.15	6.2	1.1	e.90	.97	.06	.00	.00
9	.00	.00	e.00	e.30	.16	e7.5	1.0	e.90	.67	.06	.00	.00
10	.00	.00	e.00	e.40	.24	e4.0	.97	e.95	.62	.03	.00	.00
11	.00	.00	e.00	e.50	.52	e3.3	.90	1.1	.54	.00	.00	.00
12	.00	.00	e.00	e.55	8.0	e2.4	.80	1.1	.43	.00	.00	.00
13	.00	.00	e.00	e.55	23	e2.0	.77	1.2	.32	.00	.00	.00
14	.00	.00	e.00	e.55	43	e1.9	1.2	1.1	.26	.00	.00	.00
15	.00	.00	e.00	e.55	9.0	e1.8	1.1	1.1	.21	.00	.00	.00
16	.00	.00	e.00	e.50	4.7	e1.8	1.2	1.2	.18	.00	.00	.00
17	.00	.00	e.00	e.60	4.7	e3.0	e3.0	1.4	.18	.00	.00	.00
18	.00	.00	e.00	e1.0	3.4	2.8	e3.6	1.3	.21	.00	.00	.00
19	.00	.00	e.00	e.90	2.7	2.6	2.2	1.1	.25	.00	.00	.00
20	.00	.00	e.00	e.90	3.4	2.4	1.7	.81	.25	.00	.00	.00
21	.00	.00	e.00	e.91	9.3	2.5	1.3	.71	.21	.00	.00	.00
22	.00	.00	e.00	e.85	6.0	2.5	1.2	.73	.18	.00	.00	.00
23	.00	.00	e.00	e1.4	19	2.2	1.2	.66	.18	.00	.00	.00
24	.00	.00	e.00	e7.4	8.3	2.1	1.1	.60	.20	.00	.00	.00
25	.00	.00	e.00	e13	5.8	2.2	1.2	.35	.21	.00	.00	.00
26	.00	.00	e.00	e4.0	4.6	2.0	1.2	.29	.28	.00	.00	.00
27	.00	.00	e.00	e2.7	8.2	1.9	1.2	.33	.29	.00	.00	.00
28	.00	.00	e.00	e2.0	7.5	2.0	1.1	.28	.19	.00	.00	.00
29	.00	.00	e.00	e1.7	6.1	1.9	1.2	.27	.06	.00	.00	.00
30	.00	.00	e.00	e1.8	---	2.0	1.2	.26	.03	.00	.00	.00
31	.00	---	e.00	e2.7	---	1.8	---	.24	---	.00	.00	---
TOTAL	0.00	0.00	0.00	46.26	182.09	100.2	41.04	26.28	8.51	0.27	0.00	0.00
MEAN	.000	.000	.000	1.49	6.28	3.23	1.37	.85	.28	.009	.000	.000
MAX	.00	.00	.00	13	43	7.5	3.6	1.4	.97	.06	.00	.00
MIN	.00	.00	.00	.00	.15	1.8	.77	.24	.03	.00	.00	.00
AC-FT	.00	.00	.00	92	361	199	81	52	17	.5	.00	.00

e Estimated.

11253310 CANTUA CREEK NEAR CANTUA CREEK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.10	.36	1.41	6.98	11.0	13.1	4.98	2.65	1.16	.43	.12	.15
MAX	1.40	2.82	11.2	44.0	65.3	101	23.2	17.4	7.64	3.83	1.83	1.41
(WY)	1984	1973	1984	1969	1998	1995	1983	1983	1983	1983	1983	1976
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1967	1967	1969	1975	1976	1989	1972	1972	1968	1968	1968	1968

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1967 - 2000	
ANNUAL TOTAL	300.25		404.65			
ANNUAL MEAN	.82		1.11		3.50	
HIGHEST ANNUAL MEAN					18.9	1983
LOWEST ANNUAL MEAN					.003	1989
HIGHEST DAILY MEAN	7.1	Apr 12	43	Feb 14	1070	Mar 10 1995
LOWEST DAILY MEAN	.00	Jul 13	.00	Oct 1	.00	Oct 1 1966
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 13	.00	Oct 1	.00	Oct 1 1966
INSTANTANEOUS PEAK FLOW			126	Feb 14	3420	Mar 1 1983
INSTANTANEOUS PEAK STAGE			2.03	Feb 14	7.38	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	596		803		2540	
10 PERCENT EXCEEDS	2.3		2.7		6.6	
50 PERCENT EXCEEDS	.12		.03		.10	
90 PERCENT EXCEEDS	.00		.00		.00	

11253500 JAMES BYPASS NEAR SAN JOAQUIN, CA

LOCATION.—Lat 36°39'09", long 120°l0'49", in NE 1/4 SW 1/4 sec.1, T.15 S., R.16 E., Fresno County, Hydrologic Unit 18030012, on right bank, and 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 data for period October 1954 to September 1972 are in files of U.S. Bureau of Reclamation. Monthly totals published in WDR CA-72-2.

GAGE.—Water-stage recorder. Elevation of gage is 160 ft above sea level, from topographic map.

REMARKS.—Diversion upstream from station for irrigation. James Bypass carries overflow from Kings River to San Joaquin River.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation; rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 5,570 ft^3/s, June 7, 1969; no flow for all or most of each year.

EXTREMES FOR CURRENT YEAR.—No flow for 2000 water year.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	55.6	146	224	353	354	531	738	896	574	259	37.1	26.3
MAX	1723	2364	3648	3551	4688	5192	5066	4932	4913	2985	1077	811
(WY)	1984	1984	1983	1983	1983	1983	1983	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1948	1948	1948	1948	1948	1948	1948	1954	1953	1948	1948	1949

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1948 - 2000a
ANNUAL MEAN			326
HIGHEST ANNUAL MEAN			3189 1983
LOWEST ANNUAL MEAN			.000 1954
HIGHEST DAILY MEAN			5360 Mar 3 1983
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Oct 1 1947
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 1	.00 Oct 1 1947
ANNUAL RUNOFF (AC-FT)			236200
10 PERCENT EXCEEDS	.00	.00	1080
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

a Does not include water years 1955 to 1972 (see Period of Record).

11254000 SAN JOAQUIN RIVER NEAR MENDOTA, CA

LOCATION.—Lat 36°48'38", long 120°22'38", in SE 1/4 SW 1/4 sec.7, T.13 S., R.15 E., Fresno County, Hydrologic Unit 18040001, 2.5 mi below Mendota Dam and 3.5 mi north of Mendota.

DRAINAGE AREA.—3,940 mi^2.

PERIOD OF RECORD.—October 1939 to September 1954. December 1999 to September 2000.

REVISED RECORDS.—WDR CA-00-3: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 138.81 ft above sea level (levels by U.S. Bureau of Reclamation). Prior to Nov 3, 1947, at site 200 ft downstream. Prior to Nov. 4, 1953, at datum 2.00 ft higher.

REMARKS.—Records good. Flow regulated at Mendota Dam by storage and diversions from Mendota pool of residue of waters released at Friant Dam and imported through Delta–Mendota Canal. Many diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,740 ft^3/s, June 20, 1941, gage height, 13.75 ft, site and datum then in use; no flow for several days in December 1999 and January 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	1.0	92	131	220	177	363	680	591	180
2	---	---	---	.63	120	134	223	242	390	667	600	147
3	---	---	---	.15	139	144	203	304	410	670	626	104
4	---	---	---	.00	149	171	217	310	397	632	620	103
5	---	---	---	.00	153	166	213	316	377	616	605	126
6	---	---	e5.2	.00	174	166	248	320	375	588	554	158
7	---	---	e4.5	.00	189	164	292	323	407	557	503	213
8	---	---	4.0	.00	213	172	307	328	426	551	481	245
9	---	---	3.1	.00	254	210	322	321	415	547	473	242
10	---	---	2.2	.00	262	208	341	313	406	536	461	226
11	---	---	2.0	.00	255	386	394	298	461	513	457	218
12	---	---	1.8	.00	255	728	485	271	527	533	444	223
13	---	---	e1.6	.00	236	447	541	266	565	581	458	200
14	---	---	e1.4	12	217	371	544	264	598	620	482	176
15	---	---	e1.3	17	174	599	495	302	603	536	502	172
16	---	---	e1.0	18	164	772	413	348	598	533	520	162
17	---	---	e.95	22	165	732	346	354	603	592	500	158
18	---	---	.77	22	177	645	285	322	594	599	466	155
19	---	---	.15	20	193	599	197	285	563	564	413	172
20	---	---	.00	21	204	465	161	275	508	509	342	187
21	---	---	.57	27	201	364	134	285	452	465	302	202
22	---	---	.28	35	200	351	138	301	446	443	299	226
23	---	---	.18	30	196	301	125	303	449	443	296	257
24	---	---	.00	24	199	293	103	318	449	480	240	267
25	---	---	.00	21	190	278	96	338	465	572	197	247
26	---	---	.00	20	164	249	94	340	500	584	185	232
27	---	---	.00	21	145	220	139	340	533	577	182	230
28	---	---	.00	30	144	188	185	340	617	581	186	248
29	---	---	.00	25	140	159	170	341	688	577	209	258
30	---	---	.00	26	---	182	150	340	701	584	234	236
31	---	---	1.5	51	---	212	---	344	---	597	212	---
TOTAL	---	---	---	443.78	5364	10207	7781	9529	14886	17527	12640	5970
MEAN	---	---	---	14.3	185	329	259	307	496	565	408	199
MAX	---	---	---	51	262	772	544	354	701	680	626	267
MIN	---	---	---	.00	92	131	94	177	363	443	182	103
AC-FT	---	---	---	880	10640	20250	15430	18900	29530	34760	25070	11840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2000, BY WATER YEAR (WY)

MEAN	206	303	724	1218	1736	1599	1774	2563	2537	787	313	225
MAX	637	1144	2548	3531	5188	6187	6158	8680	10340	3446	562	394
(WY)	1946	1946	1951	1942	1941	1943	1952	1941	1941	1941	1945	1945
MIN	29.9	45.6	49.9	14.3	52.7	73.8	162	200	244	327	12.1	9.87
(WY)	1941	1950	1949	2000	1950	1948	1948	1951	1948	1949	1940	1940

SUMMARY STATISTICS	WATER YEARS 1940 - 2000		FOR 2000 WATER YEAR	
ANNUAL MEAN	1216			
HIGHEST ANNUAL MEAN	3546	1941		
LOWEST ANNUAL MEAN	188	1950		
HIGHEST DAILY MEAN	11700	Jun 20 1941	772	Mar 16
LOWEST DAILY MEAN	.00	Dec 20 1999	.00	Dec 20
ANNUAL SEVEN-DAY MINIMUM	.00	Dec 24 1999		
INSTANTANEOUS PEAK FLOW	11700	Jun 20 1941	780	Mar 17
INSTANTANEOUS PEAK STAGE	13.75	Jun 20 1941	6.09	Mar 17
ANNUAL RUNOFF (AC-FT)	880900			
10 PERCENT EXCEEDS	3840			
50 PERCENT EXCEEDS	319			
90 PERCENT EXCEEDS	75			

e Estimated.

11255575 PANOCHE CREEK AT INTERSTATE 5, NEAR SILVER CREEK, CA

LOCATION.—Lat 36°39'09", long 120°37'52", in NE 1/4 SW 1/4 sec.2 T.15 S., R.12 E., Fresno County, Hydrologic Unit 18040001, on left bank, at downstream side of Interstate Highway 5 bridge over Panoche Creek, 7.3 mi southwest of Silver Creek Township, and 11.8 mi east of Panoche.

DRAINAGE AREA.— 305 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.— December 1997 to current year. Record is published seasonally, Dec. 1 to June 30 of each water year.

GAGE.—Water-stage recorder. Datum of gage is 450 ft above sea level, from topographic map.

REMARKS.—Records poor. No known regulation or diversions upstream of station. A gravel operation located about 1 mile upstream of gage excavates the dry stream bed each season. This creates a large depression which traps an unknown volume of water and sediment before it reaches the gage location.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,940 ft^3/s, Feb. 3, 1998, gage height 13.46 ft, from rating curve extended above 1,500 ft^3/s on the basis of slope-area measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 150 ft^3/s, or maximum. No peak greater than 150 ft^3/s occurred outside of period of published record during this water year:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 23	1830	188	5.41				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
2	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
3	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
4	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
5	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
6	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
7	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
8	---	---	.00	.00	.00	28	.00	.00	.00	---	---	---
9	---	---	.00	.00	.00	11	.00	.00	.00	---	---	---
10	---	---	.00	.00	.00	.16	.00	.00	.00	---	---	---
11	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
12	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
13	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
14	---	---	.00	.00	.00	.00	.00	.00	.60	---	---	---
15	---	---	.00	.00	.00	.00	.00	.00	2.6	---	---	---
16	---	---	.00	.00	.01	.00	.00	.00	2.5	---	---	---
17	---	---	.00	.00	.00	.00	.00	.00	2.3	---	---	---
18	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
19	---	---	.00	.00	.05	.00	.00	.00	.07	---	---	---
20	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
21	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
22	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	---	---	.00	.00	14	.00	.00	.00	3.6	---	---	---
24	---	---	.00	.00	5.1	.00	.00	.00	.01	---	---	---
25	---	---	.00	.00	.06	.00	.00	.00	.09	---	---	---
26	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
27	---	---	.00	.00	8.5	.00	.00	.00	.00	---	---	---
28	---	---	.00	.00	30	.00	.00	.00	3.5	---	---	---
29	---	---	.00	.00	1.3	.00	.00	.00	e1.7	---	---	---
30	---	---	.00	.00	---	.00	.00	.00	4.3	---	---	---
31	---	---	.00	.00	---	.00	---	.00	---	---	---	---
TOTAL	---	---	0.00	0.00	59.02	39.16	0.00	0.00	21.27	---	---	---
MEAN	---	---	.000	.000	2.04	1.26	.000	.000	.71	---	---	---
MAX	---	---	.00	.00	30	28	.00	.00	4.3	---	---	---
MIN	---	---	.00	.00	.00	.00	.00	.00	.00	---	---	---
AC-FT	---	---	.00	.00	117	78	.00	.00	42	---	---	---

e Estimated

11255575 PANOCHE CREEK AT INTERSTATE 5, NEAR SILVER CREEK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	.000	.87	105	1.28	3.67	1.45	1.13	---	---	---
MAX	---	---	.000	2.59	316	2.53	10.9	4.26	1.81	---	---	---
(WY)	---	---	1998	1998	1998	1998	1998	1998	1999	---	---	---
MIN	---	---	.000	.000	.023	.053	.000	.000	.71	---	---	---
(WY)	---	---	1998	2000	1999	1999	2000	2000	2000	---	---	---

SUMMARY STATISTICS	WATER YEARS 1998 - 2000		
HIGHEST DAILY MEAN	3250	Feb	3 1998
LOWEST DAILY MEAN	.00	Dec	1 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Dec	1 1997
INSTANTANEOUS PEAK FLOW	9940	Feb	3 1998
INSTANTANEOUS PEAK STAGE	13.46	Feb	3 1998
10 PERCENT EXCEEDS	6.1		
50 PERCENT EXCEEDS	.00		
90 PERCENT EXCEEDS	.00		

11255575 PANOCHE CREEK AT INTERSTATE 5 NEAR, SILVER CREEK, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—January 1998 to current year.
CHEMICAL DATA: January 1998 to current year.
SEDIMENT DATA: January 1998 to current year.

REMARKS.—Zero bed-load discharge observed for flows less than 0.40 ft^3/s during current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
FEB										
28...	1445	16	754	100	10.7	8.4	2280	11.5	690	520

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
FEB										
28...	144	80.2	6.2	5	274	46	168	202	2	63.5

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	TUR-BID-ITY (NTU) (00076)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
FEB									
28...	.6	11.3	1010	2.44	1800	1690	260	11.1	10

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
FEB							
28...	1345	20	11.5	2810	152	18	19
29...	1110	1.7	15.5	588	2.7	--	--
JUN							
14...	1205	.38	27.5	314	.32	--	--
23...	1100	1.3	25.5	468	1.6	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
FEB							
28...	23	29	36	52	83	98	100
29...	--	--	--	62	--	--	--
JUN							
14...	--	--	--	99	--	--	--
23...	--	--	--	98	--	--	--

11255575 PANOCHE CREEK AT INTERSTATE 5 NEAR, SILVER CREEK, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAMPLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET) (04121)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER-TICALS IN COM-POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)
FEB												
28..	1410	1000	1150	.250	1405	1420	30	1.5	1	17	17	.75
28..	1455	1000	1150	.250	1450	1505	30	1.5	1	17	17	.75
29..	1200	1000	1150	.250	1157	1204	30	.5	2	10	10	.50
29..	1225	1000	1150	.250	1220	1227	30	.5	2	10	10	.50

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT (04122)	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY) (80225)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM (80226)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM (80227)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)
FEB												
28..	20	11.5	.61	15.1	2	12	37	77	96	99	100	--
28..	12	11.5	.25	6.2	3	18	52	79	95	98	99	100
29..	1.2	15.5	.28	1.3	--	2	30	90	99	100	--	--
29..	1.1	15.5	.23	1.3	--	2	30	91	100	--	--	--

11261100 SALT SLOUGH AT HIGHWAY 165, NEAR STEVINSON, CA

LOCATION.—Lat 37°14'52", long 120°51'04", in SE 1/4 SE 1/4, sec.10, T.8 S., R.10 E., Merced County, Hydrologic Unit 18040001, on right bank, at bridge on Highway 165, and 5.5 mi south of Stevinson.

DRAINAGE AREA.—Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—Water years 1986–94. October 1995 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is sea level.

REMARKS.—Records good except period of backwater, which is poor. During major storm events record can be affected by backwater from the San Joaquin River. Discharge is affected by irrigation return and drainage from Kesterson Wildlife Refuge.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 810 ft^3/s, Feb. 20, 1986; minimum daily, 24 ft^3/s, Sept. 6, 1992.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	160	141	103	162	411	260	186	155	174	228	160
2	156	159	136	95	165	392	255	188	161	191	204	166
3	139	146	136	89	161	360	277	217	119	206	184	160
4	142	159	125	75	193	344	281	223	123	234	190	158
5	154	164	117	75	203	342	264	215	137	257	186	127
6	163	167	110	75	195	352	257	222	147	252	202	104
7	171	189	120	83	204	438	248	248	135	233	230	102
8	187	198	125	84	202	448	252	267	117	221	235	109
9	201	226	121	86	194	429	245	272	149	215	206	102
10	160	245	111	85	187	468	226	268	212	231	169	128
11	131	248	107	84	190	452	196	272	231	247	165	148
12	130	224	106	84	215	416	157	249	220	230	172	130
13	128	174	105	85	252	385	145	226	224	215	178	106
14	148	159	103	84	299	376	176	209	207	194	180	102
15	161	147	103	87	407	366	248	207	195	210	172	99
16	159	140	101	89	501	380	262	195	166	229	154	119
17	157	142	103	88	464	411	286	172	183	234	155	110
18	154	146	100	92	429	412	339	164	178	240	137	107
19	161	134	102	99	327	407	444	177	219	236	170	103
20	171	126	103	110	256	397	494	160	251	237	193	91
21	183	129	93	117	251	385	445	179	241	224	211	83
22	198	128	93	117	249	372	359	184	206	197	199	79
23	183	132	89	118	255	362	321	153	172	182	166	77
24	169	129	86	150	289	357	304	136	170	188	169	81
25	165	120	86	206	369	356	273	115	174	203	190	106
26	166	125	80	250	341	348	210	115	161	179	188	116
27	161	133	77	240	293	346	192	151	172	179	163	75
28	162	124	75	198	278	341	178	153	188	172	171	66
29	164	130	79	181	367	330	173	156	171	199	136	69
30	165	142	89	175	---	322	186	147	162	215	109	80
31	160	---	111	167	---	295	---	145	---	227	128	---
TOTAL	5046	4745	3233	3671	7898	11800	7953	5971	5346	6651	5540	3263
MEAN	163	158	104	118	272	381	265	193	178	215	179	109
MAX	201	248	141	250	501	468	494	272	251	257	235	166
MIN	128	120	75	75	161	295	145	115	117	172	109	66
AC-FT	10010	9410	6410	7280	15670	23410	15770	11840	10600	13190	10990	6470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2000, BY WATER YEAR (WY)

MEAN	160	175	142	167	295	360	258	215	218	238	251	170
MAX	255	273	237	426	631	512	419	355	339	376	411	289
(WY)	1990	1990	1996	1997	1998	1996	1986	1987	1987	1986	1986	1986
MIN	41.3	65.2	63.4	60.6	83.4	231	159	75.2	72.0	61.7	57.1	39.4
(WY)	1993	1993	1991	1991	1991	1992	1997	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1986 - 2000	
ANNUAL TOTAL	74307		71117			
ANNUAL MEAN	204		194		220	
HIGHEST ANNUAL MEAN					289	1996
LOWEST ANNUAL MEAN					96.6	1992
HIGHEST DAILY MEAN	534	Feb 25	501	Feb 16	810	Feb 20 1986
LOWEST DAILY MEAN	75	Dec 28	66	Sep 28	24	Sep 6 1992
ANNUAL SEVEN-DAY MINIMUM	82	Dec 23	80	Jan 4	31	Dec 25 1992
INSTANTANEOUS PEAK FLOW			508	Feb 16 a	unknown	Feb 20 1986
INSTANTANEOUS PEAK STAGE			68.92	Mar 1 a	unknown	Feb 20 1986
ANNUAL RUNOFF (AC-FT)	147400		141100		159500	
10 PERCENT EXCEEDS	354		343		372	
50 PERCENT EXCEEDS	176		172		199	
90 PERCENT EXCEEDS	117		98		86	

a Backwater from San Joaquin River.

11261100 SALT SLOUGH AT HIGHWAY 165, NEAR STEVINSON, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1985–94. October 1995 to current year. Data for the period October 1985 to March 1987 are available in U.S. Geological Survey Open-File Report 88-479. Data for the period April 1987 to September 1988 are available in U.S. Geological Survey Open File Report 91–74.
CHEMICAL DATA: Water years 1985–88, 1993–94.
SEDIMENT DATA: Water years 1983–88, 1993–94.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Water years 1985–94. October 1995 to current year.
WATER TEMPERATURE: Water years 1985–94. October 1995 to current year.

INSTRUMENTATION.—Water-quality monitor.

REMARKS.—Interruption in record was due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 4,330 microsiemens, Jan. 16, 1991; minimum recorded, 450 microsiemens, July 24, 1986.
WATER TEMPERATURE: Maximum recorded, 32.5°C, July 15, 1992, July 12, 1999; minimum recorded, 0.5°C, Dec. 26, 1985, Dec. 23, 1990.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 2,320 microsiemens Dec. 28, 29; minimum recorded, 642 microsiemens, Sept. 19.
WATER TEMPERATURE: Maximum recorded, 31.0°C, Aug. 2, 3; minimum recorded, 7.5°C, several days in December and January.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	995	932	1310	1270	1710	1600	2140	1980	2230	2040	1590	1520
2	1090	953	1300	1250	1700	1620	2200	2100	2270	2220	1590	1510
3	1100	1050	1330	1250	1630	1550	2180	2110	2290	2210	1630	1530
4	1080	1070	1330	1190	1710	1580	2180	2100	2210	2000	1600	1530
5	1090	864	1290	1220	1730	1700	2150	2110	2070	2010	1610	1530
6	1040	837	1320	1220	1730	1700	2140	2030	2030	2000	1610	1520
7	1030	970	1220	1190	1800	1650	2060	2020	2030	1910	1520	1440
8	1060	911	1270	1200	1700	1640	2100	2050	1930	1870	1540	1480
9	996	916	1200	1130	1700	1660	2130	2070	1930	1850	1550	1470
10	1140	982	1210	1130	1790	1700	2180	2130	1930	1870	1540	1490
11	1100	993	1230	1190	1840	1740	2210	2150	1900	1670	1560	1480
12	993	930	1450	1210	1810	1770	2170	2130	1770	1580	1570	1500
13	1100	936	1480	1450	1800	1770	2180	2140	1660	1560	1550	1520
14	1140	921	1470	1440	1830	1790	2200	2150	1610	1470	1520	1440
15	1120	934	1460	1400	1850	1780	2190	2100	1540	1500	1590	1460
16	1120	1020	1410	1370	1860	1820	2190	2140	1640	1510	1540	1480
17	1120	1020	1390	1330	1880	1780	2210	2190	1660	1620	1510	1380
18	1160	1080	1350	1310	1950	1860	2230	2150	1810	1600	1510	1430
19	1090	881	1350	1320	1930	1820	2190	2110	1890	1810	1480	1350
20	888	839	1460	1320	1860	1760	2110	2050	1890	1770	1390	1310
21	841	769	1460	1410	1950	1790	2080	2040	1780	1700	1420	1280
22	769	724	1500	1380	2030	1930	2120	2030	1780	1660	1460	1380
23	1170	738	1460	1310	2110	1930	2150	2030	1770	1610	1460	1360
24	1220	1140	1470	1330	2160	2100	2060	1940	1610	1550	1490	1330
25	1220	1140	1610	1330	2200	2140	1940	1770	1600	1530	1420	1330
26	1230	1080	1580	1400	2240	2160	1850	1800	1660	1580	1390	1300
27	1300	1210	1510	1330	2290	2230	1950	1840	1620	1520	1380	1270
28	1300	1260	1640	1460	2320	2230	2070	1950	1560	1510	1370	1280
29	1320	1250	1760	1430	2320	2240	2080	2000	1540	1460	1430	1260
30	1320	1220	1750	1670	2280	2140	2060	1990	---	---	1280	1220
31	1330	1270	---	---	2140	1960	2090	2050	---	---	1440	1250
MONTH	1330	724	1760	1130	2320	1550	2230	1770	2290	1460	1630	1220

11261100 SALT SLOUGH AT HIGHWAY 165, NEAR STEVINSON, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1470	1370	1460	1420	1140	1080	1030	973	879	830	1240	1150
2	1500	1400	1460	1400	1140	1040	1040	962	856	824	1160	1110
3	1440	1290	1400	1280	1270	1130	964	922	884	855	1160	1100
4	1360	1270	1320	1250	1280	1220	923	898	884	839	---	---
5	1400	1320	1370	1270	1260	1160	899	845	866	832	---	---
6	1350	1140	1370	1220	1190	1130	869	845	832	782	---	---
7	1230	1150	1260	1080	1200	1160	928	864	783	765	---	---
8	1200	1110	1120	1040	1310	1150	951	914	804	748	1380	1320
9	1220	1110	1080	1010	1320	1120	977	951	889	804	1410	1260
10	1190	1150	1090	1020	1120	1070	970	951	971	889	1270	1060
11	1310	1150	1100	1020	1070	1030	968	945	980	928	1060	953
12	1400	1310	1180	995	1070	1040	1000	966	947	928	1040	961
13	1400	1360	1310	1170	1040	942	1040	978	964	904	1090	890
14	1390	1160	1390	1280	1000	908	1060	1040	926	895	890	763
15	1160	1070	1310	1250	986	848	1060	1040	995	833	1130	730
16	1190	1140	1340	1260	1020	983	1050	1020	1010	969	900	681
17	1180	1070	1540	1300	1010	933	1030	1020	1050	965	681	653
18	1070	1000	1550	1290	973	940	1130	1030	1060	1020	691	650
19	1000	929	1310	1200	979	876	1080	968	1050	976	686	642
20	1090	936	1310	1270	917	853	968	873	995	953	759	677
21	1210	1090	1280	1160	923	877	988	932	978	920	765	719
22	1300	1210	1200	1100	959	903	1080	958	1060	913	741	715
23	1310	1280	1220	1120	983	948	1120	997	1070	982	998	740
24	1320	1290	1240	1180	978	893	1070	782	1080	1050	961	912
25	1370	1300	1280	1220	944	887	935	732	1060	1020	929	735
26	1490	1360	1330	1220	1000	888	974	882	1070	1020	735	657
27	1510	1440	1220	1070	1050	960	974	884	1130	1050	762	691
28	1530	1480	1130	1090	994	962	941	878	1130	1000	804	762
29	1530	1480	1120	1090	1060	994	879	840	1180	1030	835	797
30	1490	1440	1120	1070	1090	1000	879	840	1250	1150	812	782
31	---	---	1140	1090	---	---	857	834	1290	1170	---	---
MONTH	1530	929	1550	995	1320	848	1130	732	1290	748	---	---

11261100 SALT SLOUGH AT HIGHWAY 165, NEAR STEVINSON, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.5	22.0	17.5	15.5	13.5	12.0	10.0	8.5	14.5	12.0	15.0	13.0
2	23.5	21.0	17.5	15.0	12.5	11.0	10.5	8.0	14.0	12.5	14.0	13.5
3	23.0	20.0	18.0	15.5	11.0	9.0	10.0	7.5	14.0	12.0	15.0	12.5
4	22.5	19.5	17.5	15.0	10.5	8.5	10.0	7.5	14.0	12.5	16.0	14.0
5	21.5	19.0	17.5	15.0	11.0	9.0	11.0	8.5	14.5	12.5	15.5	14.5
6	21.5	19.0	17.5	15.5	11.5	9.0	9.5	7.5	15.0	12.5	15.5	13.5
7	21.0	18.0	16.5	15.0	12.0	10.0	10.5	7.5	15.0	13.0	14.5	13.5
8	21.5	18.0	16.5	14.5	11.0	9.0	10.0	7.5	16.0	14.0	14.0	13.0
9	22.0	19.0	16.5	14.5	10.5	9.5	10.5	8.0	16.0	14.5	14.5	12.5
10	22.5	19.5	16.5	15.0	10.5	9.0	11.0	8.5	15.5	14.5	15.5	13.0
11	23.5	20.0	16.5	14.5	10.5	8.0	11.5	9.0	14.5	12.5	17.0	14.5
12	22.5	19.5	16.0	14.5	10.5	8.0	12.5	11.0	12.5	12.0	17.5	15.5
13	22.5	19.5	16.5	14.5	11.0	9.0	12.5	10.0	12.5	12.0	18.5	16.0
14	22.5	19.5	16.0	14.5	10.0	8.0	12.0	10.5	14.5	12.5	19.0	16.5
15	20.5	19.0	17.0	15.0	10.0	7.5	12.0	11.5	14.5	13.0	19.0	17.0
16	19.0	17.0	17.0	15.0	10.0	7.5	13.0	11.0	14.0	13.5	18.5	17.0
17	19.5	16.5	16.5	14.5	10.0	7.5	12.5	12.0	14.0	13.0	17.5	15.0
18	19.0	16.5	15.5	13.5	10.5	8.0	15.0	12.0	14.5	13.0	18.0	15.0
19	18.5	16.0	13.5	12.5	10.5	8.0	15.0	13.5	14.5	13.5	19.0	16.5
20	19.0	16.0	15.5	13.0	10.5	8.0	14.5	13.5	15.0	14.0	17.5	14.0
21	19.0	16.5	14.5	12.0	10.5	8.0	15.0	12.5	15.0	13.5	15.5	12.5
22	19.0	16.5	12.0	10.0	10.5	8.0	14.5	12.5	14.5	13.0	17.0	13.5
23	19.5	17.0	12.0	10.0	10.5	8.0	13.5	12.5	13.5	12.5	18.0	15.0
24	19.0	16.5	12.0	9.5	10.5	8.0	13.5	12.5	12.5	11.5	18.5	16.0
25	19.0	16.0	12.5	10.0	10.5	7.5	14.5	13.5	13.5	11.5	18.0	15.5
26	19.0	16.5	12.5	10.5	10.5	7.5	13.5	13.0	14.5	13.0	18.5	15.5
27	19.5	17.0	13.0	10.5	10.5	7.5	13.5	12.5	15.5	14.5	19.0	16.5
28	19.5	17.5	12.5	11.5	11.0	8.0	12.5	11.5	15.0	14.0	17.5	15.5
29	17.5	15.5	12.0	11.5	11.0	8.0	12.5	11.0	14.5	13.5	18.0	15.5
30	17.5	14.5	13.5	11.5	10.5	8.0	12.0	11.5	---	---	18.5	16.0
31	17.5	15.0	---	---	10.5	8.5	13.0	11.0	---	---	18.5	15.5
MONTH	24.5	14.5	18.0	9.5	13.5	7.5	15.0	7.5	16.0	11.5	19.0	12.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	19.0	15.5	24.0	20.0	25.5	19.5	27.5	23.5	29.5	26.5	22.5	21.0
2	21.0	17.0	24.5	20.5	26.5	22.0	26.5	23.0	31.0	27.0	22.5	20.0
3	22.5	19.0	24.5	21.0	27.5	22.0	24.5	21.5	31.0	27.0	24.0	20.5
4	22.0	19.5	25.0	21.0	28.0	22.5	24.0	20.5	29.5	26.0	23.5	20.0
5	22.0	19.0	23.5	20.5	26.0	22.0	24.5	21.5	29.5	25.5	23.0	17.5
6	21.5	18.5	21.0	18.5	26.5	22.0	25.5	21.5	29.0	25.5	23.5	16.5
7	21.5	18.0	19.0	18.0	26.5	22.0	25.5	22.0	28.0	25.0	25.0	17.5
8	22.0	19.0	21.5	18.0	24.0	21.0	26.0	22.0	27.5	24.0	26.0	21.0
9	21.5	18.5	22.5	19.5	23.5	18.5	27.0	23.0	28.0	24.0	26.0	21.0
10	21.5	18.0	21.0	19.0	24.0	20.0	27.0	23.5	27.5	23.5	25.0	21.5
11	23.0	19.0	19.5	17.0	24.5	21.0	27.0	24.0	27.5	23.0	25.5	21.5
12	23.5	20.5	20.0	16.0	25.5	22.0	27.5	24.0	28.5	24.0	24.0	22.0
13	22.5	20.0	22.0	18.0	27.0	23.0	27.0	23.0	28.0	24.5	25.5	22.0
14	21.0	18.5	20.5	18.5	29.5	24.5	28.0	23.0	28.0	24.0	26.0	21.5
15	20.0	18.0	21.5	18.5	30.0	26.5	28.5	24.5	28.0	24.0	25.5	21.5
16	19.0	17.0	20.0	18.5	29.5	26.5	27.5	24.5	28.0	24.0	25.5	21.0
17	17.0	15.0	21.0	17.0	29.0	25.0	26.0	23.0	28.5	24.5	26.0	21.5
18	17.0	14.0	23.5	18.5	28.5	24.5	26.0	22.5	27.5	23.5	26.5	22.0
19	18.0	15.5	25.5	21.0	27.5	23.5	27.0	23.5	27.0	23.0	27.5	23.0
20	19.5	17.0	27.5	22.5	28.5	24.5	27.5	23.5	26.0	22.0	28.0	23.5
21	21.0	18.5	28.5	24.0	29.0	25.5	28.0	24.5	26.5	22.0	25.5	22.0
22	20.0	18.5	29.0	25.0	29.5	26.0	28.0	24.0	27.0	23.0	24.0	21.5
23	20.0	17.5	27.5	25.5	28.0	24.0	28.0	24.0	27.0	23.0	24.0	19.5
24	20.5	17.5	27.0	23.5	27.5	23.5	29.0	25.0	26.5	22.5	24.5	19.5
25	21.5	18.0	25.0	20.5	28.5	24.0	29.0	25.0	27.0	23.0	24.5	20.5
26	23.5	19.0	25.5	20.0	29.5	25.0	28.5	25.0	28.0	23.5	24.5	21.0
27	23.5	20.5	27.0	22.0	30.0	26.0	27.0	23.5	28.0	24.0	25.0	20.5
28	21.0	18.5	27.0	23.0	30.5	26.5	28.0	23.5	27.5	24.0	24.0	19.5
29	21.0	17.0	26.5	22.5	30.0	26.0	29.0	24.5	25.5	22.0	23.5	18.5
30	23.0	18.0	25.5	21.5	28.5	24.0	29.0	26.0	24.0	21.0	24.5	19.5
31	---	---	23.5	20.0	---	---	29.5	26.0	25.0	21.0	---	---
MONTH	23.5	14.0	29.0	16.0	30.5	18.5	29.5	20.5	31.0	21.0	28.0	16.5

11262895 SAN LUIS DRAIN, SITE B, NEAR STEVINSON, CA

LOCATION.—Lat 37°14'27", long 120°52'37", in SE 1/4 NW 1/4 sec.16, T.8 S., R.10 E., Merced County, Hydrologic Unit 18040001, Kesterson National Wildlife Refuge, on left bank, 1.8 mi upstream of terminus of drain, and 6.2 mi southwest of Stevinson.

DRAINAGE AREA.—Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Acoustic-velocity meter. Elevation of gage is 75 ft above sea level, from topographic map.

REMARKS.—Records fair. Drain intercepts subsurface drainage water from irrigated farmland and conveys it into Mud Slough and the San Joaquin River.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily, 82 ft^3/s, Aug. 29, 1999; minimum daily, 18 ft^3/s, Dec. 10, 1998, and Sept. 14, 27, 28, 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	30	26	23	36	71	42	40	51	e58	57	51
2	31	31	27	21	36	75	43	41	53	e57	55	48
3	34	33	27	21	35	75	44	40	55	e57	60	48
4	37	22	30	21	38	73	42	45	55	58	59	50
5	37	31	26	20	39	68	45	45	57	57	e58	50
6	37	30	24	21	43	70	46	47	56	62	e54	47
7	36	29	24	20	44	75	e40	48	59	62	e53	46
8	36	34	23	20	46	68	e38	54	60	64	57	43
9	33	32	22	20	51	62	e41	59	67	66	55	41
10	32	31	23	20	52	59	e39	56	e75	67	57	37
11	32	30	24	20	48	54	e42	54	e75	64	56	31
12	33	31	23	23	48	49	e38	53	e75	67	56	25
13	33	29	22	22	50	51	e37	47	e71	62	54	22
14	32	29	22	21	56	49	35	42	69	60	52	18
15	28	28	22	22	66	49	38	41	66	59	50	19
16	28	28	21	23	63	49	41	40	63	63	50	21
17	29	27	22	24	66	48	e45	39	60	59	49	22
18	28	29	22	27	73	50	e50	41	59	58	55	22
19	27	30	22	35	68	47	e76	42	57	56	67	21
20	28	30	22	39	63	45	e72	38	55	57	66	21
21	25	28	21	31	69	46	e57	37	59	58	63	23
22	26	26	21	29	65	50	54	39	61	58	57	26
23	25	25	21	31	60	46	48	39	61	62	56	28
24	26	24	21	37	67	46	44	39	58	64	58	27
25	28	23	19	47	61	46	44	46	58	63	59	23
26	27	27	19	49	54	44	43	50	60	57	55	19
27	26	29	20	40	67	42	41	52	62	55	56	18
28	28	30	22	34	73	46	38	52	57	52	57	18
29	28	29	24	34	72	45	39	57	56	52	56	19
30	28	29	22	34	---	41	41	61	e61	53	59	20
31	28	---	22	36	---	e40	---	53	---	56	55	---
TOTAL	931	864	706	865	1609	1679	1343	1437	1831	1843	1751	904
MEAN	30.0	28.8	22.8	27.9	55.5	54.2	44.8	46.4	61.0	59.5	56.5	30.1
MAX	37	34	30	49	73	75	76	61	75	67	67	51
MIN	25	22	19	20	35	40	35	37	51	52	49	18
AC-FT	1850	1710	1400	1720	3190	3330	2660	2850	3630	3660	3470	1790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

MEAN	31.6	27.2	23.2	27.8	57.5	55.1	39.9	47.3	60.9	61.2	60.1	35.2
MAX	33.2	28.8	23.6	27.9	59.6	56.0	44.8	48.2	61.0	63.0	63.6	40.3
(WY)	1999	2000	1999	2000	1999	1999	2000	1999	2000	1999	1999	1999
MIN	30.0	25.7	22.8	27.6	55.5	54.2	34.9	46.4	60.7	59.5	56.5	30.1
(WY)	2000	1999	2000	1999	2000	2000	1999	2000	1999	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1999 - 2000	
ANNUAL TOTAL	16261		15763			
ANNUAL MEAN	44.6		43.1		43.9	
HIGHEST ANNUAL MEAN					44.6	1999
LOWEST ANNUAL MEAN					43.1	2000
HIGHEST DAILY MEAN	82	Aug 29	e76	Apr 19	82	Aug 29 1999
LOWEST DAILY MEAN	19	Dec 25	18	Sep 14	18	Dec 10 1998
ANNUAL SEVEN-DAY MINIMUM	20	Dec 21	20	Jan 5	20	Jan 5 2000
ANNUAL RUNOFF (AC-FT)	32250		31270		31770	
10 PERCENT EXCEEDS	66		63		66	
50 PERCENT EXCEEDS	43		43		43	
90 PERCENT EXCEEDS	24		22		23	

e Estimated.

11262895 SAN LUIS DRAIN, SITE B, NEAR STEVINSON, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water year 1999 to current year.
SPECIFIC CONDUCTANCE: Water year 1999 to current year.
WATER TEMPERATURE: Water year 1999 to current year.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: October 1998 to current year.
WATER TEMPERATURE: October 1998 to current year.

INSTRUMENTATION.—Water-quality monitor since October 1998.

REMARKS.—Water quality is influenced by subsurface drainage water from irrigated farmland. Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 6,030 microsiemens, Apr. 6, 1999; minimum recorded, 2,770 microsiemens, Aug. 20, 21, 2000.
WATER TEMPERATURE: Maximum recorded, 31.5°C, July 13, 1999; minimum recorded, 4.0°C, Dec. 24, 1998.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 5,710 microsiemens, Mar. 20; minimum recorded, 2,770 microsiemens, Aug. 20, 21.
WATER TEMPERATURE: Maximum recorded, 30.5°C, June 28, 29 and Aug. 2; minimum recorded, 7.5°C, Jan. 6.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4680	4270	4400	4690	4590	4630	4490	3890	4140	4840	4670	4750
2	4850	4240	4470	4630	4470	4580	4090	3890	4000	4670	4590	4620
3	4870	4660	4760	4780	4460	4640	4110	4050	4080	4740	4660	4710
4	5040	4860	4980	4630	4540	4600	4200	4110	4170	4740	4340	4520
5	4980	4390	4750	4750	4470	4590	4210	4100	4160	4530	4360	4450
6	4600	4080	4300	4780	4440	4630	4160	3930	3980	4560	4480	4510
7	4440	3920	4110	4690	4350	4620	4100	4020	4040	4650	4560	4620
8	4170	3880	4060	4500	4260	4380	4460	4100	4390	4600	4470	4570
9	4750	4090	4530	4810	4060	4440	4490	4230	4370	4600	4390	4510
10	5090	4170	4580	4720	4090	4330	4250	3620	3860	4550	4420	4510
11	5020	4570	4780	4090	3920	3980	3850	3610	3710	4530	4290	4400
12	4710	4490	4610	4090	3930	4010	4110	3850	4020	4310	4260	4280
13	4600	4440	4500	4000	3880	3950	4370	4110	4230	4360	4270	4320
14	4720	4440	4570	4060	3700	3910	4510	4330	4440	4420	4300	4360
15	4470	4230	4340	4220	3700	3960	4480	4200	4300	4410	4310	4350
16	4470	4300	4390	4180	4080	4150	4560	4290	4410	4530	4410	4480
17	4590	4270	4470	4080	3910	3960	4620	4400	4520	4570	4490	4550
18	4340	4220	4260	4210	3980	4100	4700	4370	4510	4560	4120	4310
19	4280	4130	4210	4300	3930	4120	4730	4570	4650	4640	4350	4560
20	4500	4100	4290	4300	4040	4170	4720	4520	4660	4700	4540	4610
21	4410	4280	4340	4270	3930	4080	4520	4270	4340	4810	4660	4730
22	4390	4170	4280	4280	4020	4180	4680	4380	4510	4810	4670	4740
23	4340	4140	4210	4500	4210	4340	4930	4680	4760	4670	3500	4310
24	4200	4150	4180	4290	3820	4050	4940	4720	4840	3500	3090	3200
25	4730	4130	4340	4210	3760	3900	4870	4700	4790	4280	3120	3860
26	4740	4630	4680	4350	4150	4240	4780	4710	4750	4490	4270	4360
27	4700	4480	4630	4210	4070	4120	4810	4750	4780	4530	4360	4470
28	4610	4450	4520	4200	4130	4170	4760	4730	4750	4360	4000	4140
29	4830	4590	4680	4300	4090	4190	4780	4730	4750	4160	4060	4110
30	4970	4660	4850	4540	4120	4360	4800	4740	4780	4300	4040	4170
31	4700	4620	4660	---	---	---	4850	4800	4830	4520	4000	4170
MONTH	5090	3880	4480	4810	3700	4250	4940	3610	4400	4840	3090	4400

11262895 SAN LUIS DRAIN, SITE B, NEAR STEVINSON, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4720	4520	4630	4930	4720	4820	5240	4730	5030	5080	4960	5040
2	4830	4720	4770	4860	4620	4780	5220	4830	5060	5020	4800	4950
3	4860	4770	4820	4730	4420	4560	5340	5050	5150	4890	4540	4730
4	4860	4800	4830	4500	4120	4270	5320	4910	5110	4940	4770	4870
5	4930	4850	4890	4520	4190	4410	5180	4770	4970	4990	4870	4930
6	4930	4810	4890	4720	4520	4620	5140	4780	4970	4990	4750	4870
7	5000	4820	4890	4840	4620	4760	---	---	---	4970	4330	4620
8	5060	4890	4970	5020	4740	4870	---	---	---	4450	4150	4320
9	5010	4690	4870	4940	4810	4880	---	---	---	4340	3750	3970
10	4690	4300	4560	4930	4640	4780	---	---	---	4030	3640	3790
11	4550	4090	4340	4970	4740	4880	---	---	---	3790	3460	3660
12	4220	4140	4170	5230	4910	5010	---	---	---	3920	3540	3740
13	4570	4200	4410	5370	5170	5290	---	---	---	4070	3810	3900
14	4570	4310	4460	5330	5140	5240	4650	4340	4510	4220	3960	4100
15	4480	4220	4350	5400	5240	5320	4390	4130	4250	3980	3770	3900
16	4530	4180	4380	5460	5320	5400	4530	4380	4470	3860	3620	3760
17	4300	4120	4190	5470	5140	5410	---	---	---	3800	3600	3710
18	4790	4170	4580	5590	5400	5480	---	---	---	3990	3560	3770
19	4710	4180	4390	5580	5460	5540	---	---	---	4050	3860	3950
20	4230	4100	4180	5710	5550	5660	---	---	---	4120	3840	3970
21	4650	4200	4470	5690	5430	5550	---	---	---	4200	3920	4030
22	4750	4540	4660	5630	5510	5550	4360	3870	4090	4180	3880	4060
23	4880	4570	4710	5580	5390	5510	4770	4340	4460	4140	3900	4000
24	4700	4570	4640	5550	5380	5460	5000	4770	4870	4530	4140	4390
25	4760	4580	4690	5500	5340	5420	5360	5000	5200	4540	4320	4450
26	5080	4630	4810	5500	5240	5360	5300	5040	5160	4340	4080	4210
27	5110	4970	5040	5460	5140	5320	5240	5070	5170	4600	4070	4260
28	5040	4790	4900	---	---	---	5210	5080	5170	4640	4240	4400
29	5010	4840	4930	---	---	---	5140	4990	5050	4360	4060	4240
30	---	---	---	---	---	---	5030	4930	4990	4710	4080	4400
31	---	---	---	---	---	---	---	---	---	4610	4340	4470
MONTH	5110	4090	4640	---	---	---	---	---	---	5080	3460	4240

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4420	4120	4280	---	---	---	4150	3830	3990	3570	3270	3410
2	4310	4110	4200	---	---	---	4160	3520	3880	3850	3340	3570
3	4490	4290	4350	---	---	---	3970	3610	3840	3830	3460	3620
4	4520	4300	4420	4250	3940	4050	3950	3540	3810	4030	3830	3940
5	4440	4200	4300	4110	3860	3970	---	---	---	3950	3730	3820
6	4540	4200	4390	4250	3850	4050	---	---	---	3800	3610	3680
7	4500	4110	4310	4280	3860	4070	---	---	---	3670	3460	3590
8	4520	4090	4290	4290	3720	3990	3880	3600	3770	3760	3530	3660
9	4380	3980	4190	4070	3760	3950	3970	3730	3830	3920	3490	3740
10	4350	4030	4220	4150	3460	3810	3800	3350	3660	3990	3490	3750
11	4340	4170	4260	4190	3440	3780	3810	3350	3640	3720	3460	3550
12	4290	4180	4230	3870	3480	3680	3720	3480	3600	3720	3320	3500
13	4270	3840	4050	3900	3580	3770	3640	3410	3530	3460	3310	3390
14	4080	3850	3960	3920	3580	3750	3560	3290	3390	3310	2940	3100
15	4090	3870	4010	3920	3600	3760	3430	3070	3220	3480	3200	3300
16	4300	4080	4180	4120	3590	3840	3440	3320	3380	3470	2920	3110
17	4330	4010	4220	3930	3600	3750	3780	3400	3640	4040	3070	3590
18	4400	4010	4170	3800	3360	3600	3760	3450	3560	4600	4040	4430
19	4470	4170	4350	3690	3390	3580	3830	3500	3660	4640	4480	4560
20	4430	4020	4250	3820	3570	3660	3660	2770	3290	4620	4550	4580
21	---	---	---	4080	3730	3940	3110	2770	2950	4620	4540	4580
22	---	---	---	4240	3710	4000	3270	2780	3060	4600	4140	4460
23	---	---	---	4250	3810	4040	3130	2780	3000	4140	3920	4030
24	4460	3600	4070	4180	3870	3980	3330	3040	3220	4100	3880	3980
25	4220	3600	4000	4200	3930	4070	3360	3140	3230	4260	4080	4230
26	4530	3860	4130	4240	3900	4070	3530	3180	3360	4250	3950	4080
27	4340	3920	4080	4170	3720	3980	3380	3100	3190	4080	3800	3920
28	4250	3830	4050	4080	3780	3970	3390	3080	3240	4020	3820	3930
29	4240	3910	4070	4220	3870	4080	3590	3300	3490	3990	3850	3900
30	---	---	---	4170	3980	4070	3640	3490	3560	4010	3680	3860
31	---	---	---	4170	3770	3960	3660	3410	3610	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	4640	2920	3830

11262895 SAN LUIS DRAIN, SITE B, NEAR STEVINSON, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25.0	23.0	25.0	18.0	17.0	17.5	13.0	12.0	12.5	9.5	9.0	9.0
2	24.5	22.5	24.5	18.5	16.5	17.5	12.0	11.0	11.5	9.5	8.0	9.0
3	23.5	22.0	23.5	18.0	17.0	17.5	11.5	9.5	10.5	9.0	8.0	8.5
4	23.0	21.5	23.0	18.5	16.5	17.0	10.5	9.0	10.0	9.0	8.0	8.5
5	22.5	20.5	22.5	18.5	17.0	17.5	10.5	9.5	10.0	9.5	8.5	9.0
6	22.5	21.0	22.5	18.5	17.0	17.5	10.5	9.5	10.0	8.5	7.5	8.5
7	21.5	20.0	21.5	18.0	16.5	17.0	11.0	10.0	10.5	9.0	8.0	8.5
8	22.5	20.0	22.5	17.5	16.5	17.0	10.5	9.5	10.0	9.0	8.0	8.5
9	23.0	20.5	23.0	17.5	16.0	16.5	10.0	9.5	9.5	9.5	8.0	9.0
10	23.0	21.0	23.0	17.5	16.5	17.0	9.5	9.0	9.5	10.0	8.5	9.0
11	23.5	22.0	23.5	17.5	16.0	17.0	9.5	8.0	9.0	10.0	9.0	9.5
12	22.5	21.5	22.5	17.0	16.0	16.5	9.5	8.5	9.0	10.5	10.0	10.5
13	23.0	21.5	23.0	17.0	15.5	16.5	10.0	9.0	9.5	11.0	9.5	10.5
14	23.0	21.5	23.0	17.0	16.0	16.5	9.0	8.0	8.5	11.0	10.0	10.5
15	22.0	20.5	22.0	17.5	16.0	16.5	9.0	8.0	8.5	11.5	11.0	11.0
16	20.5	19.0	20.5	17.5	16.0	16.5	9.0	8.0	8.5	11.5	11.0	11.0
17	20.0	18.0	20.0	17.0	16.0	16.5	9.0	8.0	8.5	11.5	11.0	11.5
18	20.0	18.5	20.0	16.5	15.0	15.5	9.5	8.0	9.0	13.0	11.5	12.0
19	19.5	18.0	19.5	15.5	14.0	14.5	9.0	8.5	9.0	13.5	12.5	13.0
20	20.0	18.0	20.0	15.0	14.0	14.5	9.5	8.0	9.0	14.0	13.5	13.5
21	20.0	18.5	20.0	14.5	13.0	14.0	9.5	8.5	9.0	14.0	13.0	13.5
22	20.0	18.5	20.0	13.0	11.5	12.0	9.5	8.5	9.0	14.5	13.0	13.5
23	20.0	18.5	20.0	12.5	11.0	11.5	9.5	8.5	9.0	14.0	13.0	13.5
24	19.5	18.0	18.5	12.0	11.0	11.5	9.5	8.5	9.0	13.5	13.0	13.0
25	19.5	17.5	18.5	12.5	11.0	11.5	9.5	8.0	9.0	14.0	13.5	14.0
26	20.0	18.0	18.5	12.5	11.0	11.5	9.0	8.0	8.5	14.0	13.0	13.5
27	20.5	18.5	19.0	12.5	11.5	12.0	9.0	8.0	8.5	13.5	13.0	13.5
28	20.0	18.5	19.0	12.5	11.5	12.0	9.5	8.0	9.0	13.0	12.5	13.0
29	18.5	16.5	17.5	12.0	11.5	12.0	9.5	8.5	9.0	13.0	12.0	12.5
30	18.0	16.0	17.0	13.0	12.0	12.0	9.5	8.5	9.0	13.0	12.0	12.5
31	18.5	16.5	17.5	---	---	---	9.5	9.0	9.5	12.5	11.5	12.0
MONTH	25.0	16.0	21.0	18.5	11.0	15.1	13.0	8.0	9.4	14.5	7.5	11.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	12.0	12.5	15.0	13.5	14.5	19.5	16.5	18.0	23.5	20.5	22.0
2	13.5	12.5	13.0	14.5	14.0	14.5	21.5	18.5	19.5	24.0	21.0	22.5
3	13.5	12.5	13.0	15.0	13.0	14.0	23.0	20.0	21.0	24.5	21.5	23.0
4	13.5	12.5	13.0	16.0	14.0	15.0	23.0	20.5	22.0	25.0	22.0	23.5
5	14.0	12.5	13.5	15.0	14.0	14.5	23.0	20.5	21.5	24.5	22.5	23.5
6	15.0	13.0	14.0	15.5	13.5	14.5	23.0	20.5	21.5	23.0	20.5	21.5
7	15.0	13.5	14.5	15.0	14.0	14.5	---	---	---	20.5	19.5	20.0
8	15.5	14.0	15.0	14.5	13.0	14.0	---	---	---	21.5	19.5	20.5
9	16.0	15.0	15.5	14.5	13.0	13.5	---	---	---	22.5	20.0	21.0
10	15.5	14.5	15.0	15.5	13.0	14.0	---	---	---	21.5	20.0	20.5
11	14.5	13.5	14.0	16.5	14.5	15.5	---	---	---	20.5	18.5	19.5
12	13.5	13.0	13.0	17.0	15.0	16.0	---	---	---	20.5	18.0	19.0
13	13.0	12.5	12.5	18.0	16.0	17.0	23.0	---	---	21.0	19.0	20.0
14	14.5	12.5	13.5	19.0	17.0	18.0	22.5	20.0	21.0	20.5	19.0	19.5
15	14.0	12.5	13.5	19.0	17.5	18.5	21.0	19.5	20.0	21.0	19.0	19.5
16	14.0	13.5	14.0	19.0	17.5	18.0	20.0	18.0	19.0	20.0	19.0	19.5
17	15.0	13.0	14.0	18.0	15.5	16.5	---	17.0	---	20.5	18.5	19.5
18	15.0	13.5	14.5	18.0	15.5	17.0	---	---	---	22.5	19.0	20.5
19	14.5	13.5	14.0	19.0	17.0	18.0	---	---	---	24.0	21.0	22.5
20	15.0	14.0	14.5	17.0	13.5	15.0	---	---	---	25.5	22.0	24.0
21	15.0	13.5	14.0	15.5	12.5	14.0	21.0	---	---	27.5	24.0	25.5
22	14.0	13.0	13.5	17.0	14.0	15.5	21.0	19.0	20.0	28.5	25.5	27.0
23	13.5	12.5	13.0	17.5	15.5	16.5	21.0	19.0	20.0	28.0	26.5	27.0
24	13.0	12.0	12.5	18.0	15.5	16.5	21.5	19.0	20.0	27.5	25.5	26.5
25	13.5	12.0	13.0	18.5	16.0	17.5	22.0	19.5	20.5	26.0	23.0	24.5
26	14.5	13.0	13.5	19.0	16.5	17.5	23.0	20.0	21.0	25.0	22.0	23.5
27	14.5	13.5	14.0	19.5	17.0	18.0	23.5	21.0	22.0	25.5	22.5	24.0
28	15.0	13.5	14.5	---	16.5	---	22.0	20.0	21.0	26.0	23.5	24.5
29	15.0	14.0	14.5	---	---	---	21.5	19.0	20.5	26.0	23.5	25.0
30	---	---	---	---	---	---	23.0	19.5	21.0	25.5	23.5	24.5
31	---	---	---	---	---	---	---	---	---	24.0	21.5	23.0
MONTH	16.0	12.0	13.8	---	---	---	---	---	---	28.5	18.0	22.5

11262895 SAN LUIS DRAIN, SITE B, NEAR STEVINSON, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	21.0	22.5	---	---	---	29.5	27.5	28.5	24.0	22.0	23.0
2	25.5	22.5	24.0	---	---	---	30.5	27.5	29.0	23.0	21.5	22.0
3	25.5	23.0	24.0	26.0	---	---	30.0	28.0	29.0	23.5	21.5	22.5
4	26.5	23.5	25.0	25.0	22.5	24.0	29.5	27.5	28.5	23.5	21.5	22.5
5	26.0	24.0	25.0	25.0	23.0	24.0	---	27.0	---	23.0	21.5	22.0
6	26.0	23.5	24.5	25.5	23.0	24.0	---	---	---	23.0	20.5	22.0
7	26.0	23.5	25.0	26.0	23.5	24.5	28.5	---	---	24.0	21.5	22.5
8	25.0	22.5	23.5	26.5	23.5	25.0	28.0	25.5	26.5	25.0	22.5	23.5
9	24.0	21.5	22.5	27.0	24.0	25.5	28.0	25.5	26.5	25.5	23.0	24.0
10	24.0	21.0	22.5	27.5	25.0	26.0	27.5	25.0	26.0	25.5	23.0	24.0
11	23.5	21.0	22.5	28.0	25.5	26.5	27.0	24.5	25.5	25.5	23.0	24.5
12	25.0	22.5	23.5	28.5	25.5	27.0	28.0	25.0	26.5	25.0	23.5	24.5
13	26.0	23.5	24.5	27.5	25.5	26.5	28.0	25.5	27.0	26.5	24.0	25.0
14	28.0	25.0	26.5	28.0	25.0	26.5	28.5	25.5	27.0	27.0	24.0	25.5
15	29.5	27.0	28.0	28.5	26.0	27.0	28.0	26.0	27.0	27.0	24.5	25.5
16	29.5	28.0	28.5	28.0	26.0	27.0	28.0	26.0	27.0	27.0	24.0	25.5
17	29.5	27.0	28.5	27.5	25.0	26.5	28.5	26.0	27.0	27.5	24.5	25.5
18	29.0	27.0	28.0	26.5	24.0	25.5	28.0	26.0	27.0	28.0	25.0	26.0
19	28.0	26.0	27.0	27.0	24.5	26.0	27.5	25.0	26.0	29.0	25.5	26.5
20	28.5	26.0	27.0	28.0	25.0	26.5	26.5	24.5	25.5	29.0	26.0	27.0
21	29.0	26.5	28.0	28.0	25.5	27.0	26.5	24.0	25.0	28.0	26.0	26.5
22	30.0	27.5	28.5	28.0	25.5	27.0	27.0	24.5	25.5	26.0	25.0	25.5
23	29.0	26.5	27.5	28.0	25.5	27.0	26.5	24.5	25.5	26.0	23.5	24.5
24	28.0	25.5	26.5	28.5	26.0	27.5	26.5	24.0	25.5	25.5	23.5	24.5
25	28.5	25.5	27.0	29.0	26.0	27.5	27.0	24.5	25.5	26.0	23.5	24.5
26	29.0	26.0	27.5	28.5	26.5	27.5	27.5	25.0	26.0	27.0	24.0	25.5
27	30.0	27.0	28.5	27.5	25.5	26.5	27.5	25.5	26.5	27.0	24.5	25.5
28	30.5	27.5	29.0	27.5	25.0	26.5	27.5	25.5	26.5	26.5	24.0	25.0
29	30.5	28.0	29.0	28.5	25.5	27.0	27.0	24.0	25.0	26.0	23.5	24.5
30	---	27.0	---	28.5	26.5	27.5	24.5	23.0	24.0	26.5	24.0	25.0
31	---	---	---	29.0	27.0	28.0	24.5	23.0	23.5	---	---	---
MONTH	---	21.0	---	---	---	---	---	---	---	29.0	20.5	24.5

11262900 MUD SLOUGH NEAR GUSTINE, CA

LOCATION.—Lat 37°15'45", long 120°54'20", in SE 1/4 SE 1/4 sec.6, T.8 S., R.10 E., Merced County, Hydrologic Unit 18040001, Kesterson National Wildlife Refuge, on right bank at footbridge, 400 ft northwest of terminus of San Luis Drain, and 5.2 mi east of Gustine.

DRAINAGE AREA.—Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1985 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 70 ft above sea level, from topographic map.

REMARKS.—Records good. During major storm events record can be affected by backwater from the San Joaquin River. Discharge is affected by irrigation return and drainage from Kesterson Wildlife Refuge.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,060 ft^3/s, Feb. 8, 1998; gage height, 11.11 ft; maximum gage height, 12.03 ft, Jan. 28, 1997, minimum daily, 0.01 ft^3/s, Sept. 24, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	178	131	167	274	357	83	54	126	75	55	53
2	119	178	133	172	254	356	84	53	100	77	52	52
3	126	179	127	177	233	332	93	52	81	69	55	61
4	132	168	128	181	201	304	93	55	74	69	57	61
5	142	175	123	164	184	269	88	60	79	72	57	62
6	158	172	121	158	172	247	108	72	86	72	55	56
7	177	171	121	155	165	238	103	77	87	74	57	60
8	205	182	118	147	164	238	92	88	84	80	64	56
9	176	182	117	142	168	228	91	93	94	82	63	57
10	166	169	118	139	166	225	85	86	101	78	61	55
11	171	168	117	139	159	220	81	93	103	72	58	55
12	173	196	119	143	165	208	76	102	101	72	55	51
13	182	192	118	141	187	201	69	104	95	68	55	52
14	192	184	117	134	237	243	70	98	92	66	55	43
15	198	184	112	134	303	252	77	89	85	65	56	43
16	206	180	110	133	317	234	78	92	84	73	58	48
17	209	175	114	133	359	205	93	100	83	71	56	54
18	216	165	116	148	362	185	115	106	83	68	58	59
19	238	158	116	163	349	177	141	93	83	65	68	54
20	244	153	117	181	341	166	134	85	95	63	68	52
21	221	152	117	173	343	152	120	82	89	65	65	50
22	194	148	120	177	335	144	115	81	86	66	60	49
23	185	145	120	200	345	131	102	80	82	67	59	51
24	191	139	115	244	356	125	85	84	76	67	63	51
25	197	132	113	296	352	124	73	89	75	66	63	49
26	196	128	113	324	347	129	66	102	72	63	58	43
27	188	127	114	312	347	125	62	109	69	61	58	42
28	174	124	118	300	346	121	57	101	67	60	60	43
29	174	125	122	291	339	108	56	98	62	57	60	46
30	182	126	125	283	---	100	56	99	67	56	61	56
31	182	---	142	289	---	89	---	105	---	57	57	---
TOTAL	5611	4855	3712	5940	7870	6233	2646	2682	2561	2116	1827	1564
MEAN	181	162	120	192	271	201	88.2	86.5	85.4	68.3	58.9	52.1
MAX	244	196	142	324	362	357	141	109	126	82	68	62
MIN	97	124	110	133	159	89	56	52	62	56	52	42
AC-FT	11130	9630	7360	11780	15610	12360	5250	5320	5080	4200	3620	3100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2000, BY WATER YEAR (WY)

MEAN	60.1	75.3	93.2	151	209	175	84.2	50.2	48.1	45.5	39.9	27.1
MAX	189	181	305	545	958	563	229	123	130	114	100	105
(WY)	1999	1997	1997	1997	1998	1998	1986	1998	1986	1998	1987	1998
MIN	3.35	7.53	5.86	6.17	6.96	28.0	19.2	1.76	3.79	7.42	3.36	2.67
(WY)	1993	1991	1991	1991	1991	1990	1992	1992	1994	1994	1994	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1986 - 2000	
ANNUAL TOTAL	49785		47617			
ANNUAL MEAN	136		130		87.6	
HIGHEST ANNUAL MEAN					252	1998
LOWEST ANNUAL MEAN					17.6	1991
HIGHEST DAILY MEAN	344	Feb 14	362	Feb 18	1060	Feb 9 1998
LOWEST DAILY MEAN	54	Sep 10	42	Sep 27	.01	Sep 24 1991
ANNUAL SEVEN-DAY MINIMUM	62	Sep 5	46	Sep 23	.12	Sep 23 1992
INSTANTANEOUS PEAK FLOW			370	Mar 1	1060	Feb 8 1998
INSTANTANEOUS PEAK STAGE			7.70	Mar 1	12.03	Jan 28 1997
ANNUAL RUNOFF (AC-FT)	98750		94450		63440	
10 PERCENT EXCEEDS	224		238		189	
50 PERCENT EXCEEDS	120		112		53	
90 PERCENT EXCEEDS	74		56		5.2	

11262900 MUD SLOUGH NEAR GUSTINE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water year 1985 to current year. Data for the period October 1985 to March 1987 are available in U.S. Geological Survey Open-File Report 88-479. Data for the period April 1987 to September 1988 are available in U.S. Geological Survey Open-File Report 91-74.
CHEMICAL DATA: Water years 1985–88, 1993–94, 1999.
SPECIFIC CONDUCTANCE: October 1985 to current year.
WATER TEMPERATURE: October 1985 to current year.
SEDIMENT DATA: Water years 1985–94, 1999.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: October 1985 to current year.
WATER TEMPERATURE: October 1985 to current year.

INSTRUMENTATION.—Water-quality monitor since October 1985.

REMARKS.—Maximum and minimum values are affected by the drainage of holding ponds located immediately upstream from the station. Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 15,900 microsiemens, Feb. 25, 1991; minimum recorded, 470 microsiemens, Oct. 15, 1986.
WATER TEMPERATURE: Maximum recorded, 34.5°C, July 22, 1988, Aug. 6, 1990, July 2, 25, Aug. 13, 1996; minimum recorded, 2.5°C, Jan. 17, 1987, Dec. 24, 1990.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 4,890 microsiemens, Apr. 28; minimum recorded, 1,060 microsiemens, May 14.
WATER TEMPERATURE: Maximum recorded, 30.0°C, June 29, Aug. 2, 3; minimum recorded, 6.5°C, Dec. 11, 14–16.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2240	1950	1630	1590	---	---	1970	1890	2020	1820	2030	1870
2	1980	1930	---	---	1960	1920	1920	1830	2180	2010	2310	1870
3	2090	1980	---	---	2080	1930	1880	1810	2290	2150	2320	2200
4	2140	2030	1680	1470	2090	2060	1890	1810	2350	2260	2470	2240
5	2140	1820	1710	1610	2070	2010	2040	1830	2430	2340	2570	2420
6	1830	1570	1720	1650	2030	1970	2010	1900	2560	2430	2790	2540
7	1620	1320	1770	1660	2050	1960	1980	1910	2600	2510	2870	2740
8	1450	1220	1750	1620	2120	1980	2050	1960	---	---	2920	2660
9	1710	1390	1700	1480	2130	2090	2040	1990	2640	2060	2830	2710
10	1670	1490	1680	1490	2160	1990	2000	1950	2610	2440	2770	2470
11	1700	1570	1600	1460	2040	2000	2050	1970	2530	2340	---	---
12	1670	1560	1460	1390	2050	2010	2010	1950	2410	2230	---	---
13	1570	1480	1470	1450	2100	2020	2040	1940	2450	2260	---	---
14	1480	1410	1520	1430	2160	2070	2040	1960	2370	1870	2510	2120
15	1420	1320	1520	1430	2200	2140	2100	1980	---	---	2310	2100
16	1350	1280	1690	1520	2180	2120	2020	1960	2060	1770	2570	2310
17	1380	1330	1640	1580	2200	2120	2040	1790	1770	1630	2710	2520
18	1370	1260	1720	1520	2190	2130	1910	1790	1890	1690	2830	2510
19	1260	1200	1770	1690	2210	2130	---	---	1860	1560	2830	2640
20	1250	1220	1750	1670	2200	2160	---	---	1710	1500	2930	2630
21	1340	1230	1880	1680	2200	2080	---	---	1890	1650	---	---
22	1360	1330	1860	1730	2110	2080	---	---	1850	1710	3300	3110
23	1410	1350	1900	1820	2180	2100	---	---	1810	1610	3290	3170
24	1430	1350	1880	1770	2220	2150	1840	1640	1720	1610	3400	3200
25	1410	1370	1890	1760	2220	2160	1840	1620	1680	1460	3400	3170
26	1430	1380	2030	1880	2220	2170	1960	1620	1690	1420	3290	3020
27	1460	1370	---	---	2210	2160	1930	1770	1760	1520	3280	3030
28	1540	1440	---	---	2200	2110	1790	1680	1930	1710	3210	2970
29	1610	1520	---	---	2250	2160	1820	1660	2040	1920	3790	3190
30	1590	1550	---	---	2220	2120	1830	1790	---	---	3650	3510
31	1600	1550	---	---	2150	1890	1860	1760	---	---	3830	3500
MONTH	2240	1200	---	---	---	---	---	---	---	---	---	---

11262900 MUD SLOUGH NEAR GUSTINE, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3890	3720	4770	4540	2850	2100	3480	2990	3760	3420	3100	2740
2	3760	3430	4760	4680	---	---	2990	2790	3690	3210	2990	2790
3	3650	3080	4730	4220	---	---	3580	2860	3790	3410	2790	2480
4	3500	3170	4650	4270	3760	3250	3520	3150	3600	3230	2940	2620
5	3640	3120	4290	4090	3580	3040	3170	2970	3720	3130	2910	2780
6	3200	2960	4090	3430	3360	3240	3400	3150	3930	3290	2820	2630
7	3220	3120	3570	3150	3660	3190	3380	3200	3430	3090	2640	2310
8	3220	3070	3220	3050	3710	3340	3320	2970	3170	3070	2660	2500
9	3270	3130	3190	2780	3600	2910	3200	2940	3280	3120	2620	2480
10	3750	3160	3340	2700	2910	2260	3500	3070	3300	3150	2620	2390
11	3900	3630	3040	2640	3120	2370	3570	3120	3400	2960	2490	2120
12	3890	3560	2660	2460	2450	2290	3430	3110	3340	3120	2170	2000
13	3780	3450	2620	2010	3670	2140	3490	3160	3230	3030	2060	1850
14	3830	3660	2510	1060	3480	3280	3520	3240	3300	2930	2140	1810
15	3660	3320	---	---	3550	3330	3520	3300	2930	2580	2060	1810
16	3560	3330	1910	1520	3570	3460	3460	3160	2770	2670	2110	1870
17	---	---	1780	1350	3530	3310	3330	3150	3000	2730	1870	1660
18	---	---	1500	1260	3430	3210	---	---	3140	2930	2050	1790
19	---	---	1770	1500	3460	3220	3300	2620	3120	2840	2240	2050
20	3510	2840	1810	1570	3350	2790	---	---	3240	2570	2300	2150
21	2850	1930	2730	1410	3470	2800	3540	3220	2780	2470	2710	2300
22	2510	1810	2890	2690	3660	3320	3630	3230	2960	2550	3020	2710
23	3260	1980	2850	2480	3580	3320	3680	3320	2820	2510	3020	2730
24	3780	3040	2940	2580	3510	3260	3610	3280	2930	2720	2740	2600
25	4450	3780	3260	2850	3390	3230	3540	3280	2940	2750	2620	2460
26	4510	4370	2920	2610	3670	3270	3700	3350	3050	2740	2640	2590
27	4650	4310	3060	2450	3630	3220	3630	3400	3000	2660	2590	2280
28	4890	4520	3170	2800	3360	3040	3590	3240	2850	2620	2280	2090
29	4820	4510	3290	2840	3480	3280	3620	3400	3060	2790	2150	1950
30	4650	4570	3490	3020	3450	3080	3720	3460	3140	2970	1950	1730
31	---	---	3340	2750	---	---	3730	3390	3150	3020	---	---
MONTH	---	---	---	---	---	---	---	---	3930	2470	3100	1660

11262900 MUD SLOUGH NEAR GUSTINE, CA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25.5	22.0	18.0	16.0	---	---	9.5	8.0	14.5	11.5	15.5	12.0
2	24.5	21.5	18.5	15.5	11.5	10.0	9.5	7.5	14.5	12.5	14.5	13.0
3	24.0	20.5	18.5	16.0	10.5	8.0	9.0	7.0	14.0	12.0	16.0	12.0
4	23.0	20.0	18.5	16.0	10.0	7.5	9.0	7.0	14.0	12.0	17.0	13.5
5	22.5	19.0	18.5	16.0	10.5	8.0	10.0	8.0	14.5	12.0	15.5	13.5
6	23.0	20.0	18.5	16.0	10.5	8.5	8.5	7.0	15.5	12.5	16.0	12.0
7	21.5	18.5	17.5	15.5	11.0	9.0	9.5	7.0	15.5	13.0	14.5	13.0
8	23.0	19.5	17.5	15.0	10.0	8.0	9.0	7.0	16.5	13.0	14.0	12.0
9	24.0	20.0	17.0	15.0	9.5	8.5	9.5	7.5	16.5	14.5	14.5	11.5
10	24.5	20.5	17.5	15.0	9.5	8.0	10.5	8.0	15.5	14.0	16.5	12.0
11	25.0	21.5	17.5	15.0	9.0	6.5	11.5	9.0	14.0	12.5	18.0	14.0
12	23.5	20.5	17.0	15.0	9.5	7.0	11.5	10.5	12.5	11.5	18.0	12.5
13	23.5	20.5	17.0	15.0	10.0	8.0	12.0	9.5	12.5	11.5	19.0	14.0
14	24.0	21.0	16.5	15.0	8.5	6.5	11.5	10.0	15.0	12.5	20.0	16.5
15	22.5	20.0	17.5	15.5	9.0	6.5	11.5	11.0	14.5	12.0	19.0	16.5
16	20.0	18.0	17.5	15.5	9.0	6.5	12.5	10.5	14.0	13.0	19.5	16.0
17	20.5	17.5	16.5	15.0	9.5	7.0	12.0	11.0	14.5	12.0	17.0	13.5
18	20.0	17.5	15.5	13.5	9.5	7.5	14.0	11.5	14.5	12.5	19.0	14.0
19	20.0	17.5	14.5	13.0	9.5	7.5	14.5	13.0	14.0	13.0	20.0	16.0
20	20.5	17.5	15.0	13.0	10.0	7.5	14.5	13.5	14.5	13.5	16.5	12.0
21	21.0	18.0	14.0	11.5	10.0	7.5	14.5	12.0	15.0	12.5	16.0	10.5
22	21.0	18.0	11.5	9.0	10.0	7.5	14.5	11.5	14.0	12.5	18.0	13.0
23	20.5	18.5	11.5	9.5	10.0	7.5	14.0	12.5	13.0	11.5	19.0	15.0
24	19.5	17.0	11.5	9.0	10.0	7.5	13.5	12.5	12.0	10.5	19.0	15.0
25	20.0	17.0	12.0	9.5	10.0	7.5	14.5	13.0	13.5	11.0	19.5	15.0
26	20.0	17.5	12.0	10.0	9.5	7.5	14.0	13.0	15.0	12.5	20.0	15.5
27	21.0	18.0	---	---	9.5	7.5	14.0	12.5	15.0	13.5	20.0	16.5
28	20.0	18.0	---	---	10.0	7.5	13.0	11.5	15.0	13.0	19.0	15.5
29	18.0	15.5	---	---	10.0	7.5	13.0	11.0	14.5	13.0	19.5	15.5
30	18.0	15.0	---	---	10.5	7.5	12.5	11.5	---	---	19.0	16.0
31	18.5	15.5	---	---	10.0	8.5	13.0	11.0	---	---	18.5	14.0
MONTH	25.5	15.0	---	---	---	---	14.5	7.0	16.5	10.5	20.0	10.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	19.5	14.5	24.0	19.5	25.0	20.0	28.0	24.5	29.0	27.0	23.0	21.5
2	22.0	17.0	24.5	20.0	26.5	21.5	27.5	23.5	30.0	27.0	22.5	21.0
3	23.0	18.5	25.0	20.5	26.5	22.0	26.0	22.5	30.0	27.5	24.0	20.5
4	23.0	19.5	25.5	21.0	27.0	22.5	25.5	21.5	29.5	27.0	23.5	20.0
5	22.5	18.5	25.0	21.5	27.0	22.5	25.5	21.5	28.5	26.5	23.0	20.0
6	22.5	18.5	22.5	19.5	26.5	22.5	25.5	21.5	28.5	26.0	23.0	19.5
7	22.0	18.0	20.0	18.5	26.5	23.0	25.5	21.5	28.5	25.5	24.5	20.0
8	22.5	18.5	22.5	18.5	24.0	22.0	26.0	22.0	28.0	24.5	25.0	21.0
9	22.0	18.0	23.0	19.0	24.0	20.5	27.0	22.5	28.0	24.5	25.5	21.0
10	22.0	18.0	21.0	18.5	24.5	20.5	27.5	23.5	27.0	24.0	25.0	21.5
11	23.5	19.0	20.5	17.0	24.5	21.0	27.0	23.5	26.5	24.0	25.5	21.5
12	24.0	21.0	21.5	16.5	25.5	21.5	27.5	24.0	27.5	24.5	24.0	21.5
13	23.0	20.0	23.0	18.0	26.5	22.5	26.5	24.0	27.5	25.0	25.5	22.0
14	22.5	19.0	21.0	18.0	29.0	24.5	27.0	23.5	28.0	25.0	27.0	21.5
15	21.0	18.5	21.5	18.5	29.5	26.0	27.5	24.5	28.0	25.0	26.5	21.5
16	19.5	16.5	20.5	18.0	29.0	26.5	27.5	24.5	28.0	24.5	26.5	21.0
17	17.0	14.5	21.5	17.5	29.5	26.0	27.0	23.5	28.5	24.5	27.0	21.5
18	18.5	14.5	23.5	18.5	29.0	25.5	26.5	22.5	27.5	24.5	27.0	22.0
19	19.5	16.0	25.0	20.5	28.0	24.5	27.0	22.0	27.0	24.0	27.5	23.0
20	20.5	17.0	27.5	21.5	29.0	25.0	27.5	23.5	26.5	23.5	29.0	23.5
21	22.0	18.5	28.5	23.0	29.0	25.5	28.0	24.5	26.0	23.0	26.5	22.5
22	21.0	18.5	29.5	24.5	29.5	26.0	28.0	24.0	27.0	23.5	25.0	22.5
23	21.0	17.5	27.5	25.5	29.0	25.0	28.0	24.0	26.5	23.5	24.5	20.5
24	21.5	18.0	28.0	24.0	28.5	24.5	28.0	25.0	26.0	23.0	25.0	20.5
25	22.0	18.5	26.5	22.0	28.5	24.5	28.5	25.0	26.5	23.5	25.5	20.5
26	23.5	19.0	26.0	21.5	29.0	25.5	28.5	25.0	27.0	24.0	25.5	21.0
27	23.5	20.0	26.5	22.0	29.5	26.0	27.5	24.5	27.0	24.5	25.5	21.0
28	21.5	19.0	27.0	22.5	29.5	26.5	27.5	24.5	27.0	24.5	24.5	20.5
29	22.0	17.5	26.5	22.5	30.0	27.0	28.0	24.5	26.0	23.0	24.5	19.5
30	23.5	18.5	26.0	22.0	29.0	25.5	28.0	26.0	24.0	22.5	25.0	20.0
31	---	---	23.5	21.0	---	---	29.0	26.0	24.5	22.0	---	---
MONTH	24.0	14.5	29.5	16.5	30.0	20.0	29.0	21.5	30.0	22.0	29.0	19.5

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA

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 mi^2.

PERIOD OF RECORD.—August 1915 to current year.
CHEMICAL DATA: Water years 1968–96.
BIOLOGICAL DATA: Water years 1973–81.
WATER TEMPERATURE: Water years 1966–77, 1979–93.
SEDIMENT DATA: Water years 1970–71, 1973–96.

REVISED RECORDS.—WSP 1215: 1938(M).

GAGE.—Water-stage recorder. Datum of gage is 4,016.58 ft above sea level. Prior to Nov. 2, 1916, nonrecording gage at datum 0.55 ft lower.

REMARKS.—Records good. Up to 5 ft^3/s can be diverted upstream from station for Yosemite Valley water supply.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,100 ft^3/s, Jan. 2, 1997, gage height, 13.27 ft, from rating curve extended above 4,000 ft^3/s on basis of contracted-opening measurements at gage heights 10.4 and 11.55 ft; minimum daily, 1.5 ft^3/s, Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,900 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 28	0315	2,920	6.86				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	11	22	7.0	56	102	293	1400	1490	556	112	84
2	23	11	20	6.9	61	102	352	1510	1480	450	119	76
3	22	11	19	6.4	66	101	478	1670	1440	379	123	65
4	19	10	19	6.3	65	109	606	1660	1560	327	153	57
5	19	10	18	5.9	62	113	691	1510	1690	284	131	47
6	19	10	17	5.8	58	103	668	1380	1490	260	107	40
7	19	10	17	5.8	59	94	690	1480	1390	238	94	34
8	19	21	16	5.7	61	93	766	1900	1280	214	88	28
9	18	20	16	5.8	62	90	701	1540	949	205	82	25
10	17	17	14	6.1	70	87	648	1290	819	219	73	23
11	17	17	14	6.5	69	96	687	992	817	242	62	21
12	16	17	14	8.3	69	110	743	800	986	258	54	19
13	15	16	14	7.9	85	131	1080	765	1220	248	47	18
14	14	16	13	7.4	241	168	783	773	1510	217	43	17
15	11	17	12	9.1	161	213	564	661	1530	204	40	16
16	11	18	12	17	136	239	480	655	1610	208	38	15
17	10	25	12	22	119	263	455	603	1600	212	36	14
18	10	25	12	104	108	285	421	708	1340	194	36	14
19	10	26	11	85	104	338	379	1100	1170	170	36	13
20	9.8	38	11	57	108	307	423	1590	958	151	35	13
21	9.5	31	11	51	112	245	474	2000	874	142	33	13
22	9.2	29	11	39	100	244	491	2350	847	137	30	13
23	9.1	27	11	41	100	265	489	2340	799	129	28	13
24	9.1	25	10	92	93	266	541	2090	698	123	26	13
25	9.1	24	9.7	88	91	260	659	2150	786	123	25	13
26	9.0	23	9.4	74	92	304	891	1860	735	123	26	13
27	9.0	23	9.0	60	117	356	1170	2130	580	121	27	13
28	13	22	8.1	54	115	338	1220	2450	673	112	31	13
29	14	21	8.1	51	111	322	968	2100	665	102	41	11
30	12	22	7.7	53	---	333	1080	1820	616	96	73	10
31	12	---	7.5	57	---	311	---	1590	---	99	90	---
TOTAL	437.8	593	405.5	1045.9	2751	6388	19891	46867	33602	6543	1939	764
MEAN	14.1	19.8	13.1	33.7	94.9	206	663	1512	1120	211	62.5	25.5
MAX	24	38	22	104	241	356	1220	2450	1690	556	153	84
MIN	9.0	10	7.5	5.7	56	87	293	603	580	96	25	10
AC-FT	868	1180	804	2070	5460	12670	39450	92960	66650	12980	3850	1520

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	36.6	61.5	84.1	90.7	109	191	541	1261	1233	482	115	44.6
MAX	267	818	736	1084	401	575	1007	2675	3317	2393	775	360
(WY)	1919	1951	1965	1997	1986	1986	1926	1969	1983	1995	1983	1978
MIN	2.58	4.89	4.49	6.56	8.89	25.2	173	231	120	28.6	7.79	3.18
(WY)	1956	1933	1977	1991	1991	1977	1975	1977	1924	1931	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1916 - 2000	
ANNUAL TOTAL	116050.3		121227.2			
ANNUAL MEAN	318		331		355	
HIGHEST ANNUAL MEAN					802	1983
LOWEST ANNUAL MEAN					84.9	1977
HIGHEST DAILY MEAN	2430	May 26	2450	May 28	9030	Jan 2 1997
LOWEST DAILY MEAN	7.5	Dec 31	5.7	Jan 8	1.5	Sep 26 1977
ANNUAL SEVEN-DAY MINIMUM	8.5	Dec 25	5.9	Jan 4	1.9	Oct 14 1964
INSTANTANEOUS PEAK FLOW			2920	May 28	10100	Jan 2 1997
INSTANTANEOUS PEAK STAGE			6.86	May 28	13.27	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	230200		240500		256900	
10 PERCENT EXCEEDS	1130		1220		1140	
50 PERCENT EXCEEDS	101		84		100	
90 PERCENT EXCEEDS	12		10		11	

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA

LOCATION.—Lat 37°43'01", long 119°39'55", unsurveyed, 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 mi^2.

PERIOD OF RECORD.—October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A.
CHEMICAL DATA: Water years 1971–72, 1981–82, 1994, and 1995.
WATER TEMPERATURE: Water year 1995.
SEDIMENT DATA: Water year 1995.

GAGE.—Water-stage recorder. Datum of gage is 3,861.66 ft above sea level. 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 except for estimated daily discharges, which are fair. No diversions between stations at Happy Isles Bridge and Pohono Bridge.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,600 ft^3/s, Jan. 3, 1997, gage height, 23.43 ft, from floodmarks in gagehouse, from rating curve extended above 17,000 ft^3/s on basis of computation of flow over diversion dam for Yosemite Powerplant 1 mi downstream at gage heights 20.1 and 21.98 ft, present datum; minimum daily 5.4 ft^3/s, Oct. 26, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,900 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 8	0900	5,060	8.97				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	23	34	20	129	234	633	2840	2600	857	146	e105
2	35	23	33	19	135	234	760	3030	2570	718	155	98
3	34	22	32	19	144	228	1040	3250	2480	612	160	e87
4	33	22	32	19	145	239	1310	3230	2570	539	193	78
5	32	22	31	19	139	252	1500	3020	2690	470	179	70
6	31	21	31	18	128	236	1490	2830	2470	431	147	62
7	30	21	31	18	126	217	1550	3150	2340	398	129	55
8	29	32	30	18	128	216	1720	4700	2300	364	119	50
9	28	36	29	18	131	206	1550	3670	1920	338	112	46
10	27	31	29	18	150	196	1400	2960	1670	343	104	43
11	26	29	27	19	151	210	1470	2370	1580	364	92	40
12	25	29	27	21	152	230	1520	2020	1730	380	83	38
13	25	28	27	20	194	264	2610	1930	1980	370	78	37
14	24	27	26	20	526	325	1920	1960	2290	332	73	35
15	24	27	26	21	427	401	1410	1790	2290	307	69	34
16	23	27	26	32	355	445	1200	1810	2320	304	65	33
17	22	34	25	39	294	482	1130	1670	2320	310	62	32
18	22	36	25	218	261	514	1040	1850	2060	291	61	31
19	22	37	25	219	242	624	923	2400	1860	258	60	30
20	21	e56	25	143	238	611	1010	3110	1600	228	59	29
21	21	e41	24	130	245	486	1140	3620	1470	210	56	29
22	21	e40	23	97	226	469	1240	4000	1400	202	54	29
23	21	e39	23	102	227	509	1220	4010	1280	191	52	29
24	20	e37	23	243	203	518	1310	3720	1150	179	50	29
25	20	e36	22	283	205	508	1530	3730	1190	174	48	28
26	20	e34	22	243	206	612	1970	3370	1200	172	46	28
27	20	e34	22	191	272	757	2550	3550	960	169	47	28
28	23	e33	21	157	258	726	2680	3880	1030	159	48	27
29	25	e32	20	139	258	689	2060	3500	1040	146	e55	27
30	25	32	20	139	---	713	2250	3140	974	135	e76	26
31	24	---	20	140	---	675	---	2790	---	131	e101	---
TOTAL	789	941	811	2802	6295	13026	45136	92900	55334	10082	2779	1313
MEAN	25.5	31.4	26.2	90.4	217	420	1505	2997	1844	325	89.6	43.8
MAX	36	56	34	283	526	757	2680	4700	2690	857	193	105
MIN	20	21	20	18	126	196	633	1670	960	131	46	26
AC-FT	1560	1870	1610	5560	12490	25840	89530	184300	109800	20000	5510	2600

e Estimated.

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	63.3	122	184	203	249	420	1104	2337	1940	657	152	66.1
MAX	436	1587	1666	2461	1035	1459	2136	5305	6279	3460	1045	426
(WY)	1983	1951	1951	1997	1986	1986	1982	1969	1983	1983	1983	1978
MIN	5.89	13.9	15.1	17.3	21.0	51.5	343	379	148	47.2	14.7	7.38
(WY)	1978	1930	1977	1977	1991	1977	1977	1977	1924	1931	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1917 - 2000	
ANNUAL TOTAL	221982		232208			
ANNUAL MEAN	608		634		626	
HIGHEST ANNUAL MEAN					1466	1983
LOWEST ANNUAL MEAN					127	1977
HIGHEST DAILY MEAN	4470	May 26	4700	May 8	21000	Jan 2 1997
LOWEST DAILY MEAN	20	Oct 24	18	Jan 6	5.4	Oct 26 1977
ANNUAL SEVEN-DAY MINIMUM	20	Oct 21	18	Jan 4	5.6	Oct 20 1977
INSTANTANEOUS PEAK FLOW			5060	May 8	24600	Jan 3 1997
INSTANTANEOUS PEAK STAGE			8.97	May 8	23.43	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	440300		460600		453300	
10 PERCENT EXCEEDS	2160		2310		1920	
50 PERCENT EXCEEDS	196		146		184	
90 PERCENT EXCEEDS	25		22		26	

11267350 BIG CREEK DIVERSION NEAR FISH CAMP, CA

LOCATION.—Lat 37°28'10", long 119°36'51", in SE 1/4 NE 1/4 sec.25, T.5 S., R.21 E., Mariposa County, Hydrologic Unit 18040008, Sierra National Forest, on right bank, 0.5 mi downstream from diversion weir, 0.5 mi upstream from Rainier Creek, and 1.2 mi southeast of Fish Camp.

PERIOD OF RECORD.—October 1969 to June 1977, April 1987 to current year.

GAGE.—Water-stage recorder, crest-stage gage, and culvert control. Elevation of gage is 5,400 ft above sea level, from topographic map.

REMARKS.—Records fair. Flow is diverted from the left bank of Big Creek, a tributary to South Fork of the Merced River, to Lewis Fork of the Fresno River. Flow is used for domestic and irrigation purposes.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 66 ft^3/s, June 1, 2, 1975; no flow for several days in summer months of most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.10	1.8	e2.0	18	21	38	44	31	9.1	.25	.19
2	.18	.10	1.8	e2.5	18	21	40	45	29	9.0	.25	.16
3	.17	.09	1.8	e2.5	16	21	42	45	28	6.4	.22	.15
4	.18	.07	1.8	e2.0	15	23	43	45	27	4.5	.21	.15
5	.18	.07	1.9	e2.0	15	23	44	45	26	4.2	.21	.15
6	.18	.07	2.1	e2.0	14	20	43	44	24	4.2	.21	.15
7	.18	.08	1.7	e2.5	13	19	43	47	23	4.2	.20	.15
8	.18	.08	e2.0	e2.5	13	19	43	51	31	4.1	.18	.15
9	.18	.04	2.4	e2.5	15	19	43	48	27	4.1	.18	.15
10	.18	.04	3.0	e2.5	24	19	42	45	24	4.0	.18	.15
11	.16	.04	3.7	3.4	20	21	42	43	22	4.0	.19	.16
12	.15	.04	3.8	5.2	17	22	42	42	20	4.1	.20	.16
13	.15	.04	2.9	2.5	21	23	48	41	19	4.0	.18	.16
14	.15	.04	e2.5	2.0	52	26	47	40	17	2.0	.18	.17
15	.15	.04	e2.0	2.9	43	32	43	40	16	.68	.18	.18
16	.15	.89	1.8	5.7	37	33	42	41	16	.63	.18	.17
17	.15	5.1	1.8	18	32	33	43	39	15	.59	.18	.16
18	.15	2.1	1.8	41	29	35	42	39	14	.55	.18	.16
19	.15	3.1	1.8	23	27	38	40	40	14	.55	.17	.14
20	.15	7.5	1.7	18	31	36	41	41	14	.53	.15	.16
21	.15	2.9	1.9	15	30	34	42	42	12	.48	.15	.18
22	.15	2.1	2.0	11	26	34	43	43	12	.47	.15	.18
23	.13	1.8	2.5	20	23	35	42	42	11	.39	.15	.18
24	.11	2.0	2.2	47	24	36	42	42	11	.39	.15	.18
25	.10	1.8	2.3	45	22	37	42	41	11	.38	.15	.21
26	.10	1.7	2.8	36	23	38	43	40	10	.38	.15	.21
27	.10	1.7	e2.5	27	24	38	45	40	11	.38	.15	.20
28	.11	1.7	e2.5	22	24	37	44	38	11	.36	.15	.21
29	.10	1.7	e2.5	19	22	36	42	36	10	.30	.16	.24
30	.10	1.7	e2.0	18	---	37	43	34	9.7	.29	.18	.21
31	.10	---	e2.5	19	---	38	---	32	---	.27	.18	---
TOTAL	4.55	38.73	69.8	423.7	688	904	1279	1295	545.7	75.52	5.60	5.17
MEAN	.15	1.29	2.25	13.7	23.7	29.2	42.6	41.8	18.2	2.44	.18	.17
MAX	.18	7.5	3.8	47	52	38	48	51	31	9.1	.25	.24
MIN	.10	.04	1.7	2.0	13	19	38	32	9.7	.27	.15	.14
AC-FT	9.0	77	138	840	1360	1790	2540	2570	1080	150	11	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2000, BY WATER YEAR (WY)

MEAN	1.44	3.79	6.53	8.15	10.2	17.0	24.0	29.1	18.1	4.21	.97	.80
MAX	7.61	11.9	31.3	35.8	32.7	37.3	43.3	56.2	58.0	22.3	3.14	3.46
(WY)	1970	1997	1997	1970	1970	1972	1993	1975	1998	1998	1973	1995
MIN	.026	1.10	.75	.76	.19	.32	3.21	2.65	.025	.52	.025	.000
(WY)	1989	1991	1991	1996	1997	1996	1995	1995	1995	1995	1988	1987

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1970 - 2000	
ANNUAL TOTAL	4912.56		5334.77			
ANNUAL MEAN	13.5		14.6		10.9	
HIGHEST ANNUAL MEAN					19.3	1993
LOWEST ANNUAL MEAN					3.67	1995
HIGHEST DAILY MEAN	45	Feb 9	52	Feb 14	66	Jun 1 1975
LOWEST DAILY MEAN	.04	Nov 9	.04	Nov 9	.00	Jul 1 1973
ANNUAL SEVEN-DAY MINIMUM	.04	Nov 9	.04	Nov 9	.00	Aug 1 1987
ANNUAL RUNOFF (AC-FT)	9740		10580		7920	
10 PERCENT EXCEEDS	37		42		34	
50 PERCENT EXCEEDS	7.2		3.9		3.8	
90 PERCENT EXCEEDS	.15		.15		.21	

e Estimated.

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 mi^2.

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 sea level (levels by Merced Irrigation District). Prior to Oct. 1, 1964, indicator in powerplant 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 Exchequer Powerplant (station 11269700) down the Merced River to a diversion dam for Merced Irrigation District's main canal.

COOPERATION.—Records were provided by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

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, 66,100 acre-ft, Feb. 28, 1991, elevation, 588.4 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 965,800 acre-ft, June 18, elevation, 858.54 ft; minimum, 600,100 acre-ft, Jan. 15, 16, minimum elevation, 794.52 ft, Jan. 15.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Merced Irrigation District, dated June 1966)

590	67,900	640	137,800	720	317,800	840	845,800
600	79,900	660	173,500	750	415,900	860	975,700
610	92,800	680	215,200	780	534,500	870	1,046,000
620	106,700	700	263,000	820	729,600		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	677600	625900	616600	605200	645600	728800	712700	770000	937100	944600	844900	746900
2	675700	625400	616200	604800	646300	727600	713200	775400	940200	942000	840400	744400
3	674300	625000	615800	604300	646800	725600	714600	781600	943000	939400	837000	742300
4	672800	624600	616000	603700	647300	723100	716600	785900	946100	936600	833600	740100
5	671300	624200	615200	603300	647700	723400	719800	790200	949100	933800	830300	738200
6	669000	623800	611900	602700	648000	722100	722500	798900	951200	930600	827200	736300
7	667800	623300	607300	602400	648200	719700	725300	804600	953300	927200	823700	734200
8	666600	623400	608200	602200	648700	721200	730300	816200	955600	924000	820200	732200
9	665100	623700	613100	601900	649300	721200	731700	824900	956700	920600	816500	730000
10	664000	623800	612900	601600	650300	719700	733200	829900	957500	917300	813000	728000
11	662400	623400	612900	601300	652400	717500	736000	833000	957500	914800	809800	725500
12	660900	623000	612900	601000	656600	715000	738600	835300	957600	912300	806500	723500
13	659100	622300	611000	600800	669500	712900	744200	838300	958700	907200	803200	721000
14	657400	621600	611500	600500	683200	711300	749100	842000	960500	904300	800000	718700
15	654800	621500	611400	600100	697000	708800	751900	843700	962000	901100	796500	716600
16	652200	621700	611000	600100	697900	707900	754000	845600	963700	898100	793300	714300
17	649800	621800	610700	600300	697900	707800	758000	848600	964900	895100	788200	712100
18	647400	621900	610400	602000	697000	706000	759100	851100	965800	892000	785800	710000
19	644800	622100	610100	603400	694500	705500	758000	853200	965700	888900	783300	708000
20	643100	620100	609400	604900	691900	704600	756800	859300	965200	885600	780200	706100
21	641300	619800	608800	605200	691500	703800	756100	867600	964100	882400	777300	704300
22	639700	619400	608300	605600	690500	703400	755400	875900	962700	879000	774600	702400
23	638000	618900	607800	606100	699900	702900	754500	884600	961200	875700	771800	700300
24	636300	619000	607600	614500	701800	702500	754000	891500	959400	872200	768600	698400
25	634200	619200	607200	627900	700300	703100	754400	898100	957500	868600	765800	696500
26	632800	619300	606800	639200	698500	705100	755100	904300	955900	865200	762900	694300
27	630500	618400	606500	641000	713900	706200	758900	911200	953700	861700	760100	692600
28	629300	618000	606100	642400	722700	708000	762800	918100	951500	858000	757600	690800
29	627800	617200	605800	643200	727100	709300	763900	924600	949300	854400	754600	689000
30	626700	616900	605600	644000	---	710600	766200	929800	947100	845900	751900	687500
31	626300	---	605500	644900	---	711900	---	933800	---	845400	749100	---
MAX	677600	625900	616600	644900	727100	728800	766200	933800	965800	944600	844900	746900
MIN	626300	616900	605500	600100	645600	702500	712700	770000	937100	845400	749100	687500
a	799.98	798.04	795.65	803.77	819.54	816.73	826.54	853.76	855.76	839.93	823.52	812.13
b	-54500	-9400	-11400	+39400	+82200	-15200	+54300	+167600	+13300	-101700	-96300	-61600
c	53310	6570	11160	13620	86220	134200	109900	117000	129400	134400	107100	71580

CAL YR 1999 b -69300
WTR YR 2000 b +6700

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Discharge, in acre-feet, through Exchequer Powerplant, provided by Pacific Gas and Electric Company.

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 mi^2.

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.

REVISED RECORDS.—WSP 1315-A: 1901–09, 1911(M). WSP 1515: 1918–20, 1942–43 (published as station 11270000). WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 310.55 ft above sea level. See WSP 1930 for history of changes prior to Oct. 1, 1964.

REMARKS.—Merced Falls Dam diverts water to Northside Canal for irrigation downstream from station. Flow regulated by Exchequer (station 11269700), McSwain Powerplant (station 11270610), and Merced Falls Powerplant, Lake McClure (station 11269500) since 1926, enlarged 1967, and McSwain Reservoir (station 11270600) since 1966, capacity, 9,200 acre-ft.

COOPERATION.—Records were provided by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD (water years 1901–13, 1916–2000).—Maximum discharge observed, 47,700 ft^3/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 ft^3/s, Dec. 4, 1950, gage height, 22.6 ft, from floodmarks, site and datum then in use, from rating curve extended above 16,000 ft^3/s on basis of computation of peak flow over dam; minimum daily, 3.4 ft^3/s, Mar. 5, 1966.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	833	283	270	244	262	2580	1050	2210	1680	2000	1820	1390
2	817	253	273	242	262	3010	1160	1850	1680	1970	1830	1290
3	806	256	279	242	262	2970	1180	1860	1710	1900	1830	1170
4	790	259	268	249	262	2970	1210	1860	1780	1880	1800	1100
5	767	263	265	252	262	2820	1240	1880	1820	1960	1750	1080
6	758	262	270	245	262	3000	1230	1880	1840	2000	1730	1040
7	738	265	273	246	262	2990	1230	1910	1830	2010	1730	1020
8	713	265	263	247	261	3030	1260	1850	1840	2010	1740	1060
9	712	261	264	243	272	3020	1310	1830	1840	1930	1830	1160
10	720	260	264	254	284	3010	1340	1820	1760	1920	1830	1190
11	733	260	265	262	265	3000	1310	1940	1710	1950	1800	1200
12	783	262	265	262	326	3020	1300	1700	1720	1960	1750	1210
13	850	259	274	262	396	2870	1300	1310	1740	1890	1730	1220
14	934	259	283	262	1800	2760	1250	1310	1740	1840	1750	1200
15	1180	259	257	262	2960	2370	1210	1480	1760	1850	1740	1180
16	1240	258	248	262	3030	2040	1220	1500	1830	1790	1730	1180
17	1190	262	243	263	2790	2050	1300	1440	1880	1790	1680	1160
18	1220	263	243	267	2730	2050	1960	1400	1920	1810	1690	1150
19	1190	261	243	266	2740	2050	2590	1390	1940	1790	1670	1040
20	976	256	243	266	2750	2060	2600	1390	1920	1850	1540	960
21	772	256	246	266	2770	1910	2590	1420	1930	1910	1490	943
22	833	256	244	270	2740	1610	2590	1500	1970	1870	1500	975
23	885	261	247	262	2460	1620	2600	1630	1990	1840	1480	1010
24	898	265	249	262	2710	1630	2600	1750	2000	1870	1480	1030
25	912	265	244	286	2710	1090	2550	1850	2000	1890	1480	1020
26	881	265	244	262	2450	679	2530	1850	2000	1890	1470	1020
27	874	265	244	260	2140	770	2410	1830	2010	1900	1470	1000
28	834	275	244	259	2040	852	2350	1740	2000	1900	1410	897
29	639	276	244	260	2070	846	2390	1650	2010	1870	1400	805
30	549	265	244	260	---	846	2510	1650	2000	1880	1450	802
31	408	---	244	265	---	910	---	1650	---	1860	1450	---
TOTAL	26435	7875	7947	8010	44528	66433	53370	52330	55850	58780	51050	32502
MEAN	853	262	256	258	1535	2143	1779	1688	1862	1896	1647	1083
MAX	1240	283	283	286	3030	3030	2600	2210	2010	2010	1830	1390
MIN	408	253	243	242	261	679	1050	1310	1680	1790	1400	802
AC-FT	52430	15620	15760	15890	88320	131800	105900	103800	110800	116600	101300	64470
a	9590	8850	8590	8990	9370	9190	8870	9020	9310	9300	9580	9430
b	53270	.00	470	.00	83210	123200	112700	102100	110600	116200	97230	64610

a End of month contents, in acre-feet, McSwain Reservoir, provided by Pacific Gas and Electric Company.
b Total discharge, in acre-feet, McSwain Powerplant, provided by Pacific Gas and Electric Company.

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1925, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	224	222	396	1095	1290	2102	2644	4362	3719	1261	306	144
MAX	1522	531	1676	4409	3232	6995	5749	6768	8225	5867	958	302
(WY)	1905	1910	1910	1911	1909	1907	1907	1922	1906	1906	1906	1904
MIN	49.4	58.5	83.7	100	208	314	774	1478	212	61.3	29.9	20.5
(WY)	1914	1922	1906	1918	1913	1924	1912	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1901 - 1925	
ANNUAL MEAN	1443	
HIGHEST ANNUAL MEAN	2937	1907
LOWEST ANNUAL MEAN	348	1924
HIGHEST DAILY MEAN	37200	Jan 30 1911
LOWEST DAILY MEAN	1.0	Nov 21 1901
ANNUAL SEVEN-DAY MINIMUM	20	Sep 4 1924
INSTANTANEOUS PEAK FLOW	47700	Jan 31 1911
INSTANTANEOUS PEAK STAGE	23.30	Jan 31 1911
ANNUAL RUNOFF (AC-FT)	1045000	
10 PERCENT EXCEEDS	4340	
50 PERCENT EXCEEDS	488	
90 PERCENT EXCEEDS	80	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1964, BY WATER YEAR (WY)

MEAN	223	57.8	267	402	694	1059	1892	3143	2737	1739	1400	884
MAX	638	385	4698	3869	3155	5375	3876	7249	7426	2384	1713	1313
(WY)	1945	1951	1951	1956	1938	1938	1958	1952	1938	1938	1963	1952
MIN	20.8	25.2	26.0	20.7	35.1	33.3	275	1049	1090	210	171	17.2
(WY)	1932	1932	1934	1940	1960	1948	1948	1955	1934	1931	1961	1931

SUMMARY STATISTICS	WATER YEARS 1927 - 1964	
ANNUAL MEAN	1210	
HIGHEST ANNUAL MEAN	2738	1938
LOWEST ANNUAL MEAN	360	1931
HIGHEST DAILY MEAN	24000	Dec 4 1950
LOWEST DAILY MEAN	4.5	Feb 11 1960
ANNUAL SEVEN-DAY MINIMUM	8.7	Jan 12 1940
INSTANTANEOUS PEAK FLOW	46200	Dec 4 1950
INSTANTANEOUS PEAK STAGE	22.60	Dec 4 1950
ANNUAL RUNOFF (AC-FT)	876500	
10 PERCENT EXCEEDS	2510	
50 PERCENT EXCEEDS	1150	
90 PERCENT EXCEEDS	38	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

MEAN	898	383	557	795	1162	1369	1842	2271	2317	2128	1741	1380
MAX	3143	1396	2451	7368	6686	4680	5278	5701	6975	5177	2761	3049
(WY)	1984	1970	1983	1997	1997	1983	1983	1982	1983	1983	1983	1983
MIN	76.4	118	120	133	113	139	394	528	813	922	636	83.1
(WY)	1978	1969	1969	1977	1977	1977	1991	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	443879		465110			
ANNUAL MEAN	1216		1271		1405	
HIGHEST ANNUAL MEAN					3779	1983
LOWEST ANNUAL MEAN					363	1977
HIGHEST DAILY MEAN	3370	Apr 23	3030	Feb 16	8020	Jan 4 1997
LOWEST DAILY MEAN	243	Dec 17	242	Jan 2	46	Oct 3 1968
ANNUAL SEVEN-DAY MINIMUM	244	Dec 25	243	Dec 28	74	Oct 12 1977
INSTANTANEOUS PEAK FLOW			4130	Apr 18	9360	Jun 1 1969
INSTANTANEOUS PEAK STAGE			8.97	Apr 18	12.40	Jun 1 1969
ANNUAL RUNOFF (AC-FT)	880400		922500		1018000	
TOTAL DIVERSION (AC-FT) a	835300		863700			
10 PERCENT EXCEEDS	2080		2400		2870	
50 PERCENT EXCEEDS	1200		1300		1190	
90 PERCENT EXCEEDS	263		259		186	

a Total discharge, in acre-feet, McSwain Powerplant, provided by Pacific Gas and Electric Company.

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 mi^2.

PERIOD OF RECORD.—October 1965 to current year (low-flow records only).

GAGE.—Water-stage recorder. Datum of gage is 116.79 ft above sea level.

REMARKS.—No records computed above 200 ft^3/s. 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.

COOPERATION.—Records were provided by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	---	---	---	---	---	---	---	---	119	156	149
2	107	---	---	---	---	---	---	---	---	119	152	151
3	133	---	---	---	---	---	---	---	200	137	148	165
4	149	---	---	---	---	---	---	---	---	145	148	162
5	130	---	---	---	---	---	---	---	---	148	137	173
6	133	---	---	197	---	---	---	---	---	148	141	184
7	133	---	---	199	---	---	---	---	---	152	152	178
8	138	---	---	---	---	---	---	---	---	156	144	175
9	135	---	---	---	---	---	---	---	---	157	152	171
10	145	---	---	199	---	---	---	---	---	159	163	169
11	147	---	---	---	---	---	---	---	---	152	159	172
12	130	---	---	---	---	---	---	---	---	141	156	180
13	136	---	---	---	---	---	---	---	---	156	152	170
14	179	---	---	---	---	---	---	---	---	156	148	153
15	---	---	---	---	---	---	---	---	196	159	144	147
16	---	---	---	---	---	---	---	---	198	171	144	147
17	---	---	---	---	---	---	---	---	---	152	141	139
18	---	---	---	---	---	---	---	---	184	149	137	147
19	---	---	---	---	---	---	---	---	165	152	129	161
20	---	---	---	---	---	---	---	---	141	152	132	150
21	---	---	---	---	---	---	---	---	150	148	131	155
22	---	---	200	---	---	---	---	---	142	148	128	158
23	---	---	---	---	---	---	---	---	137	148	135	165
24	---	---	---	---	---	---	---	---	145	148	132	169
25	---	---	---	---	---	---	---	---	132	122	141	185
26	---	---	---	---	---	---	---	---	137	122	137	170
27	---	---	---	---	---	---	---	---	137	141	146	170
28	---	---	---	---	---	---	---	---	131	144	153	145
29	---	---	---	---	---	---	---	---	121	152	136	139
30	---	---	---	---	---	---	---	---	118	159	127	143
31	---	---	---	---	---	---	---	---	---	156	137	---
TOTAL	---	---	---	---	---	---	---	---	---	4568	4438	4842
MEAN	---	---	---	---	---	---	---	---	---	147	143	161
MAX	---	---	---	---	---	---	---	---	---	171	163	185
MIN	---	---	---	---	---	---	---	---	---	119	127	139
AC-FT	---	---	---	---	---	---	---	---	---	9060	8800	9600

11273500 MERCED RIVER AT RIVER ROAD BRIDGE, NEAR NEWMAN, CA

LOCATION.—Lat 37°21'04", long 120°57'39", in NE 1/4 SE 1/4 sec.4, T.7 S., R.9 E., Merced County, Hydrologic Unit 1804002, on upstream side of River Road Bridge, near right bank, just downstream from Hatfield State Park, and 1.1 river miles upstream from confluence with the San Joaquin River.

DRAINAGE AREA.—1,276 mi^2.

PERIOD OF RECORD.—April 1992 to current year. Published as Merced River near Stevinson (11272500) water years 1985–94.
CHEMICAL DATA: Water years 1994–95, February 1997 to current year.
SEDIMENT DATA: Water years 1994–95, February 1997 to current year.
SPECIFIC CONDUCTANCE: April 1992 to current year.
WATER TEMPERATURE: April 1992 to current year.

PERIOD OF DAILY RECORD.—April 1992 to current year.
SPECIFIC CONDUCTANCE: April 1992 to current year.
WATER TEMPERATURE: April 1992 to current year.

INSTRUMENTATION.—Water-quality monitor since April 1992.

REMARKS.—Interruptions in record were due to malfunction of the recording instruments. Specific-conductance and water-temperature values are affected by irrigation return flow. Discharge data provided by Pacific Gas and Electric (not reviewed by U.S. Geological Survey). Chemical Data for water year 2000 available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 910 microsiemens, Aug. 7, 1992; minimum recorded, 22 microsiemens, June 23, 1995.
WATER TEMPERATURE: Maximum recorded, 34.0°C, July 12, 13, 1999; minimum recorded, 4.5°C, Dec. 24, 1998.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 474 microsiemens, Aug. 5; minimum recorded, 51 microsiemens, May 1, 2.
WATER TEMPERATURE: Maximum recorded, 31.5°C, Aug. 2; minimum recorded, 6.5°C, Jan. 3.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPERATURE WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
05...N	1200	269	19.5	11	8.0	96
NOV						
02...N	1230	340	16.0	12	11	84
DEC						
07...N	1050	263	10.0	3	2.1	96
JAN						
06...N	1000	227	--	--	--	--
12...N	1100	222	9.5	12	7.2	56
19...N	1050	274	--	--	--	--
25...N	1440	337	--	--	--	--
26...N	1100	585	--	--	--	--
FEB						
04...N	1020	262	--	--	--	--
09...N	1010	251	--	--	--	--
11...N	1730	269	--	--	--	--
12...N	0800	321	--	--	--	--
12...N	1515	333	--	--	--	--
12...N	2100	325	--	--	--	--
13...N	0350	510	--	--	--	--
13...N	1000	651	--	--	--	--
13...N	1800	535	--	--	--	--
14...N	0150	462	--	--	--	--
14...N	1345	1090	--	--	--	--
14...N	2330	1620	--	--	--	--
15...N	0710	1580	--	--	--	--
15...N	1600	2290	--	--	--	--
16...N	0150	2500	--	--	--	--
25...N	1300	2940	10.0	37	293	94
MAR						
08...N	1250	3190	11.0	22	190	88
28...N	1150	782	15.0	15	32	70
APR						
10...N	1220	353	19.0	28	27	62
26...N	1130	1640	15.5	31	137	64
MAY						
16...N	1400	661	18.0	25	45	92
30...N	1230	295	22.0	10	8.0	73
JUN						
13...N	1300	276	24.0	16	12	69
28...N	1130	170	26.5	13	6.0	81
JUL						
06...N	1330	180	--	19	9.2	52
20...N	1230	180	25.0	11	5.3	72
AUG						
09...N	1130	141	--	5	1.9	77
SEP						
12...N	1330	214	23.0	3	1.7	24

N Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) protocol.

11273500 MERCED RIVER AT RIVER ROAD BRIDGE, NEAR NEWMAN, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	189	183	169	162	71	62
2	---	---	---	---	---	---	186	177	---	---	72	60
3	---	---	---	---	188	188	183	168	---	---	60	58
4	---	---	---	---	178	151	194	182	192	178	58	56
5	---	---	196	156	168	152	192	172	---	---	58	56
6	275	178	226	185	167	165	194	177	178	173	77	56
7	369	253	228	215	166	163	199	188	167	163	62	58
8	360	270	236	222	164	157	201	190	170	166	61	58
9	320	271	224	202	169	158	200	180	170	166	65	59
10	277	254	206	201	171	166	199	180	170	161	64	61
11	309	257	213	206	169	163	204	186	---	---	62	60
12	---	---	220	208	167	164	205	180	---	---	61	57
13	---	---	239	191	167	165	180	157	---	---	62	59
14	---	---	196	188	168	164	180	155	109	80	63	59
15	---	---	199	189	167	160	160	153	82	58	63	60
16	---	---	201	183	171	149	173	142	59	56	71	61
17	---	---	247	188	189	171	170	142	69	58	72	67
18	---	---	---	---	189	178	172	147	63	57	73	68
19	---	---	---	---	184	178	147	135	57	55	69	67
20	---	---	---	---	178	173	160	123	57	56	69	67
21	---	---	206	189	175	171	144	125	58	56	69	67
22	---	---	---	---	177	168	149	129	70	56	74	68
23	---	---	---	---	186	177	178	148	56	53	77	74
24	---	---	241	207	190	175	159	132	72	55	80	77
25	---	---	---	---	182	177	132	97	66	59	81	77
26	---	---	---	---	181	171	97	71	65	56	94	78
27	---	---	---	---	183	176	108	72	57	56	114	94
28	---	---	---	---	183	180	128	108	82	57	117	108
29	---	---	---	---	186	182	154	128	67	64	120	112
30	---	---	---	---	185	180	170	154	---	---	116	110
31	---	---	---	---	188	181	172	164	---	---	125	111
MONTH	---	---	---	---	---	---	205	71	---	---	125	56

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	138	123	54	51	217	122	330	272	379	230	---	---
2	133	125	67	51	251	182	318	232	379	344	---	---
3	142	118	70	60	251	211	232	208	380	335	---	---
4	129	118	74	67	268	216	274	221	455	380	---	---
5	139	121	83	74	249	206	252	211	474	405	---	---
6	---	---	90	77	248	206	317	222	---	---	---	---
7	---	---	96	73	253	217	347	317	---	---	---	---
8	---	---	81	72	287	214	365	307	---	---	---	---
9	---	---	85	76	220	168	307	287	306	264	---	---
10	142	124	91	80	200	170	305	259	305	273	---	---
11	---	---	106	77	237	171	302	264	273	218	---	---
12	---	---	77	61	183	154	290	262	271	215	---	---
13	---	---	87	65	210	168	282	243	271	228	---	---
14	---	---	146	87	216	187	284	241	269	190	---	---
15	176	151	159	144	239	187	280	226	258	191	263	225
16	155	128	148	111	260	228	286	233	327	242	304	247
17	---	---	130	113	266	215	266	190	---	309	270	235
18	114	87	137	116	245	199	350	226	382	318	271	227
19	93	72	140	117	199	151	377	310	---	---	306	264
20	72	63	172	128	250	151	432	308	---	---	309	241
21	65	60	227	159	278	243	431	372	---	---	269	236
22	62	60	164	139	332	238	380	322	---	---	287	254
23	71	59	185	141	332	273	400	344	---	---	289	274
24	61	58	190	158	299	257	398	316	---	---	280	218
25	64	58	177	158	342	251	402	349	---	---	234	215
26	65	57	174	161	251	173	---	---	---	---	304	232
27	59	56	189	160	280	179	436	248	---	---	273	230
28	59	55	203	151	298	266	431	390	---	---	296	246
29	59	53	263	149	266	232	390	290	---	---	296	242
30	58	52	241	153	275	216	290	227	---	---	256	234
31	---	---	235	138	---	---	248	227	---	---	---	---
MONTH	---	---	263	51	342	122	---	---	---	---	---	---

11273500 MERCED RIVER AT RIVER ROAD BRIDGE, NEAR NEWMAN, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	8.5	7.5	14.0	12.0	11.0	10.0
2	---	---	---	---	---	---	8.5	7.0	13.0	12.0	11.0	10.5
3	---	---	---	---	11.0	9.5	8.5	6.5	13.5	11.5	11.0	10.0
4	---	---	---	---	11.0	9.5	8.5	7.0	13.5	12.5	12.0	10.5
5	---	---	17.0	15.0	11.0	9.5	9.5	8.0	13.5	12.0	12.0	11.0
6	22.0	19.5	17.0	15.5	11.0	9.0	8.5	7.0	14.0	12.0	11.5	11.0
7	21.5	18.0	16.5	15.0	11.0	9.5	9.0	7.0	14.5	12.0	11.5	10.5
8	22.5	18.5	17.0	15.0	10.0	9.0	9.0	7.0	15.0	13.0	11.0	10.0
9	22.5	19.0	16.5	14.5	10.0	9.0	9.0	7.5	15.0	13.0	12.0	11.0
10	23.0	19.0	16.5	14.5	10.0	9.0	9.5	7.5	14.5	13.5	13.0	11.5
11	23.0	19.5	16.5	14.5	10.0	8.0	10.0	8.0	13.5	12.5	13.5	12.0
12	---	---	16.0	14.0	9.5	8.0	10.5	9.5	13.0	12.0	14.0	12.0
13	---	---	16.0	14.0	10.0	9.0	11.0	9.0	12.5	11.5	14.0	12.0
14	---	---	15.5	14.0	9.5	8.0	10.5	9.5	12.5	11.5	14.5	12.5
15	---	---	16.5	14.5	9.0	7.5	11.0	10.0	13.0	11.5	14.5	12.5
16	---	---	16.5	14.5	9.0	7.0	12.0	10.5	12.5	11.5	14.5	12.5
17	---	---	16.0	14.5	9.0	7.5	11.5	11.0	11.5	11.0	14.0	12.5
18	---	---	---	---	9.5	7.5	13.5	11.5	11.5	10.5	14.0	12.5
19	---	---	---	---	9.0	8.0	13.5	13.0	11.5	10.5	14.5	12.5
20	---	---	---	---	9.5	7.5	13.5	13.0	11.5	10.5	14.0	12.5
21	---	---	14.5	12.5	9.5	7.5	14.0	12.0	12.0	11.0	13.5	11.5
22	---	---	---	---	9.5	7.5	14.0	12.0	11.0	10.5	14.0	11.5
23	---	---	---	---	9.5	7.5	13.5	13.0	10.5	10.0	14.5	13.0
24	---	---	12.5	10.5	9.0	7.5	14.0	12.5	10.0	9.5	15.0	13.5
25	---	---	---	---	9.0	7.0	14.5	13.5	10.5	9.5	14.5	13.5
26	---	---	---	---	9.0	7.0	13.5	12.5	11.5	10.0	15.0	13.0
27	---	---	---	---	9.0	7.0	13.5	12.0	12.0	11.0	16.0	13.5
28	---	---	---	---	9.0	7.0	12.5	11.5	12.0	11.0	16.0	13.5
29	---	---	---	---	9.0	7.0	13.0	11.0	11.5	10.5	16.5	14.0
30	---	---	---	---	9.0	7.0	13.0	12.0	---	---	17.0	14.5
31	---	---	---	---	9.0	8.0	13.0	11.5	---	---	17.0	14.0
MONTH	---	---	---	---	---	---	14.5	6.5	15.0	9.5	17.0	10.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.0	14.5	17.0	15.0	23.0	20.0	28.0	23.0	30.5	26.0	---	---
2	19.5	16.0	17.5	16.0	25.5	21.5	27.0	22.0	31.5	26.0	---	---
3	20.5	17.0	19.0	17.0	25.5	21.5	27.0	22.5	30.5	26.5	---	---
4	21.0	17.5	20.0	18.0	26.0	21.5	27.0	22.0	30.0	25.0	---	---
5	20.5	17.5	20.0	18.0	25.5	22.0	27.0	23.0	30.0	24.5	---	---
6	21.0	17.5	19.0	17.5	25.5	21.5	26.5	21.5	30.0	24.0	---	---
7	21.0	17.5	17.5	17.0	25.0	22.0	26.5	21.5	29.0	24.0	---	---
8	21.0	18.0	18.5	16.5	23.5	21.5	26.5	21.5	28.5	23.5	---	---
9	21.0	18.0	18.5	17.0	24.0	20.0	28.0	22.5	28.5	23.5	---	---
10	21.0	18.0	18.5	17.5	24.5	20.0	28.5	23.5	27.5	23.5	---	---
11	22.0	18.5	18.0	16.0	24.5	20.0	28.5	23.5	27.5	23.0	---	---
12	22.0	19.5	17.0	16.0	25.0	21.0	28.5	23.5	29.0	23.5	---	---
13	22.0	19.5	17.5	16.0	26.5	22.0	28.5	23.5	28.5	24.0	---	---
14	21.5	18.5	18.0	16.5	29.0	24.0	29.0	23.0	28.0	23.5	---	---
15	20.5	18.5	19.0	17.0	29.5	25.0	28.5	24.0	28.0	23.5	25.0	22.0
16	20.0	18.0	18.0	17.0	29.0	25.5	28.0	23.5	28.5	23.5	24.5	21.0
17	18.0	16.5	19.5	16.5	29.0	25.0	27.0	23.0	28.5	24.0	25.0	21.0
18	18.5	15.5	21.0	17.5	28.5	24.5	27.5	22.0	27.5	23.0	26.0	21.5
19	17.5	16.0	22.5	19.0	28.0	24.0	28.5	23.0	---	---	26.5	22.5
20	16.5	14.5	24.0	20.5	29.0	24.5	29.0	23.0	---	---	27.0	23.0
21	16.5	15.0	25.5	21.5	29.5	25.0	29.0	23.5	---	---	25.5	23.0
22	16.5	15.0	26.5	23.0	30.0	24.5	28.5	23.0	---	---	24.0	22.0
23	16.0	14.5	25.5	21.5	29.0	24.0	29.0	23.0	---	---	24.0	20.5
24	16.0	14.5	25.5	22.0	28.5	23.5	30.0	24.0	---	---	23.5	20.0
25	16.5	14.5	25.0	22.0	28.5	23.5	30.0	24.0	---	---	24.0	20.5
26	17.0	15.0	25.0	21.5	29.0	24.0	29.0	24.0	---	---	24.0	21.0
27	17.0	15.5	25.5	21.5	29.5	24.5	28.0	22.5	---	---	24.0	21.0
28	17.0	15.0	23.5	21.5	30.0	24.5	28.5	23.0	---	---	23.0	20.0
29	16.0	14.5	25.0	20.5	29.5	25.0	29.5	24.0	---	---	23.0	19.5
30	16.5	14.5	23.5	20.5	29.0	24.5	29.0	25.5	---	---	24.0	20.0
31	---	---	23.5	20.5	---	---	29.5	25.0	---	---	---	---
MONTH	22.0	14.5	26.5	15.0	30.0	20.0	30.0	21.5	---	---	---	---

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 mi^2.

PERIOD OF RECORD.—April 1912 to current year. Water years 1938–43 include flows through Merced River Slough.
CHEMICAL DATA: Water year 1993.
SPECIFIC CONDUCTANCE: Water years 1989, 1992–95.
TEMPERATURE: Water years 1989, 1992–95.
SEDIMENT DATA: Water year 1993.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is sea level. Prior to Mar. 3, 1931, gage at various sites within 240 ft of bridge. Mar. 3, 1931, to Sept. 30, 1959, water-stage recorder within 300 ft of bridge, at datum 47.31 ft higher. Oct. 1, 1959, to Aug. 9, 1960, water-stage recorder at site 70 ft upstream, at present datum.

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.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (river only), 36,200 ft^3/s, Jan. 28, 1997, elevation, 66.14 ft; minimum daily, 15 ft^3/s, Aug. 9, 10, 1924. Maximum discharge (including flow in Merced River Slough in water years 1938–43), 33,000 ft^3/s, Mar. 7, 1938.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 2, 1868, reached a stage of 69.0 ft, from floodmarks; flood of February 1886 reached a stage of 67.1 ft, from floodmarks; and flood of 1911 reached a stage of 66.3 ft, from floodmarks. All stages referred to current datum. Discharges unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	574	860	640	525	1040	6180	1070	2170	712	482	549	430
2	578	857	639	538	992	6500	994	1940	737	508	513	443
3	617	847	641	529	937	6410	987	1490	702	591	498	480
4	631	823	632	516	867	5940	1000	1380	609	604	443	547
5	637	820	636	510	832	5570	980	1290	603	662	415	562
6	644	796	633	494	805	5780	924	1230	624	672	435	489
7	626	784	616	478	753	6060	912	1270	620	633	469	419
8	674	795	604	465	723	6030	886	1380	609	607	497	416
9	677	817	592	467	698	5950	854	1450	615	613	490	410
10	695	822	582	463	679	6050	839	1410	682	619	471	400
11	641	817	570	451	682	6060	822	1410	714	613	465	412
12	580	815	562	456	807	5780	776	1470	789	590	460	445
13	577	826	559	470	1430	5400	702	1490	735	561	470	449
14	580	808	549	482	2160	5020	669	1180	718	523	488	438
15	643	791	538	483	3670	4710	692	1040	694	511	484	400
16	727	779	526	496	5260	4480	778	1010	615	536	450	378
17	936	764	512	501	6090	3950	919	1030	596	601	425	390
18	1020	749	505	532	6350	3710	1120	1020	623	553	405	386
19	1070	716	504	548	5870	3640	1530	1060	677	532	381	374
20	1080	702	503	594	5290	3570	2520	1070	682	518	419	358
21	1090	691	498	614	4790	3420	2810	993	650	512	469	346
22	947	681	483	627	4650	3250	2780	993	587	519	486	339
23	886	659	475	651	4670	2840	2670	969	548	490	484	329
24	892	646	474	729	5170	2570	2590	901	530	494	476	359
25	894	626	471	884	5590	2380	2540	860	505	471	451	383
26	850	622	467	1200	5730	2050	2420	839	574	487	447	376
27	853	625	457	1520	5360	1590	2290	856	558	444	436	388
28	864	631	451	1560	5410	1440	2190	794	497	433	450	347
29	832	623	455	1380	5850	1360	2170	767	520	450	469	332
30	866	626	489	1200	---	1290	2180	739	525	507	434	334
31	873	---	498	1100	---	1180	---	714	---	563	398	---
TOTAL	24054	22418	16761	21463	93155	130160	44614	36215	18850	16899	14227	12159
MEAN	776	747	541	692	3212	4199	1487	1168	628	545	459	405
MAX	1090	860	641	1560	6350	6500	2810	2170	789	672	549	562
MIN	574	622	451	451	679	1180	669	714	497	433	381	329
AC-FT	47710	44470	33250	42570	184800	258200	88490	71830	37390	33520	28220	24120

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1937, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	290	362	796	1857	3623	3223	3395	5010	5490	1888	328	209
MAX	1422	1233	2907	8356	11840	13000	11780	14210	15700	8803	1370	442
(WY)	1919	1928	1923	1914	1916	1916	1916	1916	1922	1914	1914	1936
MIN	55.0	85.5	136	228	278	233	122	115	92.5	29.1	21.3	26.7
(WY)	1914	1932	1913	1918	1913	1913	1931	1931	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1912 - 1937	
ANNUAL MEAN	2208	
HIGHEST ANNUAL MEAN	6585	1916
LOWEST ANNUAL MEAN	196	1931
HIGHEST DAILY MEAN	20700	Jan 27 1914
LOWEST DAILY MEAN	15	Aug 9 1924
ANNUAL SEVEN-DAY MINIMUM	17	Aug 4 1924
INSTANTANEOUS PEAK FLOW	20700	Jan 27 1914
INSTANTANEOUS PEAK STAGE	65.30	Jan 27 1914
ANNUAL RUNOFF (AC-FT)	1599000	
10 PERCENT EXCEEDS	7040	
50 PERCENT EXCEEDS	590	
90 PERCENT EXCEEDS	112	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1943, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	447	494	1558	3378	7512	10070	7308	8025	9334	3383	686	482
MAX	708	1065	2832	5111	14350	23500	11480	15310	21010	8625	1745	768
(WY)	1939	1939	1938	1942	1938	1938	1938	1938	1938	1938	1938	1938
MIN	226	190	423	1967	2442	679	959	627	333	234	225	278
(WY)	1940	1940	1940	1939	1939	1939	1939	1939	1939	1939	1939	1939

SUMMARY STATISTICS	WATER YEARS 1938 - 1943	
ANNUAL MEAN	4366	
HIGHEST ANNUAL MEAN	8643	1938
LOWEST ANNUAL MEAN	904	1939
HIGHEST DAILY MEAN	33000	Mar 7 1938
LOWEST DAILY MEAN	170	Nov 9 1939
ANNUAL SEVEN-DAY MINIMUM	171	Nov 8 1939
INSTANTANEOUS PEAK FLOW	33000	Mar 7 1938
INSTANTANEOUS PEAK STAGE	65.81	Mar 7 1938
ANNUAL RUNOFF (AC-FT)	3163000	
10 PERCENT EXCEEDS	11900	
50 PERCENT EXCEEDS	1580	
90 PERCENT EXCEEDS	291	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	709	667	1214	2376	3273	3142	2972	2832	2194	1003	520	625
MAX	5831	4039	10880	24920	21100	24170	18860	14050	15280	11320	2683	3786
(WY)	1984	1984	1983	1997	1983	1983	1983	1983	1983	1983	1983	1983
MIN	25.2	122	202	230	180	212	159	141	48.7	45.9	80.4	41.2
(WY)	1978	1978	1950	1991	1991	1948	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1944 - 2000	
ANNUAL TOTAL	381469		450975			
ANNUAL MEAN	1045		1232		1785	
HIGHEST ANNUAL MEAN					11620	1983
LOWEST ANNUAL MEAN					200	1961
HIGHEST DAILY MEAN	4630	Feb 12	6500	Mar 2	36000	Jan 28 1997
LOWEST DAILY MEAN	370	Aug 7	329	Sep 23	20	Oct 26 1977
ANNUAL SEVEN-DAY MINIMUM	408	Aug 14	355	Sep 19	23	Oct 7 1977
INSTANTANEOUS PEAK FLOW			6560	Mar 2	36200	Jan 28 1997
INSTANTANEOUS PEAK STAGE			58.89	Mar 2	66.14	Jan 28 1997
INSTANTANEOUS LOW FLOW					15	Aug 9 1924
ANNUAL RUNOFF (AC-FT)	756600		894500		1293000	
10 PERCENT EXCEEDS	2130		3300		4240	
50 PERCENT EXCEEDS	732		660		599	
90 PERCENT EXCEEDS	436		445		219	

11274500 ORESTIMBA CREEK NEAR NEWMAN, CA

LOCATION.—Lat 37°18'56", long 121°07'27", in NE 1/4 NE 1/4 sec.19, T.7 S., R.8 E., Stanislaus County, Hydrologic Unit 18040002, on right bank, 20 ft downstream from bridge at California Aqueduct Siphon, 3 mi downstream from Oso Creek, and 5.5 mi west of Newman.

DRAINAGE AREA.—134 mi^2.

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, WDR CA-95-3: 1986(M).

GAGE.—Water-stage recorder. Datum of gage is 216.01 ft above sea level. Prior to Oct. 1, 1958, at site 1,080 ft downstream at datum 24.14 ft lower. Oct. 1, 1958, to Aug. 13, 1969, at site 960 ft downstream at datum 27.14 ft lower. Aug. 13, 1969, to Feb. 6, 1984, at site 240 ft upstream, present datum.

REMARKS.—Records good except for discharges below 10 ft^3/s, which are fair. No storage or diversion upstream from station except for minor stock ponds.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,000 ft^3/s, Mar. 10, 1995, gage height, 9.51 ft, from rating curve extended above 4,000 ft^3/s on basis of critical depth measurement; no flow for all or parts of each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft^3/s (revised), or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	0115	2,550	5.92	Feb. 23	0745	1,590	5.20

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	71	4.9	.36	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	50	4.3	.26	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	42	4.1	.18	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	33	4.0	.12	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	31	3.7	.06	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	29	e3.7	.03	.00	e.00	.00	.00
7	.00	.00	.00	.00	.00	25	e3.3	.00	.00	e.00	.00	.00
8	.00	.00	.00	.00	.00	29	2.9	.00	.00	e.00	.00	.00
9	.00	.00	.00	.00	.00	44	2.6	.00	.00	e.00	.00	.00
10	.00	.00	.00	.00	.00	52	2.3	.00	.00	e.00	.00	.00
11	.00	.00	.00	.00	.00	e44	2.0	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	213	e38	1.6	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	392	e32	1.2	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	1040	e27	1.2	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	208	23	1.4	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	81	18	1.3	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	44	16	22	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	25	14	21	e.00	.00	.00	.00	.00
19	.00	.00	.00	.00	17	13	e8.0	e.00	.00	.00	.00	.00
20	.00	.00	.00	.00	14	13	e5.0	e.00	.00	.00	.00	.00
21	.00	.00	.00	.00	17	11	3.5	e.00	.00	.00	.00	.00
22	.00	.00	.00	.00	19	9.6	2.2	e.00	.00	.00	.00	.00
23	.00	.00	.00	.00	641	9.1	1.6	e.00	.00	.00	.00	.00
24	.00	.00	.00	.00	214	8.6	1.3	.00	.00	.00	.00	.00
25	.00	.00	.00	8.6	100	7.7	1.0	.00	.00	.00	.00	.00
26	.00	.00	.00	6.5	58	7.0	.92	.00	.00	.00	.00	.00
27	.00	.00	.00	.20	74	6.7	.78	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	113	6.5	.65	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	81	6.4	.52	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	5.8	.40	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	5.2	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	15.30	3351.00	727.6	113.37	1.01	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.49	116	23.5	3.78	.033	.000	.000	.000	.000
MAX	.00	.00	.00	8.6	1040	71	22	.36	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	5.2	.40	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	30	6650	1440	225	2.0	.00	.00	.00	.00

e Estimated.

11274500 ORESTIMBA CREEK NEAR NEWMAN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.000	.92	11.4	46.0	88.0	49.0	22.3	3.38	.69	.12	.001	.000
MAX	.000	31.0	181	432	818	345	362	46.9	15.1	5.32	.045	.000
(WY)	1933	1951	1956	1997	1998	1995	1958	1983	1941	1941	1958	1932
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1933	1933	1933	1936	1935	1933	1933	1933	1932	1932	1932	1932

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1932 - 2000	
ANNUAL TOTAL	1690.32		4208.28			
ANNUAL MEAN	4.63		11.5		18.1	
HIGHEST ANNUAL MEAN					89.4	1983
LOWEST ANNUAL MEAN					.000	1947
HIGHEST DAILY MEAN	283	Feb 9	1040	Feb 14	4550	Feb 3 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	May 9 1932
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	May 9 1932
INSTANTANEOUS PEAK FLOW			2550	Feb 14	12000	Mar 10 1995
INSTANTANEOUS PEAK STAGE			5.92	Feb 14	9.51	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	3350		8350		13140	
10 PERCENT EXCEEDS	10		15		20	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA

LOCATION.—Lat 37°24'49", long 121°00'54", in Orestimba Grant, Stanislaus County, Hydrologic Unit 18040002, on right bank, at downstream side of River Road Bridge, 0.8 mi upstream of mouth, and 3.4 mi northeast of Crows Landing.

DRAINAGE AREA.—Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—April 1992 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 65 ft above sea level, from topographic map.

REMARKS.—Records fair except for periods of backwater, which are poor. Flows during summer and fall consist mainly of return water from irrigated areas. During major storm events record can be affected by backwater from the San Joaquin River.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,650 ft^3/s, Mar. 10, 1995, gage height, 18.40 ft, from rating curve extended above 2,470 ft^3/s, maximum gage height, 19.60 ft, Jan. 23, 1997 (backwater from San Joaquin River); no flow for many days during winter months for some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	24	36	23	4.1	46	16	29	59	8.2	16	8.4
2	16	24	11	24	3.6	42	20	56	18	18	25	24
3	29	20	4.8	19	3.4	39	12	111	5.3	9.0	15	37
4	34	11	31	11	2.7	21	6.8	227	7.2	22	12	16
5	15	8.6	15	3.1	6.3	7.1	7.8	169	17	15	12	11
6	6.3	21	6.4	3.1	14	5.6	5.4	135	25	19	20	29
7	9.1	22	2.6	4.8	10	15	3.4	159	39	22	26	25
8	20	40	1.8	43	6.7	16	4.7	167	26	19	13	26
9	24	28	1.1	67	7.5	56	5.7	152	81	23	27	14
10	7.7	24	1.2	62	24	126	7.3	177	59	35	23	22
11	8.5	54	3.5	56	23	106	16	175	38	25	20	35
12	6.7	64	.77	34	70	62	15	114	11	14	21	22
13	12	73	.26	15	121	29	13	62	4.9	17	18	9.7
14	25	71	.25	12	1030	14	30	29	7.2	13	15	13
15	26	64	.23	18	334	8.3	10	54	41	46	15	10
16	18	48	.33	25	108	5.7	20	41	17	15	17	16
17	15	44	.23	28	94	3.3	103	20	18	17	18	16
18	15	53	.25	46	118	1.5	176	33	21	17	16	13
19	8.5	24	1.7	47	89	1.1	121	16	24	13	20	6.1
20	13	18	32	38	35	2.9	178	14	16	16	16	22
21	20	17	18	28	9.7	2.5	188	9.3	11	16	17	4.9
22	17	22	7.0	12	13	17	138	6.7	11	19	15	33
23	8.0	17	11	21	520	33	150	9.0	7.9	26	11	49
24	5.9	12	11	46	319	15	144	10	10	24	13	17
25	16	15	9.1	61	133	4.9	189	11	26	16	14	11
26	19	5.6	8.5	31	95	2.7	131	13	71	18	48	15
27	16	1.3	10	14	64	3.7	41	18	36	33	30	21
28	17	1.0	9.9	16	86	7.2	3.8	22	28	21	11	20
29	10	42	9.4	13	55	6.7	17	8.3	26	19	15	4.6
30	7.7	59	13	7.8	---	13	29	8.1	9.8	16	11	4.9
31	13	---	30	5.5	---	8.5	---	6.5	---	31	11	---
TOTAL	468.4	927.5	287.32	834.3	3399.0	721.7	1801.9	2061.9	771.3	622.2	561	555.6
MEAN	15.1	30.9	9.27	26.9	117	23.3	60.1	66.5	25.7	20.1	18.1	18.5
MAX	34	73	36	67	1030	126	189	227	81	46	48	49
MIN	5.9	1.0	.23	3.1	2.7	1.1	3.4	6.5	4.9	8.2	11	4.6
AC-FT	929	1840	570	1650	6740	1430	3570	4090	1530	1230	1110	1100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

MEAN	28.9	29.9	19.1	129	196	108	64.6	58.4	28.3	32.2	26.3	17.7
MAX	121	101	54.1	596	721	318	185	243	97.3	104	62.2	42.7
(WY)	1999	1999	1997	1997	1998	1995	1998	1998	1998	1998	1998	1998
MIN	2.19	3.82	1.01	11.4	6.15	12.5	12.2	11.7	7.38	14.1	11.2	4.04
(WY)	1995	1995	1995	1994	1995	1994	1994	1994	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1992 - 2000	
ANNUAL TOTAL	11852.92		13012.12			
ANNUAL MEAN	32.5		35.6		62.0	
HIGHEST ANNUAL MEAN					134	1998
LOWEST ANNUAL MEAN					15.7	1994
HIGHEST DAILY MEAN	243	Apr 19	1030	Feb 14	2250	Feb 3 1998
LOWEST DAILY MEAN	.23	Dec 15	.23	Dec 15	.00	Dec 18 1992
ANNUAL SEVEN-DAY MINIMUM	.33	Dec 12	.33	Dec 12	.00	Dec 18 1992
INSTANTANEOUS PEAK FLOW			1690	Feb 14	2650	Mar 10 1995
INSTANTANEOUS PEAK STAGE			14.02	Feb 14	19.60	Jan 23 1997
ANNUAL RUNOFF (AC-FT)	23510		25810		44930	
10 PERCENT EXCEEDS	62		72		132	
50 PERCENT EXCEEDS	19		17		20	
90 PERCENT EXCEEDS	6.2		4.9		2.5	

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—April 1992 to current year.
CHEMICAL DATA: Water years 1992–95, February 1997 to current year.
SPECIFIC CONDUCTANCE: April 1992 to current year.
WATER TEMPERATURE: April 1992 to current year.
SEDIMENT DATA: Water years 1992–95, February 1997 to current year.

PERIOD OF DAILY RECORD.—April 1992 to current year.
SPECIFIC CONDUCTANCE: April 1992 to current year.
WATER TEMPERATURE: April 1992 to current year.

INSTRUMENTATION.—Water-quality monitor since April 1992.

REMARKS.—Interruptions in record were due to malfunction of the recording instruments. Specific-conductance, water-temperature, and chemical values are affected by irrigation-return flow from a drainage pipe located 30 ft upstream from gage. Chemical and Sediment Data for water year 2000 available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 1,890 microsiemens, Sept. 13, 1992; minimum recorded, 103 microsiemens, Jan. 7, 1993.
WATER TEMPERATURE: Maximum recorded, 31.0°C, July 29, 1996, Aug. 4, 5, 1998; minimum recorded, 2.0°C, Dec. 22, 24, 1998.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 1,040 microsiemens, Mar. 22; minimum recorded, 239 microsiemens, Feb. 14.
WATER TEMPERATURE: Maximum recorded, 30.0°C, June 27; minimum recorded, 5.0°C, Dec. 23, Jan. 8.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	644	623	---	---	580	569	735	693	510	492	538	446
2	653	639	---	---	603	572	708	659	551	510	513	495
3	670	637	---	---	687	603	701	654	580	551	537	513
4	651	592	523	496	700	576	687	654	598	568	553	537
5	592	566	575	523	718	631	707	684	610	595	573	550
6	567	564	564	543	677	653	730	695	623	604	603	570
7	565	544	579	537	727	664	---	---	614	602	612	601
8	580	536	580	497	736	666	---	---	615	608	620	599
9	618	580	515	497	---	---	474	452	639	610	801	574
10	602	554	504	484	---	---	485	467	638	572	788	590
11	557	536	517	486	---	---	490	468	834	576	590	575
12	599	557	547	517	---	---	642	433	834	685	596	566
13	643	599	575	547	---	---	654	603	685	467	618	592
14	761	643	589	575	---	---	624	514	524	239	625	614
15	803	761	596	588	---	---	689	565	341	285	643	625
16	803	718	592	583	---	---	631	551	382	341	658	638
17	718	645	585	548	---	---	640	559	441	375	696	658
18	645	589	549	517	---	---	686	545	519	441	729	696
19	589	583	520	511	---	---	681	560	535	434	801	725
20	603	588	512	496	791	681	626	579	434	381	761	521
21	610	603	503	496	767	676	637	599	401	376	590	525
22	626	609	502	486	829	767	637	611	528	401	1040	548
23	657	626	493	481	800	780	611	585	655	306	649	579
24	661	657	500	485	827	766	617	584	416	303	627	547
25	750	656	505	496	843	808	584	550	456	416	652	627
26	---	---	526	504	848	796	576	536	499	456	654	622
27	---	---	553	522	818	796	565	543	545	499	1030	584
28	---	---	572	551	846	805	543	515	565	409	774	458
29	---	---	588	572	848	796	515	504	451	409	494	418
30	---	---	586	571	815	785	514	503	---	---	475	381
31	---	---	---	---	790	735	510	500	---	---	472	415
MONTH	---	---	---	---	---	---	---	---	834	239	1040	381

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	640	470	644	599	700	670	676	608	662	549	809	663
2	616	424	697	599	708	677	670	534	715	575	811	490
3	577	411	698	636	750	708	683	555	734	650	510	449
4	792	577	646	558	805	750	691	611	759	692	536	448
5	903	792	579	537	817	798	611	565	772	621	800	536
6	965	850	609	536	811	777	567	542	694	532	774	508
7	949	916	573	545	799	731	553	535	541	476	582	461
8	972	880	568	544	765	732	578	552	565	524	710	498
9	889	835	586	553	781	729	621	578	630	507	631	508
10	1010	869	648	586	729	681	627	592	558	502	751	559
11	935	852	635	589	695	674	607	591	651	558	559	428
12	852	797	656	621	691	669	639	604	645	598	562	439
13	827	760	744	633	817	691	689	639	628	583	630	470
14	890	791	720	614	901	802	695	654	690	593	775	568
15	792	776	700	587	829	654	657	606	738	685	625	515
16	809	789	645	584	820	658	648	604	711	604	624	488
17	804	602	786	645	879	769	768	648	637	569	507	465
18	645	555	795	651	790	641	699	608	648	626	527	424
19	785	562	708	633	689	562	809	615	674	648	648	446
20	785	604	756	701	614	567	848	761	689	672	655	447
21	730	610	757	667	728	614	763	684	706	689	529	454
22	724	652	780	676	779	725	730	699	709	703	542	427
23	708	593	823	780	762	677	771	628	718	705	464	421
24	681	534	827	778	755	649	688	626	736	718	516	421
25	572	511	782	778	723	555	649	561	756	736	519	454
26	631	544	783	746	579	480	720	551	762	506	473	435
27	745	631	760	723	568	473	630	563	599	500	515	430
28	822	745	727	677	620	503	604	526	631	506	476	443
29	965	767	682	659	660	551	641	571	799	602	500	456
30	774	608	669	634	693	643	607	559	908	742	511	465
31	---	---	670	631	---	---	588	507	905	717	---	---
MONTH	1010	411	827	536	901	473	848	507	908	476	811	421

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.0	20.0	16.5	15.0	12.0	11.0	8.0	6.5	12.5	11.0	13.5	11.0
2	21.5	19.5	17.0	15.0	11.5	9.5	7.5	6.0	12.0	10.5	13.0	11.5
3	21.5	19.5	---	---	9.5	6.5	7.0	5.5	12.0	10.5	14.5	10.5
4	21.0	19.5	17.0	13.5	9.5	7.5	7.5	5.5	12.0	11.0	15.5	11.5
5	20.5	18.5	16.0	13.0	9.5	7.5	---	---	12.5	10.5	15.5	13.5
6	19.5	18.5	17.0	15.0	9.0	7.5	---	---	13.5	11.5	14.0	12.5
7	18.5	17.5	16.0	14.5	9.5	7.5	---	---	13.5	11.5	13.5	12.0
8	19.5	17.5	16.5	15.0	8.5	7.0	8.0	5.0	14.5	12.5	12.5	11.0
9	20.0	18.5	16.0	14.5	---	---	7.5	7.0	15.0	12.5	14.5	11.5
10	20.0	18.5	16.0	14.5	---	---	8.5	7.0	14.5	13.5	16.0	12.0
11	20.0	18.5	16.5	14.5	---	---	9.5	7.5	13.5	12.5	17.0	13.5
12	19.5	18.0	16.5	15.0	---	---	10.0	9.5	12.5	11.0	16.5	14.0
13	20.0	18.0	16.5	15.0	---	---	10.5	7.5	12.0	11.0	17.0	14.0
14	20.0	19.0	16.0	15.5	---	---	10.5	8.0	14.5	12.0	18.0	15.0
15	20.0	18.5	16.5	15.5	---	---	11.0	9.5	13.0	11.0	17.5	15.0
16	19.0	17.0	16.5	15.0	---	---	11.0	10.0	13.0	12.0	18.0	15.0
17	17.5	16.0	16.0	15.0	---	---	10.5	10.5	12.5	11.5	16.0	12.5
18	17.5	16.0	15.5	14.0	---	---	12.5	10.5	13.0	11.0	17.5	12.5
19	17.0	15.5	14.5	13.5	---	---	13.0	12.0	13.0	12.0	19.5	14.0
20	17.5	15.5	14.5	13.5	9.0	6.5	13.0	12.5	13.0	12.0	14.5	9.5
21	18.0	16.5	14.0	11.5	9.5	6.5	13.0	11.5	13.0	12.0	14.0	8.0
22	18.0	16.0	11.5	10.0	8.0	5.5	13.0	11.0	13.0	12.0	17.0	10.0
23	17.5	16.0	11.0	9.5	8.0	5.0	12.5	11.5	12.0	10.0	17.5	14.5
24	16.5	15.5	11.0	9.0	8.0	6.0	13.0	12.0	10.0	8.5	18.5	14.0
25	17.5	15.5	11.0	9.0	7.5	6.0	13.5	12.5	11.5	9.5	17.5	12.5
26	17.5	16.5	10.5	9.0	7.5	6.0	13.5	12.0	14.0	11.5	17.0	12.5
27	18.5	17.0	10.5	9.0	7.5	6.0	13.0	12.0	14.5	12.5	17.0	13.5
28	18.5	17.5	10.5	9.0	7.5	6.0	12.0	10.5	13.0	12.0	17.0	12.5
29	17.5	15.5	11.0	10.0	7.5	5.5	12.0	10.0	12.5	11.5	17.0	13.0
30	15.5	14.0	12.0	11.0	8.0	5.5	12.0	11.5	---	---	17.5	14.0
31	16.0	14.5	---	---	8.5	7.0	12.0	10.5	---	---	16.5	11.5
MONTH	22.0	14.0	---	---	---	---	---	---	15.0	8.5	19.5	8.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.0	13.0	22.5	18.5	24.0	19.0	25.5	21.5	28.5	24.5	21.0	20.0
2	20.0	15.5	23.5	18.0	23.5	20.0	26.0	21.0	28.5	24.5	21.5	19.0
3	22.5	16.5	24.0	20.0	24.0	18.0	25.0	21.0	28.5	24.0	22.5	20.0
4	21.0	16.0	23.5	20.5	24.5	18.5	26.5	20.0	29.0	22.5	21.5	19.0
5	21.0	15.5	23.0	20.0	23.5	20.0	25.5	19.5	28.5	22.0	22.0	17.5
6	19.0	14.0	21.0	18.0	25.0	20.0	24.5	19.5	28.5	22.0	22.0	19.0
7	19.0	15.0	18.5	17.5	25.0	20.5	24.0	19.5	28.0	22.5	22.5	19.5
8	19.5	15.5	20.5	17.5	22.5	20.0	24.5	19.0	27.5	21.5	23.0	20.0
9	20.0	14.5	21.0	18.0	23.0	19.0	26.0	20.0	26.0	21.5	23.0	20.0
10	21.0	14.5	20.0	18.0	23.0	19.0	27.0	22.0	26.0	21.5	24.0	19.5
11	21.5	16.5	19.0	16.5	23.5	19.5	26.0	22.0	26.0	20.0	25.0	21.0
12	22.0	19.0	19.5	15.5	23.5	21.5	25.5	22.0	27.0	21.0	23.5	20.5
13	22.5	18.0	22.5	17.0	26.0	21.5	25.5	22.0	26.5	21.0	24.0	21.0
14	20.5	17.0	20.5	16.0	27.5	23.0	25.5	21.5	26.0	20.5	24.0	21.0
15	19.5	16.5	19.0	17.0	28.5	23.5	27.0	23.0	24.5	21.0	24.0	21.5
16	18.0	17.0	18.0	16.0	27.0	24.0	26.0	22.0	25.5	21.5	23.5	21.0
17	17.0	15.5	20.0	15.5	26.5	23.0	24.5	20.0	26.0	22.0	25.0	21.0
18	18.0	14.5	23.0	17.0	26.0	22.0	24.5	20.0	26.0	20.5	25.0	21.5
19	19.5	16.0	23.0	18.5	27.0	22.0	27.5	21.0	24.5	19.5	25.5	22.5
20	20.5	18.0	23.5	20.0	27.0	23.5	27.0	21.0	23.5	19.5	28.0	24.5
21	21.5	18.5	25.0	22.0	28.0	24.0	27.5	22.0	25.0	20.5	27.0	22.5
22	21.0	19.0	26.0	23.0	28.0	23.0	27.0	20.5	24.5	20.5	25.0	23.5
23	20.5	18.0	25.5	23.5	26.0	22.0	27.5	20.5	24.0	22.0	24.0	21.5
24	20.5	17.5	25.0	23.0	26.0	21.5	27.5	22.0	24.0	20.5	23.5	20.5
25	21.0	18.0	23.5	21.5	27.0	22.0	28.0	22.0	24.5	21.5	24.0	20.0
26	22.5	18.5	24.0	20.5	28.0	24.5	27.5	21.5	26.5	22.0	24.5	21.5
27	21.5	19.0	24.5	20.0	30.0	25.0	26.5	21.0	27.0	22.0	25.0	21.0
28	19.0	16.0	24.0	21.0	28.5	25.0	26.5	21.5	25.5	21.5	24.0	21.0
29	20.5	15.5	23.0	20.5	28.0	24.0	28.0	22.0	23.5	20.0	22.5	19.5
30	22.5	16.5	22.5	19.5	27.0	23.5	28.0	24.0	21.0	19.0	22.5	19.5
31	---	---	21.5	18.5	---	---	28.5	23.5	22.0	19.0	---	---
MONTH	22.5	13.0	26.0	15.5	30.0	18.0	28.5	19.0	29.0	19.0	28.0	17.5

11274550 SAN JOAQUIN RIVER NEAR CROWS LANDING, CA

LOCATION.—Lat 37°25'42", long 121°00'12", in NE 1/4 NE 1/4 sec.7, T.6 S., R.9 E., Stanislaus County, Hydrologic Unit 18040002, on right bank, 50 ft downstream from bridge on Crows Landing Road, and 4.2 miles northeast of Crows Landing.

DRAINAGE AREA.—9,694 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1995 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level.

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.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 38,000 ft^3/s, Jan. 28, 1997, gage height, 59.23 ft, from rating curve extended above 32,100 ft^3/s; minimum daily, 432 ft^3/s, Sept. 18, 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	583	981	805	723	1380	6260	1270	2390	800	582	695	654
2	595	964	781	751	1320	6550	1160	2270	791	628	668	678
3	641	969	766	743	1270	6590	1120	1860	762	693	632	747
4	689	940	781	723	1200	6300	1100	1760	693	690	614	799
5	654	937	792	712	1150	5950	1090	1630	687	743	561	758
6	683	917	775	687	1140	5850	1040	1520	716	765	596	692
7	678	903	750	663	1080	6170	1080	1550	720	722	617	644
8	694	944	736	678	1030	6220	1030	1680	726	726	642	636
9	713	950	723	729	1010	6200	965	1730	779	740	664	610
10	734	937	707	727	1010	6250	951	1720	830	778	632	638
11	745	962	700	709	1000	6310	932	1710	835	751	615	685
12	621	976	692	694	1100	6100	874	1710	895	691	612	673
13	611	1000	691	682	1640	5750	805	1710	825	695	657	683
14	626	988	680	695	3060	5390	781	1440	827	679	686	661
15	678	954	669	712	3780	5050	817	1250	808	659	644	603
16	742	934	666	752	4950	4840	909	1230	702	646	608	570
17	936	914	640	789	5790	4370	1150	1190	679	712	609	571
18	1080	907	637	859	6270	4030	1400	1160	745	695	556	566
19	1120	846	634	856	6150	3900	1640	1150	829	682	541	548
20	1160	812	671	911	5750	3840	2560	1190	768	650	616	536
21	1200	800	666	922	5280	3690	3120	1120	697	642	661	491
22	1090	787	633	921	5030	3540	3110	1100	674	664	683	550
23	976	762	620	963	5310	3250	3050	1060	615	634	625	564
24	999	736	623	1100	5590	2900	2970	1020	605	664	623	546
25	1040	733	621	1240	5820	2680	2930	974	575	604	632	578
26	963	733	622	1400	6000	2400	2810	926	723	643	695	541
27	961	728	612	1770	5860	1950	2600	943	709	629	659	556
28	976	738	612	1880	5670	1740	2430	900	632	584	628	514
29	997	769	618	1770	6060	1600	2380	851	644	601	631	488
30	994	811	663	1590	---	1520	2370	796	622	658	629	462
31	980	---	703	1450	---	1390	---	750	---	727	632	---
TOTAL	26159	26332	21289	29801	101700	138580	50444	42290	21913	20977	19563	18242
MEAN	844	878	687	961	3507	4470	1681	1364	730	677	631	608
MAX	1200	1000	805	1880	6270	6590	3120	2390	895	778	695	799
MIN	583	728	612	663	1000	1390	781	750	575	582	541	462
AC-FT	51890	52230	42230	59110	201700	274900	100100	83880	43460	41610	38800	36180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

MEAN	1387	976	1693	6271	10330	5420	4189	3773	3008	2160	886	865
MAX	2338	1228	4364	25600	23390	10130	13980	12090	11890	8176	1757	1842
(WY)	1996	1999	1997	1997	1997	1998	1998	1998	1998	1998	1998	1998
MIN	648	751	687	960	2909	1847	1353	1238	605	567	612	501
(WY)	1998	1998	2000	1996	1999	1999	1997	1997	1997	1999	1997	1997

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	435884		517290			
ANNUAL MEAN	1194		1413		3377	
HIGHEST ANNUAL MEAN					6775	1998
LOWEST ANNUAL MEAN					1403	1999
HIGHEST DAILY MEAN	4910	Feb 12	6590	Mar 3	37600	Jan 28 1997
LOWEST DAILY MEAN	458	Sep 25	462	Sep 30	432	Sep 18 1997
ANNUAL SEVEN-DAY MINIMUM	524	Jul 12	526	Sep 24	476	Aug 29 1997
INSTANTANEOUS PEAK FLOW			6630	Mar 3	38000	Jan 28 1997
INSTANTANEOUS PEAK STAGE			48.86	Mar 3	59.23	Jan 28 1997
ANNUAL RUNOFF (AC-FT)	864600		1026000		2446000	
10 PERCENT EXCEEDS	2420		3580		11300	
50 PERCENT EXCEEDS	822		788		1120	
90 PERCENT EXCEEDS	562		615		598	

11274550 SAN JOAQUIN RIVER NEAR CROWS LANDING, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—January 1996 to current year.
SPECIFIC CONDUCTANCE: January 1996 to current year.
WATER TEMPERATURE: January 1996 to current year.

PERIOD OF DAILY RECORD.—January 1996 to current year.
SPECIFIC CONDUCTANCE: January 1996 to current year.
WATER TEMPERATURE: January 1996 to current year.

INSTRUMENTATION.—Water-quality monitor since January 1996.

REMARKS.— Specific-conductance and water-temperature values are affected by irrigation return flow. Interruption in record was due to malfunction of the recording instrument. Chemical and Sediment Data for water year 2000 available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 1,690 microsiemens, June 20, 1999; minimum recorded 120 microsiemens, July 11, 12, 16, 1998.
WATER TEMPERATURE: Maximum recorded, 31.0°C, July 12, 13, 1999; minimum recorded, 4.0°C, Dec. 24, 1998.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 1,570 microsiemens, Apr. 14; minimum recorded, 239 microsiemens, Feb. 17.
WATER TEMPERATURE: Maximum recorded, 30.0°C, June 22; minimum recorded, 7.5°C, several days in December and January.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1010	923	961	913	1210	1170	1430	1360	1140	1080	386	362
2	1040	950	981	946	1240	1200	1360	1340	1210	1130	445	386
3	1040	946	973	913	1220	1200	1370	1350	1280	1200	488	445
4	993	945	1040	956	1250	1210	1390	1370	1340	1270	551	488
5	1030	984	1050	972	1260	1220	1420	1380	1360	1290	572	547
6	1060	1000	1070	986	1270	1260	1490	1390	1320	1290	548	458
7	1030	1000	1100	1050	1290	1270	1500	1400	1370	1300	462	421
8	1040	976	1080	1030	1290	1280	1430	1370	1390	1340	463	420
9	1000	971	1050	1030	1290	1250	1390	1340	1370	1320	494	463
10	1010	941	1060	1010	1290	1260	1380	1350	1380	1320	498	447
11	1030	917	1030	978	1310	1270	1410	1370	1370	1300	481	448
12	1190	1030	1040	1000	1310	1300	1410	1390	1330	1090	515	481
13	1190	1150	1020	983	1300	1280	1460	1380	1150	615	550	515
14	1230	1180	1080	1010	1310	1290	1400	1330	630	393	565	537
15	1190	1050	1090	1050	1340	1310	1390	1320	433	264	578	565
16	1070	923	1100	1060	1340	1320	1360	1260	312	246	614	561
17	924	670	1130	1090	1350	1310	1290	1210	296	239	685	614
18	670	643	1140	1100	1390	1350	1270	1150	333	296	692	684
19	648	612	1230	1120	1390	1360	1240	1190	381	333	691	684
20	623	607	1190	1150	1390	1330	1230	1160	417	381	686	650
21	633	604	1220	1160	1370	1350	1270	1220	446	416	691	661
22	766	615	1210	1190	1370	1360	1240	1190	446	429	721	690
23	788	760	1230	1200	1400	1370	1240	1120	535	425	793	721
24	801	749	1270	1230	1410	1390	1180	1110	534	423	863	793
25	818	753	1270	1230	1440	1410	1140	1030	499	372	883	861
26	893	817	1230	1210	1440	1420	1130	943	487	372	985	877
27	916	858	1250	1210	1450	1410	956	806	519	442	1150	985
28	899	877	1250	1220	1470	1440	827	766	601	452	1220	1150
29	890	842	1220	1200	1480	1470	930	820	452	381	1250	1220
30	922	855	1200	1180	1480	1400	1010	930	---	---	1270	1230
31	939	909	---	---	1440	1340	1090	1000	---	---	1270	1240
MONTH	1230	604	1270	913	1480	1170	1500	766	1390	239	1270	362

11274550 SAN JOAQUIN RIVER NEAR CROWS LANDING, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1330	1250	507	494	1370	1210	1350	1150	1020	987	1150	1010
2	1400	1330	598	507	1280	1120	1390	1260	1060	1020	1090	962
3	1400	1330	---	---	1240	1160	1300	1080	1100	1060	966	894
4	1400	1320	---	---	1410	1210	1100	1020	1240	1100	911	852
5	1330	1270	---	---	1440	1310	1120	974	1280	1240	895	850
6	1380	1280	---	---	1370	1280	1010	952	1240	1130	990	895
7	1360	1290	---	---	1340	1190	1110	1000	1160	1070	1040	971
8	1400	1310	---	---	1260	1170	1190	1090	1090	969	1070	966
9	1400	1360	---	---	1280	1110	1190	1080	1020	963	1060	992
10	1400	1310	---	---	1230	1130	1120	1010	1100	1010	1010	958
11	1420	1340	---	---	1200	1140	1130	1070	1110	1090	985	892
12	1430	1380	---	---	1200	1060	1170	1130	1120	1080	924	858
13	1560	1430	---	---	1220	1110	1140	1060	1120	973	866	785
14	1570	1490	---	---	1220	1160	1120	1040	1010	961	827	776
15	1500	1450	---	---	1210	1160	1150	1070	1040	1000	871	815
16	1490	1260	---	---	1330	1200	1160	1110	1060	1040	931	843
17	1260	1100	928	881	1350	1230	1140	1040	1160	1020	939	876
18	1100	1000	932	883	1290	1170	1080	1010	1190	1090	930	813
19	1000	867	980	902	1170	1050	1140	1060	1290	1180	944	828
20	867	534	939	907	1120	1080	1180	1100	1270	1200	977	933
21	547	526	1030	939	1210	1110	1280	1180	1200	1110	1010	967
22	541	517	1040	964	1240	1090	1270	1250	1110	970	1010	928
23	528	513	985	962	1310	1210	1290	1250	1100	1050	1020	952
24	528	500	1030	953	1300	1260	1290	1230	1080	1020	1080	1000
25	505	482	1080	1020	1300	1240	1260	1230	1160	1030	1020	919
26	498	478	1160	1080	1300	1090	1280	1250	1160	992	1040	935
27	514	497	1160	1080	1310	1060	1270	1240	1110	989	1040	885
28	519	490	1180	1080	1340	1150	1320	1240	1050	1000	943	878
29	520	495	1310	1150	1350	1170	1250	1200	1000	951	964	910
30	519	488	1230	1160	1250	1150	1200	1100	1030	970	992	946
31	---	---	1330	1180	---	---	1100	988	1180	1010	---	---
MONTH	1570	478	---	---	1440	1050	1390	952	1290	951	1150	776

11274550 SAN JOAQUIN RIVER NEAR CROWS LANDING, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.5	21.5	17.0	15.5	13.0	12.0	9.0	8.5	13.0	11.5	12.5	12.0
2	23.0	21.0	17.0	15.5	12.0	11.5	8.5	7.5	13.5	12.5	12.5	12.0
3	22.0	20.5	17.0	15.5	11.5	10.0	8.5	7.5	13.5	12.5	12.5	12.0
4	21.5	20.0	17.0	15.0	10.5	9.0	8.5	7.5	13.5	12.5	13.5	12.0
5	21.0	19.5	17.5	15.5	10.5	9.5	9.5	8.0	13.5	12.5	13.5	13.0
6	21.5	19.5	17.0	16.0	11.0	9.5	9.5	8.0	14.0	12.5	13.0	12.5
7	20.5	18.5	16.5	15.5	11.5	10.0	9.0	7.5	14.5	13.0	12.5	12.0
8	21.0	18.5	16.5	15.5	10.5	9.5	9.0	7.5	15.5	14.0	12.0	12.0
9	22.0	19.5	16.5	15.0	10.0	9.5	9.0	8.0	15.5	14.5	12.0	11.5
10	22.5	20.0	16.5	15.5	10.0	9.0	10.0	8.0	15.0	14.5	13.0	11.5
11	22.5	20.5	16.5	15.0	9.5	8.5	10.0	8.5	14.5	13.5	14.0	12.5
12	22.0	20.0	16.5	15.0	9.5	8.5	11.0	10.0	13.5	12.5	14.5	13.5
13	21.5	20.0	16.5	15.0	10.0	9.0	11.5	10.0	12.5	12.0	15.0	14.0
14	22.0	20.0	16.0	15.0	9.0	8.0	11.0	10.0	13.5	12.0	15.5	14.0
15	21.0	19.5	16.5	15.0	9.0	7.5	11.5	10.5	13.5	12.0	15.5	14.5
16	19.5	17.5	17.0	15.5	9.0	7.5	12.0	11.0	13.5	12.5	15.5	15.0
17	19.0	17.0	16.5	15.5	9.0	8.0	11.5	11.5	13.0	12.5	15.5	14.5
18	18.0	17.0	15.5	14.5	9.5	8.0	13.0	11.5	12.5	12.0	15.0	14.0
19	17.5	16.0	14.5	13.5	9.5	8.5	14.0	12.5	12.5	12.0	15.5	14.5
20	17.5	16.0	14.5	13.5	9.5	8.5	14.0	13.5	12.5	12.5	15.0	14.0
21	17.5	16.0	14.5	13.0	9.5	8.5	14.0	12.5	13.0	12.5	14.0	13.0
22	18.0	16.0	13.0	11.5	9.5	8.5	14.0	12.5	13.0	12.0	14.5	13.5
23	18.0	16.5	12.0	10.5	9.5	8.0	13.5	12.5	12.0	11.5	15.5	14.5
24	18.0	16.5	12.0	10.5	9.5	8.0	13.0	12.5	11.5	10.5	16.5	15.0
25	18.0	16.5	12.0	10.5	9.0	8.0	14.0	13.0	11.5	11.0	16.5	15.0
26	18.0	16.5	12.5	11.0	9.0	8.0	13.5	13.0	12.5	11.5	16.5	15.0
27	18.5	17.0	12.5	11.0	9.0	7.5	13.5	12.5	13.0	12.5	17.5	15.5
28	19.0	18.0	12.0	11.5	9.5	7.5	13.0	12.0	13.0	13.0	17.0	16.0
29	18.0	16.0	12.0	11.5	9.5	8.0	12.0	11.0	13.0	12.5	17.5	16.0
30	17.0	15.0	13.0	11.5	9.0	7.5	12.0	11.5	---	---	17.5	16.0
31	17.0	15.5	---	---	9.5	8.5	12.0	11.0	---	---	17.0	15.5
MONTH	23.5	15.0	17.5	10.5	13.0	7.5	14.0	7.5	15.5	10.5	17.5	11.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.0	15.5	18.5	17.0	24.5	20.5	27.5	24.5	29.0	26.0	23.0	21.5
2	20.0	17.0	19.5	17.5	25.5	22.0	26.5	23.5	29.5	26.5	22.5	21.0
3	21.0	18.5	---	---	25.5	22.5	26.5	23.5	29.5	27.0	23.5	21.0
4	21.0	19.0	---	---	26.0	22.5	26.5	23.0	28.5	25.5	23.0	20.5
5	21.0	19.0	---	---	25.5	22.5	26.0	23.0	28.5	25.0	22.5	20.5
6	20.5	18.5	---	---	25.5	22.5	25.5	22.5	28.0	25.0	23.0	20.0
7	20.5	18.0	---	---	25.5	22.5	25.0	22.0	27.5	24.5	24.0	20.5
8	21.0	18.5	---	---	24.0	22.5	25.5	22.0	27.0	24.0	24.5	21.5
9	20.5	18.5	---	---	24.0	20.5	26.5	23.0	27.0	24.0	24.5	21.5
10	20.5	18.0	---	---	24.0	21.0	27.0	23.5	26.5	23.5	24.5	21.5
11	21.5	19.0	---	---	24.5	21.5	27.0	24.5	27.0	23.5	24.5	22.0
12	22.0	20.0	---	---	25.0	22.5	27.5	24.0	27.5	24.0	24.0	22.5
13	22.0	20.5	---	---	26.5	23.0	26.5	24.0	27.0	24.0	24.5	22.0
14	21.0	19.5	---	---	28.5	25.0	27.0	23.5	27.0	23.5	25.0	22.5
15	20.5	19.0	---	---	29.5	26.5	27.0	24.0	27.0	24.0	25.0	22.5
16	19.5	17.5	---	---	29.0	27.0	26.5	24.0	27.5	24.0	24.5	21.5
17	17.5	16.0	20.0	17.5	28.5	26.0	26.0	23.0	27.5	24.0	25.0	22.0
18	18.0	15.0	21.5	18.5	28.0	25.5	26.0	22.5	26.5	24.0	25.5	22.5
19	18.5	16.5	23.0	20.0	28.0	24.5	26.5	23.0	26.0	22.5	26.0	23.0
20	18.0	16.5	25.0	21.5	29.0	26.0	27.0	23.5	25.0	22.0	26.5	23.5
21	18.0	16.5	26.0	23.5	29.5	26.5	27.5	24.0	26.0	22.5	26.0	24.0
22	18.0	17.0	27.0	24.5	30.0	26.5	27.0	24.0	26.5	23.5	25.0	22.5
23	17.5	16.5	26.5	25.5	29.0	26.0	27.5	23.5	26.5	23.5	23.0	21.0
24	17.5	16.0	25.5	24.0	28.5	25.0	27.5	24.5	26.0	23.0	23.0	20.0
25	18.0	16.5	25.5	23.0	28.5	25.0	28.0	24.5	26.5	23.0	23.5	20.5
26	19.0	17.0	25.0	22.5	28.5	25.5	27.5	24.5	26.5	23.5	23.5	21.0
27	19.0	18.0	25.5	22.5	29.5	26.5	26.5	23.0	26.5	24.0	23.5	21.5
28	18.0	17.0	25.5	23.0	29.5	26.5	27.0	23.5	27.0	24.0	22.5	21.0
29	17.5	16.0	25.0	22.5	29.5	26.5	28.0	24.0	26.0	22.5	22.5	20.0
30	18.0	16.0	24.5	21.5	28.5	26.0	28.5	25.5	22.5	21.0	23.5	20.5
31	---	---	23.0	21.0	---	---	28.5	25.5	24.0	21.0	---	---
MONTH	22.0	15.0	---	---	30.0	20.5	28.5	22.0	29.5	21.0	26.5	20.0

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 mi^2.

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. Elevation of gage is 200 ft above sea level, from topographic map. Prior to June 1965, crest-stage gage at site 1.0 mi downstream at different datum.

REMARKS.—Records good except those below 0.1 ft^3/s and estimated daily discharges, which are poor. Some stock ponds and small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,270 ft^3/s, Feb. 3, 1998, gage height, 14.92, from rating curve extended above 3,400 ft^3/s on basis of computation of peak flow through culvert; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	0445	101	2.92	Feb. 23	0515	523	5.21
Feb. 14	0015	732	5.79				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	e.01	.02	.49	.07	28	4.6	2.1	.44	.09	.00	.00
2	.00	.01	.02	.54	.04	24	4.3	2.1	.41	.08	.00	.00
3	.00	.01	.03	.54	.02	20	4.0	2.2	.41	.05	.00	.00
4	.00	.01	.02	.60	.02	16	4.0	2.2	.41	.04	.00	.00
5	.00	.01	.02	.68	.01	16	3.9	2.1	.35	.04	.00	.00
6	.00	.01	.02	.65	.01	14	3.8	2.0	.34	.04	.00	.00
7	.00	.01	.02	.65	.01	13	3.6	2.3	.34	.04	.00	.00
8	.00	.01	.03	.66	.00	15	3.4	2.7	.34	.04	.00	.00
9	.00	.01	.03	.66	.00	24	3.4	2.8	.37	.04	.00	.00
10	.00	.01	.02	.66	.00	22	3.5	2.4	.43	.04	.00	.00
11	.00	.01	.02	.75	.02	17	3.1	2.0	.42	.04	.00	.00
12	e.00	.01	.02	.78	45	16	2.8	1.7	.41	.00	.00	.00
13	e.00	.01	.03	.76	126	14	2.7	1.7	.41	.00	.00	.00
14	e.00	.01	.03	.72	288	12	2.8	1.6	.36	.00	.00	.00
15	e.00	.01	.03	.74	68	11	3.4	1.4	.34	.00	.00	.00
16	e.00	.01	.03	.83	31	9.5	3.3	1.7	.30	.00	.00	.00
17	e.00	.02	.03	.99	18	8.3	24	1.8	.27	.00	.00	.00
18	e.00	.02	.03	2.8	8.6	7.8	21	1.7	.24	.00	.00	.00
19	e.00	.01	.04	2.4	6.5	7.5	13	1.4	.26	.00	.00	.00
20	e.00	.02	.04	1.3	5.7	7.1	7.3	1.2	.24	.00	.00	.00
21	e.00	.02	.04	.66	19	6.8	4.7	1.0	.23	.00	.00	.00
22	e.00	.02	.04	.36	19	7.2	3.7	.82	.20	.00	.00	.00
23	e.00	.02	.04	3.2	214	7.2	3.4	.72	.18	.00	.00	.00
24	e.00	.02	.04	32	67	7.3	3.1	.67	.17	.00	.00	.00
25	e.00	.02	.04	59	37	7.1	3.0	.61	.17	.00	.00	.00
26	e.01	.02	.15	12	28	6.8	2.8	.56	.13	.00	.00	.00
27	e.01	.02	.21	2.4	30	6.4	2.7	.55	.12	.00	.00	.00
28	e.01	.02	.24	.82	31	6.4	2.5	.50	.13	.00	.00	.00
29	e.01	.02	.29	.34	28	6.4	2.4	.45	.12	.00	.00	.00
30	e.01	.02	.34	.26	---	6.1	2.3	.41	.12	.00	.00	.00
31	e.01	---	.42	.18	---	5.4	---	.41	---	.00	.00	---
TOTAL	0.06	0.43	2.38	129.42	1070.00	375.3	152.5	45.80	8.66	0.54	0.00	0.00
MEAN	.002	.014	.077	4.17	36.9	12.1	5.08	1.48	.29	.017	.000	.000
MAX	.01	.02	.42	59	288	28	24	2.8	.44	.09	.00	.00
MIN	.00	.01	.02	.18	.00	5.4	2.3	.41	.12	.00	.00	.00
AC-FT	.1	.9	4.7	257	2120	744	302	91	17	1.1	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2000, BY WATER YEAR (WY)

MEAN	.14	1.04	3.58	19.5	36.1	25.9	9.67	4.16	1.94	.36	.099	.19
MAX	2.15	9.38	31.8	130	340	218	54.1	31.5	31.3	5.56	2.06	4.48
(WY)	1984	1983	1984	1997	1998	1983	1983	1983	1983	1983	1983	1990
MIN	.000	.000	.000	.000	.000	.062	.002	.000	.000	.000	.000	.000
(WY)	1966	1967	1969	1977	1977	1977	1990	1992	1966	1965	1965	1965

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1965 - 2000	
ANNUAL TOTAL	1138.63		1785.09			
ANNUAL MEAN	3.12		4.88		8.42	
HIGHEST ANNUAL MEAN					47.7	1983
LOWEST ANNUAL MEAN					.030	1977
HIGHEST DAILY MEAN	79	Feb 9	288	Feb 14	1870	Feb 3 1998
LOWEST DAILY MEAN	.00	Aug 3	.00	Oct 1	.00	Jul 1 1965
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 17	.00	Oct 1	.00	Jul 1 1965
INSTANTANEOUS PEAK FLOW			732	Feb 14	5270	Feb 3 1998
INSTANTANEOUS PEAK STAGE			5.79	Feb 14	14.92	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	2260		3540		6100	
10 PERCENT EXCEEDS	7.1		9.9		15	
50 PERCENT EXCEEDS	.51		.04		.15	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated.

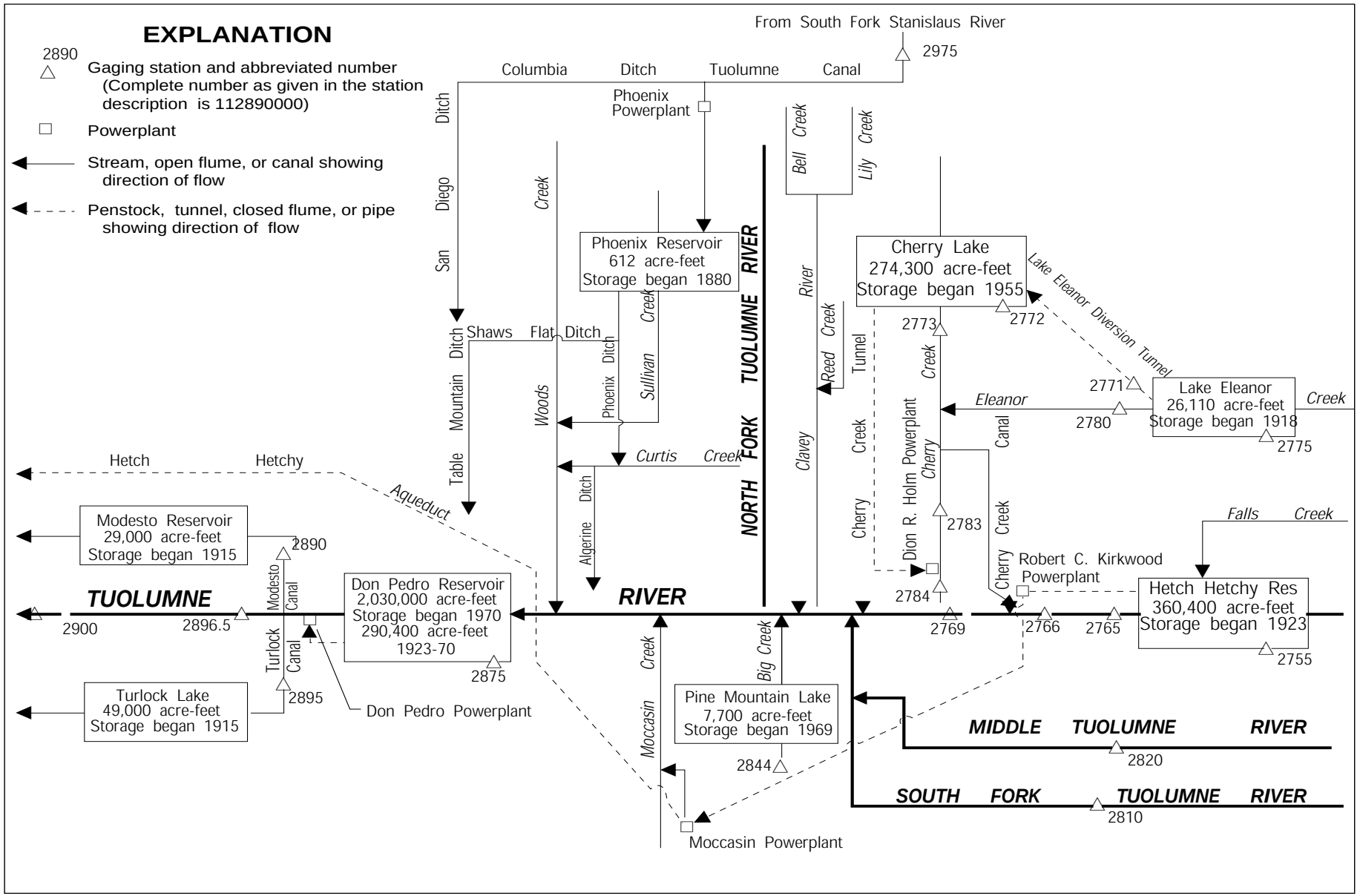

Figure 29. Diversions and storage in Tuolumne River Basin.

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 mi^2.

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.—Water-stage recorder installed March 1995. Datum of gage is 1.84 ft above sea level. 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 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 downriver is for State Department of Fish and Game and Raker Act requirements. Hetch Hetchy Reservoir is the main storage unit of Hetch Hetchy water-supply system for San Francisco. Records, including extremes for current year, represent contents at 2400 hours. See schematic diagram of Tuolumne River Basin.

EXTREMES (AT 0800) 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, 363,500 acre-ft, June 14, gage height, 3,807.60 ft; minimum, 170,500 acre-ft, Apr. 2, 3, minimum gage height, 3,696.94 ft, Apr. 3.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by San Francisco Public Utilities Commission, dated May 20, 1971)

3,512	0	3,530	3,300	3,600	57,400	3,680	146,200	3,760	273,700
3,513	51	3,540	8,700	3,620	76,500	3,700	175,000	3,780	310,400
3,515	154	3,560	22,900	3,640	97,000	3,720	206,000	3,800	348,600
3,520	410	3,580	39,500	3,660	119,900	3,740	238,900	3,810.4	369,100

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292900	267800	251900	230400	221400	214300	171300	206300	334700	360100	343000	313900
2	291900	267100	251300	229700	221300	212300	170500	211900	335800	358900	341600	313100
3	291100	266500	250700	228700	221100	210400	170500	218100	338400	357800	340900	312500
4	290200	265900	250500	227500	220800	208500	171300	224200	343700	357400	340400	311500
5	289100	265200	249700	226800	220500	206700	172400	229700	349400	356700	339800	310400
6	287900	264800	249100	226000	220100	204800	173400	234200	354000	356000	339100	309500
7	287300	264000	248600	225100	219600	202800	174400	240200	358400	356000	338400	308500
8	286500	263600	247900	224300	219200	200800	175700	251400	360700	356100	337700	307600
9	285500	262900	247300	223500	218900	198800	176700	257100	360100	356200	336900	306700
10	284600	262300	246800	222600	218900	196700	177300	260500	359600	356100	335900	305600
11	283500	261900	246300	221900	218700	194700	178100	262100	359400	355900	334900	304500
12	282500	261300	245900	221200	218600	192900	179300	262800	360700	356000	334200	303300
13	281400	260800	245400	220600	220200	191200	183500	263400	362900	355600	333100	302300
14	280500	260100	244700	219900	224100	189900	185600	264000	363500	355300	332000	301300
15	279700	259600	243800	219300	224600	188800	186100	264400	362300	354700	330800	300200
16	278800	259100	242900	218800	224800	187800	186000	265100	362400	354300	329700	299300
17	277700	258600	242200	218200	224600	186800	186100	265300	362500	353900	328600	298900
18	276800	258000	241600	219000	224100	185800	185700	266400	362100	353300	327500	297800
19	276000	257700	240700	218900	223700	185300	185000	269800	361900	352900	326700	296800
20	275000	257600	240000	219000	223300	184400	184600	275900	361600	352600	325700	295800
21	274600	257200	239000	218900	222900	183000	184500	284200	361400	352100	324800	294800
22	273800	256600	238200	218700	222300	181600	184700	292700	361500	351300	323600	293800
23	273200	256300	237300	218700	221600	180300	184900	297800	361700	350400	322600	292900
24	272600	255700	236500	221000	220400	179000	185300	303300	361400	349700	321600	292500
25	272000	255300	235800	222500	219300	177600	186300	311000	361800	348900	320500	291400
26	271400	254600	235000	222800	218200	176700	188600	316000	362000	348400	319600	290400
27	270400	254200	234300	222700	218400	176200	192500	320500	361500	347600	318600	289400
28	270000	253500	233500	222500	217600	175400	196700	326300	361600	346600	317600	288400
29	269600	252900	232800	222200	216100	174500	199100	330400	361300	345800	316600	287300
30	269000	252400	232100	222000	---	173700	201700	332800	360800	344700	315700	286300
31	268400	---	231400	221800	---	172600	---	333900	---	343900	314900	---
MAX	292900	267800	251900	230400	224800	214300	201700	333900	363500	360100	343000	313900
MIN	268400	252400	231400	218200	216100	172600	170500	206300	334700	343900	314900	286300
a	3757.01	3747.85	3735.57	3729.73	3726.29	3698.38	3717.29	3792.39	3806.21	3797.59	3782.39	3766.97
b	-25600	-16000	-21000	-9600	-5700	-43500	+29100	+132200	+26900	-16900	-29000	-28600

CAL YR 1999 b -67900
WTR YR 2000 b -7700

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

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 mi^2.

WATER-DISCHARGE RECORDS

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, crest-stage gage with concrete control since May 5, 1970. Elevation of gage is 3,480 ft above sea level, 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. 3 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) 0.9 mi upstream beginning in April 1923. Flow diverted upstream from station through tunnel to Robert C. Kirkwood Powerplant and Hetch Hetchy Aqueduct beginning Apr. 26, 1967. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16,400 ft^3/s, Jan. 3, 1997, gage height, 15.08 ft; no flow at times in 1968–70.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	65	57	42	52	150	150	177	2230	237	123	127
2	71	65	50	34	63	147	150	180	2230	221	128	128
3	68	65	50	34	61	145	149	183	1480	218	131	128
4	67	65	50	34	61	144	149	187	483	216	129	127
5	67	65	50	35	61	143	150	193	507	165	127	127
6	67	65	50	35	61	142	151	197	530	130	125	127
7	67	65	50	35	60	141	151	201	549	132	125	126
8	67	66	49	35	60	142	152	206	1350	131	126	127
9	67	65	50	34	61	142	152	209	1510	131	129	127
10	67	65	50	34	62	140	153	211	1120	130	127	126
11	67	65	50	35	62	138	153	213	1120	130	127	113
12	67	65	50	34	64	137	153	214	765	130	127	101
13	67	65	50	34	93	135	157	213	1130	130	126	101
14	67	65	50	34	97	135	159	214	2730	129	126	101
15	67	65	49	34	72	134	159	215	3540	128	126	88
16	67	65	49	35	69	134	160	217	2840	127	126	79
17	67	65	49	35	67	133	161	216	2490	127	126	81
18	67	65	49	38	66	133	162	216	2380	126	126	81
19	67	65	49	35	64	132	160	216	1860	125	127	81
20	67	65	49	36	64	132	160	218	1360	127	126	84
21	67	65	51	36	64	131	160	221	1160	128	126	85
22	66	65	52	35	64	130	160	944	865	127	125	86
23	66	65	52	37	67	130	160	2580	662	125	127	85
24	66	65	52	67	64	135	159	2320	591	124	127	86
25	66	65	52	55	63	139	159	1520	546	124	127	84
26	66	64	52	40	63	138	159	2050	809	124	127	81
27	65	64	52	37	88	138	161	2600	690	124	127	81
28	66	64	52	36	76	137	163	2630	549	126	127	81
29	65	64	52	36	113	136	169	2660	509	127	127	81
30	65	64	52	37	---	144	175	2680	320	124	127	81
31	65	---	52	37	---	151	---	2490	---	124	128	---
TOTAL	2081	1946	1571	1155	1982	4288	4716	26791	38905	4367	3928	3011
MEAN	67.1	64.9	50.7	37.3	68.3	138	157	864	1297	141	127	100
MAX	80	66	57	67	113	151	175	2680	3540	237	131	128
MIN	65	64	49	34	52	130	149	177	320	124	123	79
AC-FT	4130	3860	3120	2290	3930	8510	9350	53140	77170	8660	7790	5970

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1966, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	534	516	544	528	519	620	971	2005	3149	1396	636	548
MAX	813	780	2281	1221	1556	1078	2803	5336	7859	4624	1320	1143
(WY)	1949	1939	1951	1965	1965	1916	1952	1919	1911	1911	1939	1939
MIN	13.8	1.52	1.83	2.51	34.2	11.2	507	493	480	279	27.1	5.83
(WY)	1925	1924	1924	1924	1924	1925	1937	1961	1924	1919	1924	1923

SUMMARY STATISTICS	WATER YEARS 1911 - 1966	
ANNUAL MEAN	997	
HIGHEST ANNUAL MEAN	1724	1911
LOWEST ANNUAL MEAN	516	1924
HIGHEST DAILY MEAN	11400	Jun 18 1911
LOWEST DAILY MEAN	1.3	Nov 2 1923
ANNUAL SEVEN-DAY MINIMUM	1.4	Nov 1 1923
INSTANTANEOUS PEAK FLOW	12900	Jun 1 1943
INSTANTANEOUS PEAK STAGE	13.90	Jun 1 1943
ANNUAL RUNOFF (AC-FT)	722600	
10 PERCENT EXCEEDS	2230	
50 PERCENT EXCEEDS	721	
90 PERCENT EXCEEDS	115	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	50.8	63.0	78.2	124	74.8	81.5	227	1111	1811	878	164	76.4
MAX	164	561	618	2105	305	489	1371	3327	5885	5149	1263	125
(WY)	1987	1987	1997	1997	1974	1983	1986	1969	1983	1983	1983	1989
MIN	31.1	33.6	34.1	33.5	31.7	29.9	33.6	49.0	71.2	68.2	66.7	31.6
(WY)	1969	1991	1991	1977	1971	1974	1981	1990	1977	1968	1974	1970

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	138852		94741			
ANNUAL MEAN	380		259		396	
HIGHEST ANNUAL MEAN					1433	1983
LOWEST ANNUAL MEAN					49.5	1977
HIGHEST DAILY MEAN	4190	May 27	3540	Jun 15	13800	Jan 3 1997
LOWEST DAILY MEAN	42	Jan 3	34	Jan 2	.00	Oct 3 1968
ANNUAL SEVEN-DAY MINIMUM	42	Jan 3	34	Jan 9	.00	Feb 20 1970
INSTANTANEOUS PEAK FLOW			4280	Jun 15	16400	Jan 3 1997
INSTANTANEOUS PEAK STAGE			10.32	Jun 15	15.08	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	275400		187900		286600	
10 PERCENT EXCEEDS	1000		515		1030	
50 PERCENT EXCEEDS	127		125		66	
90 PERCENT EXCEEDS	50		50		35	

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1987 to current year.
WATER TEMPERATURE: Water years 1987 to current year.

PERIOD OF DAILY RECORD.—August 1987 to current year.
WATER TEMPERATURE: August 1987 to current year.

INSTRUMENTATION.—Water-temperature recorder since August 1987.

REMARKS.—Water-temperature recorder installed Aug. 13, 1987, located 0.6 mi upstream from gaging station on left bank at road bridge. Water temperature can be affected by releases from O'Shaughnessy Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 19.5°C, July 12, 1996 and June 30, 2000; minimum recorded, 4.0°C, Mar. 25, 1991.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 19.5°C, June 30; minimum recorded, 6.0°C, Feb. 27.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	10.0	11.5	10.0	11.0	10.0	10.0	9.5	9.5	8.0	8.0	7.5
2	11.5	10.0	11.5	10.0	11.0	10.0	9.5	9.0	9.0	8.5	8.0	7.5
3	11.5	10.0	11.0	10.0	11.0	10.0	10.0	9.0	9.0	8.5	8.5	7.5
4	11.5	10.0	11.5	10.0	11.0	10.0	10.0	9.5	9.0	8.5	8.5	7.5
5	11.5	10.0	11.0	10.0	11.0	10.0	9.5	9.0	9.0	8.5	8.0	7.5
6	11.0	10.5	11.0	10.0	11.0	10.0	10.0	9.0	9.0	8.0	7.5	7.5
7	11.5	9.5	11.0	10.0	10.5	10.0	10.0	9.0	9.0	8.5	7.5	7.5
8	11.5	10.0	11.0	10.0	10.5	10.0	9.5	9.0	9.0	8.5	7.5	7.0
9	11.5	10.5	11.0	10.0	10.5	10.5	10.0	9.0	9.0	8.5	8.0	7.0
10	11.5	10.0	11.0	10.0	10.5	10.0	10.0	9.0	9.0	8.0	8.0	7.0
11	11.5	10.0	11.5	10.0	10.5	10.0	9.5	9.0	8.5	8.0	8.0	7.5
12	11.5	10.0	11.0	10.5	11.0	10.0	10.0	9.5	8.5	8.0	8.5	7.5
13	11.5	10.0	11.0	10.5	11.0	10.0	10.0	9.0	8.5	7.5	8.5	7.5
14	11.5	10.0	11.0	10.5	10.5	10.0	9.5	9.0	8.5	8.0	8.5	7.5
15	11.5	10.0	11.5	10.5	11.0	10.0	9.5	9.5	8.5	7.5	8.5	7.5
16	11.5	10.0	11.5	10.5	11.0	10.0	9.5	9.0	8.5	8.0	8.5	7.5
17	11.5	10.0	11.0	10.0	11.0	10.5	9.5	9.5	8.0	7.5	8.5	7.5
18	11.5	10.0	11.0	10.0	11.0	10.0	9.5	9.5	8.5	7.5	8.5	7.5
19	11.5	10.0	10.5	10.0	11.0	10.0	10.0	9.0	8.5	7.5	8.5	7.5
20	11.5	10.0	11.0	10.5	11.0	10.5	9.5	9.5	8.5	8.0	8.5	7.5
21	11.0	10.0	10.5	10.0	11.0	10.0	9.5	9.0	8.5	7.5	9.0	7.5
22	11.0	10.0	10.5	10.0	11.0	10.0	9.5	8.5	8.0	7.5	8.5	8.0
23	11.0	10.0	10.5	10.0	11.0	10.0	9.5	9.0	8.0	7.0	8.5	8.0
24	11.0	10.0	11.0	10.0	11.0	10.0	9.0	8.5	8.0	7.0	8.5	8.0
25	11.5	10.0	11.0	10.0	10.5	10.0	9.0	8.5	8.0	7.0	9.0	8.0
26	11.5	10.0	11.0	10.5	10.5	10.0	9.5	8.5	8.5	7.5	9.0	8.0
27	11.0	10.0	11.0	10.0	10.5	10.0	9.0	8.5	8.0	6.0	8.5	8.0
28	11.5	10.5	11.0	10.0	10.5	9.5	9.0	8.0	8.0	7.0	8.5	7.5
29	11.0	10.0	11.0	10.5	10.5	9.5	9.0	8.5	7.5	7.0	8.5	8.0
30	11.5	10.5	11.0	10.5	10.5	9.5	8.5	8.5	---	---	9.0	8.0
31	11.0	10.0	---	---	10.0	9.5	9.0	8.5	---	---	9.0	8.0
MONTH	11.5	9.5	11.5	10.0	11.0	9.5	10.0	8.0	9.5	6.0	9.0	7.0

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.0	9.5	8.5	9.0	9.0	13.0	12.0	12.5	11.0	11.0	10.5
2	9.0	8.0	9.5	8.5	9.5	9.0	13.0	11.5	12.5	11.0	11.0	10.5
3	9.5	8.5	9.5	8.5	9.5	9.0	12.5	11.5	12.0	11.0	11.0	10.5
4	9.0	8.0	9.5	8.5	10.0	9.0	12.5	11.0	12.0	11.0	11.0	10.5
5	9.5	8.5	9.5	8.5	10.0	9.0	13.0	11.5	12.0	10.5	11.0	10.0
6	9.0	8.5	9.0	8.5	10.0	9.5	13.5	12.0	11.5	10.5	11.5	10.0
7	9.5	8.5	9.0	8.5	10.0	9.5	13.0	11.5	11.5	10.5	11.0	10.0
8	9.0	8.0	9.5	8.5	9.5	9.5	12.5	11.0	11.5	10.0	11.0	10.0
9	9.0	8.0	9.0	8.5	10.0	9.0	12.5	11.5	11.0	10.0	11.0	10.5
10	9.5	8.0	8.5	8.0	10.0	9.5	13.0	11.5	11.0	10.0	11.5	10.5
11	9.5	8.5	9.0	8.0	10.0	9.5	13.0	12.0	11.0	10.0	11.5	10.5
12	9.0	8.5	9.0	8.0	10.5	9.5	13.0	11.5	11.0	10.0	11.5	10.5
13	9.0	8.5	9.0	8.5	13.0	10.5	13.0	11.5	11.0	10.0	11.5	10.5
14	9.0	8.0	9.0	8.5	13.0	12.0	13.0	11.5	11.0	10.0	12.0	10.5
15	9.0	8.0	9.0	8.5	12.5	11.0	13.0	12.0	11.0	10.0	12.0	10.5
16	8.5	8.0	8.5	8.0	11.5	11.0	13.0	12.0	11.5	10.0	12.0	10.5
17	8.5	8.0	9.0	8.5	12.5	11.5	13.0	11.5	11.0	10.0	12.0	10.5
18	8.5	8.0	9.5	8.5	12.0	11.5	13.0	11.5	11.0	10.0	12.0	11.0
19	9.0	8.0	9.5	8.5	12.5	11.5	13.0	11.5	11.0	10.0	12.0	10.5
20	9.0	8.0	9.5	9.0	13.0	12.0	12.5	11.5	11.0	10.0	12.0	11.0
21	9.5	8.5	9.5	8.5	13.0	12.0	13.0	11.5	11.0	10.0	12.0	11.0
22	9.0	8.5	9.5	9.0	15.5	12.0	13.0	11.5	11.0	10.0	11.0	10.5
23	9.5	8.0	9.0	8.5	16.5	15.0	13.0	11.5	11.5	10.0	11.5	10.5
24	9.5	8.0	9.5	9.0	16.0	15.0	12.5	11.5	11.5	10.0	11.5	10.5
25	9.5	8.5	9.0	9.0	16.0	14.5	12.5	11.5	11.5	10.5	11.5	10.5
26	9.5	8.5	9.0	9.0	17.0	16.0	12.5	11.5	11.5	10.5	11.5	10.5
27	9.5	8.5	9.0	9.0	16.5	16.0	12.5	11.5	11.5	10.5	11.5	10.5
28	9.0	8.5	9.0	9.0	16.5	15.5	12.5	11.0	11.5	10.5	11.5	10.5
29	9.5	8.5	9.0	9.0	16.5	15.5	12.5	11.0	11.0	10.5	12.0	10.5
30	9.5	8.5	9.0	9.0	19.5	13.0	12.5	11.5	11.0	10.5	12.0	11.0
31	---	---	9.0	9.0	---	---	12.5	11.0	11.5	10.5	---	---
MONTH	9.5	8.0	9.5	8.0	19.5	9.0	13.5	11.0	12.5	10.0	12.0	10.0

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1970 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 2,420 ft above sea level, from topographic map.

REMARKS.—Records good. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 12 mi upstream. Flow diverted upstream from station through tunnel to Robert C. Kirkwood Powerplant and Hetch Hetchy Aqueduct. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 17,700 ft^3/s, Jan. 3, 1997, gage height, 22.98 ft; minimum daily, 25 ft^3/s, Oct. 11, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of June 1, 1943, reached a stage of 22.1 ft, discharge, 12,900 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	64	66	51	90	356	199	215	2400	262	126	132
2	73	64	54	e40	103	307	197	216	2410	227	125	136
3	66	64	50	e35	96	288	195	219	1930	222	135	130
4	65	64	50	e35	92	286	194	221	520	220	129	129
5	65	64	50	e35	89	300	193	225	536	201	133	128
6	65	64	50	e35	86	277	192	230	555	139	125	128
7	65	65	50	e35	84	256	190	245	572	137	127	128
8	65	80	50	e35	82	272	190	329	1180	137	126	128
9	65	66	49	e35	82	287	190	276	1790	137	132	127
10	65	65	49	e35	97	272	189	263	1220	136	128	127
11	64	65	49	e35	130	262	189	260	1210	135	128	125
12	64	64	49	37	147	258	187	257	967	135	128	103
13	64	64	50	36	323	251	213	254	979	135	128	102
14	64	64	49	35	759	249	267	253	2760	134	127	102
15	64	65	49	36	345	250	224	255	3810	133	127	100
16	64	66	49	45	234	242	213	315	3270	132	127	81
17	64	77	49	46	209	235	257	293	2650	131	127	79
18	64	66	49	93	169	224	283	273	2600	130	127	81
19	64	67	49	69	149	222	249	266	2130	129	127	81
20	64	73	49	57	142	216	230	263	1560	129	128	81
21	64	68	48	63	179	205	220	261	1270	131	127	85
22	64	66	50	50	160	201	215	649	1050	130	127	86
23	64	66	51	53	231	197	211	2640	670	129	126	86
24	64	65	51	442	188	197	209	2760	646	127	129	85
25	64	65	51	439	162	201	206	1660	527	126	128	85
26	64	65	51	203	159	197	205	2050	814	126	128	82
27	64	65	51	108	543	196	204	2790	762	127	128	79
28	68	65	51	85	383	193	205	2830	567	127	128	80
29	65	65	51	74	333	190	207	2870	547	130	128	80
30	64	65	51	74	---	189	215	2890	362	126	129	79
31	64	---	51	121	---	200	---	2750	---	127	129	---
TOTAL	2028	1986	1566	2572	5846	7476	6338	29278	42264	4547	3967	3055
MEAN	65.4	66.2	50.5	83.0	202	241	211	944	1409	147	128	102
MAX	85	80	66	442	759	356	283	2890	3810	262	135	136
MIN	64	64	48	35	82	189	187	215	362	126	125	79
AC-FT	4020	3940	3110	5100	11600	14830	12570	58070	83830	9020	7870	6060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2000, BY WATER YEAR (WY)

MEAN	53.3	76.0	111	193	152	165	280	1127	1821	907	178	85.0
MAX	142	552	801	2501	375	814	1564	3339	6142	5424	1319	132
(WY)	1987	1987	1997	1997	1998	1983	1983	1982	1983	1995	1983	1989
MIN	33.3	36.6	38.7	39.7	38.5	38.5	39.7	55.8	78.0	74.3	73.7	56.7
(WY)	1989	1991	1991	1977	1977	1977	1977	1992	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1971 - 2000	
ANNUAL TOTAL	156063		110923			
ANNUAL MEAN	428		303		430	
HIGHEST ANNUAL MEAN					1584	1983
LOWEST ANNUAL MEAN					53.5	1977
HIGHEST DAILY MEAN	4550	May 27	3810	Jun 15	14500	Jan 3 1997
LOWEST DAILY MEAN	48	Dec 21	35	Jan 3	25	Oct 11 1988
ANNUAL SEVEN-DAY MINIMUM	49	Dec 15	35	Jan 3	27	Oct 11 1988
INSTANTANEOUS PEAK FLOW			4980	Jun 15	17700	Jan 3 1997
INSTANTANEOUS PEAK STAGE			18.88	Jun 15	22.98	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	309600		220000		311200	
10 PERCENT EXCEEDS	1030		549		1070	
50 PERCENT EXCEEDS	131		128		84	
90 PERCENT EXCEEDS	54		50		41	

e Estimated.

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1987 to current year.
WATER TEMPERATURE: Water years 1987 to current year.

PERIOD OF DAILY RECORD.—August 1987 to current year.
WATER TEMPERATURE: August 1987 to current year.

INSTRUMENTATION.—Water-temperature recorder since Aug. 12, 1987.

REMARKS.—Temperature recorder located 600 ft upstream from gaging station on right bank. Water temperature is affected by regulation from O'Shaughnessy Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 25.5°C, June 1, 1992; minimum recorded, 0.0°C, Dec. 24, 25, 1990.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 21.0°C, several days in July and August; minimum recorded, 3.0°C, Jan. 6, 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	9.5	14.5	11.5	11.5	9.0	20.5	17.5	20.5	18.0	15.0	14.0
2	13.5	10.0	15.0	12.0	11.0	9.0	18.5	16.5	20.5	17.5	15.0	14.0
3	14.0	11.0	15.5	12.5	11.5	9.0	17.5	15.5	20.5	17.5	15.0	13.0
4	14.5	11.5	15.0	12.5	13.0	10.5	17.5	15.0	21.0	17.5	15.5	13.0
5	14.0	11.5	14.5	12.5	13.0	11.5	17.5	15.0	21.0	17.5	15.5	12.5
6	14.0	11.0	13.0	11.5	12.5	11.0	18.5	15.0	21.0	17.0	16.0	12.5
7	14.0	11.0	12.0	11.0	13.0	11.5	19.5	15.0	20.5	17.0	16.5	13.0
8	14.0	11.0	14.0	11.0	12.0	9.5	20.0	16.0	20.0	16.5	16.5	13.5
9	13.5	11.0	14.0	12.5	11.0	9.0	20.0	16.0	19.5	16.0	16.5	13.5
10	14.0	11.0	13.0	11.5	11.5	9.5	20.5	16.5	19.5	16.0	17.0	13.5
11	13.5	11.0	13.0	10.0	11.5	9.5	20.5	16.5	19.0	15.5	17.0	14.0
12	14.0	11.5	12.0	9.5	12.0	9.5	21.0	17.0	19.0	15.5	16.0	14.0
13	12.5	11.0	13.0	10.5	14.5	11.5	21.0	17.0	19.0	15.0	17.0	14.5
14	11.5	10.0	12.0	11.0	15.0	12.0	21.0	17.0	19.0	15.0	18.0	15.0
15	11.5	10.0	12.0	10.5	14.0	12.0	21.0	17.0	19.0	15.5	18.5	15.5
16	11.0	10.0	11.0	10.0	13.5	11.5	20.5	17.5	19.0	15.5	18.5	15.5
17	10.0	9.0	11.5	9.0	14.5	12.0	20.5	17.0	19.0	15.5	18.5	15.5
18	10.0	8.5	14.0	10.5	14.5	12.5	20.5	16.5	19.0	15.5	18.5	15.5
19	11.5	9.0	15.5	12.0	14.5	12.0	20.5	16.5	18.5	15.0	19.0	16.0
20	12.5	9.5	16.0	13.0	15.0	12.5	21.0	16.5	18.0	14.5	19.0	16.0
21	13.0	10.5	16.5	13.5	15.5	13.0	21.0	17.0	18.0	14.5	18.5	16.0
22	13.0	11.0	16.0	11.0	15.0	13.0	21.0	17.0	18.5	14.5	17.0	15.0
23	14.0	11.5	11.0	10.0	17.5	14.5	21.0	17.0	18.5	15.0	16.5	14.0
24	14.0	11.0	11.0	9.5	18.5	17.0	21.0	17.0	18.5	15.0	16.5	14.0
25	14.0	11.0	12.0	10.0	18.5	17.0	21.0	17.0	18.5	15.0	16.5	13.5
26	15.0	11.5	11.5	9.5	19.0	16.5	21.0	17.0	19.0	15.5	16.5	13.5
27	15.0	12.0	11.5	9.5	19.0	17.0	21.0	17.0	19.0	15.5	16.5	14.0
28	13.5	11.5	11.5	9.5	19.5	18.5	20.5	16.5	19.0	16.0	16.5	14.0
29	13.5	10.5	11.0	9.5	19.5	17.5	20.5	17.0	17.5	16.0	16.5	14.0
30	14.0	10.5	11.0	9.0	20.0	18.0	20.5	17.0	16.5	15.0	17.0	14.0
31	---	---	11.0	9.0	---	---	21.0	17.5	16.5	14.5	---	---
MONTH	15.0	8.5	16.5	9.0	20.0	9.0	21.0	15.0	21.0	14.5	19.0	12.5

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 mi^2.

PERIOD OF RECORD.—October 1966 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 2,200 ft above sea level, from topographic map.

REMARKS.—Records good. 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.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 18,200 ft^3/s, Jan. 3, 1997, gage height, 12.33 ft; minimum daily, 12 ft^3/s, Nov. 28–30, 1976.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	68	69	72	88	1030	833	876	2760	1050	179	139
2	82	68	58	44	100	981	827	880	2770	959	296	144
3	72	68	54	52	94	961	820	887	2400	845	147	137
4	74	68	54	58	90	961	823	895	1240	358	140	137
5	79	68	54	39	87	974	821	903	1240	428	144	136
6	70	68	53	38	85	955	828	913	1260	356	136	136
7	70	69	54	39	82	932	824	948	1280	157	138	134
8	70	84	53	38	81	945	823	1050	1760	130	136	134
9	70	71	53	38	80	953	823	1010	2300	147	143	133
10	70	69	53	40	94	936	823	1010	1850	147	139	133
11	69	69	53	39	128	928	826	1010	1840	146	139	132
12	68	69	53	41	142	887	825	1010	1630	146	139	108
13	69	68	52	39	296	885	848	1010	1600	145	138	106
14	69	69	53	38	730	833	909	1020	3020	144	137	106
15	69	68	52	40	365	828	886	1020	3960	142	137	105
16	69	70	52	50	231	822	882	1060	3470	142	137	84
17	69	82	52	51	206	826	922	1030	2930	141	137	82
18	69	71	52	95	168	857	943	1000	2890	140	136	84
19	70	71	52	72	152	862	906	990	2570	139	136	82
20	70	77	52	58	151	855	872	970	2130	139	136	83
21	70	72	51	64	184	841	867	963	1880	141	136	87
22	68	70	52	52	245	835	869	1240	1700	140	134	89
23	67	70	56	53	453	835	868	2850	1370	139	133	89
24	67	70	55	398	500	836	872	2960	1350	137	135	88
25	67	70	53	413	458	842	859	2140	1250	136	134	88
26	67	69	53	199	466	836	837	2420	1490	136	135	85
27	68	68	56	107	813	833	839	2980	1440	137	136	82
28	73	68	57	84	783	835	852	3060	1290	143	135	83
29	69	67	55	74	1000	830	860	3110	1290	141	135	83
30	69	68	54	73	---	824	870	3130	1160	137	136	82
31	68	---	55	117	---	831	---	3040	---	173	136	---
TOTAL	2191	2107	1675	2615	8352	27389	25657	47385	59120	7561	4455	3191
MEAN	70.7	70.2	54.0	84.4	288	884	855	1529	1971	244	144	106
MAX	90	84	69	413	1000	1030	943	3130	3960	1050	296	144
MIN	67	67	51	38	80	822	820	876	1160	130	133	82
AC-FT	4350	4180	3320	5190	16570	54330	50890	93990	117300	15000	8840	6330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

MEAN	82.8	105	159	280	315	391	501	1373	2069	1028	239	121
MAX	247	313	1169	2917	1039	990	1694	3727	6260	5530	1726	370
(WY)	1984	1984	1997	1997	1996	1996	1983	1986	1983	1983	1983	1983
MIN	30.0	34.8	29.4	31.1	34.8	37.5	33.7	52.0	36.9	29.9	31.1	28.7
(WY)	1989	1988	1977	1977	1977	1977	1977	1992	1976	1976	1976	1976

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	259726		191698			
ANNUAL MEAN	712		524		556	
HIGHEST ANNUAL MEAN					1778	1983
LOWEST ANNUAL MEAN					49.2	1977
HIGHEST DAILY MEAN	4810	May 27	3960	Jun 15	14400	Jan 3 1997
LOWEST DAILY MEAN	51	Dec 21	38	Jan 6	12	Nov 28 1976
ANNUAL SEVEN-DAY MINIMUM	52	Dec 15	39	Jan 5	13	Nov 24 1976
INSTANTANEOUS PEAK FLOW			4730	Jun 15	18200	Jan 3 1997
INSTANTANEOUS PEAK STAGE			8.35	Jun 15	12.33	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	515200		380200		402500	
10 PERCENT EXCEEDS	1760		1240		1450	
50 PERCENT EXCEEDS	142		137		137	
90 PERCENT EXCEEDS	55		54		46	

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 mi^2.

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 above sea level. 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, 274,300 acre-ft between gage heights 4,430 ft, bottom of sluice gates, and 4,703 ft, top of flashboard gates on concrete spillway. No dead storage. Installation of flashboard gates on top of concrete spillway completed in 1979. 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 (station 11277500) into Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake through tunnel to Dion R. Holm Powerplant near mouth of Cherry Creek began Aug. 1, 1960. Records, including extremes, represent contents at 2400 hours. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 274,300 acre-ft, June 25–28, 1986, gage height, 4,703.0 ft; minimum since reservoir first filled, 7,660 acre-ft, Jan. 24, 1960, gage height, 4,502.1 ft. Reservoir drained for inspection in 1961, 1964, and 1989.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 274,000 acre-ft, June 14, gage height, 4,702.83 ft; minimum, 118,400 acre-ft, Sept. 30, gage height, 4,604.72 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by San Francisco Public Utilities Commission, dated May 15, 1971)

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		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230100	216600	218900	218500	237100	227100	207800	226400	269300	266000	211900	164500
2	229700	216400	219000	218500	236500	226000	208300	227700	270100	265200	210700	163700
3	229600	215900	219100	218400	236100	224900	208900	229200	271100	263900	209100	162700
4	228700	215800	219000	218200	235900	223900	210200	230700	272300	262400	207700	e162000
5	227900	215700	218900	218300	236100	223000	211700	232300	273200	260900	206300	e160000
6	227400	215600	218800	218200	236300	221900	212500	233200	273700	259900	204900	e158000
7	226800	215800	218700	218000	236200	220800	213200	235000	273900	258300	203300	e156000
8	226100	216100	218700	218100	236400	219800	214100	240000	273800	256600	201500	154000
9	225700	216000	218800	217900	237400	218600	215000	241700	272900	254900	199700	152500
10	225600	216100	218700	218000	238500	217500	215400	242000	272400	253100	197900	150900
11	225100	216100	218600	218100	238700	216400	215900	241500	272200	251200	196100	149500
12	224200	216100	218700	218100	239400	215500	216600	241000	272500	249400	194400	148300
13	223200	216100	218900	218200	240000	214700	219800	240900	273300	247500	193100	146700
14	222300	216100	218700	218200	242100	214100	220700	240800	274000	245700	191500	145000
15	221700	216200	218700	218400	241700	213600	220600	240800	273600	243800	190000	143300
16	221600	216300	218700	218700	241000	213100	220300	240900	273500	242000	188200	141900
17	221300	216800	218700	219600	240000	212600	220700	240600	273600	240000	186400	140300
18	221100	217000	218700	223100	238900	212200	220300	240800	273500	238000	184500	138700
19	221100	217500	218600	224200	237800	212000	219800	242100	273300	236200	182700	136900
20	221000	218200	218700	226100	237100	211500	219400	244100	273100	234300	181000	135200
21	220400	218600	218800	227700	235900	210900	219300	246500	272800	232400	179200	133500
22	219800	218600	218800	228600	234800	210300	219200	249200	272500	230500	177300	131700
23	219700	218600	218700	230000	233900	209800	219100	251400	272000	228700	175500	129700
24	219600	218700	218500	234700	232700	209300	219300	254400	271300	226800	173600	127700
25	218800	218600	218500	236400	231500	209000	219700	258200	270400	224800	172000	125700
26	218400	218700	218500	236400	230400	208900	220700	260800	269600	222900	170700	123700
27	218000	218500	218500	236300	230300	208900	222200	262900	269100	221000	169600	121700
28	218000	218600	218600	235900	229200	208800	223600	265000	268000	219100	168500	119700
29	217500	218700	218500	235900	228100	208500	224200	266700	267300	217200	167800	118600
30	217300	218700	218500	236800	---	208300	225100	268100	266800	215400	167300	118400
31	217200	---	218400	237500	---	207800	---	268800	---	213500	166200	---
MAX	230100	218700	219100	237500	242100	227100	225100	268800	274000	266000	211900	164500
MIN	217200	215600	218400	217900	228100	207800	207800	226400	266800	213500	166200	118400
a	4669.92	4670.80	4670.64	4681.97	4676.45	4664.14	4674.65	4699.98	4698.83	4667.63	4637.66	4604.72
b	-14100	+1500	-300	+19100	-9400	-20300	+17300	+43700	-2000	-53300	-47300	-47800

CAL YR 1999 b -26300
WTR YR 2000 b -112900

e Estimated.
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 mi^2.

PERIOD OF RECORD.—November 1956 to current year.

GAGE.—Water-stage recorder. Datum of gage is 4,337.08 ft above sea level (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.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,120 ft^3/s, May 16, 1996, from rating curve extended above 4,000 ft^3/s, gage height, 11.15 ft; minimum daily, 0.77 ft^3/s, Dec. 1–4, 1988.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	5.6	5.6	5.7	7.3	14	8.1	7.0	7.5	12	15	15
2	16	5.6	5.6	5.6	7.0	13	8.1	7.0	7.5	15	15	15
3	16	5.4	5.6	5.6	6.6	13	8.1	7.0	7.7	14	13	15
4	9.6	5.1	5.6	5.6	6.5	13	8.1	7.0	8.9	14	12	15
5	5.8	5.1	5.6	5.6	6.5	14	7.9	7.0	99	14	12	15
6	5.6	5.1	5.6	5.6	6.2	13	7.5	7.0	112	14	12	15
7	5.6	5.2	5.6	5.6	6.1	12	7.5	7.5	203	15	12	15
8	5.6	6.3	5.6	5.6	6.1	13	7.5	8.2	466	15	11	15
9	5.6	5.7	5.6	5.6	6.2	13	12	7.4	208	15	12	15
10	5.6	5.6	5.6	5.6	7.1	13	14	7.0	9.6	15	14	15
11	5.6	5.6	5.6	6.0	7.2	13	14	7.3	8.6	15	16	15
12	5.6	5.6	5.6	6.1	7.8	12	14	7.5	8.5	15	16	15
13	5.6	5.6	5.6	5.8	19	12	16	7.5	8.6	15	15	15
14	5.6	5.6	5.6	5.6	43	12	17	7.5	209	15	15	15
15	5.9	5.6	5.6	5.9	17	12	16	7.5	531	15	15	15
16	6.1	5.8	5.6	6.8	15	12	16	7.7	249	15	15	15
17	6.1	6.2	5.6	7.0	12	12	17	7.5	84	14	15	15
18	6.1	5.6	5.6	17	12	11	17	7.3	60	14	15	15
19	6.1	6.2	5.6	6.8	11	11	17	7.0	20	13	15	15
20	6.1	6.0	5.7	6.5	11	11	16	7.0	9.8	13	15	15
21	6.1	5.6	5.6	6.2	12	10	16	7.0	8.9	13	15	15
22	6.1	5.6	5.6	5.8	11	9.8	16	7.0	8.4	13	15	15
23	6.1	5.6	5.6	7.5	12	9.4	15	7.0	8.1	13	15	15
24	6.1	5.6	5.6	54	10	9.3	11	7.0	7.9	12	15	15
25	6.1	5.6	5.6	37	10	9.8	7.0	6.8	7.5	12	15	15
26	6.1	5.6	5.6	12	10	9.4	6.8	7.3	7.2	12	15	15
27	6.1	5.6	5.6	8.7	26	9.2	6.9	7.5	6.8	12	15	15
28	6.6	5.6	5.6	7.7	15	9.2	7.0	7.5	6.6	12	15	15
29	6.2	5.6	5.6	7.0	14	9.2	7.0	7.5	6.5	13	15	15
30	5.8	5.6	5.6	9.0	---	8.5	7.0	7.5	6.5	15	15	15
31	5.6	---	5.6	8.4	---	8.1	---	7.5	---	15	15	---
TOTAL	217.1	168.5	173.7	292.9	340.6	350.9	348.5	225.5	2392.1	429	445	450
MEAN	7.00	5.62	5.60	9.45	11.7	11.3	11.6	7.27	79.7	13.8	14.4	15.0
MAX	16	6.3	5.7	54	43	14	17	8.2	531	15	16	15
MIN	5.6	5.1	5.6	5.6	6.1	8.1	6.8	6.8	6.5	12	11	15
AC-FT	431	334	345	581	676	696	691	447	4740	851	883	893

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

MEAN	9.94	12.1	11.3	20.2	12.0	15.4	14.0	38.7	131	104	27.8	21.8
MAX	166	135	155	352	134	171	167	359	1198	993	176	139
(WY)	1978	1977	1977	1997	1977	1969	1969	1978	1983	1983	1977	1977
MIN	3.19	3.99	4.82	4.71	4.51	4.45	4.58	4.40	4.46	10.9	12.0	10.6
(WY)	1999	1970	1970	1961	1961	1972	1990	1973	1973	1978	1961	1976

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	8648.6		5833.8			
ANNUAL MEAN	23.7		15.9		34.9	
HIGHEST ANNUAL MEAN					195	1983
LOWEST ANNUAL MEAN					7.08	1961
HIGHEST DAILY MEAN	988	Jun 16	531	Jun 15	2830	Jul 7 1995
LOWEST DAILY MEAN	4.1	Jan 2	5.1	Nov 4	.77	Dec 1 1988
ANNUAL SEVEN-DAY MINIMUM	4.5	Jan 1	5.3	Nov 1	.79	Nov 28 1988
INSTANTANEOUS PEAK FLOW			711	Jun 15	5120	May 16 1996
INSTANTANEOUS PEAK STAGE			6.67	Jun 15	11.15	May 16 1996
ANNUAL RUNOFF (AC-FT)	17150		11570		25320	
10 PERCENT EXCEEDS	16		15		17	
50 PERCENT EXCEEDS	7.9		8.4		7.5	
90 PERCENT EXCEEDS	5.6		5.6		5.0	

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, 710 ft from left bank on upstream 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 mi^2.

PERIOD OF RECORD.—June 1918 to current year. Prior to October 1930, published in WSP 1315-A. Published as "near Sequoia" 1919–20.

REVISED RECORDS.—WSP 1445: 1938(M). WSP 1930: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 2.39 ft above sea level. 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. 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.

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, maximum gage height, 4,663.87 ft, Jan. 1, 1997; no usable contents at times in many years.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 27,600 acre-ft, June 14, gage height, 4,661.41 ft; minimum, 16,100 acre ft, Nov. 4–6, gage height, 4,648.97 ft, Nov. 6.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by San Francisco Public Utilities Commission, dated May 1941)

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		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17000	16200	17800	18300	24300	24000	25000	25800	25000	27000	25500	19800
2	17000	16200	17900	18300	24100	23900	25100	26000	25200	26800	25400	19900
3	17000	16200	17900	18300	23800	23700	25400	26000	25500	26700	25400	19800
4	16900	16100	18000	18300	23700	23600	25600	26000	25800	26600	25400	19800
5	16900	16100	18000	18300	23500	23600	25700	26000	26500	26500	25300	19700
6	16900	16100	18100	18300	23400	23500	25600	25900	26800	26400	25300	19700
7	16800	16200	18100	18300	23200	23400	25600	26600	26900	26300	25200	19600
8	16800	16200	18100	18300	23000	23300	25600	26800	27100	26100	25200	19600
9	16800	16200	18100	18300	22900	23100	25500	25900	27000	26000	25100	19500
10	16700	16200	18100	18300	23000	23000	25400	25600	27000	25900	25100	19500
11	16700	16200	18200	18400	23000	22900	25400	25300	27100	26000	24900	19400
12	16700	16200	18100	18400	23000	22900	25500	24800	27100	26000	24700	19400
13	16600	16200	18200	18400	23500	22900	26300	24300	27300	26000	24400	19300
14	16600	16200	18200	18500	25800	23100	25800	23900	27600	26000	24100	19300
15	16600	16200	18200	18500	25600	23400	25500	23600	27500	26000	23800	19200
16	16500	16300	18200	18800	25400	23700	25300	23600	27500	26000	23600	19200
17	16500	16400	18200	19200	25100	24000	25400	23600	27500	25900	23500	19200
18	16500	16500	18200	22100	24900	24300	25300	23600	27400	25900	23400	19100
19	16500	16700	18300	23400	24700	24800	25100	23800	27400	25900	23400	19100
20	16400	17100	18300	24500	24700	25000	25000	24400	27300	25900	23300	19000
21	16400	17300	18200	24800	24600	25000	25100	25100	27300	25900	23300	19000
22	16400	17400	18300	24700	24500	24900	25200	25600	27200	25800	23200	19000
23	16300	17500	18300	24800	24400	24800	25300	25600	27100	25800	23200	18900
24	16300	17600	18300	26300	24200	24800	25300	25400	27100	25800	23100	18900
25	16300	17600	18300	25900	24000	24900	25400	25400	27000	25800	23000	18800
26	16300	17700	18300	25400	23900	25100	25600	25400	27000	25700	23000	18800
27	16200	17700	18300	25100	24300	25200	25700	25400	27000	25700	23000	18700
28	16300	17700	18300	24900	24200	25300	25700	25400	27200	25600	22300	18700
29	16200	17700	18300	24700	24200	25200	25500	25300	27300	25600	21200	17900
30	16200	17800	18300	24600	---	25200	25500	25200	27200	25600	20200	16300
31	16200	---	18300	24500	---	25000	---	25100	---	25500	19800	---
MAX	17000	17800	18300	26300	25800	25300	26300	26800	27600	27000	25500	19900
MIN	16200	16100	17800	18300	22900	22900	25000	23600	25000	25500	19800	16300
a	4649.09	4650.91	4651.44	4658.27	4657.89	4658.81	4659.31	4658.86	4661.06	4659.36	4653.15	4649.17
b	-900	+1600	+500	+6200	-300	+800	+500	-400	+2100	-1700	-5700	-3500

CAL YR 1999 b +8680
WTR YR 2000 b -800

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 mi^2.

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. Elevation of gage is 4,500 ft above sea level, from topographic map. November 1909 to November 1915, nonrecording gage and water-stage recorder at site 1 mi upstream at different datum. Prior to Jan. 2, 1997, datum of gage 10 ft lower.

REMARKS.—Records fair. Flow regulated by Lake Eleanor (station 11277500) 0.5 mi upstream beginning in 1918. Since March 1960, water is diverted at Lake Eleanor via Lake Eleanor diversion tunnel (station 11277100) to Cherry Lake (station 11277200). See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 19,500 ft^3/s, Jan. 2, 1997, gage height, 26.74 ft, from rating curve extended above 2,600 ft^3/s on basis of slope-area measurements at gage heights 9.94 and 12.24 ft, datum then in use; no flow at times in 1910, 1930–31, 1933, 1956.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	6.1	6.1	78	67	124	547	538	23	19	19
2	12	12	6.0	6.0	71	61	122	896	248	23	19	19
3	12	6.0	6.0	6.0	61	55	202	974	25	22	19	18
4	12	4.7	6.0	6.0	54	51	400	966	28	22	19	19
5	12	7.4	5.9	5.9	49	50	604	967	29	22	19	19
6	12	6.0	6.0	5.9	44	48	581	928	229	22	19	19
7	12	6.1	6.0	5.9	39	44	504	1020	327	22	19	19
8	12	6.3	6.0	5.9	33	41	488	2640	392	22	19	19
9	12	5.9	6.0	5.9	30	38	421	1770	436	22	18	19
10	12	6.0	6.0	5.9	30	34	325	1020	169	22	18	18
11	12	6.0	6.0	6.1	31	30	333	781	30	22	18	18
12	12	6.1	5.9	6.0	31	28	357	579	30	22	18	19
13	12	6.1	5.9	5.9	39	28	1060	467	30	22	18	19
14	12	6.1	6.0	5.9	303	31	1100	438	222	22	18	19
15	12	6.2	5.9	6.1	695	38	529	414	498	22	18	14
16	12	6.4	5.9	6.5	393	47	277	412	385	22	18	9.2
17	12	6.2	5.8	6.8	217	57	263	408	360	22	18	9.2
18	12	5.9	5.8	11	135	68	263	411	335	22	18	9.2
19	12	6.3	5.9	21	104	85	179	415	225	20	18	9.2
20	12	6.0	5.9	60	94	115	141	436	84	19	18	9.1
21	12	5.9	5.8	93	92	126	145	495	36	19	18	11
22	12	5.9	6.0	95	86	109	180	792	30	19	18	12
23	12	5.8	6.1	89	84	101	196	951	25	19	18	12
24	12	5.9	6.0	755	76	101	232	870	24	19	18	12
25	12	5.9	6.1	1100	68	102	284	811	29	19	18	12
26	11	5.9	6.1	600	61	112	393	806	23	19	18	12
27	12	6.0	6.1	243	75	168	580	812	23	19	18	12
28	12	6.0	6.1	135	76	215	690	807	23	19	18	12
29	12	6.0	6.1	100	73	194	463	774	26	19	18	12
30	12	6.0	6.1	90	---	188	376	715	24	19	19	12
31	12	---	6.1	88	---	163	---	614	---	19	19	---
TOTAL	371	193.0	185.6	3582.8	3222	2595	11812	24936	4883	646	568	441.9
MEAN	12.0	6.43	5.99	116	111	83.7	394	804	163	20.8	18.3	14.7
MAX	12	12	6.1	1100	695	215	1100	2640	538	23	19	19
MIN	11	4.7	5.8	5.9	30	28	122	408	23	19	18	9.1
AC-FT	736	383	368	7110	6390	5150	23430	49460	9690	1280	1130	877

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1917, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.2	62.5	97.2	208	175	320	610	742	640	190	25.7	8.81
MAX	157	287	358	485	307	516	806	945	1207	484	65.4	25.8
(WY)	1917	1910	1910	1914	1911	1916	1916	1914	1911	1911	1911	1913
MIN	.081	.19	12.4	33.6	66.6	116	264	536	230	36.5	6.06	2.10
(WY)	1916	1916	1912	1913	1912	1912	1912	1913	1910	1910	1910	1915

SUMMARY STATISTICS	WATER YEARS 1910 - 1917	
ANNUAL MEAN	259	
HIGHEST ANNUAL MEAN	386	1911
LOWEST ANNUAL MEAN	144	1913
HIGHEST DAILY MEAN	5000	Jan 30 1911
LOWEST DAILY MEAN	.00	Sep 8 1910
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 8 1910
ANNUAL RUNOFF (AC-FT)	187300	
10 PERCENT EXCEEDS	770	
50 PERCENT EXCEEDS	109	
90 PERCENT EXCEEDS	5.0	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1959, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.0	75.5	105	94.5	134	224	460	696	409	144	98.9	103
MAX	145	931	826	490	454	708	794	1330	981	471	204	179
(WY)	1929	1951	1951	1956	1945	1928	1936	1952	1922	1958	1958	1933
MIN	3.68	1.65	1.74	2.50	6.64	1.70	44.5	138	46.0	20.7	16.4	4.16
(WY)	1932	1928	1932	1957	1930	1920	1924	1931	1924	1959	1959	1931

SUMMARY STATISTICS	WATER YEARS 1920 - 1959	
ANNUAL MEAN	218	
HIGHEST ANNUAL MEAN	356	1938
LOWEST ANNUAL MEAN	86.2	1924
HIGHEST DAILY MEAN	8270	Nov 19 1950
LOWEST DAILY MEAN	.00	Oct 15 1930
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 15 1930
INSTANTANEOUS PEAK FLOW	11700	Nov 19 1950
INSTANTANEOUS PEAK STAGE	14.95	Nov 19 1950
ANNUAL RUNOFF (AC-FT)	158200	
10 PERCENT EXCEEDS	584	
50 PERCENT EXCEEDS	113	
90 PERCENT EXCEEDS	8.5	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.5	36.9	32.6	73.9	61.4	26.5	95.7	304	347	116	25.7	25.7
MAX	333	565	314	1416	586	198	916	1029	1605	677	176	137
(WY)	1983	1984	1984	1997	1986	1986	1982	1995	1983	1983	1983	1982
MIN	.15	2.55	4.30	4.27	3.76	4.15	4.44	4.81	4.72	12.0	2.43	.40
(WY)	1967	1978	1964	1978	1974	1972	1973	1972	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	38908.6		53436.3			
ANNUAL MEAN	107		146		96.9	
HIGHEST ANNUAL MEAN					320	1983
LOWEST ANNUAL MEAN					4.73	1977
HIGHEST DAILY MEAN	1200	May 23	2640	May 8	15100	Jan 2 1997
LOWEST DAILY MEAN	4.7	Nov 4	4.7	Nov 4	.10	Oct 9 1966
ANNUAL SEVEN-DAY MINIMUM	5.3	Jan 2	5.9	Dec 15	.10	Oct 24 1966
INSTANTANEOUS PEAK FLOW			3460	May 8	19500	Jan 2 1997
INSTANTANEOUS PEAK STAGE			15.82	May 8	26.74	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	77180		106000		70180	
10 PERCENT EXCEEDS	510		496		303	
50 PERCENT EXCEEDS	14		20		8.2	
90 PERCENT EXCEEDS	6.0		6.0		4.6	

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 mi^2.

PERIOD OF RECORD.—May 1956 to current year.

GAGE.—Water-stage recorder. Datum of gage is 2,272.00 ft above sea level (levels by city and county of San Francisco).

REMARKS.—Records good. 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.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 33,200 ft^3/s, Jan. 2, 1997, gage height, 18.46 ft, from rating curve extended above 4,600 ft^3/s; minimum daily, 0.30 ft^3/s, Apr. 5, 6, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	22	19	16	179	275	237	550	558	45	40	44
2	34	22	17	17	161	254	223	830	366	51	40	48
3	34	22	17	16	143	241	289	908	63	51	40	43
4	33	15	17	16	130	245	457	921	65	51	39	42
5	21	14	17	16	119	264	632	913	114	50	39	41
6	21	16	17	16	109	236	626	888	349	50	39	41
7	21	16	17	16	99	210	562	936	570	50	39	41
8	21	31	17	16	88	211	546	2540	825	50	38	41
9	21	18	17	16	81	204	504	1850	732	50	38	40
10	21	16	17	16	100	193	423	1040	287	50	38	40
11	21	16	17	17	115	197	418	779	73	49	41	40
12	21	16	17	22	129	200	439	620	70	49	42	40
13	21	16	17	18	228	200	989	523	69	48	41	40
14	21	16	17	17	850	211	1150	497	340	48	41	40
15	21	16	17	18	895	228	624	478	1010	48	41	41
16	21	17	17	29	620	233	399	502	712	48	41	33
17	21	28	17	30	428	235	391	496	482	47	41	31
18	21	18	17	82	312	237	418	485	450	47	41	31
19	21	19	17	52	259	254	322	481	330	47	40	30
20	21	28	16	100	253	274	262	491	161	43	40	30
21	21	19	16	149	279	276	252	527	73	43	40	29
22	21	18	16	150	255	256	281	734	59	42	40	33
23	21	17	16	158	e270	241	297	906	52	42	40	33
24	21	17	16	1010	e250	237	325	838	48	42	40	32
25	21	17	16	1430	e230	233	367	767	49	41	40	32
26	21	17	16	759	e220	234	451	758	53	41	40	32
27	21	17	16	393	e480	286	597	768	46	40	40	31
28	29	17	16	250	e360	341	692	758	46	40	40	31
29	23	17	16	193	312	322	538	733	48	40	40	31
30	22	17	16	189	---	308	448	687	48	40	42	30
31	22	---	16	209	---	287	---	622	---	40	41	---
TOTAL	714	555	517	5436	7954	7623	14159	24826	8148	1423	1242	1091
MEAN	23.0	18.5	16.7	175	274	246	472	801	272	45.9	40.1	36.4
MAX	34	31	19	1430	895	341	1150	2540	1010	51	42	48
MIN	21	14	16	16	81	193	223	478	46	40	38	29
AC-FT	1420	1100	1030	10780	15780	15120	28080	49240	16160	2820	2460	2160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

MEAN	23.9	51.4	62.0	157	146	119	170	366	481	213	41.9	38.8
MAX	341	610	390	2566	922	399	1298	1342	2845	1699	229	164
(WY)	1983	1984	1965	1997	1986	1983	1982	1982	1983	1983	1983	1978
MIN	2.95	4.85	3.07	3.27	2.70	2.71	2.12	2.16	2.88	9.55	10.3	11.0
(WY)	1961	1961	1977	1977	1977	1977	1977	1977	1977	1977	1963	1962

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	62581		73688			
ANNUAL MEAN	171		201		156	
HIGHEST ANNUAL MEAN					634	1983
LOWEST ANNUAL MEAN					8.08	1977
HIGHEST DAILY MEAN	1480	Jun 16	2540	May 8	25200	Jan 2 1997
LOWEST DAILY MEAN	14	Nov 5	14	Nov 5	.30	Apr 5 1964
ANNUAL SEVEN-DAY MINIMUM	16	Dec 20	16	Dec 20	1.4	Oct 6 1970
INSTANTANEOUS PEAK FLOW			3280	May 8	33200	Jan 2 1997
INSTANTANEOUS PEAK STAGE			8.25	May 8	18.46	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	124100		146200		112700	
10 PERCENT EXCEEDS	652		620		402	
50 PERCENT EXCEEDS	53		46		32	
90 PERCENT EXCEEDS	17		17		10	

e Estimated.

11278400 CHERRY CREEK BELOW DION R. HOLM POWERPLANT, 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 powerplant, 0.8 mi northwest of Early Intake, and 6.2 mi west of Mather.

DRAINAGE AREA.—234 mi^2.

PERIOD OF RECORD.—March 1963 to current year. Prior to October 1965, published as "below Cherry Powerhouse, near Mather."

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 2,133.50 ft above sea level (levels by city and county of San Francisco).

REMARKS.—Records good. Flow regulated by Cherry Lake (station 11277200) 11 mi upstream and Lake Eleanor (station 11277500) 10 mi upstream. Flow diverted, at times, into Cherry Creek Canal (station 11278200) 2 mi upstream from station for domestic use and to supplement flow to Hetch Hetchy Aqueduct. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 33,500 ft^3/s, Jan. 2, 1997, gage height, unknown, on basis of combined peak flow for Cherry Creek near Early Intake (station 11278300) and Dion R. Holm Powerplant, maximum gage height (from floodmark), 25.4 ft, Jan. 3, 1997, caused by backwater from Tuolumne River; minimum daily, 1.6 ft^3/s, June 4, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	628	313	27	27	782	1270	1100	1570	1580	888	849	931
2	184	158	86	27	887	1260	910	1880	1390	863	663	698
3	41	251	33	53	855	1240	1150	1970	1110	977	825	725
4	497	23	26	62	577	1240	1190	1990	1110	1020	754	652
5	399	61	69	26	292	1260	1350	1980	1150	1050	729	867
6	189	24	104	25	330	1230	1610	1950	1360	744	702	950
7	304	23	81	123	507	1210	1550	2000	1590	1060	853	915
8	369	36	26	30	314	1220	1530	3860	1860	1060	903	970
9	189	87	27	27	79	1210	1340	3020	1770	1060	949	811
10	36	29	79	27	106	1200	1420	2120	1300	1060	972	850
11	244	24	28	27	500	1200	1410	1830	1110	1070	1030	784
12	456	24	28	32	261	1200	1430	1650	1110	1060	982	614
13	424	24	30	47	908	1200	2080	1550	1110	1060	839	834
14	415	24	30	25	1930	1210	2280	1520	1360	1060	963	942
15	276	24	31	27	1950	1220	1660	1490	2070	1020	958	857
16	66	47	28	38	1620	1230	1410	1520	1730	1030	993	739
17	111	34	26	38	1410	1230	1410	1520	1480	1070	943	814
18	104	26	26	108	1300	1230	1430	1510	1450	1070	1000	890
19	29	27	26	128	1250	1250	1340	1500	1330	1020	944	912
20	56	35	26	94	1250	1260	1290	1510	1190	1010	900	912
21	296	28	26	139	1270	1270	1280	1550	1120	1010	961	914
22	300	54	26	138	1260	1240	1300	1770	1070	1010	1010	953
23	64	26	26	147	1270	1230	1320	1960	1060	1010	964	1040
24	47	25	26	1070	1240	1230	1340	1880	1060	1020	961	1060
25	360	25	26	1840	1220	1220	1380	1810	1060	1020	846	1060
26	207	25	26	1320	1210	1230	1460	1790	1060	1020	671	1060
27	225	25	26	948	1470	1270	1620	1810	854	1030	610	1050
28	245	25	26	833	1350	1340	1730	1790	1070	978	920	1050
29	260	93	26	529	1320	1340	1570	1770	921	1010	945	1020
30	131	26	26	174	---	1330	1450	1710	945	990	844	1060
31	29	---	48	190	---	1300	---	1640	---	998	833	---
TOTAL	7181	1646	1145	8319	28718	38570	43340	57420	38380	31348	27316	26934
MEAN	232	54.9	36.9	268	990	1244	1445	1852	1279	1011	881	898
MAX	628	313	104	1840	1950	1340	2280	3860	2070	1070	1030	1060
MIN	29	23	26	25	79	1200	910	1490	854	744	610	614
AC-FT	14240	3260	2270	16500	56960	76500	85960	113900	76130	62180	54180	53420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2000, BY WATER YEAR (WY)

MEAN	414	433	468	643	695	740	848	1095	1193	785	533	479
MAX	962	1445	1394	3266	1528	1351	2199	2310	3728	2643	1161	898
(WY)	1983	1984	1984	1997	1986	1997	1982	1996	1983	1983	1983	2000
MIN	12.7	14.9	5.56	4.22	3.84	3.71	2.63	2.67	4.08	11.3	25.8	20.4
(WY)	1994	1994	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1963 - 2000	
ANNUAL TOTAL	258388		310317			
ANNUAL MEAN	708		848		694	
HIGHEST ANNUAL MEAN					1437	1983
LOWEST ANNUAL MEAN					47.9	1977
HIGHEST DAILY MEAN	2570	Jun 16	3860	May 8	25500	Jan 2 1997
LOWEST DAILY MEAN	23	Nov 4	23	Nov 4	1.6	Jun 4 1977
ANNUAL SEVEN-DAY MINIMUM	26	Dec 17	26	Dec 17	2.1	Apr 21 1977
INSTANTANEOUS PEAK FLOW			5280	May 8	33500	Jan 2 1997
INSTANTANEOUS PEAK STAGE			11.89	May 8	25.40	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	512500		615500		502400	
10 PERCENT EXCEEDS	1630		1580		1300	
50 PERCENT EXCEEDS	544		961		622	
90 PERCENT EXCEEDS	28		27		63	

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 highway bridge on Big Oak Flat Road, 0.5 mi southwest of Oakland Recreation Camp, and 0.6 mi upstream from Middle Tuolumne River.

DRAINAGE AREA.—87.0 mi^2.

PERIOD OF RECORD.—March 1923 to September 1996, October 1997 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. Elevation of gage is 2,800 ft above sea level, from topographic map. Prior to Nov. 22, 1931, at site 50 ft upstream at same datum. Nov. 22, 1931, to July 19, 1977, at present site, datum 1.00 ft higher.

REMARKS.—Records good. No diversion upstream from station. One small recreation reservoir (capacity unknown) is located approximately 3.5 mi upstream. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,900 ft^3/s, Dec. 23, 1955, gage height, 11.9 ft, from floodmarks, present datum, from rating curve extended above 3,300 ft^3/s, on basis of slope-area measurements, at gage heights 9.08 and 11.9 ft; minimum daily, 0.4 ft^3/s, Aug. 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 3, 1997, reached a stage of 12.51 ft, from floodmarks, discharge, 12,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 900 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	2145	1,220	6.88	Feb. 27	0730	1,290	6.98
Feb. 14	1400	1,610	7.44				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	22	20	97	271	181	293	133	44	20	20
2	12	14	21	20	88	232	191	300	127	43	20	32
3	12	13	21	18	80	209	215	303	118	43	21	28
4	12	13	20	21	74	207	241	298	114	42	20	22
5	12	13	20	18	70	236	255	286	109	42	20	20
6	13	13	20	19	65	210	246	276	103	41	19	19
7	13	14	20	22	62	185	240	292	98	41	19	18
8	14	39	20	19	60	194	249	605	117	40	18	17
9	13	23	20	20	60	194	239	377	117	40	18	17
10	13	19	20	20	97	185	218	290	110	39	18	16
11	12	17	19	21	111	188	228	241	96	38	18	16
12	12	17	20	34	134	197	225	210	89	37	17	16
13	12	16	20	25	295	200	400	203	85	36	17	15
14	12	16	20	22	1110	211	377	208	80	35	17	15
15	12	17	20	24	482	230	276	194	74	33	16	15
16	12	19	20	53	308	236	240	227	71	33	16	15
17	12	43	20	55	239	230	353	202	68	32	16	15
18	12	29	20	276	196	221	319	210	64	32	15	14
19	12	25	20	129	171	238	268	234	62	31	15	14
20	12	44	20	90	166	236	250	263	60	30	15	14
21	12	32	19	91	220	207	248	267	56	30	15	13
22	12	25	19	61	217	199	253	270	54	25	15	14
23	12	22	18	64	299	198	238	249	51	27	15	16
24	12	22	19	749	219	197	234	232	50	26	15	16
25	12	21	18	729	179	191	244	224	48	25	14	15
26	12	21	18	295	170	199	267	206	48	24	14	14
27	12	20	18	158	751	215	307	200	48	24	14	14
28	16	20	18	115	420	212	305	192	47	23	14	14
29	17	20	18	95	326	197	242	176	54	22	14	14
30	15	20	18	109	---	196	257	160	48	22	16	e14
31	14	---	20	133	---	190	---	142	---	23	18	---
TOTAL	392	641	606	3525	6766	6511	7806	7830	2399	1023	519	502
MEAN	12.6	21.4	19.5	114	233	210	260	253	80.0	33.0	16.7	16.7
MAX	17	44	22	749	1110	271	400	605	133	44	21	32
MIN	12	13	18	18	60	185	181	142	47	22	14	13
AC-FT	778	1270	1200	6990	13420	12910	15480	15530	4760	2030	1030	996

e Estimated.

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.9	31.0	61.6	91.7	140	167	227	257	133	36.1	13.7	10.3
MAX	50.6	229	516	652	725	750	730	760	656	242	57.9	39.0
(WY)	1983	1951	1956	1969	1986	1983	1982	1969	1983	1983	1983	1998
MIN	1.53	3.66	6.04	8.05	8.74	11.1	15.7	26.0	12.7	2.56	.48	.75
(WY)	1978	1930	1991	1977	1991	1977	1977	1977	1976	1931	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1923 - 2000	
ANNUAL TOTAL	39539		38520			
ANNUAL MEAN	108		105		97.9	
HIGHEST ANNUAL MEAN					330	1983
LOWEST ANNUAL MEAN					9.25	1977
HIGHEST DAILY MEAN	999	Feb 9	1110	Feb 14	6960	Dec 23 1955
LOWEST DAILY MEAN	12	Oct 1	12	Oct 1	.40	Aug 22 1934
ANNUAL SEVEN-DAY MINIMUM	12	Oct 11	12	Oct 11	.45	Aug 12 1977
INSTANTANEOUS PEAK FLOW			1610	Feb 14	11900	Dec 23 1955
INSTANTANEOUS PEAK STAGE			7.44	Feb 14	11.90	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	78430		76400		70950	
10 PERCENT EXCEEDS	297		256		265	
50 PERCENT EXCEEDS	42		36		32	
90 PERCENT EXCEEDS	14		14		6.3	

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 mi^2.

PERIOD OF RECORD.—October 1916 to September 1996, October 1997 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 "Middle Tuolumne River near Buck Meadows" 1933–40.

REVISED RECORDS.—WSP 1395: 1919(M), 1938(M), 1951(P). WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 2,800 ft above sea level, from topographic map.

REMARKS.—Records good. No regulation but small diversion upstream from station for irrigation. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,920 ft^3/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 3,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 3, 1997, reached a stage of 13.02 ft, from floodmarks, discharge, 6,300 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 380 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	2000	602	4.90	Feb. 27	0730	777	5.46
Feb. 14	1115	804	5.54	May 8	1000	807	5.55
Feb. 23	0700	387	4.08				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	8.0	14	11	48	135	134	316	236	55	14	11
2	6.8	7.7	14	9.0	46	121	144	335	230	47	14	18
3	6.8	7.5	13	7.4	44	109	163	349	213	44	14	18
4	6.8	7.4	13	11	43	108	182	355	207	42	13	14
5	6.8	7.3	12	8.4	41	124	194	346	197	41	13	13
6	6.8	7.2	12	8.0	38	108	193	339	181	40	12	12
7	7.0	7.7	12	12	37	95	194	368	169	39	12	11
8	7.2	19	12	8.5	36	114	206	701	185	38	12	10
9	7.1	17	11	11	38	112	200	516	185	36	11	9.3
10	6.8	13	12	10	69	99	188	392	170	34	11	9.0
11	6.6	12	10	10	61	102	191	315	147	32	11	8.7
12	6.5	11	12	13	93	106	195	272	135	31	10	8.6
13	6.3	11	12	13	208	108	351	259	124	30	9.7	8.2
14	6.3	11	12	12	499	116	359	267	109	28	9.4	7.7
15	6.3	10	11	13	226	125	265	246	100	27	9.2	7.5
16	6.4	12	11	28	160	128	227	275	93	26	8.8	7.5
17	6.3	25	11	27	123	127	290	245	86	26	8.4	7.2
18	6.2	18	11	148	101	126	247	273	77	25	8.3	6.8
19	6.3	16	11	90	88	137	209	312	73	24	8.2	6.7
20	6.3	24	12	65	88	139	207	360	69	24	8.3	6.3
21	6.2	24	11	61	117	119	214	382	62	22	8.5	6.4
22	6.2	18	11	42	127	119	221	400	58	21	7.8	6.7
23	6.2	15	10	48	205	124	211	388	54	20	7.4	7.5
24	6.2	14	10	388	111	125	213	374	52	19	7.1	7.6
25	6.2	14	9.9	333	93	125	224	365	49	18	6.9	7.4
26	6.3	14	9.8	156	88	136	254	336	61	18	6.9	7.2
27	6.4	13	9.7	86	461	151	302	336	61	17	6.8	6.9
28	8.0	13	8.9	63	201	145	312	334	53	17	6.7	6.7
29	11	12	9.0	53	165	138	252	302	77	16	6.9	6.7
30	10	13	8.7	58	---	142	266	270	67	16	7.6	6.7
31	8.7	---	11	61	---	137	---	243	---	15	9.0	---
TOTAL	213.9	401.8	347.0	1864.3	3655	3800	6808	10571	3580	888	298.9	270.3
MEAN	6.90	13.4	11.2	60.1	126	123	227	341	119	28.6	9.64	9.01
MAX	11	25	14	388	499	151	359	701	236	55	14	18
MIN	6.2	7.2	8.7	7.4	36	95	134	243	49	15	6.7	6.3
AC-FT	424	797	688	3700	7250	7540	13500	20970	7100	1760	593	536

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.43	15.3	31.8	43.9	69.1	88.6	157	296	192	39.2	7.26	3.72
MAX	36.9	181	318	248	345	353	476	747	875	361	60.7	27.3
(WY)	1983	1951	1951	1956	1986	1995	1982	1969	1983	1983	1983	1998
MIN	.083	.80	1.71	2.49	3.51	4.87	16.9	24.0	10.7	.85	.011	.000
(WY)	1978	1930	1991	1991	1991	1977	1977	1977	1992	1924	1977	1931

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1917 - 2000	
ANNUAL TOTAL	36198.7		32698.2			
ANNUAL MEAN	99.2		89.3		79.1	
HIGHEST ANNUAL MEAN					246	1983
LOWEST ANNUAL MEAN					6.49	1977
HIGHEST DAILY MEAN	531	May 26	701	May 8	4000	Dec 23 1955
LOWEST DAILY MEAN	6.2	Oct 18	6.2	Oct 18	.00	Sep 4 1924
ANNUAL SEVEN-DAY MINIMUM	6.2	Oct 18	6.2	Oct 18	.00	Sep 4 1924
INSTANTANEOUS PEAK FLOW			807	May 8	4920	Dec 23 1955
INSTANTANEOUS PEAK STAGE			5.55	May 8	11.75	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	71800		64860		57290	
10 PERCENT EXCEEDS	269		266		240	
50 PERCENT EXCEEDS	34		26		19	
90 PERCENT EXCEEDS	7.5		6.9		1.7	

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 mi^2.

PERIOD OF RECORD.—May 1969 to current year.

REVISED RECORDS.—WDR CA-85-3: 1980–84(P).

GAGE.—Water-stage recorder. Datum of gage is 2,561.79 ft above sea level (levels by Boise-Cascade Corp.).

REMARKS.—Records good except flows below 1 ft^3/s, which are fair, and flows below 0.10 ft^3/s, which are poor. No storage or diversion from station. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,620 ft^3/s, Feb. 17, 1986, gage height, 7.03 ft, from rating curve extended above 1,100 ft^3/s on basis of slope-area measurement at gage height 6.51 ft; no flow for many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 6, 1965, reached a stage of 6.4 ft from floodmarks, discharge, 1,850 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 150 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	0330	537	4.90	Feb. 23	0830	846	5.40
Feb. 13	2400	1,540	6.16	Feb. 27	1745	596	5.01

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.32	7.4	62	5.8	4.3	1.5	.35	.02	.00
2	.00	.00	.00	.41	5.6	41	5.6	4.1	1.5	.34	.01	.00
3	.00	.00	.00	.40	4.7	30	5.4	4.0	1.4	.33	.01	.00
4	.00	.00	.00	.38	4.0	24	5.1	3.8	1.3	.34	.01	.00
5	.00	.00	.00	.37	3.6	40	5.0	3.7	1.2	.34	.00	.00
6	.00	.00	.03	.35	3.1	30	4.9	3.7	1.2	.34	.00	.00
7	.00	.00	.13	.37	2.8	23	4.7	5.1	1.2	.35	.00	.00
8	.00	.00	.14	.37	2.5	65	4.5	9.1	2.7	.34	.00	.00
9	.00	.00	.16	.37	2.6	83	4.5	6.3	3.1	.32	.00	.00
10	.00	.00	.19	.38	13	54	4.5	4.9	2.1	.28	.00	.00
11	.00	.00	.19	.47	24	39	4.3	4.4	1.7	.22	.00	.00
12	.00	.00	.20	.72	67	31	4.1	4.1	1.5	.17	.00	.00
13	.00	.00	.25	.77	345	25	5.1	3.9	1.4	.14	.00	.00
14	.00	.00	.25	.62	529	21	7.7	3.7	1.3	.11	.00	.00
15	.00	.00	.25	.80	94	18	6.3	4.2	1.1	.09	.00	.00
16	.00	.00	.27	2.5	57	16	5.4	6.4	.97	.07	.00	.00
17	.00	.00	.27	3.6	45	14	41	6.0	.88	.05	.00	.00
18	.00	.00	.27	17	27	13	33	4.8	.82	1.1	.00	.00
19	.00	.00	.27	7.4	19	12	15	4.2	.78	1.2	.00	.00
20	.00	.00	.26	4.1	16	11	11	3.6	.74	.32	.00	.00
21	.00	.00	.27	4.0	45	11	9.0	3.3	.68	.12	.00	.00
22	.00	.00	.27	2.6	36	11	7.7	3.0	.62	.06	.00	.00
23	.00	.00	.25	3.6	330	11	7.1	2.7	.56	.04	.00	.00
24	.00	.00	.26	181	84	10	6.4	2.6	.58	.03	.00	.00
25	.00	.00	.27	302	41	9.1	5.8	2.6	.61	.03	.00	.00
26	.00	.00	.27	45	27	7.7	5.4	2.4	.57	.02	.00	.00
27	.00	.00	.27	15	351	7.3	4.8	2.2	.55	.02	.00	.00
28	.00	.00	.27	9.2	169	7.2	4.9	1.9	.50	.02	.00	.00
29	.00	.00	.28	6.3	84	7.1	4.7	1.7	.46	.02	.00	.00
30	.00	.00	.29	8.5	---	6.7	4.5	1.7	.40	.02	.00	.00
31	.00	---	.30	13	---	6.2	---	1.6	---	.02	.00	---
TOTAL	0.00	0.00	6.13	631.90	2439.3	746.3	243.2	120.0	33.92	7.20	0.05	0.00
MEAN	.000	.000	.20	20.4	84.1	24.1	8.11	3.87	1.13	.23	.002	.000
MAX	.00	.00	.30	302	529	83	41	9.1	3.1	1.2	.02	.00
MIN	.00	.00	.00	.32	2.5	6.2	4.1	1.6	.40	.02	.00	.00
AC-FT	.00	.00	12	1250	4840	1480	482	238	67	14	.1	.00

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.090	3.19	10.4	28.7	35.8	25.6	11.4	4.00	1.23	.28	.042	.024
MAX	1.05	43.2	103	184	173	126	74.1	26.2	7.61	2.42	.82	.42
(WY)	1983	1983	1997	1997	1986	1983	1982	1983	1998	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.038	.014	.018	.000	.000	.000	.000
(WY)	1971	1977	1977	1991	1991	1977	1977	1977	1977	1972	1971	1969

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1969 - 2000	
ANNUAL TOTAL	3653.31		4228.00			
ANNUAL MEAN	10.0		11.6		9.94	
HIGHEST ANNUAL MEAN					38.2	1983
LOWEST ANNUAL MEAN					.011	1977
HIGHEST DAILY MEAN	435	Feb 9	529	Feb 14	1370	Jan 2 1997
LOWEST DAILY MEAN	.00	Jul 20	.00	Oct 1	.00	Aug 27 1969
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 20	.00	Oct 1	.00	Aug 27 1969
INSTANTANEOUS PEAK FLOW			1540	Feb 13	2620	Feb 17 1986
INSTANTANEOUS PEAK STAGE			6.16	Feb 13	7.03	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	7250		8390		7200	
10 PERCENT EXCEEDS	20		20		16	
50 PERCENT EXCEEDS	.41		.35		.37	
90 PERCENT EXCEEDS	.00		.00		.00	

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 mi^2.

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 sea level (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, 2,044,000 acre-ft, Jan. 2, 1997, elevation, 831.11 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, 1,994,000 acre-ft, June 25–27, elevation, 827.17 ft; minimum, 1,515,000 acre-ft, Jan. 15–17, elevation 785.65 ft, Jan. 17.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Modesto and Turlock Irrigation Districts, dated August 1970)

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		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1636000	1576000	1559000	1528000	1592000	1739000	1704000	1777000	1915000	1991000	1876000	1747000
2	1635000	1573000	1558000	1528000	1594000	1741000	1704000	1779000	1921000	1990000	1871000	1746000
3	1633000	1573000	1557000	1527000	1597000	1742000	1704000	1781000	1925000	1988000	1866000	1745000
4	1633000	1572000	1556000	1527000	1599000	1738000	1705000	1783000	1928000	1986000	1863000	1744000
5	1631000	1571000	1556000	1526000	1600000	1743000	1707000	1784000	1929000	1984000	1859000	1743000
6	1628000	1570000	1555000	1525000	1601000	1742000	1708000	1785000	1930000	1980000	1855000	1741000
7	1626000	1568000	1555000	1524000	1602000	1739000	1710000	1786000	1932000	1976000	1852000	1738000
8	1624000	1568000	1555000	1524000	1603000	1738000	1711000	1794000	1934000	1971000	1848000	1735000
9	1622000	1567000	1554000	1523000	1604000	1736000	1711000	1799000	1939000	1967000	1844000	1733000
10	1621000	1566000	1551000	1522000	1607000	1733000	1712000	1801000	1942000	1963000	1839000	1732000
11	1619000	1565000	1548000	1521000	1610000	1729000	1712000	1802000	1945000	1959000	1836000	1730000
12	1618000	1565000	1543000	1520000	1617000	1725000	1712000	1804000	1946000	1957000	1831000	1727000
13	1617000	1564000	1539000	1519000	1633000	1722000	1714000	1806000	1947000	1954000	1825000	1725000
14	1617000	1563000	1536000	1517000	1665000	1718000	1718000	1807000	1949000	1950000	1818000	1722000
15	1615000	1563000	1536000	1515000	1677000	1714000	1719000	1808000	1956000	1947000	1812000	1720000
16	1614000	1563000	1536000	1515000	1684000	1710000	1719000	1810000	1964000	1943000	1810000	1719000
17	1612000	1563000	1536000	1515000	1685000	1706000	1723000	1812000	1972000	1940000	1807000	1717000
18	1610000	1563000	1535000	1516000	1685000	1703000	1725000	1816000	1978000	1936000	1803000	1713000
19	1607000	1563000	1534000	1518000	1684000	1699000	1728000	1820000	1984000	1933000	1799000	1710000
20	1607000	1563000	1533000	1520000	1684000	1698000	1732000	1824000	1987000	1929000	1795000	1706000
21	1605000	1563000	1533000	1521000	1685000	1698000	1737000	1831000	1988000	1925000	1790000	1704000
22	1604000	1562000	1532000	1522000	1685000	1698000	1742000	1833000	1990000	1922000	1785000	1701000
23	1601000	1562000	1532000	1523000	1697000	1698000	1747000	1843000	1992000	1918000	1780000	1700000
24	1599000	1561000	1532000	1542000	1699000	1698000	1752000	1852000	1993000	1915000	1775000	1699000
25	1597000	1561000	1531000	1568000	1699000	1699000	1757000	1860000	1994000	1910000	1771000	1697000
26	1593000	1561000	1531000	1576000	1698000	1700000	1762000	1867000	1994000	1906000	1767000	1694000
27	1590000	1561000	1531000	1581000	1719000	1701000	1765000	1876000	1994000	1901000	1763000	1693000
28	1587000	1560000	1530000	1583000	1729000	1703000	1769000	1885000	1993000	1896000	1759000	1692000
29	1584000	1560000	1530000	1586000	1735000	1703000	1771000	1894000	1991000	1891000	1754000	1692000
30	1582000	1559000	1529000	1588000	---	1704000	1774000	1902000	1992000	1886000	1750000	1691000
31	1579000	---	1529000	1590000	---	1704000	---	1910000	---	1881000	1748000	---
MAX	1636000	1576000	1559000	1590000	1735000	1743000	1774000	1910000	1994000	1991000	1876000	1747000
MIN	1579000	1559000	1529000	1515000	1592000	1698000	1704000	1777000	1915000	1881000	1748000	1691000
a	791.75	789.91	786.99	792.75	805.83	803.09	809.19	820.53	827.01	818.17	806.97	801.99
b	-59000	-20000	-30000	+61000	+145000	-31000	+70000	+136000	+82000	-111000	-133000	-57000

CAL YR 1999 b -115000
WTR YR 2000 b +53000

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

11289000 MODESTO CANAL NEAR LA GRANGE, CA

LOCATION.—Lat 37°40'21", long 120°28'26", in NE 1/4 SW 1/4 sec.18, T.3 S., R.14 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 0.9 mi northwest of La Grange and 1.7 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 and concrete control. Datum of gage is 267.47 ft above sea level (levels by Modesto Irrigation District). See WSP 1930 for history of changes prior to March 1932. March 1932 to Apr. 27, 1988, at site 1.1 mi upstream at different 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.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,820 ft^3/s, July 1, 1935; no flow at times most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	614	723	24	149	112	112	677	613	856	1000	1190	346
2	604	691	160	65	55	184	734	689	644	717	1100	450
3	149	515	406	56	79	217	740	542	542	820	1060	565
4	61	422	210	50	55	152	780	427	448	781	886	519
5	110	422	42	224	79	183	799	508	655	854	1020	717
6	404	456	19	360	84	232	1060	493	536	1200	1010	449
7	247	410	8.6	256	61	169	1050	524	582	945	855	817
8	368	506	.06	159	63	169	1100	540	747	1110	998	547
9	60	271	.00	179	49	170	1140	558	604	1160	1090	466
10	348	479	.00	476	70	171	1160	557	922	1110	1010	196
11	330	171	.00	291	65	171	1320	538	784	854	976	341
12	245	69	.00	545	66	173	1150	569	1090	645	1170	221
13	335	48	.00	514	61	175	272	557	966	909	921	414
14	384	70	.00	661	33	179	101	789	984	1050	903	367
15	284	48	.00	409	18	182	101	856	1130	687	917	282
16	59	50	.00	439	18	186	101	753	439	837	924	260
17	55	85	32	634	19	190	102	807	543	774	878	330
18	249	68	178	645	43	194	179	540	534	903	785	674
19	345	45	275	136	61	203	509	875	633	809	649	361
20	209	18	92	119	59	207	382	883	895	912	618	586
21	225	18	43	71	60	207	255	763	852	724	874	282
22	330	34	70	46	84	209	197	700	579	521	1010	441
23	595	36	68	63	111	210	201	506	512	834	783	598
24	300	58	90	59	112	291	230	811	580	912	712	609
25	348	25	71	107	112	312	283	640	739	916	731	735
26	473	24	53	.07	112	306	355	873	765	830	858	1050
27	604	24	48	46	113	304	613	644	1030	971	835	544
28	575	25	91	376	112	304	663	712	891	1140	755	264
29	391	24	66	54	112	304	613	669	904	941	640	380
30	489	24	53	78	---	461	716	870	603	1260	688	420
31	577	---	140	87	---	620	---	612	---	1230	382	---
TOTAL	10367	5859	2239.66	7354.07	2078	7147	17583	20418	21989	28356	27228	14231
MEAN	334	195	72.2	237	71.7	231	586	659	733	915	878	474
MAX	614	723	406	661	113	620	1320	883	1130	1260	1190	1050
MIN	55	18	.00	.07	18	112	101	427	439	521	382	196
AC-FT	20560	11620	4440	14590	4120	14180	34880	40500	43620	56240	54010	28230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2000, BY WATER YEAR (WY)

MEAN	245	105	76.2	53.9	86.8	299	655	822	888	790	644	433
MAX	633	579	416	465	407	799	1198	1349	1244	1194	977	902
(WY)	1968	1983	1980	1976	1976	1932	1949	1946	1943	1956	1983	1980
MIN	.000	.000	.000	.000	.000	.000	220	224	450	186	12.1	.000
(WY)	1913	1910	1910	1910	1920	1938	1991	1977	1926	1919	1918	1917

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1909 - 2000	
ANNUAL TOTAL	164695.05		164849.73			
ANNUAL MEAN	451		450		427	
HIGHEST ANNUAL MEAN					570	1980
LOWEST ANNUAL MEAN					198	1910
HIGHEST DAILY MEAN	1310	Aug 15	1320	Apr 11	1820	Jul 1 1935
LOWEST DAILY MEAN	.00	Feb 23	.00	Dec 9	.00	Feb 8 1909
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 23	.00	Dec 9	.00	Feb 8 1909
ANNUAL RUNOFF (AC-FT)	326700		327000		309600	
10 PERCENT EXCEEDS	911		929		1000	
50 PERCENT EXCEEDS	417		410		377	
90 PERCENT EXCEEDS	25		48		.00	

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, 0.4 mi 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.—Ultrasonic flow meter and concrete control. Datum of gage is 277.70 ft above sea level (levels by Turlock Irrigation District). See WSP 1930 for history of changes prior to Apr. 17, 1924. From May 17, 1984, to Oct. 7, 1999, water-stage recorder at site 0.2 mi downstream at datum 2.72 ft lower.

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 and in March 1984. During autumn and winter, some unmeasured flow is diverted from canal at tunnel 0.1 mi upstream from gage, passed through La Grange Powerplant, and returned to river. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 3,400 ft^3/s, several days in May 1984; no diversion for irrigation during some periods in some years; prior to 1939, unmeasured small discharge during winter called zero. No flow Jan. 27, 1984, to Mar. 14, 1984, when canal was drained for construction and installation of electromagnetic flow meter and many days during most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	441	918	9.7	.00	.00	.00	1200	845	1790	1800	2060	1020
2	77	511	38	.00	.00	.00	1500	1220	1650	1900	2050	1010
3	95	18	55	.00	.00	.00	2100	1210	1510	1780	2000	409
4	48	1.7	46	.00	.00	.00	2380	1400	1340	1910	1360	743
5	805	10	45	.00	.00	.00	2350	1440	1670	1800	1130	634
6	919	1.4	30	.00	.00	.00	2230	1410	2040	2060	1660	1350
7	878	6.4	67	.00	.00	275	1940	1410	2060	2180	1360	1780
8	709	.77	66	.00	.00	506	2350	1370	2540	2360	1820	1780
9	754	.61	513	.00	.00	384	2390	1410	1950	2090	1890	1350
10	29	5.6	1230	.00	.00	495	2430	1410	1310	1980	1900	1100
11	318	4.4	1590	.00	.00	509	2640	1180	1520	1950	1850	1560
12	446	.41	2200	.00	.00	508	2360	875	1790	1690	2150	1570
13	99	.07	2610	.00	.00	506	323	863	1850	1620	2050	1450
14	5.4	.00	840	.00	.00	508	416	801	2340	1670	2280	25
15	574	.00	.00	.00	.00	513	433	1340	1940	1730	2120	642
16	609	.00	.00	.00	.00	514	504	771	1460	1720	2310	923
17	602	.00	.00	.00	.00	828	604	1590	1070	1870	2120	1470
18	658	.00	.00	.00	.00	913	673	1930	1200	2030	1860	1440
19	619	.00	.00	.00	.00	832	567	1970	1330	1980	1680	1810
20	28	.08	.00	.00	.00	876	517	1750	1510	1820	1840	1370
21	284	51	.00	.00	.00	996	131	877	1890	1780	1960	1160
22	516	8.8	.00	.00	.00	1140	5.6	2070	1690	1690	1840	1420
23	496	.84	.00	.00	.00	1200	1.9	1020	1540	1640	1710	485
24	646	41	.00	.00	.00	885	28	1130	1360	1770	1470	323
25	976	31	.00	.00	.00	671	255	774	2070	2060	1420	1040
26	1120	57	.00	.00	.00	673	289	889	1790	1970	1270	1060
27	1120	21	.00	.00	.00	686	827	1520	1990	1970	1010	668
28	1110	20	.00	.00	.00	658	777	998	2240	2030	1780	968
29	1370	31	.00	.00	.00	1020	891	864	2010	2040	1890	761
30	604	28	.00	.00	---	1120	943	844	1300	1990	1960	560
31	587	---	.00	.00	---	1470	---	1430	---	1970	1490	---
TOTAL	17542.4	1768.08	9339.70	0.00	0.00	18686.00	34055.5	38611	51750	58850	55290	31881
MEAN	566	58.9	301	.000	.000	603	1135	1246	1725	1898	1784	1063
MAX	1370	918	2610	.00	.00	1470	2640	2070	2540	2360	2310	1810
MIN	5.4	.00	.00	.00	.00	.00	1.9	771	1070	1620	1010	25
AC-FT	34800	3510	18530	.00	.00	37060	67550	76580	102600	116700	109700	63240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2000, BY WATER YEAR (WY)

MEAN	301	145	133	79.7	130	473	1023	1249	1347	1290	1081	695
MAX	883	1008	1210	506	855	1457	1874	1829	1883	2098	1991	1604
(WY)	1996	1976	1984	1999	1976	1997	1949	1984	1981	1980	1983	1967
MIN	.000	.000	.000	.000	.000	2.72	90.3	27.4	71.0	.000	25.4	.000
(WY)	1901	1901	1900	1900	1905	1973	1900	1977	1900	1914	1901	1901

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1899 - 2000	
ANNUAL TOTAL	342543.28		317773.68			
ANNUAL MEAN	938		868		667	
HIGHEST ANNUAL MEAN					1082	1984
LOWEST ANNUAL MEAN					54.3	1900
HIGHEST DAILY MEAN	2900	Jul 14	2640	Apr 11	3400	May 24 1984
LOWEST DAILY MEAN	.00	Jan 1	.00	Nov 14	.00	Nov 14 1899
ANNUAL SEVEN-DAY MINIMUM	.00	Dec 15	.00	Dec 15	.00	Nov 14 1899
ANNUAL RUNOFF (AC-FT)	679400		630300		483300	
10 PERCENT EXCEEDS	1970		1990		1680	
50 PERCENT EXCEEDS	896		772		458	
90 PERCENT EXCEEDS	1.5		.00		.00	

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1970 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 170.19 ft above sea level (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 310 ft^3/s was diverted during the current year. For records of combined discharge of river and Modesto and Turlock Canals, see station 11289651. See schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 58,900 ft^3/s, Jan. 3, 1997, gage height, 28.43 ft; no flow for several days during September and October 1977.

Combined flow, maximum daily discharge, 50,100 ft^3/s, Jan. 3, 1997; minimum daily, 0.45 ft^3/s, Nov. 2, 1970.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	517	344	330	309	405	4160	1580	1320	394	273	582	285
2	519	343	329	308	325	4260	1200	1410	569	271	584	284
3	518	343	331	313	323	4440	1110	2210	569	270	591	286
4	518	348	329	320	325	6610	772	2330	483	270	599	286
5	515	340	330	321	322	5370	634	2330	275	269	581	284
6	513	338	333	319	321	5780	624	2330	274	274	283	283
7	509	341	332	328	320	6510	583	2290	274	281	283	283
8	513	341	333	313	321	6340	414	2220	275	280	283	283
9	514	340	337	325	329	6410	400	2230	348	280	282	281
10	460	342	327	324	338	6170	401	2220	412	345	281	282
11	428	340	324	313	343	6130	398	2040	412	486	279	283
12	429	341	324	315	346	6130	693	1950	415	417	278	286
13	453	342	323	330	364	6050	3780	1770	418	417	279	600
14	463	343	375	330	1270	6080	3830	1330	413	416	279	2070
15	469	342	410	330	2170	6260	3800	789	416	408	471	1070
16	463	342	402	331	3360	6280	3670	536	401	303	590	303
17	380	342	431	332	4410	5520	3590	327	275	314	667	304
18	381	345	330	326	4180	4440	3300	322	269	283	814	453
19	384	345	328	322	4220	5700	2360	431	273	317	821	636
20	386	351	330	322	4010	4200	1380	578	275	507	825	633
21	384	331	333	323	4140	2980	1040	578	273	576	843	639
22	384	329	336	324	4350	2860	1110	574	272	575	1000	638
23	360	331	326	325	4170	2860	1120	575	274	578	1130	641
24	335	327	321	326	4410	2840	1110	578	277	577	1130	642
25	334	329	317	329	4150	2780	1120	580	273	583	1150	590
26	335	327	319	359	4240	2860	1130	551	269	582	1100	313
27	336	329	314	342	4390	2800	1250	334	282	581	804	311
28	336	331	307	326	4140	2630	1370	336	282	581	756	311
29	338	329	314	324	4240	2520	1350	335	273	584	554	313
30	339	330	313	322	---	2630	1320	334	274	581	293	314
31	337	---	313	319	---	2060	---	331	---	579	284	---
TOTAL	13150	10146	10401	10050	66232	142660	46439	36069	10189	13058	18696	14187
MEAN	424	338	336	324	2284	4602	1548	1164	340	421	603	473
MAX	519	351	431	359	4410	6610	3830	2330	569	584	1150	2070
MIN	334	327	307	308	320	2060	398	322	269	269	278	281
AC-FT	26080	20120	20630	19930	131400	283000	92110	71540	20210	25900	37080	28140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	703	380	948	1656	2062	1978	1660	1492	747	465	250	530
MAX	4187	905	4625	13070	8116	6636	8900	9744	5161	3808	1747	3491
(WY)	1984	1984	1997	1997	1997	1983	1983	1983	1983	1983	1983	1983
MIN	1.02	8.16	10.2	9.78	21.6	93.9	40.9	8.73	8.43	7.46	5.63	4.42
(WY)	1978	1978	1978	1978	1978	1989	1977	1972	1976	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1971 - 2000	
ANNUAL TOTAL	459397		391277			
ANNUAL MEAN	1259		1069		1068	
HIGHEST ANNUAL MEAN					4786	1983
LOWEST ANNUAL MEAN					84.3	1989
HIGHEST DAILY MEAN	7580	Feb 12	6610	Mar 4	50100	Jan 3 1997
LOWEST DAILY MEAN	251	Aug 8	269	Jun 18	.00	Sep 26 1977
ANNUAL SEVEN-DAY MINIMUM	255	Aug 3	271	Jun 29	.00	Oct 12 1977
INSTANTANEOUS PEAK FLOW			7020	Mar 6	58900	Jan 3 1997
INSTANTANEOUS PEAK STAGE			12.31	Mar 6	28.43	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	911200		776100		773700	
10 PERCENT EXCEEDS	3440		3700		3600	
50 PERCENT EXCEEDS	343		384		275	
90 PERCENT EXCEEDS	265		283		14	

11289651 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA—Continued

TUOLUMNE RIVER, MODESTO CANAL NEAR LA GRANGE, AND TURLOCK CANAL NEAR LA GRANGE, CA

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	1980	364	458	517	4270	3460	2780	3040	3070	3830	1660
2	1200	1540	527	373	380	4440	3430	3320	2860	2890	3730	1740
3	762	876	792	369	402	4660	3950	3960	2620	2870	3650	1260
4	627	772	585	370	380	6760	3930	4160	2270	2960	2850	1550
5	1430	772	417	545	401	5550	3780	4280	2600	2920	2730	1630
6	1830	795	382	679	405	6010	3910	4230	2850	3530	2950	2080
7	1630	757	408	584	381	6950	3570	4220	2910	3400	2500	2880
8	1590	848	399	472	384	7020	3860	4130	3560	3750	3100	2610
9	1330	612	850	504	378	6960	3930	4200	2900	3530	3260	2100
10	837	827	1560	800	408	6840	3990	4190	2640	3440	3190	1580
11	1080	515	1910	604	408	6810	4360	3760	2710	3290	3110	2180
12	1120	410	2520	860	412	6810	4200	3390	3300	2760	3600	2080
13	887	390	2930	844	425	6730	4380	3190	3240	2950	3250	2460
14	852	413	1220	991	1300	6770	4350	2920	3730	3140	3460	2460
15	1330	390	410	739	2190	6960	4330	2990	3490	2830	3510	1990
16	1130	392	402	770	3380	6980	4280	2060	2300	2860	3820	1480
17	1040	427	463	966	4430	6540	4300	2730	1880	2950	3670	2100
18	1290	413	508	971	4220	5550	4150	2790	2000	3210	3450	2560
19	1350	390	603	458	4280	6740	3440	3270	2230	3110	3150	2810
20	623	369	422	441	4070	5280	2280	3210	2680	3240	3280	2590
21	893	400	376	394	4200	4180	1430	2220	3010	3080	3670	2080
22	1230	372	406	370	4430	4210	1310	3340	2540	2780	3850	2500
23	1450	368	394	388	4280	4270	1320	2100	2320	3050	3620	1720
24	1280	426	411	385	4520	4020	1370	2520	2220	3260	3310	1570
25	1650	385	388	436	4260	3760	1660	1990	3080	3560	3300	2370
26	1920	408	372	359	4350	3840	1770	2310	2830	3380	3230	2420
27	2060	374	362	388	4500	3790	2690	2490	3300	3520	2640	1520
28	2020	376	398	702	4250	3590	2810	2050	3410	3750	3300	1540
29	2100	384	380	378	4350	3840	2850	1860	3180	3560	3080	1450
30	1430	382	366	400	---	4210	2980	2040	2170	3830	2940	1290
31	1500	---	453	406	---	4150	---	2370	---	3780	2150	---
TOTAL	41051	17763	21978	17404	68291	168490	98070	95070	83870	100250	101180	60260
MEAN	1324	592	709	561	2355	5435	3269	3067	2796	3234	3264	2009
MAX	2100	1980	2930	991	4520	7020	4380	4280	3730	3830	3850	2880
MIN	623	368	362	359	378	3590	1310	1860	1880	2760	2150	1260
AC-FT	81420	35230	43590	34520	135500	334200	194500	188600	166400	198800	200700	119500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2000, BY WATER YEAR (WY)

MEAN	1366	815	1340	1851	2272	2805	3302	3353	2972	3080	2566	1829
MAX	4693	2383	5327	13630	8885	6677	9873	11840	7644	6670	4715	5429
(WY)	1984	1983	1983	1997	1997	1983	1983	1983	1983	1983	1983	1983
MIN	107	35.9	115	76.8	97.8	230	921	262	595	664	606	305
(WY)	1978	1978	1989	1978	1989	1992	1992	1977	1992	1992	1992	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1971 - 2000	
ANNUAL TOTAL	966569		873677			
ANNUAL MEAN	2648		2387		2309	
HIGHEST ANNUAL MEAN					6186	1983
LOWEST ANNUAL MEAN					442	1992
HIGHEST DAILY MEAN	8660	Feb 12	7020	Mar 8	50100	Jan 3 1997
LOWEST DAILY MEAN	362	Dec 27	359	Jan 26	.45	Nov 2 1970
ANNUAL SEVEN-DAY MINIMUM	382	Nov 25	382	Nov 25	.61	Oct 29 1970
ANNUAL RUNOFF (AC-FT)	1917000		1733000		1673000	
10 PERCENT EXCEEDS	4510		4260		4620	
50 PERCENT EXCEEDS	2600		2440		1950	
90 PERCENT EXCEEDS	427		397		263	

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1971 to current year.
WATER TEMPERATURE: Water years 1971 to current year.

PERIOD OF DAILY RECORD.—November 1970 to current year.
WATER TEMPERATURE: November 1970 to current year.

INSTRUMENTATION.—Water-temperature recorder since November 1970.

REMARKS.—Water temperature can be affected by releases from La Grange Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 29.0°C, Sept. 27, Oct. 15, 1977; minimum recorded, 6.0°C, Feb. 6–8, 10, 1971.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 14.0°C, many days during June through September; minimum recorded, 10.0°C, several days during March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	11.5	13.0	11.5	12.0	11.5	11.5	11.0	11.5	11.0	11.0	10.5
2	12.5	11.5	13.0	12.0	11.5	11.0	11.0	10.5	11.5	10.5	10.5	10.0
3	12.5	11.5	12.5	11.5	11.5	11.0	11.0	10.5	11.5	11.0	11.0	10.0
4	12.5	11.0	12.5	11.5	12.0	11.0	11.0	10.5	11.5	11.0	10.5	10.0
5	12.5	11.5	12.5	12.0	11.5	11.0	11.0	10.5	11.5	11.0	10.5	10.5
6	12.5	11.5	12.5	11.5	11.5	11.0	11.0	10.5	11.5	10.5	10.5	10.0
7	12.5	11.5	12.5	11.5	11.5	11.5	11.0	11.0	11.5	10.5	10.5	10.0
8	13.0	11.5	12.5	12.0	11.5	11.0	11.0	10.5	11.5	11.0	10.5	10.5
9	13.0	11.5	12.5	11.5	11.5	11.0	11.5	11.0	11.5	11.0	10.5	10.5
10	12.5	11.5	12.5	11.5	11.5	11.5	11.5	11.0	11.5	11.0	11.0	10.0
11	12.5	11.5	12.5	11.5	12.0	11.5	11.5	11.0	11.0	10.5	11.0	10.5
12	12.5	11.5	12.5	12.0	12.5	11.5	11.5	11.5	11.0	10.5	11.0	10.5
13	12.5	11.5	12.5	12.0	12.5	11.5	12.0	11.0	11.0	11.0	11.0	10.5
14	12.5	11.5	12.5	12.0	12.0	11.5	12.0	11.0	12.0	11.0	11.0	10.5
15	12.5	11.5	12.5	12.0	12.0	11.0	11.5	11.5	11.0	10.5	11.0	10.5
16	12.5	11.5	12.5	12.0	11.5	11.0	11.5	11.5	11.0	11.0	11.0	10.5
17	12.5	11.5	12.5	12.0	12.0	11.0	11.5	11.5	11.0	11.0	11.0	10.5
18	12.5	11.5	12.0	11.5	12.0	11.0	12.0	11.5	11.5	11.0	11.0	10.5
19	12.5	11.5	12.0	11.5	12.0	11.0	12.0	11.5	11.0	10.5	11.0	10.5
20	12.5	11.5	12.5	12.0	11.5	11.0	12.0	11.5	11.0	10.5	11.0	10.5
21	12.5	11.5	12.0	11.5	11.5	11.0	11.5	11.0	11.0	10.5	11.0	10.0
22	12.5	11.5	11.5	11.0	11.5	11.0	11.5	11.0	10.5	10.5	11.0	10.5
23	12.5	11.5	12.0	11.0	11.5	11.0	11.5	11.5	11.0	10.5	11.0	10.5
24	12.5	11.5	11.5	11.0	11.5	11.0	11.5	11.5	10.5	10.5	11.0	10.5
25	12.5	11.5	12.0	11.5	11.5	11.0	12.0	11.5	11.0	10.5	11.0	10.5
26	13.0	11.5	12.0	11.5	11.5	11.0	11.5	11.5	11.0	10.5	11.0	10.5
27	13.0	12.0	12.0	11.5	11.5	11.0	11.5	11.0	11.0	10.5	11.0	10.5
28	13.0	12.0	11.5	11.5	11.5	10.5	11.5	11.0	11.0	10.5	11.0	10.5
29	13.0	12.0	11.5	11.5	11.5	10.5	11.5	11.0	10.5	10.5	11.0	10.5
30	13.0	12.0	12.0	11.5	11.5	10.5	11.5	11.0	---	---	11.0	10.5
31	13.0	11.5	---	---	11.5	11.0	11.5	11.0	---	---	11.5	10.5
MONTH	13.0	11.0	13.0	11.0	12.5	10.5	12.0	10.5	12.0	10.5	11.5	10.0

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	10.5	12.0	10.5	13.0	11.0	14.0	11.5	13.5	12.0	13.0	12.0
2	11.5	10.5	12.0	11.0	13.0	11.0	13.5	11.5	13.5	12.0	13.0	12.0
3	11.5	10.5	12.0	11.0	12.5	11.0	14.0	11.5	13.5	12.0	13.5	12.0
4	12.0	10.5	12.0	11.0	13.0	11.0	13.5	11.5	13.5	12.0	13.5	11.5
5	12.0	10.5	11.5	11.0	13.5	11.0	14.0	11.5	13.5	12.0	13.5	11.5
6	12.0	10.5	11.5	11.0	13.5	11.0	14.0	11.5	14.0	12.0	13.5	11.5
7	12.0	10.5	11.5	11.0	13.5	11.0	14.0	11.5	14.0	12.0	13.5	11.5
8	12.5	10.5	12.0	11.0	12.5	11.5	14.0	11.5	14.0	12.0	14.0	12.0
9	12.5	10.5	11.5	11.0	13.0	11.0	14.0	11.5	14.0	12.0	13.5	12.0
10	12.5	10.5	11.5	11.0	13.0	11.0	14.0	12.0	14.0	12.0	13.5	12.0
11	12.5	10.5	12.0	10.5	13.0	11.0	13.5	12.0	14.0	12.0	13.5	11.5
12	12.5	10.5	12.0	10.5	13.0	11.5	13.5	11.5	14.0	12.0	13.0	12.0
13	11.0	11.0	12.0	11.0	13.5	11.5	13.5	11.5	14.0	12.0	13.5	12.0
14	11.5	10.5	11.5	11.0	13.5	11.5	13.5	11.5	14.0	12.0	13.0	12.0
15	11.5	10.5	11.5	11.0	14.0	11.5	13.5	11.5	13.5	12.0	13.0	12.0
16	11.0	11.0	11.5	11.0	13.5	11.5	14.0	12.0	13.5	12.0	13.5	11.5
17	11.0	10.5	12.0	11.0	14.0	11.5	13.5	12.0	13.5	12.0	13.5	11.5
18	11.5	10.5	13.0	11.0	13.5	11.5	14.0	12.0	13.5	12.0	13.0	12.0
19	11.5	10.5	13.0	11.0	14.0	11.5	14.0	12.0	13.5	12.0	13.0	12.0
20	12.0	10.5	12.5	11.0	14.0	11.5	13.5	12.0	13.5	12.0	13.0	12.0
21	12.0	10.5	13.0	11.0	13.5	11.5	13.5	12.0	13.5	12.0	13.0	12.0
22	12.0	10.5	12.5	11.0	14.0	11.5	13.5	12.0	13.0	12.0	12.5	12.0
23	12.0	10.5	12.5	11.0	13.5	11.5	13.5	12.0	13.0	12.0	13.0	12.0
24	12.0	10.5	12.5	11.0	13.5	11.5	13.5	12.0	13.0	12.0	13.0	12.0
25	12.0	10.5	12.5	11.0	13.5	11.5	13.5	12.0	13.0	12.0	13.0	12.0
26	12.0	10.5	12.5	11.0	14.0	11.5	13.5	12.0	13.0	12.0	13.0	11.5
27	12.0	11.0	13.0	11.0	14.0	11.5	13.5	12.0	13.5	12.0	13.0	11.5
28	12.0	10.5	13.0	11.0	13.5	12.0	13.5	12.0	13.0	12.0	13.0	11.5
29	12.0	10.5	13.0	11.0	14.0	12.0	13.5	12.0	12.5	12.0	13.0	11.5
30	12.0	10.5	13.0	11.0	14.0	11.5	13.5	12.0	13.0	12.0	13.0	12.0
31	---	---	13.0	11.0	---	---	13.5	12.0	14.0	12.0	---	---
MONTH	12.5	10.5	13.0	10.5	14.0	11.0	14.0	11.5	14.0	12.0	14.0	11.5

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 mi^2.

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. Water-quality data for the period October 1985 to March 1987 are available in U.S. Geological Survey Open-File Report 88-479. Water-quality data for the period April 1987 to September 1988 are available in files of the U.S. Geological Survey.
CHEMICAL DATA: Water years 1993–95.
SPECIFIC CONDUCTANCE: Water years 1989–95.
WATER TEMPERATURE: Water years 1989–95.
SEDIMENT: Water years 1993–95.

GAGE.—Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is sea level (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 fair. Flow regulated by reservoirs and powerplants upstream from station. Several major diversions for power, irrigation, and municipal supply upstream of station, including Modesto and Turlock Canals (stations 11289000 and 11289500). See REMARKS for Tuolumne River below La Grange Dam (station 11289650) and schematic diagram of Tuolumne River Basin.

EXTREMES FOR PERIOD OF RECORD (water years 1896, 1941–2000).—Maximum discharge observed, 57,000 ft^3/s, Dec. 9, 1950, elevation, 69.19 ft; maximum gage height, 71.21 ft, Jan. 4, 1997 (backwater caused by debris on railroad trestle 1,500 ft downstream of gage); minimum daily, 56 ft^3/s, Aug. 6, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	642	500	423	407	384	4690	2290	1330	559	432	752	835
2	662	480	421	404	397	4440	1730	1290	598	481	754	844
3	673	501	419	402	349	4350	1330	1590	764	490	744	838
4	705	563	420	404	346	4830	1190	2290	766	450	780	808
5	723	634	418	411	358	6090	984	2410	711	453	801	799
6	708	536	418	412	357	7000	909	2430	483	458	809	834
7	679	490	418	410	339	6340	904	2580	523	479	604	822
8	658	497	422	417	331	6290	921	2550	599	517	543	841
9	643	477	422	407	327	6420	808	2390	578	542	507	867
10	665	475	420	418	338	6320	790	2420	682	510	528	858
11	632	466	418	449	360	5970	740	2410	772	494	478	837
12	594	466	413	447	574	5920	729	2170	775	612	477	803
13	573	450	409	447	1050	5870	1600	2070	750	608	515	807
14	582	440	408	462	2690	5800	4060	1850	738	593	514	897
15	602	464	437	466	3590	5870	4290	1360	623	614	471	2170
16	584	473	473	465	2800	5980	4260	1070	565	584	615	1260
17	595	440	474	485	4290	5970	4430	803	562	548	918	738
18	562	436	489	541	4620	5070	4400	612	502	539	1020	640
19	515	444	435	472	4280	4890	3730	592	453	532	1160	863
20	521	438	417	492	4230	5360	2530	788	468	529	1240	1110
21	519	437	418	503	4100	4120	1460	881	531	690	1320	1090
22	548	424	418	515	4500	3310	1150	899	556	727	1370	1100
23	544	422	420	597	4700	3190	1120	996	599	752	1630	1150
24	507	422	413	624	5340	3200	1110	1010	571	721	1820	1060
25	493	419	410	650	4540	3130	1100	1070	507	721	1830	867
26	493	419	407	760	4230	3090	1130	908	519	704	1850	797
27	466	418	409	453	4310	3110	1150	734	489	739	1750	651
28	486	420	407	381	6310	3070	1330	606	467	722	1400	615
29	483	421	402	345	5070	2930	1470	576	455	738	1220	622
30	513	428	406	341	---	2820	1390	564	460	752	1060	631
31	531	---	407	339	---	2830	---	549	---	749	873	---
TOTAL	18101	13900	13091	14326	75110	148270	55035	43798	17625	18480	30353	27054
MEAN	584	463	422	462	2590	4783	1834	1413	588	596	979	902
MAX	723	634	489	760	6310	7000	4430	2580	775	752	1850	2170
MIN	466	418	402	339	327	2820	729	549	453	432	471	615
AC-FT	35900	27570	25970	28420	149000	294100	109200	86870	34960	36660	60210	53660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2000, BY WATER YEAR (WY)

MEAN	872	996	1562	1960	2214	2136	1947	1945	1593	653	380	572
MAX	4760	4124	8677	15500	8782	7658	9268	10420	7665	4244	2225	4041
(WY)	1984	1951	1951	1997	1997	1983	1983	1983	1942	1983	1983	1983
MIN	78.2	93.1	110	154	166	199	169	138	94.5	78.8	67.5	72.6
(WY)	1978	1978	1978	1991	1991	1961	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1940 - 2000	
ANNUAL TOTAL	527134		475143			
ANNUAL MEAN	1444		1298		1391	
HIGHEST ANNUAL MEAN					5518	1983
LOWEST ANNUAL MEAN					185	1989
HIGHEST DAILY MEAN	7280	Feb 16	7000	Mar 6	52900	Jan 4 1997
LOWEST DAILY MEAN	400	Jun 11	327	Feb 9	56	Aug 6 1977
ANNUAL SEVEN-DAY MINIMUM	407	Dec 25	342	Feb 4	62	Aug 2 1977
INSTANTANEOUS PEAK FLOW			7610	Mar 6	57000	Dec 9 1950
INSTANTANEOUS PEAK STAGE			51.72	Mar 6	71.21	Jan 4 1997
ANNUAL RUNOFF (AC-FT)	1046000		942400		1008000	
10 PERCENT EXCEEDS	3790		4150		3730	
50 PERCENT EXCEEDS	513		633		619	
90 PERCENT EXCEEDS	420		418		183	

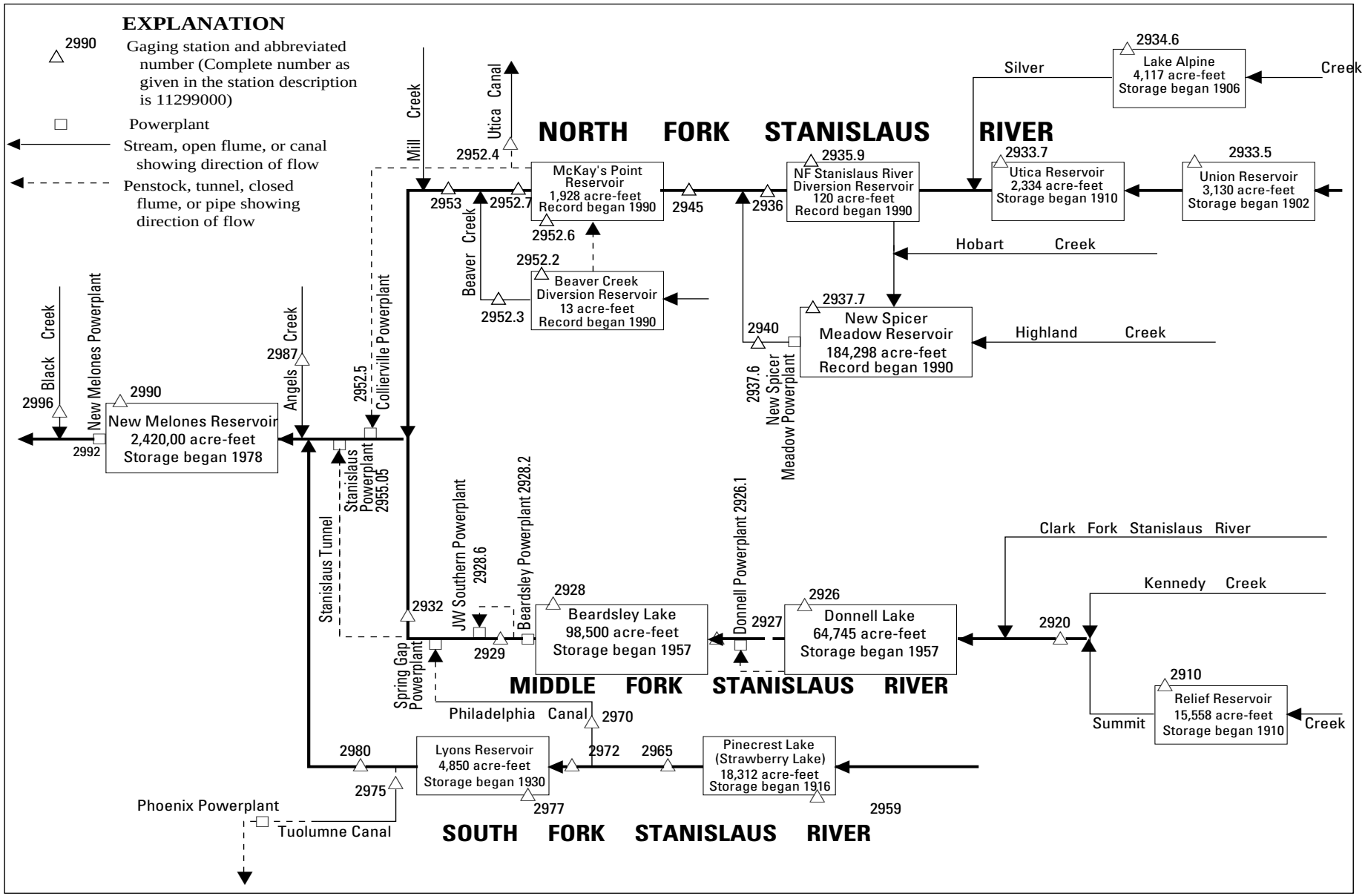

Figure 30. Diversions and storage in Stanislaus River Basin.

11291000 RELIEF RESERVOIR NEAR BAKER STATION, CA

LOCATION.—Lat 38°16'52", long 119°43'57", in NW 1/4 SW 1/4 sec.13, T.5 N., R.20 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on dam near spillway, 2.2 mi south of Kennedy Meadows, 3.6 mi southeast of Baker Station, and 7.0 mi southeast of Dardanelle.

DRAINAGE AREA.—24.4 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1981–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Prior to Dec. 9, 1991, nonrecording gage observed approximately weekly. Datum of gage is 7,200 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete-faced, rockfill dam completed in 1910. Usable capacity, 12,348 acre-ft, between gage height, 1.37 ft, invert of outlet, and 123 ft, spillway crest. Flashboards are added in the summer months, increasing gage height to 138 ft and usable capacity to 15,550 acre-ft. Figures given represent total contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by the Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 15,908 acre-ft, June 29, 2000, gage height, 139.55 ft; minimum observed, 33 acre-ft, Jan. 12, 1987, gage height, 6.1 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 15,908 acre-ft, June 29, gage height, 139.55 ft; minimum, 1,029 acre-ft, Oct. 27, gage height, 42.87 ft.

Capacity table (gage height, in feet, and contents, in acre-ft)
(Based on survey by Pacific Gas & Electric Co. in 1942)

10	53	50	1605	90	6579
20	105	60	2632	100	8105
30	308	70	3763	120	11895
40	842	80	5105	140	16012

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3777	1221	1463	1382	1636	1979	2857	8191	15631	15611	15045	8952
2	3568	1216	1468	1372	1645	2084	2904	8729	15625	15474	14999	8884
3	3363	1211	1472	1365	1650	1997	3011	9308	15645	15231	14864	8735
4	3159	1207	1473	1358	1660	2054	3191	9887	15695	15341	14675	8573
5	2968	1198	1475	1351	1665	2085	3394	10553	15686	15285	14480	8392
6	2779	1191	1476	1347	1669	2053	3587	11059	15656	15295	14284	8205
7	2586	1188	1474	1337	1674	1996	3784	11449	15656	15340	14086	7987
8	2385	1192	1475	1328	1679	2035	3990	12077	15563	15390	13892	7739
9	2190	1202	1474	1322	1682	e2070	4145	12558	15511	15437	13698	7488
10	2000	1208	1474	1315	1693	e2105	4296	12897	15515	15507	13500	7244
11	1821	1215	1471	1318	1711	e2140	4471	13075	15561	15540	13304	6996
12	1643	1225	1472	1309	1721	e2170	4711	13197	15645	15599	13104	6752
13	1466	1231	1463	1304	1759	2207	5126	13321	15849	15638	12888	6647
14	1361	1242	1459	1296	1821	2240	5298	13450	15888	15643	12656	6635
15	1338	1273	1459	1301	1854	2282	5399	13574	15784	15638	12424	6626
16	1310	1298	1458	1299	1877	2326	5468	13672	15762	15634	12229	6609
17	1280	1327	1456	1304	1893	2379	5523	13767	15748	15622	12008	6595
18	1255	1345	1451	1356	1910	2440	5554	13979	15709	15593	11800	6585
19	1229	1368	1446	1395	1922	2532	5571	14402	15641	15572	11620	6562
20	1201	1391	1444	1439	1932	2606	5620	15026	15668	15546	11437	6548
21	1176	1411	1442	1470	1942	2658	5698	15439	15743	15519	11258	6535
22	1148	1421	1436	1485	1958	2704	5779	15490	15693	15484	11078	6521
23	1120	1426	1432	1501	1974	2723	5863	15427	15663	15460	10848	6502
24	1097	1430	1432	1537	1984	2713	5964	15546	15636	15421	10608	6477
25	1069	1433	1422	1565	1993	2712	6139	15588	15711	15378	10371	6365
26	1042	1439	1415	1584	2001	2729	6441	15503	15663	15336	10142	6164
27	1029	1444	1410	1595	2035	2764	6841	15521	15618	15281	9919	5958
28	1209	1445	1409	1608	2048	2785	7185	15491	15627	15237	9722	5761
29	1222	1451	1398	1614	2067	2815	7438	15454	15908	15179	9521	5562
30	1225	1460	1392	1628	---	2835	7761	15572	15755	15138	9332	5375
31	1224	---	1385	1633	---	2857	---	15595	---	15088	9145	---
MAX	3777	1460	1476	1633	2067	2857	7761	15595	15908	15643	15045	8952
MIN	1029	1188	1385	1296	1636	1979	2857	8191	15511	15088	9145	5375
a	45.52	48.39	47.51	50.32	54.88	62.16	97.85	138.18	138.88	135.60	105.66	81.94
b	-2826	+236	-75	+248	+434	+790	+4904	+7834	+160	-667	-5943	-3770

CAL YR 1999 MAX 15817 MIN 950 b -255
WTR YR 2000 MAX 15908 MIN 1029 b +1325

e Estimated.
a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

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 mi^2.

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 above sea level.

REMARKS.—Low and medium flow regulated by Relief Reservoir (station 11291000) 1.6 mi upstream. No diversion upstream from station. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,310 ft^3/s, May 16, 1996, gage height, 8.37 ft; minimum daily, 7.1 ft^3/s, Jan. 14, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	21	21	19	21	e22	90	206	481	357	96	129
2	131	21	21	19	21	22	101	221	506	295	94	135
3	130	21	21	20	22	22	118	233	504	254	130	132
4	128	21	20	19	21	23	139	242	564	210	158	130
5	126	20	20	20	21	23	155	243	626	199	157	128
6	125	20	20	e21	21	23	155	221	575	159	154	126
7	124	20	20	19	21	22	154	218	560	135	152	138
8	121	23	22	19	22	23	157	267	531	134	151	159
9	120	21	20	19	22	22	147	242	329	134	148	158
10	118	21	20	19	23	22	144	200	275	134	146	157
11	116	21	20	18	22	22	147	172	295	135	144	156
12	114	21	19	18	23	23	155	156	377	139	142	154
13	112	21	19	18	27	26	206	148	487	136	141	91
14	72	21	20	18	55	31	168	147	657	133	140	27
15	28	23	19	19	35	36	145	147	694	127	139	26
16	28	22	19	20	29	40	131	146	667	125	138	26
17	27	25	19	20	26	43	129	146	611	121	138	26
18	27	22	19	44	24	47	117	157	590	115	137	26
19	27	26	19	30	24	54	111	194	534	110	136	25
20	27	27	18	29	23	49	114	258	428	106	135	26
21	27	23	19	26	23	42	121	460	421	105	134	25
22	26	22	18	22	23	43	125	788	431	105	133	26
23	26	22	19	22	e23	60	128	781	382	103	132	26
24	26	21	19	32	e23	83	133	807	360	100	132	26
25	26	22	19	31	22	86	147	1020	380	97	131	74
26	26	21	19	24	22	92	173	911	394	97	131	125
27	23	21	20	22	e22	97	203	795	355	96	131	124
28	33	21	20	24	e22	96	206	798	359	93	131	124
29	23	21	20	22	e22	96	179	735	367	92	132	123
30	22	21	20	21	---	96	180	562	506	93	132	120
31	21	---	20	22	---	93	---	498	---	95	131	---
TOTAL	2113	653	609	696	705	1479	4378	12119	14246	4334	4226	2768
MEAN	68.2	21.8	19.6	22.5	24.3	47.7	146	391	475	140	136	92.3
MAX	133	27	22	44	55	97	206	1020	694	357	158	159
MIN	21	20	18	18	21	22	90	146	275	92	94	25
AC-FT	4190	1300	1210	1380	1400	2930	8680	24040	28260	8600	8380	5490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2000, BY WATER YEAR (WY)

MEAN	81.1	46.2	39.5	33.6	30.6	45.2	95.6	316	443	245	123	127
MAX	226	372	266	272	92.5	155	247	626	949	767	328	272
(WY)	1983	1951	1951	1997	1997	1980	1943	1969	1983	1995	1983	1983
MIN	10.4	9.85	10.0	9.23	8.81	12.6	23.7	28.0	68.1	43.1	24.9	12.2
(WY)	1967	1978	1960	1960	1991	1948	1975	1977	1977	1939	1961	1981

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1939 - 2000	
ANNUAL TOTAL	52965		48326			
ANNUAL MEAN	145		132		136	
HIGHEST ANNUAL MEAN					256	1983
LOWEST ANNUAL MEAN					36.4	1977
HIGHEST DAILY MEAN	991	May 28	1020	May 25	2350	May 16 1996
LOWEST DAILY MEAN	18	Dec 20	18	Dec 20	7.1	Jan 14 1977
ANNUAL SEVEN-DAY MINIMUM	19	Dec 16	18	Jan 8	7.5	Feb 21 1991
INSTANTANEOUS PEAK FLOW			1140	May 25	3310	May 16 1996
INSTANTANEOUS PEAK STAGE			5.81	May 25	8.37	May 16 1996
ANNUAL RUNOFF (AC-FT)	105100		95850		98370	
10 PERCENT EXCEEDS	382		359		363	
50 PERCENT EXCEEDS	102		94		62	
90 PERCENT EXCEEDS	21		20		15	

e Estimated.

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 mi^2.

PERIOD OF RECORD.—October 1957 to current year. Prior to October 1960, published as Donnells Reservoir near Dardanelle.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 4.84 ft above sea level (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.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, in connection with a Federal Energy Regulatory Commission project.

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, 64,300 acre-ft, several days in June, gage height, 4915.89 ft, June 26; minimum, 7,350 acre-ft, Mar. 11, gage height, 4,746.45 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated Oct. 1, 1956)

4,720	2,150	4,740	5,830	4,780	16,200	4,850	38,700
4,725	2,850	4,750	8,220	4,790	19,100	4,880	49,800
4,730	3,730	4,760	10,800	4,800	22,100	4,917.3	64,900
4,735	4,730	4,770	13,400	4,820	28,400		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23900	14300	9550	10300	16200	13400	14000	35400	63500	64200	42900	22700
2	24000	13500	9680	10300	16200	12900	13800	37200	63600	64000	41800	22200
3	24300	12800	9790	10400	16000	12100	13900	39500	63700	63700	40900	21700
4	24000	12600	9910	10400	16000	11400	14700	41600	64000	63200	40100	21300
5	23900	12100	10000	10500	16000	10700	16100	43600	64100	63200	39300	20700
6	23500	12100	10100	10500	15400	9960	17000	45200	64100	62700	38700	20000
7	23400	11800	10300	10500	15200	8970	17600	47100	64100	62100	37900	19300
8	23100	11600	10300	10500	15100	8310	18400	51200	64100	61400	37100	18700
9	22900	11200	10400	10500	14900	7790	18900	53700	63700	60800	36200	18400
10	22600	10700	10500	10600	14900	7490	19300	55300	63400	60100	35500	18700
11	22100	10500	10600	10600	14900	7350	19900	56200	63600	59400	34700	18400
12	21600	10400	10800	10600	14900	7660	20600	56900	64000	58700	34300	18000
13	21300	10400	10700	10600	15000	8100	22800	57400	64100	57900	33900	17600
14	20900	10300	10500	10600	16300	8680	24000	57900	64000	57100	33500	17400
15	20900	10400	10300	10700	16800	9400	24500	58400	64100	56300	32800	17200
16	20600	10500	10300	10900	17000	10100	24700	58900	64000	55500	32000	17000
17	20400	10700	10400	11100	17200	10900	25000	59300	64100	54600	31400	17000
18	20000	10700	10500	11700	17200	11600	25000	60000	64200	53800	31000	16700
19	19800	10200	10500	12100	17000	12700	24900	61000	64100	52900	30300	16400
20	19100	10100	10500	12600	16900	13400	25000	62100	64200	51900	29600	15900
21	18600	9880	10300	13000	16700	13700	25200	62900	64300	51300	28800	15600
22	18100	9610	10300	13100	16400	13600	25400	63100	64200	50900	28000	15400
23	17800	8940	10400	13300	16600	13500	26200	62900	64200	50600	27300	15500
24	17500	8710	10500	14200	16100	13500	26600	63500	64200	49900	26900	15600
25	17000	8820	10600	14900	15600	13600	27200	64000	64300	49200	26100	15600
26	17000	8940	10600	15300	15000	14100	28300	63500	64300	48600	25700	15900
27	16700	9060	10700	15600	14600	14700	29900	63300	64300	47900	25300	16100
28	16100	9180	10600	15700	14200	14900	31500	63500	64300	46900	24800	16000
29	15500	9280	10500	15900	13800	14700	32500	63600	64300	45900	24300	15900
30	15000	9420	10500	16000	---	14700	33700	63400	64300	45000	24100	15800
31	14800	---	10500	16100	---	14400	---	63300	---	44000	23400	---
MAX	24300	14300	10800	16100	17200	14900	33700	64000	64300	64200	42900	22700
MIN	14800	8710	9550	10300	13800	7350	13800	35400	63400	44000	23400	15400
a	4774.81	4754.77	4758.75	4779.60	4771.43	4773.47	4835.63	4913.47	4915.85	4864.58	4804.31	4778.37
b	-9800	-5380	+1080	+5600	-2300	+600	+19300	+29600	+1000	-20300	-20600	-7600

CAL YR 1999 b -14300
WTR YR 2000 b -8800

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 mi^2.

PERIOD OF RECORD.—February 1956 to current year. Prior to October 1965, published as Middle Fork Stanislaus River at Hells Half Acre bridge.

WATER TEMPERATURE: Water years 1966–71 and 1973–78.

GAGE.—Water-stage recorder. Datum of gage is 3,418.31 ft above sea level (river-profile survey). Prior to Aug. 9, 1961, at site 1,600 ft upstream at different datum.

REMARKS.—Flow regulated by Relief Reservoir (station 11291000), Donnell Lake (station 11292600) since April 1957 and diversion around station through Donnell Powerplant (station 11292610). See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,600 ft^3/s, revised, Jan. 2, 1997, gage height, 18.02 ft, from rating curve extended above 5,200 ft^3/s on basis of slope-area measurement at gage height 12.20 ft; minimum daily, 3.3 ft^3/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 ft^3/s by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	36	25	23	104	207	294	350	916	153	39	40
2	37	35	24	23	105	209	325	352	944	55	39	46
3	37	25	23	23	102	196	380	347	966	39	38	41
4	37	23	24	23	102	206	434	339	934	36	38	42
5	37	22	23	23	96	221	437	333	1130	35	38	42
6	36	22	23	23	90	201	410	295	1140	35	43	41
7	36	22	24	23	86	177	393	439	962	41	43	40
8	36	34	23	23	85	176	396	893	1060	42	43	40
9	36	27	24	23	87	168	363	502	783	41	42	39
10	36	24	24	23	113	162	340	391	536	40	42	39
11	35	23	23	25	113	177	349	321	301	40	41	40
12	35	23	24	31	114	191	360	282	231	39	41	56
13	35	23	24	26	153	201	730	261	618	39	41	66
14	35	23	24	25	1090	238	528	246	1100	45	40	44
15	36	23	24	30	489	278	407	248	1070	45	40	42
16	36	23	23	42	340	285	349	263	1090	44	39	41
17	36	31	23	46	269	284	374	246	793	44	40	41
18	36	25	23	172	232	293	342	255	668	43	42	41
19	36	27	23	114	212	345	314	304	707	43	42	41
20	36	40	23	109	210	340	320	604	426	42	41	41
21	35	31	23	112	221	283	340	1220	344	42	41	41
22	37	27	23	70	212	275	340	2110	407	41	41	40
23	37	25	23	73	214	289	327	2340	291	40	41	40
24	37	24	23	831	190	298	327	2020	197	39	40	40
25	37	24	23	678	181	318	326	2530	117	39	40	40
26	37	23	23	324	179	342	352	2660	303	41	40	39
27	37	23	23	200	267	373	389	2230	165	41	39	40
28	46	23	23	156	237	367	371	2040	122	41	39	40
29	38	23	23	133	228	340	315	1820	130	40	39	40
30	37	23	23	123	---	334	321	1650	238	40	40	39
31	37	---	23	122	---	306	---	1280	---	39	39	---
TOTAL	1135	777	724	3672	6121	8080	11253	29171	18689	1384	1251	1262
MEAN	36.6	25.9	23.4	118	211	261	375	941	623	44.6	40.4	42.1
MAX	46	40	25	831	1090	373	730	2660	1140	153	43	66
MIN	35	22	23	23	85	162	294	246	117	35	38	39
AC-FT	2250	1540	1440	7280	12140	16030	22320	57860	37070	2750	2480	2500
a	14750	8750	2100	2360	13580	20520	40020	42220	40290	36240	29540	13300

a Diversion, in acre-feet, through Donnell Powerplant, provided by Oakdale and South San Joaquin Irrigation District.

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.7	45.7	85.5	163	166	214	296	866	1018	287	46.4	35.3
MAX	184	305	814	1856	986	738	808	3144	4512	2016	320	72.8
(WY)	1983	1984	1965	1997	1986	1986	1986	1969	1983	1995	1983	1983
MIN	12.6	7.09	8.69	13.9	12.4	13.0	19.9	29.9	16.7	12.5	11.5	12.1
(WY)	1978	1958	1959	1961	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1958 - 2000	
ANNUAL TOTAL	112219		83519			
ANNUAL MEAN	307		228		272	
HIGHEST ANNUAL MEAN					868	1983
LOWEST ANNUAL MEAN					18.4	1977
HIGHEST DAILY MEAN	3730	May 26	2660	May 26	17300	Jan 2 1997
LOWEST DAILY MEAN	22	Nov 5	22	Nov 5	3.3	Nov 9 1957
ANNUAL SEVEN-DAY MINIMUM	23	Dec 16	23	Dec 16	3.7	Nov 7 1957
INSTANTANEOUS PEAK FLOW			3160	May 25	24600	Jan 2 1997
INSTANTANEOUS PEAK STAGE			8.77	May 25	18.02	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	222600		165700		196800	
TOTAL DIVERSION (AC-FT) a	306900		263700			
10 PERCENT EXCEEDS	650		493		635	
50 PERCENT EXCEEDS	56		42		49	
90 PERCENT EXCEEDS	24		23		20	

a Diversion, in acre-feet, through Donnell Powerplant, provided by Oakdale and South San Joaquin Irrigation District.

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 Powerplant, 3.9 mi west of Strawberry, and 4.7 mi west of Pinecrest.

DRAINAGE AREA.—309 mi^2.

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 above sea level (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, is diverted at Beardsley Afterbay to J.W. Southern Powerplant at Sand Bar Flat on the Middle Fork Stanislaus River, then diverted to Stanislaus Powerplant at the head of New Melones Reservoir (station 11299000). Records, including extremes, represent contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, in connection with a Federal Energy Regulatory Commission project.

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, several days in June and July, gage height, 3,396.92 ft, July 18; minimum, 18,300 acre-ft, Jan. 17, gage height, 3,257.10 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated Oct. 3, 1956)

3,154	2	3,200	2,370	3,290	33,100
3,160	41	3,210	3,790	3,320	48,800
3,170	267	3,220	5,720	3,350	66,400
3,180	693	3,240	11,600	3,370	79,200
3,190	1,370	3,260	19,500	3,398	98,500

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76500	55600	46200	22000	23200	33700	40900	67400	97200	97600	97000	91600
2	75400	55500	45400	21400	23400	34200	41800	68200	97300	97700	97300	91300
3	74300	55500	44700	20900	23800	34900	42700	68700	97500	97700	97400	90900
4	73700	54800	43900	20300	23900	35600	43800	69400	97600	97700	97500	90400
5	72900	54400	43100	20000	23900	36400	44300	70200	97400	97400	97500	90100
6	72300	53700	42300	19800	24400	37100	45300	70900	97400	97600	97400	89900
7	71600	53200	41500	19700	24600	38000	46200	71900	97300	97600	97400	89700
8	71000	53100	41000	19500	24700	38700	47200	73800	97300	97600	97500	89400
9	70200	53500	40000	19400	24800	39100	48100	74900	97200	97700	97600	88900
10	69500	53800	39100	19200	25000	39200	49000	75800	97300	97700	97500	87700
11	69200	53900	38200	19000	25100	39300	49800	76500	97300	97700	97500	87100
12	68700	53900	37200	19000	25200	39000	50700	77100	97300	97700	97100	86600
13	68100	53800	36600	18900	25500	38600	52400	77600	97500	97700	96700	86100
14	67500	53800	35900	18700	27800	38400	53700	78200	97500	97700	96300	85100
15	66500	53500	35200	18500	28800	38200	54700	78700	97400	97700	96200	84100
16	65700	53400	34400	18400	29400	37800	55500	79300	97400	97700	96200	83200
17	64800	53200	33400	18300	29600	37200	56500	79900	97300	97700	95800	82100
18	64100	53100	32500	18400	29600	36600	57500	80400	97300	97700	95500	81200
19	63200	53300	31700	18500	29800	36100	58300	81000	97300	97700	95400	80300
20	62800	52900	30800	18500	30000	35900	59000	82200	97300	97700	95100	79600
21	62200	52500	30400	18600	30300	35700	59800	84500	97500	97600	95000	78800
22	61700	52100	29600	18600	30600	35900	60700	88400	97500	97300	95000	77800
23	60900	52100	28700	18600	30400	36300	61000	92700	97500	96900	94800	76600
24	60200	51600	27800	20300	30900	36600	61800	96200	97700	96800	94400	75400
25	59600	50800	26800	21700	31200	36900	62600	97100	97600	96700	94200	74200
26	58600	50100	26000	22200	31700	37000	63400	96800	97500	96500	93800	73000
27	57800	49300	25000	22400	32400	37300	64300	96800	97500	96300	93200	71800
28	57800	48500	24200	22600	32900	37900	65100	96900	97500	96400	92900	71200
29	57300	47800	23400	22700	33300	38800	65900	97000	97600	96600	92500	70600
30	56800	47000	22800	22900	---	39400	66600	97200	97600	96700	91900	70000
31	55900	---	22400	23100	---	40200	---	97200	---	96800	91700	---
MAX	76500	55600	46200	23100	33300	40200	66600	97200	97700	97700	97600	91600
MIN	55900	47000	22400	18300	23200	33700	40900	67400	97200	96300	91700	70000
a	3332.58	3316.75	3266.75	3268.38	3290.41	3303.93	3350.42	3396.16	3396.71	3395.56	3388.39	3355.87
b	-20800	-8900	-24600	+700	+10200	+6900	+26400	+30600	+400	-800	-5100	-21700

CAL YR 1999 b -21600
WTR YR 2000 b -6700

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 mi^2.

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 above sea level (river-profile survey).

REMARKS.—Diversion from Beardsley Afterbay Dam, 0.5 mi upstream, to J.W. Southern Powerplant (station 11292860) at Sand Bar Flat 3 mi downstream, began May 31, 1986. Flow regulated by Relief Reservoir (station 11291000) since 1909, Donnell Lake (station 11292600) since April 1957, and by Beardsley Lake (station 11292800) since January 1957. See schematic diagram of Stanislaus River Basin. For records of combined discharge for river and powerplant, see station 11292901.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—River only, maximum discharge, 28,200 ft^3/s, from rating curve extended above 5,400 ft^3/s, on basis of spillway computation at Beardsley Dam, Jan. 2, 1997, gage height, 19.31 ft; minimum daily, 3.0 ft^3/s, Oct. 10, 11, 1958.
Combined flow, maximum daily discharge, 23,100 ft^3/s, Jan. 2, 1997; minimum daily 25 ft^3/s, Oct. 23, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	140	140	142	141	138	140	140	1010	274	143	143
2	143	141	140	142	140	139	140	138	987	169	143	142
3	145	137	141	142	140	139	141	137	942	159	142	143
4	145	140	141	142	140	140	139	139	977	159	142	142
5	146	140	141	140	140	138	140	139	1320	152	143	143
6	145	140	141	141	140	139	140	140	1220	150	143	142
7	143	141	141	141	140	139	140	140	1100	144	143	143
8	144	140	142	142	140	139	141	141	1180	143	143	143
9	144	138	141	142	141	137	140	141	921	143	143	142
10	144	139	141	141	140	140	141	139	649	143	144	143
11	144	138	142	141	138	140	141	141	428	142	143	142
12	145	137	140	142	140	141	140	140	347	143	143	142
13	144	137	141	142	143	141	137	141	640	142	144	142
14	144	137	142	142	142	139	139	139	1120	143	144	141
15	144	137	143	142	138	140	139	139	1250	144	144	142
16	143	137	142	141	140	141	140	139	1170	144	141	142
17	145	139	141	140	138	141	135	140	912	144	142	141
18	145	141	140	138	141	138	137	138	803	144	142	141
19	143	140	140	138	140	139	141	140	783	144	142	141
20	144	140	140	138	141	139	141	138	529	144	142	141
21	144	140	141	137	140	141	141	138	364	142	142	142
22	145	140	142	140	140	140	140	139	537	143	143	143
23	144	141	142	142	138	139	138	138	404	142	143	143
24	143	143	139	141	142	139	140	283	203	143	142	143
25	143	141	142	139	139	139	140	2060	236	143	142	142
26	142	140	142	139	139	140	140	2620	493	142	142	143
27	141	140	141	140	141	140	138	2130	258	143	143	142
28	140	140	141	140	139	139	137	1950	234	143	141	142
29	141	140	139	140	138	139	140	1750	218	143	143	142
30	140	140	141	141	---	140	140	1510	320	143	143	141
31	140	---	142	142	---	140	---	1250	---	142	142	---
TOTAL	4446	4184	4372	4360	4059	4323	4186	16757	21555	4639	4422	4264
MEAN	143	139	141	141	140	139	140	541	718	150	143	142
MAX	146	143	143	142	143	141	141	2620	1320	274	144	143
MIN	140	137	139	137	138	137	135	137	203	142	141	141
AC-FT	8820	8300	8670	8650	8050	8570	8300	33240	42750	9200	8770	8460
a	38860	10920	28430	5060	18020	21600	37020	40380	36470	37100	38360	38480

a Diversion, in acre-feet, through Beardsley Powerplant (station 11292820).

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1985, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	396	410	449	432	478	494	588	1271	1607	819	523	488
MAX	651	1064	1322	1035	1322	1307	1378	3754	5325	2420	958	690
(WY)	1984	1983	1984	1984	1980	1983	1982	1969	1983	1983	1983	1983
MIN	23.3	19.9	18.8	18.9	21.0	22.4	180	168	348	77.5	44.5	39.5
(WY)	1977	1977	1977	1977	1977	1977	1957	1960	1976	1977	1977	1977

SUMMARY STATISTICS	WATER YEARS 1957 - 1985	
ANNUAL MEAN	671	
HIGHEST ANNUAL MEAN	1507	1983
LOWEST ANNUAL MEAN	111	1977
HIGHEST DAILY MEAN	8630	May 30 1983
LOWEST DAILY MEAN	3.0	Oct 10 1958
ANNUAL SEVEN-DAY MINIMUM	5.0	Jan 16 1957
INSTANTANEOUS PEAK FLOW	9080	May 30 1983
INSTANTANEOUS PEAK STAGE	12.30	May 30 1983
ANNUAL RUNOFF (AC-FT)	485800	
10 PERCENT EXCEEDS	1270	
50 PERCENT EXCEEDS	500	
90 PERCENT EXCEEDS	110	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	113	117	115	263	154	195	207	701	927	371	125	115
MAX	152	172	154	2227	398	625	607	1973	3266	1960	269	151
(WY)	1998	1999	1990	1997	1997	1996	1995	1995	1995	1995	1995	1998
MIN	54.8	54.4	53.9	53.1	55.1	58.7	135	59.1	57.6	57.3	55.8	56.8
(WY)	1991	1991	1995	1995	1991	1991	1991	1994	1994	1994	1988	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	117060		81567			
ANNUAL MEAN	321		223		284	
HIGHEST ANNUAL MEAN					735	1995
LOWEST ANNUAL MEAN					76.6	1988
HIGHEST DAILY MEAN	3780	May 27	2620	May 26	23100	Jan 2 1997
LOWEST DAILY MEAN	136	May 1	135	Apr 17	25	Oct 23 1986
ANNUAL SEVEN-DAY MINIMUM	137	May 5	137	Nov 10	44	Jan 19 1995
INSTANTANEOUS PEAK FLOW			3210	May 25	28200	Jan 2 1997
INSTANTANEOUS PEAK STAGE			8.77	May 25	19.31	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	232200		161800		205600	
TOTAL DIVERSION (AC-FT) a	393300		350700		298000	
10 PERCENT EXCEEDS	695		235		532	
50 PERCENT EXCEEDS	144		141		144	
90 PERCENT EXCEEDS	140		139		57	

a Diversion, in acre-feet, through Beardsley Powerplant (station 11292820).

11292901 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CA—Continued

MIDDLE FORK STANISLAUS RIVER AND J.W. SOUTHERN POWERPLANT BELOW BEARDSLEY DAM

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	702	530	449	332	141	489	766	784	1670	923	662	689
2	698	513	447	334	140	486	767	791	1650	754	653	690
3	691	513	448	333	140	487	768	788	1600	776	658	686
4	692	513	443	332	220	487	766	791	1640	794	648	683
5	667	511	450	207	252	491	768	795	1980	506	658	689
6	696	515	446	141	246	488	765	797	1870	645	659	697
7	701	514	449	141	247	468	773	796	1760	712	657	693
8	684	266	280	142	247	481	775	799	1840	739	658	708
9	683	138	536	142	248	477	773	733	1580	715	658	648
10	679	139	529	141	247	481	776	795	1300	728	655	711
11	678	138	532	141	245	478	775	800	1080	754	656	715
12	677	137	529	142	251	472	771	798	1010	755	653	723
13	675	137	530	142	257	466	768	796	1300	754	654	727
14	677	137	531	142	299	449	773	794	1780	756	658	721
15	671	137	530	142	313	483	769	792	1790	761	655	724
16	670	137	529	141	389	620	772	799	1820	759	657	719
17	667	139	529	140	455	738	767	802	1560	760	663	715
18	667	141	530	138	448	735	765	800	1450	759	663	713
19	666	304	529	138	469	736	766	799	1430	760	664	711
20	663	472	530	138	473	742	764	799	1150	758	664	709
21	662	456	371	137	474	764	770	799	1010	711	662	707
22	661	461	530	140	483	759	768	798	1190	351	671	705
23	658	460	532	142	279	757	762	798	1060	616	669	701
24	654	453	535	141	483	764	761	945	853	678	667	699
25	653	453	532	139	486	765	765	2720	887	656	666	695
26	653	451	531	139	487	767	774	3280	1140	662	670	690
27	651	448	531	140	485	766	763	2790	906	661	672	688
28	651	441	532	140	501	766	755	2610	883	664	676	582
29	646	454	538	140	497	766	757	2410	867	661	674	536
30	647	451	400	141	---	767	757	2170	967	664	678	540
31	667	---	333	142	---	768	---	1910	---	655	685	---
TOTAL	20807	10559	15141	5190	9902	19163	23019	37078	41023	21847	20543	20614
MEAN	671	352	488	167	341	618	767	1196	1367	705	663	687
MAX	702	530	538	334	501	768	776	3280	1980	923	685	727
MIN	646	137	280	137	140	449	755	733	853	351	648	536
AC-FT	41270	20940	30030	10290	19640	38010	45660	73540	81370	43330	40750	40890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2000, BY WATER YEAR (WY)

MEAN	396	278	401	435	405	550	622	1170	1468	855	582	507
MAX	671	538	656	2608	1007	1560	1448	2554	3874	2504	805	702
(WY)	2000	1987	1997	1997	1997	1986	1986	1995	1998	1995	1995	1999
MIN	57.6	58.1	55.8	55.3	55.1	58.7	146	72.7	208	444	471	124
(WY)	1989	1989	1989	1989	1991	1991	1988	1990	1987	1994	1994	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1986 - 2000	
ANNUAL TOTAL	294214		244886			
ANNUAL MEAN	806		669		640	
HIGHEST ANNUAL MEAN					1165	1995
LOWEST ANNUAL MEAN					221	1988
HIGHEST DAILY MEAN	4430	May 27	3280	May 26	23100	Jan 2 1997
LOWEST DAILY MEAN	137	Nov 12	137	Nov 12	25	Oct 23 1986
ANNUAL SEVEN-DAY MINIMUM	137	Nov 10	137	Nov 10	27	Nov 12 1985
ANNUAL RUNOFF (AC-FT)	583600		485700		463700	
10 PERCENT EXCEEDS	1340		884		1240	
50 PERCENT EXCEEDS	664		664		504	
90 PERCENT EXCEEDS	452		142		65	

11293200 MIDDLE FORK STANISLAUS RIVER BELOW SAND BAR DIVERSION DAM, CA

LOCATION.—Lat 38°10'59", long 120°09'28", in NW 1/4 SE 1/4 sec.24, T.4 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank, 100 ft downstream from Sand Bar Diversion Dam, and 8.5 mi west of Strawberry.

DRAINAGE AREA.—332 mi^2.

PERIOD OF RECORD.—October 1985 to current year (low-flow records only). Unpublished records for water years 1970, 1971, and 1976–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and sharp-crested weir since February 1986. Elevation of gage is 2,700 ft above sea level, from topographic map.

REMARKS.—No records computed above 70 ft^3/s. Flow regulated by Relief Reservoir and Donnell and Beardsley Lakes (stations 11291000, 11292600, and 11292800). Most of the water is diverted at Sand Bar Diversion Dam for use at Stanislaus Powerplant (station 11295505). See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	57	---	29	25	59	---	---	---	---	---	---
2	---	40	---	29	25	52	---	---	---	---	---	---
3	---	38	---	29	25	49	---	---	---	---	---	---
4	---	38	---	29	27	51	---	---	---	---	---	---
5	---	37	---	29	27	61	---	---	---	---	---	---
6	---	38	---	29	27	51	---	---	---	---	---	---
7	---	40	---	29	26	37	---	---	---	---	---	---
8	---	66	---	29	26	38	---	---	---	---	---	---
9	---	61	39	28	26	30	---	---	---	---	---	---
10	---	60	37	28	26	32	---	---	---	---	---	---
11	---	60	40	28	27	35	---	---	---	---	---	---
12	---	59	38	28	27	36	---	---	---	---	---	---
13	---	59	38	27	35	49	---	---	---	---	---	---
14	---	58	39	27	---	---	---	---	---	---	---	---
15	---	58	39	27	27	---	---	---	---	---	---	---
16	---	57	39	26	27	---	---	---	---	---	---	---
17	---	69	36	26	28	---	---	---	---	---	---	---
18	---	---	38	27	27	---	---	---	---	---	---	---
19	---	---	36	28	27	---	---	---	---	---	---	---
20	---	---	38	28	28	---	---	---	---	---	---	---
21	---	---	35	28	28	---	---	---	---	---	---	---
22	---	---	35	28	34	---	---	---	---	---	---	---
23	---	---	31	29	30	---	---	---	---	---	---	---
24	---	---	31	36	29	---	---	---	---	---	---	---
25	---	---	32	34	29	---	---	---	---	---	---	---
26	---	---	30	30	28	---	---	---	---	---	---	---
27	---	---	30	29	---	---	---	---	---	---	---	---
28	---	---	31	29	---	---	---	---	---	---	---	---
29	---	---	29	29	---	---	---	---	---	---	---	54
30	---	---	29	28	---	---	---	---	---	---	---	54
31	---	---	29	27	---	---	---	---	---	---	---	---
TOTAL	---	---	---	887	---	---	---	---	---	---	---	---
MEAN	---	---	---	28.6	---	---	---	---	---	---	---	---
MAX	---	---	---	36	---	---	---	---	---	---	---	---
MIN	---	---	---	26	---	---	---	---	---	---	---	---
AC-FT	---	---	---	1760	---	---	---	---	---	---	---	---
a	30440	7140	22140	11030	22020	31120	30180	31250	29940	31250	30930	29900

CAL YR 1999 a 330200
WTR YR 2000 a 307400

a Diversion, in acre-feet, through Stanislaus Powerplant, provided by Pacific Gas & Electric Co.

11293350 UNION RESERVOIR NEAR BIG MEADOWS, CA

LOCATION.—Lat 38°25'50", long 119°59'47", unsurveyed, T.7 N., R.18 E., Alpine County, Hydrologic Unit 18040010, Stanislaus National Forest, at outlet structure on upstream face of Union Dam on North Fork Stanislaus River, and 6.4 mi east of Big Meadows.

DRAINAGE AREA.—13.8 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1981–86 available in files of the U.S. Geological Survey.

GAGE.—Nonrecording gage, observed intermittently in the summer months. Datum of gage is 6,823.4 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete and rock dam completed in 1902. Usable capacity, 3,130 acre-ft between gage heights –1.9 ft, invert of outlet, and 26.9 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by the Northern California Power Association, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1954)

0	4	20	1,756
5	81	25	2,754
10	359	27.6	3,283
15	938		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	1510	---	578	---	---	---	---	---	---	---	---
4	1990	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	685	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	2540	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	1900	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	2070
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	2470	---
15	---	1150	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	3110	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	1990
19	1790	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	3130	2870	---	---
21	---	---	---	---	---	---	---	---	---	---	2360	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	3150	---	---	---	---
27	---	---	---	---	---	---	---	---	3100	---	---	---
28	---	---	---	---	---	---	---	---	---	2700	---	---
29	---	---	---	---	---	---	---	---	3110	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11293370 UTICA RESERVOIR NEAR BIG MEADOWS, CA

LOCATION.—Lat 38°26'26", long 120°00'08", unsurveyed, T.7 N., R.18 E., Alpine County, Hydrologic Unit 18040010, Stanislaus National Forest, at outlet structure on upstream face of Utica Dam on North Fork Stanislaus River, 1.2 mi upstream from Silver Creek, 2.6 mi southeast of Bear Valley, and 6.2 mi west of Big Meadows.

DRAINAGE AREA.—15.2 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1981–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder since Oct. 1, 1999. Datum of gage is 6,776.75 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete and rock dam completed in 1910. Usable capacity, 2,334 acre-ft between gage heights 0.7 ft, invert of outlet, and 42.5 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by the Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 2,545 acre-ft, May 8, 2000, gage height, 43.57 ft; minimum, 410 acre-ft, Jan. 14, 15, 2000, gage height, 30.74 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas and Electric Co. in 1954)

0.7	0	30	356
10	19	35	858
20	65	40	1,763
25	127	43	2,456

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1953	1548	896	504	668	969	2276	2520	2484	2351	2231	2019
2	1953	1508	828	495	668	969	2456	2522	2479	2341	2229	2030
3	1953	1498	828	485	670	969	2490	2522	2484	2332	2222	2030
4	1953	1474	744	475	670	969	2501	2518	2484	2332	2213	2028
5	1917	1456	683	471	670	969	2495	2507	2479	2322	2210	2023
6	1906	1446	683	463	670	984	2490	2486	2476	2322	2203	2028
7	1908	1426	683	455	670	989	2498	2533	2465	2319	2193	2028
8	1906	1434	683	446	674	1001	2486	2545	2465	2315	2184	2021
9	1906	1414	683	437	674	1004	2476	2495	2459	2319	2174	2021
10	1899	1403	683	433	686	1004	2484	2478	2454	2319	2162	2019
11	1888	1385	683	427	689	1011	2492	2467	2454	2315	2165	2019
12	1893	1376	683	427	702	1020	2503	2467	2462	2295	2155	e2001
13	1879	1366	628	418	730	1031	2503	2470	2467	2293	2148	e1994
14	1873	1343	623	410	811	1050	2478	2467	2476	2291	2143	1990
15	1857	1324	623	410	839	1076	2462	2467	2472	2283	2136	1987
16	1855	1303	623	413	854	1103	2462	2462	2459	2281	2129	1985
17	1853	1279	623	417	869	1129	2462	2472	2444	2274	2120	1978
18	1844	1243	623	458	869	1158	2446	2498	2431	2274	2108	1976
19	1838	1235	623	502	885	1191	2446	2520	2424	2274	2099	1972
20	1805	1209	623	566	885	1218	2461	2528	2412	2267	2094	1969
21	1782	1175	623	595	885	1230	2473	2537	2402	2262	2076	1962
22	1759	1137	570	601	899	1246	2472	2531	2387	2257	2071	1958
23	1737	1105	570	613	915	1266	2482	2509	2377	2272	2062	1953
24	1690	1070	570	645	915	1288	2486	2539	2370	2272	2057	1951
25	1666	1039	570	653	915	1326	2498	2525	2356	2272	2055	1949
26	1654	1009	570	658	915	1370	2520	2509	2351	2272	2046	1940
27	1631	972	570	658	947	1434	2520	2518	2356	2272	2044	1931
28	1641	e946	570	658	947	1633	2486	2473	2341	2272	2037	1924
29	1619	e921	521	658	969	1825	2490	2473	2348	2245	2023	1913
30	1598	e896	521	670	---	2003	2515	2473	2365	2245	2019	1906
31	1576	---	521	668	---	2136	---	2479	---	2245	2019	---
MAX	1953	1548	896	670	969	2136	2520	2545	2484	2351	2231	2030
MIN	1576	896	521	410	668	969	2276	2462	2341	2245	2019	1906
a	39.11		32.03	33.47	35.76	41.67	43.38	43.15	42.61	42.13	41.16	40.66
b		-680	-375	+147	+301	+1167	+379	-36	-114	-120	-226	-113

WTR YR 2000 MAX 2545 MIN 410

e Estimated.
a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11293460 LAKE ALPINE NEAR BIG MEADOWS, CA

LOCATION.—Lat 38°28'17", long 120°00'10", in NE 1/4 SW 1/4 sec.9, T.7 N., R.18 E., Alpine County, Hydrologic Unit 18040010, Stanislaus National Forest, at outlet structure on upstream face of Lake Alpine Dam on Silver Creek and 7.2 mi northeast of Big Meadows.

DRAINAGE AREA.—5.34 mi^2.

PERIOD OF RECORD.—October 1986 to current year. Unpublished records for water years 1981–86 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder since October 1, 1999. Elevation of gage is 7,260.07 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed on natural lake by concrete and rock dam completed in 1906. Usable capacity, 4,117 acre-ft between gage heights 0.0 ft, invert of outlet, and 42.07 ft, crest of spillway. Figures given represent usable contents. Released water is used for hydroelectric power and irrigation downstream. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 4,163 acre-ft, May 7, 8, 2000, gage height, 42.79 ft; minimum, 1,907 acre-ft, Mar. 13, 14, 2000, gage height, 27.66 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas and Electric Co. in 1948)

0	0	25	1,564
5	41	30	2,229
10	208	35	2,962
15	533	40	3,765
20	990	43	4,279

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3162	2770	2530	2156	2062	1982	2117	4151	4108	4020	3632	3276
2	3162	2755	2517	2156	2047	1969	2150	4151	4108	3998	3624	3280
3	3162	2748	2517	2143	2039	1954	2206	4151	4108	3986	3613	3274
4	3090	2732	2517	2128	2039	1954	2291	4151	4108	3976	3603	3263
5	3079	2724	2481	2116	2025	1940	2370	4148	4108	3936	3586	3253
6	3065	2715	2481	2106	2011	1938	2446	4136	4108	3936	3575	3239
7	3040	2702	2481	2093	2011	1932	2530	4163	4108	3942	3561	3226
8	3029	2709	2481	2079	1995	1936	2607	4163	4108	3936	3547	3217
9	3018	2697	2481	2063	1995	1932	2667	4143	4108	3922	3535	3206
10	3006	2686	2481	2058	1984	1926	2726	4134	4108	3936	3520	3195
11	2992	2676	2410	2047	1982	1917	2804	4127	4108	3936	3509	3187
12	2982	2667	2410	2050	1990	1911	2896	4127	4108	3894	3496	3174
13	2968	2656	2410	2036	2017	1907	3063	4127	4108	3894	3483	3165
14	2956	2643	2377	2036	2024	1907	3131	4127	4108	3894	3470	3152
15	2942	2637	2377	2036	2024	1911	3171	4127	4103	3847	3457	3145
16	2933	2637	2377	2032	2024	1912	3206	4122	4103	3894	3445	3132
17	2916	2629	2377	2039	2010	1915	3247	4108	4103	3894	3432	3126
18	2902	2619	2377	2055	2010	1917	3272	4108	4103	3812	3417	3112
19	2890	2616	2377	2054	1995	1932	3288	4108	4103	3812	3405	3142
20	2885	2616	2308	2055	1982	1946	3312	4108	4103	3812	3392	3096
21	2871	2604	2308	2052	1982	1943	3349	4108	4103	3812	3376	3084
22	2855	2595	2308	2047	1982	1943	3396	4108	4103	3812	3362	3073
23	2855	2584	2308	2055	1982	1951	3446	4108	4103	3748	3350	3065
24	2838	2575	2308	2084	1982	1958	3507	4108	4103	3812	3337	3051
25	2825	2565	2240	2102	1969	1970	3590	4108	4103	3729	3326	3040
26	2819	2556	2240	2097	1969	1993	3709	4108	4103	3729	3317	3028
27	2802	2546	2240	2090	1982	2015	3867	4108	4103	3729	3306	3018
28	2816	2603	2240	2075	1982	2037	3986	4108	4020	3729	3294	3008
29	2801	2536	2240	2075	1982	2062	4081	4108	4020	3669	3287	2994
30	2801	2530	2240	2061	---	2084	4144	4108	4020	3729	3280	2983
31	2784	---	2171	2062	---	2098	---	4124	---	3642	3272	---
MAX	3162	2770	2530	2156	2062	2098	4144	4163	4108	4020	3632	3280
MIN	2784	2530	2171	2032	1969	1907	2117	4108	4020	3642	3272	2983
a	33.84	32.11	29.59	28.80	28.21	29.05	42.23	42.02	41.51	39.28	37.00	35.14
b		-254	-359	-109	-80	+116	+2046	-20	-104	-378	-370	-289

WTR YR 2000 MAX 4163 MIN 1907

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

11293590 NORTH FORK STANISLAUS RIVER DIVERSION RESERVOIR NEAR BIG MEADOWS, CA

LOCATION.—Lat 38°26'18", long 120°01'00", unsurveyed, T.7 N., R.18 E., Alpine County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank of diversion dam on North Fork Stanislaus River, 5.6 mi southeast of Big Meadows.

PERIOD OF RECORD.—February 1990 to current year. Contents less than 12 acre-ft and end of month elevations for November 1990 to March 1991 published in WDR CA-91-3 are unreliable and should not be used.

REVISED RECORD.—WDR CA-92-3: 1991.

GAGE.—Water-stage recorder. Prior to Sept. 14, 1990, contents estimated on basis of periodic observations of nonrecording gage. Datum of gage is sea level (levels by Calaveras County Water District).

REMARKS.—Reservoir is formed by gravity-type concrete dam completed in October 1987. Capacity, 120 acre-ft between elevations 6,672.0 ft, sill of emergency release gate, and 6,695.0 ft, crest of spillway. Reservoir is used for power development and fishery enhancement. Flow is diverted through tunnel to New Spicer Meadow Reservoir (station 11293770). Records, including extremes, represent total contents at 2400 hours. Elevations below 6,678.9 ft are not recorded. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 212 acre-ft, Jan. 1, 1997, elevation, 6,699.6 ft; minimum, 4 acre-ft, many days in October 1999.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 133 acre-ft, May 7, elevation, 6,695.73 ft; minimum, 4 acre-ft, many days in October 1999.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Calaveras County Water District in July 1989)

6,679	11	6,690	65	6,696	140
6,685	32	6,695	120		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 2400 HOURS

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e18	11	55	29	31	38	45	87	91	46	12	18
2	e18	30	52	29	31	40	44	66	76	45	13	18
3	e18	36	55	29	34	40	44	58	61	43	15	18
4	e18	37	51	29	35	38	43	58	58	42	16	18
5	e16	38	50	29	33	37	45	77	64	40	15	19
6	e13	39	48	29	32	36	44	114	82	39	16	20
7	e14	41	48	29	34	35	43	120	68	37	16	20
8	e30	42	48	28	35	35	44	107	64	35	16	20
9	e32	43	48	28	36	34	43	102	63	33	16	21
10	e32	44	48	29	34	33	42	105	70	31	17	21
11	e32	45	49	29	34	33	42	137	77	30	16	22
12	e32	45	50	29	34	35	43	131	80	29	14	22
13	e32	46	49	30	34	38	49	106	85	34	14	23
14	e32	46	48	29	33	38	53	90	87	35	14	24
15	e33	45	49	35	32	36	59	87	84	33	14	24
16	33	51	53	38	33	38	64	98	77	30	14	25
17	34	53	40	44	33	41	70	123	73	29	14	26
18	34	53	36	44	34	43	77	108	66	27	15	27
19	35	53	33	40	32	42	83	116	62	24	16	28
20	35	53	31	40	33	40	85	123	60	21	17	21
21	35	53	30	38	32	43	70	130	59	19	17	12
22	35	54	29	37	31	44	62	136	62	17	16	12
23	35	58	29	35	32	46	60	138	64	15	16	12
24	36	50	29	35	33	45	64	119	61	15	17	12
25	36	49	28	34	33	50	80	133	54	14	18	12
26	36	48	28	33	32	54	78	132	51	14	18	12
27	29	48	28	32	34	55	84	130	49	13	17	13
28	11	48	28	32	36	53	64	127	48	13	17	15
29	11	52	29	32	---	50	57	96	48	13	17	16
30	11	68	29	31	---	48	68	119	47	13	17	11
31	11	---	29	31	---	47	---	100	---	12	17	---
MAX	36	68	55	44	36	55	85	138	91	46	18	28
MIN	11	11	28	28	31	33	42	58	47	12	12	11
a	6678.93	6690.24	6684.27	6684.90	6685.63	6687.36	6690.25	6693.24	6687.30	6679.70	6681.14	6678.94
b	-7	+57	-39	+2	+5	+11	+21	+32	-53	-35	+5	-6

CAL YR 1998 MAX 152 MIN 11 b +9
WTR YR 1999 MAX 138 MIN 11 b -7

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

11293590 NORTH FORK STANISLAUS RIVER DIVERSION RESERVOIR NEAR BIG MEADOWS, CA—Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4	29	124	15	28	29	40	124	60	24	14	12
2	e4	31	124	15	29	29	51	104	59	22	14	13
3	e4	41	124	15	29	29	68	103	59	19	15	11
4	e4	53	124	15	29	30	80	100	60	16	16	11
5	e4	63	124	14	29	30	73	93	59	14	18	11
6	e4	72	124	15	29	29	69	70	55	12	24	12
7	e4	86	87	14	29	29	74	133	124	12	e16	12
8	e4	97	20	14	30	29	66	130	128	12	e11	12
9	e4	106	17	14	30	28	58	80	58	12	e11	12
10	e4	116	23	14	29	29	74	67	47	12	e10	12
11	e4	123	25	15	29	30	78	59	46	12	e10	12
12	e4	123	26	14	29	32	93	57	46	11	e10	12
13	e4	124	21	14	30	33	98	58	49	11	e10	12
14	e4	124	15	14	38	36	64	58	48	11	e9	12
15	e4	125	14	16	33	35	55	61	46	11	e9	12
16	e4	126	13	17	31	35	55	59	45	11	e10	12
17	e4	124	13	21	30	34	56	62	41	12	e10	11
18	e4	125	13	36	30	38	46	80	40	12	e10	12
19	16	125	13	36	29	39	47	97	39	12	e10	12
20	28	126	14	39	29	34	55	106	36	12	e10	12
21	29	124	14	32	29	31	62	113	35	12	e10	12
22	e4	124	14	30	29	34	62	103	33	12	11	12
23	e4	124	14	29	29	35	72	85	31	12	11	12
24	e4	124	15	28	29	37	72	115	30	12	11	12
25	e4	124	15	29	29	39	83	101	28	12	11	12
26	25	124	15	29	29	41	97	84	27	11	11	14
27	29	124	15	29	29	40	108	89	25	11	11	14
28	28	124	15	28	29	39	76	80	23	12	11	15
29	28	124	15	28	29	40	78	74	21	12	11	14
30	29	124	15	28	---	36	110	66	23	12	11	14
31	29	---	15	28	---	35	---	61	---	13	11	---
MAX	29	126	124	39	38	41	110	133	128	24	24	15
MIN	4	29	13	14	28	28	40	57	21	11	9	11
a	6684.26	6695.23	6680.55	6683.96	6684.29	6685.56	6694.19	6689.43	6682.81	6680.05	6679.00	6680.46
b	+18	+95	-109	+13	+1	+6	+75	-49	-38	-10	-2	+3

CAL YR 1999 MAX 138 MIN 4 b -15
WTR YR 2000 MAX 133 MIN 4 b +3

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

11293600 NORTH FORK STANISLAUS RIVER BELOW DIVERSION DAM, NEAR BIG MEADOWS, CA

LOCATION.—Lat 38°26'04", long 120°01'04", unsurveyed, T.7 N., R.18 E., Calaveras County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank, 0.3 mi downstream from diversion dam, and 5.6 mi northeast of Big Meadows.

DRAINAGE AREA.—28.8 mi^2.

PERIOD OF RECORD.—October 1987 to current year.

REVISED RECORDS.—WDR CA-89-3: 1988 (M).

GAGE.—Water-stage recorder, crest-stage gage, and artificial control. Elevation of gage is 6,640 ft above sea level, from topographic map.

REMARKS.—Low and medium flow regulated by Union and Utica Reservoirs and Lake Alpine (stations 11293350, 11293370, and 11293460). Diversion upstream from station at North Fork Stanislaus River Diversion Reservoir (station 11293590) through North Fork Stanislaus River Diversion Tunnel (station 11293580) and into New Spicer Meadow Reservoir (station 11293770), for hydroelectric power generation. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,220 ft^3/s, May 16, 1996, gage height 7.92 ft, from rating curve extended above 120 ft^3/s on basis of computation of peak flow over diversion dam; minimum daily, 2.3 ft^3/s, Oct. 18–20, 22, 23, 1992.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e16	12	25	16	17	18	21	23	23	19	9.4	11
2	e16	11	23	16	17	18	19	23	23	18	9.6	11
3	e14	17	24	16	17	18	19	21	22	18	11	11
4	e12	18	23	e16	17	18	19	20	20	18	11	11
5	e12	20	23	e16	17	18	19	22	20	18	11	12
6	e10	21	23	e16	17	17	19	25	21	17	11	12
7	12	21	22	e16	17	17	19	35	22	17	11	12
8	16	21	22	16	17	17	19	26	21	17	11	12
9	17	21	22	16	18	17	20	25	21	17	12	12
10	17	22	22	16	19	17	18	25	21	16	12	12
11	17	22	22	16	17	17	18	71	21	16	11	12
12	17	22	23	16	17	17	18	92	22	18	11	12
13	17	22	23	16	17	17	19	44	22	20	11	12
14	17	22	22	16	17	18	20	24	22	21	11	12
15	17	22	e21	17	17	17	21	23	22	21	10	12
16	17	22	20	18	17	17	22	24	22	21	10	12
17	17	23	19	18	17	18	22	27	21	16	10	12
18	17	23	18	20	17	18	23	36	21	16	11	12
19	17	23	17	18	17	18	24	25	21	15	11	12
20	17	23	17	18	17	18	24	33	20	14	11	16
21	17	23	16	18	17	18	23	52	20	13	11	15
22	17	24	16	18	17	18	22	105	20	12	11	12
23	17	27	16	18	17	19	21	136	21	12	11	11
24	18	24	16	17	17	19	21	75	21	11	11	11
25	18	23	16	17	17	19	23	76	20	11	12	11
26	18	23	16	17	17	20	23	72	19	11	12	11
27	17	22	16	17	17	20	24	72	19	10	11	10
28	24	22	16	17	17	20	22	45	19	10	11	10
29	11	23	16	17	---	20	21	29	19	10	11	11
30	11	32	16	17	---	19	21	24	19	10	11	17
31	11	---	16	17	---	19	---	24	---	9.9	11	---
TOTAL	491	651	607	523	479	561	624	1354	625	472.9	339.0	359
MEAN	15.8	21.7	19.6	16.9	17.1	18.1	20.8	43.7	20.8	15.3	10.9	12.0
MAX	24	32	25	20	19	20	24	136	23	21	12	17
MIN	10	11	16	16	17	17	18	20	19	9.9	9.4	10
AC-FT	974	1290	1200	1040	950	1110	1240	2690	1240	938	672	712
a	422	2020	2480	359	225	1960	8470	31610	13130	454	0	0

e Estimated.
a Diversion, in acre-feet, to New Spicer Meadows Reservoir, provided by Northern California Power Agency.

11293600 NORTH FORK STANISLAUS RIVER BELOW DIVERSION DAM, NEAR BIG MEADOWS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.9	16.8	13.2	16.3	16.8	22.2	32.8	43.4	29.1	15.6	12.8	15.6
MAX	20.2	42.2	25.6	39.3	25.3	42.5	99.6	106	98.7	28.1	22.8	26.5
(WY)	1989	1990	1997	1997	1996	1988	1988	1996	1995	1989	1988	1988
MIN	10.1	7.01	3.19	3.80	4.85	16.2	18.8	18.0	9.68	5.45	5.32	5.48
(WY)	1993	1991	1991	1991	1991	1991	1991	1992	1992	1988	1989	1989

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	8030.2		7085.9			
ANNUAL MEAN	22.0		19.4		20.9	
HIGHEST ANNUAL MEAN					32.6	1995
LOWEST ANNUAL MEAN					13.0	1991
HIGHEST DAILY MEAN	297	Jun 7	136	May 23	1840	May 16 1996
LOWEST DAILY MEAN	8.9	Aug 10	9.4	Aug 1	2.3	Oct 18 1992
ANNUAL SEVEN-DAY MINIMUM	9.6	Sep 19	9.8	Jul 27	2.3	Oct 17 1992
INSTANTANEOUS PEAK FLOW			904	May 12	3220	May 16 1996
INSTANTANEOUS PEAK STAGE			5.64	May 12	7.92	May 16 1996
ANNUAL RUNOFF (AC-FT)	15930		14050		15110	
ANNUAL DIVERSION (AC-FT) a	83910		61130			
10 PERCENT EXCEEDS	26		23		27	
50 PERCENT EXCEEDS	18		17		17	
90 PERCENT EXCEEDS	10		11		7.2	

a Diversion, in acre-feet, to New Spicer Meadows Reservoir, provided by Northern California Power Agency.

11293600 NORTH FORK STANISLAUS RIVER BELOW DIVERSION DAM, NEAR BIG MEADOWS, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	23	38	13	19	19	24	37	20	18	11	10
2	11	23	38	13	20	19	26	49	21	18	11	12
3	11	21	40	13	20	19	30	29	21	17	11	11
4	11	20	39	13	20	20	32	28	21	15	11	9.5
5	12	21	39	13	20	20	31	28	21	14	9.6	9.3
6	11	21	38	13	20	20	31	28	21	13	8.3	9.6
7	11	21	49	13	20	19	31	51	27	12	15	9.9
8	11	23	50	13	20	19	31	303	130	12	14	10
9	11	22	16	13	20	19	29	35	81	11	11	9.9
10	11	22	10	13	20	19	30	28	24	11	11	9.8
11	11	24	12	13	20	20	30	26	23	11	11	9.7
12	11	28	13	12	20	20	31	25	23	11	11	9.8
13	11	28	17	12	20	21	60	24	23	11	11	9.8
14	11	28	16	12	24	21	32	24	23	11	11	9.8
15	11	33	14	13	21	21	30	24	22	10	11	9.8
16	11	41	13	14	21	21	29	24	22	10	11	9.9
17	11	45	13	15	20	21	31	23	21	10	11	9.8
18	11	40	13	22	20	21	28	23	21	10	11	9.6
19	12	42	13	22	20	22	27	25	21	10	11	9.8
20	20	50	13	23	20	21	28	26	20	10	11	9.8
21	23	42	13	21	20	21	29	26	20	10	11	9.8
22	36	39	13	20	20	23	30	26	20	10	10	10
23	28	39	13	20	20	24	30	26	20	10	11	10
24	28	38	13	20	20	24	30	26	20	10	10	10
25	26	38	13	20	20	25	31	26	20	10	9.9	10
26	18	39	13	20	19	25	32	24	19	9.6	9.8	11
27	22	38	13	20	20	25	33	24	19	9.3	9.8	12
28	27	37	13	20	20	25	33	23	18	9.4	9.7	12
29	25	37	13	20	19	25	32	22	17	10	9.7	12
30	24	37	13	20	---	24	33	21	17	10	9.6	12
31	24	---	13	19	---	24	---	20	---	10	9.7	---
TOTAL	512	960	637	508	583	667	934	1124	796	353.3	333.1	307.6
MEAN	16.5	32.0	20.5	16.4	20.1	21.5	31.1	36.3	26.5	11.4	10.7	10.3
MAX	36	50	50	23	24	25	60	303	130	18	15	12
MIN	11	20	10	12	19	19	24	20	17	9.3	8.3	9.3
AC-FT	1020	1900	1260	1010	1160	1320	1850	2230	1580	701	661	610
a	29	5.2	0	282	341	1400	14790	21670	2910	0	0	0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2000, BY WATER YEAR (WY)

MEAN	15.9	17.9	13.7	16.3	17.1	22.1	32.7	42.9	28.9	15.3	12.7	15.2
MAX	20.2	42.2	25.6	39.3	25.3	42.5	99.6	106	98.7	28.1	22.8	26.5
(WY)	1989	1990	1997	1997	1996	1988	1988	1996	1995	1989	1988	1988
MIN	10.1	7.01	3.19	3.80	4.85	16.2	18.8	18.0	9.68	5.45	5.32	5.48
(WY)	1993	1991	1991	1991	1991	1991	1991	1992	1992	1988	1989	1989

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1988 - 2000	
ANNUAL TOTAL	7445.9		7715.0			
ANNUAL MEAN	20.4		21.1		20.9	
HIGHEST ANNUAL MEAN					32.6	1995
LOWEST ANNUAL MEAN					13.0	1991
HIGHEST DAILY MEAN	136	May 23	303	May 8	1840	May 16 1996
LOWEST DAILY MEAN	9.4	Aug 1	8.3	Aug 6	2.3	Oct 18 1992
ANNUAL SEVEN-DAY MINIMUM	9.8	Jul 27	9.7	Sep 4	2.3	Oct 17 1992
INSTANTANEOUS PEAK FLOW			455	May 8	3220	May 16 1996
INSTANTANEOUS PEAK STAGE			4.95	May 8	7.92	May 16 1996
ANNUAL RUNOFF (AC-FT)	14770		15300		15130	
ANNUAL DIVERSION (AC-FT) a	56240		41420			
10 PERCENT EXCEEDS	35		32		27	
50 PERCENT EXCEEDS	17		20		17	
90 PERCENT EXCEEDS	11		10		7.4	

a Diversion, in acre-feet, to New Spicer Meadows Reservoir, provided by Northern California Power Agency.

11293770 NEW SPICER MEADOW RESERVOIR NEAR BIG MEADOWS, CA

LOCATION.—Lat 38°23'35", long 119°59'53", in NW 1/4 NE 1/4 sec.9, T.7 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, at outlet structure on upstream face of New Spicer Meadow Dam on Highland Creek, and 7.7 mi east-southeast of Big Meadows.

DRAINAGE AREA.—45.4 mi^2.

PERIOD OF RECORD.—February 1990 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Calaveras County Water District).

REMARKS.—Reservoir is formed by rockfill dam with a reinforced concrete face completed in December 1988. Dam is 600 ft downstream from original concrete gravity-type dam which was completed in 1929. Usable capacity, 184,298 acre-ft between elevations 6,420.0 ft, minimum operating head, and 6,614.0 ft, crest of spillway. Released water is used for hydroelectric power and fishery maintenance. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 190,024 acre-ft, July 5, 1998, elevation, 6,614.5 ft; minimum, 30,198 acre-ft, Mar. 5, 1993, elevation, 6,491.2 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 180,800 acre-ft, June 12, 13, elevation, 6,609.62 ft; minimum, 69,539 acre-ft, Jan. 16, elevation, 6,540.09 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Calaveras County Water District in July 1989)

6,420	4,702	6,500	35,214	6,580	125,341
6,440	9,299	6,520	50,197	6,600	160,318
6,460	15,511	6,540	69,652	6,614	189,000
6,480	23,781	6,560	94,859		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 2400 HOURS

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113568	99411	95079	89193	91116	87042	59925	66753	134006	152573	142667	123689
2	113224	99067	95166	89104	91232	86431	59925	67895	135621	152573	142286	123375
3	112866	98738	95342	89003	91206	86158	59925	68644	136645	152625	141924	123078
4	112554	98455	95327	88940	91001	85847	59925	69156	137265	152625	141616	122781
5	112301	98112	95546	88915	90860	85154	57983	69998	138154	152485	141291	122516
6	112034	97845	95502	88826	91040	84465	57025	71768	139404	152222	140931	122049
7	111693	97697	95517	88713	91553	83680	55976	74109	140481	152134	140660	121272
8	111338	97327	95415	88574	92080	82790	55037	76254	141291	151976	140301	120421
9	111013	96957	95298	88486	92402	81570	54106	78153	142322	151871	140031	119804
10	110688	96574	95137	88397	92480	80195	53446	79896	143338	151696	139762	119342
11	100379	96191	95137	88309	92609	78525	52693	82058	144614	151469	139476	119035
12	110036	95869	95181	88221	92713	76748	51794	84637	146152	150125	139135	118759
13	109703	95737	95035	88120	92829	75334	50848	86967	147786	148737	138778	118269
14	109306	95576	94572	88045	92829	74147	50378	88687	149343	148131	138475	117582
15	108942	95415	94154	88032	92920	72896	50020	90082	150038	147959	138154	117126
16	108515	95152	94011	88133	93062	71268	50425	91553	150910	147700	137798	116594
17	108216	94716	93907	88297	93049	69489	51509	93490	151959	147441	137283	116140
18	107869	94350	93946	88889	92687	68374	52751	95590	152784	147183	136663	115686
19	107555	94272	93802	89358	92609	67745	53639	97830	153452	146925	136344	115233
20	107022	94206	93555	89713	92338	67100	55283	100342	153928	146581	136026	114857
21	106226	94128	93036	89866	92080	66408	56744	103167	153999	146341	135586	114406
22	105324	94089	91630	90235	91540	65632	57800	106475	154423	146066	134443	113732
23	104458	94311	91001	90579	90605	64821	58592	109941	154511	145809	132958	112836
24	103827	94285	90656	90592	89713	63987	59359	112985	154688	145416	131673	112167
25	103091	94233	90656	90745	88586	63254	60441	116140	155042	144869	130103	111427
26	102602	94115	90222	90771	88322	62669	61811	119266	155397	144528	128339	110468
27	102342	93998	89967	90809	88083	62201	63196	122360	155574	144273	127115	109037
28	101810	93828	89751	90924	87631	61668	64306	125309	154865	143967	126353	107571
29	100991	93946	89510	90975	---	61006	64987	127709	153805	143678	125425	106429
30	100252	94795	89370	91014	---	60225	65671	129931	153100	143423	124553	104844
31	99771	---	89256	91116	---	59925	---	132176	---	143084	124144	---
MAX	113568	99411	95546	91116	93062	87042	65671	132176	155574	152625	142667	123689
MIN	99771	93828	89256	88032	87631	59925	50020	66753	134006	143084	124144	104844
a	6563.32	6559.95	6555.65	6557.11	6554.36	6530.00	6536.00	6584.00	6595.95	6590.15	6579.24	6566.65
b	-14211	-4976	-5539	+1860	-3485	-27706	+5746	+66505	+20924	-10016	-18940	-19300
c	14110	9330	9710	2830	8160	37200	15400	3500	16980	13840	18610	19740

CAL YR 1998 MAX 190024 MIN 36712 b +34844 c 180100
WTR YR 1999 MAX 155574 MIN 50020 b -9138 c 169400

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Diversion, in acre-feet, through New Spicer Meadow Powerplant (station 11293760), provided by Northern California Power Agency.

11293770 NEW SPICER MEADOW RESERVOIR NEAR BIG MEADOWS, CA—Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103382	85071	78631	72589	72552	76878	84923	121552	173292	173189	154560	129670
2	102617	84591	78258	71964	72552	76878	85541	123543	174329	172238	153024	129395
3	101825	84235	78258	71964	72638	76878	86583	125586	175412	171949	152058	128984
4	100719	83745	78258	71964	72638	76878	88022	127721	175412	171620	151479	128590
5	99426	83415	77732	71415	72638	76878	89448	129807	176457	172135	150693	128146
6	98350	83244	77732	71196	72638	77400	90708	131480	177526	171106	149613	127635
7	96869	82879	77094	70965	72638	77477	91991	133760	177526	170018	148832	126956
8	95868	82818	77094	70965	72860	77668	93231	137800	178663	170408	148330	126414
9	94947	82575	77094	70965	72860	77758	94259	140107	178663	169466	147897	125704
10	94285	82101	76434	70396	73094	77796	95298	141676	179740	169364	147449	124922
11	93439	81679	76434	70227	73193	77835	96589	142800	179740	169364	146984	124185
12	92674	81482	76434	70119	73354	77950	98142	143631	180800	169425	146296	123465
13	91618	81324	75802	70119	73899	78091	101460	144465	180800	169425	145336	122188
14	90759	81101	75625	70119	74847	78322	102846	145251	180333	169425	144585	120686
15	90147	80904	75625	70119	74847	78592	103735	146227	179571	168243	143631	119487
16	89829	80865	75625	69539	74847	78876	104458	147087	179571	168406	142455	118660
17	89334	80813	75625	69579	75499	79134	105464	147967	179571	168406	141531	117517
18	88854	80590	75625	70179	75499	79497	106086	148849	179571	167390	140773	116169
19	88525	80551	74985	70396	75499	79925	106600	150658	179571	167390	140269	115100
20	88387	80447	74985	70820	75499	80329	107226	152496	179571	165348	139820	114261
21	88387	80290	74360	71099	75499	80473	108090	154312	179571	165348	139175	113663
22	87758	80055	74360	71159	75499	80682	109005	156157	178494	164323	137889	113320
23	87758	79886	74360	71330	76130	80983	109973	158894	178494	163662	136328	112978
24	87132	79678	73725	71781	76231	81377	111011	160795	178494	163322	135163	112666
25	87132	79510	73725	72172	76231	81798	112207	162882	178494	162324	134443	112295
26	86758	79341	73725	72270	76231	82321	113723	164926	177442	161310	133568	111940
27	86758	79121	73094	72270	76231	82855	115581	167004	176352	160320	132574	111586
28	86446	79549	73094	72270	76865	83329	117153	168080	175308	159416	131446	111246
29	86446	78850	73094	72270	76878	83781	118263	170162	174246	158499	130789	110952
30	85825	78631	72466	72270	---	84210	119686	171188	172837	157603	130392	110672
31	85825	---	72466	72552	---	84554	---	172238	---	156068	129979	---
MAX	103382	85071	78631	72589	76878	84554	119686	172238	180800	173189	154560	129670
MIN	85825	78631	72466	69539	72552	76878	84923	121552	172837	156068	129979	110672
a	6552.91	6547.22	6542.32	6542.39	6545.85	6551.88	6576.39	6605.91	6606.20	6597.64	6582.75	6570.39
b	-19019	-7194	-6165	+86	+4326	+7676	+35132	+52552	+599	-16769	-26089	-19307
c	20510	7980	6600	4040	1210	1290	1330	1630	13570	16650	25790	20060

CAL YR 1999 MAX 155574 MIN 50020 b -16790 c 171400
WTR YR 2000 MAX 180800 MIN 69539 b +5828 c 120700

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Diversion, in acre-feet, through New Spicer Meadow Powerplant (station 11293760), provided by Northern California Power Agency.

11294000 HIGHLAND CREEK BELOW NEW SPICER MEADOW RESERVOIR, CA

LOCATION.—Lat 38°23'35", long 119°59'53", in NW 1/4 NE 1/4 sec.9, T.7 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank in New Spicer Meadow Powerplant at downstream side of New Spicer Meadow Dam, 5.4 mi upstream from mouth, and 6.5 mi east-southeast of Big Meadows.

DRAINAGE AREA.—45.4 mi^2.

PERIOD OF RECORD.—October 1952 to current year.

REVISED RECORDS.—WSP 1930: 1953. WDR CA-89-3: Drainage area, 1987(M), 1988(M).

GAGE.—Acoustic-flow meter and water-stage recorder on New Spicer Meadow Reservoir (station 11293770). Elevation of gage is 6,362 ft above sea level, from topographic map. December 1986 to September 1990 at site 1,400 ft downstream at different datum. October 1952 to November 1986, at site 900 ft upstream at different datum.

REMARKS.—Low and medium flows regulated by New Spicer Meadow Reservoir since 1988 and, prior to 1988, by Spicer Meadows Reservoir, capacity 4,060 acre-ft. Flow has been diverted to New Spicer Meadow Reservoir from North Fork Stanislaus River since Oct. 21, 1987. Penstock diverts from New Spicer Meadow Reservoir to New Spicer Meadow Powerplant. At times flow may bypass New Spicer Meadow Powerplant. Discharges, including extremes, represent flow through or past powerplant, and flow over spillway of reservoir. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,860 ft^3/s, Jan. 31, 1963, gage height, 11.88 ft, site and datum then in use, from rating curve extended above 1,200 ft^3/s; no flow some years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Nov. 20, 1950, reached a stage of 11.50 ft, site and datum then in use, from Pacific Gas & Electric Co. recorder chart, discharge, 8,800 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	176	23	72	19	394	597	30	226	484	217	210
2	157	174	61	72	19	430	457	31	244	184	202	150
3	149	178	77	72	62	320	74	31	244	122	164	150
4	149	178	75	66	79	268	63	31	244	132	155	150
5	149	178	108	60	34	438	319	31	82	187	152	150
6	149	146	120	70	32	438	597	31	76	248	152	242
7	166	184	127	73	32	480	596	31	246	165	151	424
8	177	217	108	70	33	581	596	31	227	134	152	421
9	175	206	54	69	29	713	528	31	121	142	152	331
10	177	234	41	69	29	753	409	32	121	153	151	221
11	178	251	52	69	29	895	446	32	95	194	152	152
12	175	217	52	71	29	949	517	32	33	791	152	152
13	175	110	166	71	29	771	596	32	33	832	152	253
14	176	110	302	72	29	647	458	32	118	352	151	354
15	175	110	301	71	29	691	493	32	541	155	152	258
16	176	195	165	34	29	888	231	33	385	154	152	257
17	174	287	126	32	75	996	29	33	228	153	262	257
18	175	250	33	25	130	768	79	33	294	154	292	224
19	174	110	74	20	207	497	343	32	330	153	171	225
20	270	110	173	22	242	498	39	33	359	152	150	225
21	389	110	372	20	232	498	29	33	494	152	202	232
22	451	110	767	21	379	562	29	31	404	151	589	348
23	424	121	376	22	528	598	29	31	465	151	746	465
24	325	110	247	21	546	598	30	31	389	239	634	376
25	358	108	145	25	547	603	30	44	162	312	798	424
26	250	126	144	29	264	586	30	55	99	177	898	492
27	152	96	140	28	163	557	30	55	169	147	601	737
28	268	149	141	23	260	563	30	83	675	152	365	681
29	403	119	149	19	---	583	30	159	819	152	474	593
30	370	36	107	19	---	597	30	278	638	151	408	796
31	250	---	71	19	---	597	---	333	---	152	233	---
TOTAL	7112	4706	4897	1426	4115	18757	7764	1767	8561	6977	9382	9950
MEAN	229	157	158	46.0	147	605	259	57.0	285	225	303	332
MAX	451	287	767	73	547	996	597	333	819	832	898	796
MIN	149	36	23	19	19	268	29	30	33	122	150	150
AC-FT	14110	9330	9710	2830	8160	37200	15400	3500	16980	13840	18610	19740

11294000 HIGHLAND CREEK BELOW NEW SPICER MEADOW RESERVOIR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.9	50.2	71.1	68.7	101	133	225	387	286	134	84.7	73.2
MAX	358	244	399	334	902	605	456	1047	1097	787	592	423
(WY)	1997	1994	1965	1997	1997	1999	1995	1969	1983	1995	1998	1997
MIN	.000	.000	.50	.50	2.69	.83	17.9	21.9	37.7	5.23	1.63	1.34
(WY)	1965	1965	1961	1961	1960	1977	1992	1991	1987	1961	1961	1977

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1953 - 1999	
ANNUAL TOTAL	93653		85414			
ANNUAL MEAN	257		234		140	
HIGHEST ANNUAL MEAN					333	1997
LOWEST ANNUAL MEAN					25.3	1977
HIGHEST DAILY MEAN	1010	Jul 5	996	Mar 17	5040	Dec 23 1955
LOWEST DAILY MEAN	23	Dec 1	19	Jan 29	.00	Sep 28 1964
ANNUAL SEVEN-DAY MINIMUM	30	Mar 21	21	Jan 27	.00	Sep 28 1964
INSTANTANEOUS PEAK FLOW			1010	Mar 18	9860	Jan 31 1963
INSTANTANEOUS PEAK STAGE					11.88	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	185800		169400		101100	
10 PERCENT EXCEEDS	697		587		406	
50 PERCENT EXCEEDS	149		155		52	
90 PERCENT EXCEEDS	31		30		2.9	

11294000 HIGHLAND CREEK BELOW NEW SPICER MEADOW RESERVOIR, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	823	203	101	102	21	21	21	23	22	158	800	201
2	516	225	102	102	21	21	21	23	22	157	795	201
3	451	259	101	103	21	21	21	24	22	157	498	200
4	579	212	101	102	21	21	21	24	53	157	304	201
5	570	171	158	102	21	21	22	24	61	156	420	201
6	528	161	204	101	21	21	22	24	53	156	566	269
7	471	161	137	104	21	21	22	24	54	157	379	314
8	469	117	81	105	21	21	22	24	30	156	242	252
9	515	121	85	105	21	21	22	24	30	160	203	371
10	372	274	106	106	21	21	22	24	51	163	201	403
11	443	218	118	106	21	21	22	24	70	165	246	379
12	499	100	112	106	21	21	22	24	79	160	367	378
13	500	102	112	106	21	21	22	24	314	161	500	701
14	467	102	105	106	21	21	22	24	684	161	377	794
15	333	105	100	103	21	21	22	22	727	161	499	614
16	233	89	99	78	21	21	22	21	341	161	600	450
17	232	79	99	68	21	21	23	21	145	161	443	619
18	232	102	100	28	21	21	23	21	122	161	334	727
19	192	102	99	30	21	21	23	21	121	257	221	558
20	153	101	99	28	21	21	23	21	121	671	202	447
21	154	102	99	21	21	21	23	28	231	437	332	293
22	153	102	99	28	21	21	23	142	277	161	630	164
23	153	102	101	31	21	21	23	21	194	163	772	165
24	153	102	101	21	21	21	23	21	137	441	540	166
25	153	102	101	21	21	21	23	21	130	554	358	194
26	153	102	101	21	21	21	23	21	323	470	431	192
27	152	102	101	21	21	21	23	21	760	431	494	170
28	152	102	101	21	21	21	23	21	699	295	539	164
29	166	102	101	21	21	21	23	21	584	360	305	164
30	183	102	102	21	---	21	23	21	386	524	202	163
31	192	---	103	21	---	21	---	22	---	761	203	---
TOTAL	10342	4024	3329	2039	609	651	670	821	6843	8393	13003	10115
MEAN	334	134	107	65.8	21.0	21.0	22.3	26.5	228	271	419	337
MAX	823	274	204	106	21	21	23	142	760	761	800	794
MIN	152	79	81	21	21	21	21	21	22	156	201	163
AC-FT	20510	7980	6600	4040	1210	1290	1330	1630	13570	16650	25790	20060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2000, BY WATER YEAR (WY)

MEAN	65.6	51.9	71.8	68.6	99.1	130	221	380	285	137	91.7	78.7
MAX	358	244	399	334	902	605	456	1047	1097	787	592	423
(WY)	1997	1994	1965	1997	1997	1999	1995	1969	1983	1995	1998	1997
MIN	.000	.000	.50	.50	2.69	.83	17.9	21.9	37.7	5.23	1.63	1.34
(WY)	1965	1965	1961	1961	1960	1977	1992	1991	1987	1961	1961	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1953 - 2000	
ANNUAL TOTAL	86394		60839			
ANNUAL MEAN	237		166		140	
HIGHEST ANNUAL MEAN					333	1997
LOWEST ANNUAL MEAN					25.3	1977
HIGHEST DAILY MEAN	996	Mar 17	823	Oct 1	5040	Dec 23 1955
LOWEST DAILY MEAN	19	Jan 29	21	Jan 21	.00	Sep 28 1964
ANNUAL SEVEN-DAY MINIMUM	21	Jan 27	21	Jan 24	.00	Sep 28 1964
INSTANTANEOUS PEAK FLOW			911	Oct 1	9860	Jan 31 1963
INSTANTANEOUS PEAK STAGE					11.88	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	171400		120700		101500	
10 PERCENT EXCEEDS	587		470		408	
50 PERCENT EXCEEDS	152		102		52	
90 PERCENT EXCEEDS	31		21		2.9	

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA

LOCATION.—Lat 38°14'38", long 120°17'24", 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 1.1 mi upstream from McKay's Point Dam, 3.3 mi upstream from Beaver Creek, and 5.1 mi northeast of Avery.

DRAINAGE AREA.—163 mi^2.

PERIOD OF RECORD.—July 1914 to September 1925, October 1928 to current year. Water-year estimates for 1923–25 and 1929 published in WSP 1315-A.
WATER TEMPERATURE: Water years 1990–98.

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 above sea level (river-profile survey). Prior to September 1922, nonrecording gage at same site at datum 0.05 ft lower.

REMARKS.—Low and medium flows regulated by Union and Utica Reservoirs, Lake Alpine, North Fork Stanislaus River Diversion Reservoir, and New Spicer Meadow Reservoir beginning 1990 (stations 11293350, 11293370, 11293460, 11293590, and 11293770), total combined usable capacity, 194,001 acre-ft. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 36,000 ft^3/s, Jan. 31, 1963, gage height, 15.00 ft, from floodmarks, from rating curve extended above 14,000 ft^3/s on basis of slope-area measurement at gage height 13.8 ft; minimum daily, 5.5 ft^3/s, Dec. 6, 7, 1929.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e209	197	e250	139	195	787	992	869	976	691	181	270
2	e201	192	190	136	192	883	949	987	971	413	279	182
3	e176	199	279	135	204	1070	513	797	872	210	181	171
4	e175	201	237	134	295	779	340	669	756	189	181	170
5	e169	202	197	124	240	919	437	725	674	192	171	169
6	e169	195	226	122	209	866	929	1010	566	326	173	172
7	e173	234	207	138	941	860	939	1230	719	256	174	406
8	193	261	220	132	1210	911	935	1190	700	200	171	483
9	197	243	171	129	1720	1110	926	1100	574	180	171	403
10	195	278	121	130	818	1100	705	986	523	191	173	299
11	199	299	124	129	586	1210	771	1110	526	193	170	194
12	198	274	133	130	521	1300	824	1360	446	567	169	174
13	192	150	142	132	461	1230	1070	1300	416	1090	168	171
14	194	145	398	130	425	1050	1120	1040	407	642	167	400
15	195	143	413	144	383	1020	1170	925	790	234	167	304
16	196	218	346	211	397	1220	1120	898	879	193	168	279
17	196	356	276	219	779	1390	891	999	543	190	182	278
18	196	315	193	745	699	1330	e952	1090	536	185	386	266
19	195	153	135	1190	629	970	e1300	1050	596	186	215	248
20	221	145	204	1340	703	958	e1220	1130	573	188	165	247
21	440	150	e225	670	641	904	1060	1180	749	185	164	252
22	493	159	e600	436	690	914	916	1340	575	186	442	267
23	511	306	e450	549	924	1030	e773	1480	703	180	846	522
24	387	205	407	385	945	1030	763	1450	703	179	752	412
25	403	168	212	319	977	1030	e940	1370	393	390	783	444
26	348	175	209	296	755	1130	1060	1440	223	278	985	480
27	180	146	208	256	506	1130	e1060	1360	204	173	850	619
28	274	200	201	234	548	1080	e980	1250	556	175	386	909
29	443	330	208	217	---	1060	720	1130	1010	175	490	589
30	422	e350	207	209	---	1040	660	1050	878	173	516	778
31	299	---	143	211	---	1040	---	1000	---	172	280	---
TOTAL	8039	6589	7532	9471	17593	32351	27035	34515	19037	8782	10306	10558
MEAN	259	220	243	306	628	1044	901	1113	635	283	332	352
MAX	511	356	600	1340	1720	1390	1300	1480	1010	1090	985	909
MIN	169	143	121	122	192	779	340	669	204	172	164	169
AC-FT	15950	13070	14940	18790	34900	64170	53620	68460	37760	17420	20440	20940

e Estimated.

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	81.1	137	230	269	350	517	972	1458	783	182	91.8	84.4
MAX	482	2103	1957	2440	2105	1785	2026	3299	3651	1231	672	464
(WY)	1983	1951	1965	1997	1986	1986	1982	1969	1983	1983	1998	1997
MIN	21.8	10.6	10.1	17.0	23.5	39.7	70.6	138	44.9	34.0	24.2	22.9
(WY)	1960	1960	1977	1977	1933	1977	1924	1924	1924	1924	1981	1924

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1915 - 1999	
ANNUAL TOTAL	242333		191808			
ANNUAL MEAN	664		526		430	
HIGHEST ANNUAL MEAN					1019	1983
LOWEST ANNUAL MEAN					54.3	1924
HIGHEST DAILY MEAN	3210	Mar 24	1720	Feb 9	23400	Dec 23 1955
LOWEST DAILY MEAN	121	Jan 3	121	Dec 10	5.5	Dec 6 1929
ANNUAL SEVEN-DAY MINIMUM	139	Jan 1	129	Jan 5	7.4	Dec 2 1929
INSTANTANEOUS PEAK FLOW			2440	Feb 9	36000	Jan 31 1963
INSTANTANEOUS PEAK STAGE			6.19	Feb 9	15.00	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	480700		380500		311200	
10 PERCENT EXCEEDS	1330		1090		1200	
50 PERCENT EXCEEDS	558		390		138	
90 PERCENT EXCEEDS	176		169		35	

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	966	217	146	129	186	337	506	818	230	226	873	215
2	663	219	143	118	198	336	610	857	212	188	869	256
3	494	273	143	117	195	320	796	826	195	187	701	215
4	545	260	142	119	207	356	931	809	183	185	332	208
5	693	195	146	116	186	402	938	795	221	181	350	205
6	563	175	241	115	171	341	874	677	186	180	615	204
7	570	178	234	117	165	299	833	1010	178	179	504	378
8	436	204	143	119	164	300	864	2240	287	178	304	258
9	599	123	127	120	175	282	780	1160	309	177	210	327
10	413	227	105	120	282	267	706	849	198	178	204	426
11	425	320	128	133	289	305	769	654	176	178	202	428
12	533	141	130	138	264	346	818	556	187	179	323	354
13	534	127	129	126	361	382	1900	512	217	176	519	651
14	533	127	132	123	2430	464	1090	486	770	175	484	865
15	409	132	119	155	995	558	783	530	916	174	398	767
16	244	146	116	192	630	537	652	595	604	174	682	511
17	235	151	116	211	444	525	965	544	257	173	533	556
18	235	140	116	831	362	526	723	568	187	172	416	855
19	229	157	115	393	326	654	589	609	183	172	253	648
20	163	205	116	448	326	640	598	656	177	600	204	530
21	167	165	115	387	362	464	646	679	209	682	219	401
22	167	148	114	193	325	436	694	784	333	202	609	189
23	181	144	114	189	322	495	655	645	307	172	805	171
24	171	142	116	1580	275	520	693	595	193	277	741	169
25	170	141	116	1230	257	575	702	575	174	668	379	183
26	170	141	116	575	259	632	794	493	187	495	419	195
27	161	140	116	334	563	712	921	438	794	541	515	189
28	220	139	115	251	413	691	876	390	866	330	584	169
29	175	138	115	211	389	612	709	341	676	342	459	169
30	197	140	115	214	---	619	723	299	598	472	209	168
31	198	---	132	211	---	538	---	260	---	778	206	---
TOTAL	11459	5155	4071	9315	11521	14471	24138	21250	10210	8991	14121	10860
MEAN	370	172	131	300	397	467	805	685	340	290	456	362
MAX	966	320	241	1580	2430	712	1900	2240	916	778	873	865
MIN	161	123	105	115	164	267	506	260	174	172	202	168
AC-FT	22730	10220	8070	18480	22850	28700	47880	42150	20250	17830	28010	21540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2000, BY WATER YEAR (WY)

MEAN	84.6	138	229	270	350	516	970	1448	778	183	96.2	87.7
MAX	482	2103	1957	2440	2105	1785	2026	3299	3651	1231	672	464
(WY)	1983	1951	1965	1997	1986	1986	1982	1969	1983	1983	1998	1997
MIN	21.8	10.6	10.1	17.0	23.5	39.7	70.6	138	44.9	34.0	24.2	22.9
(WY)	1960	1960	1977	1977	1933	1977	1924	1924	1924	1924	1981	1924

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1915 - 2000	
ANNUAL TOTAL	190333		145562			
ANNUAL MEAN	521		398		429	
HIGHEST ANNUAL MEAN					1019	1983
LOWEST ANNUAL MEAN					54.3	1924
HIGHEST DAILY MEAN	1720	Feb 9	2430	Feb 14	23400	Dec 23 1955
LOWEST DAILY MEAN	105	Dec 10	105	Dec 10	5.5	Dec 6 1929
ANNUAL SEVEN-DAY MINIMUM	115	Dec 17	115	Dec 17	7.4	Dec 2 1929
INSTANTANEOUS PEAK FLOW			3610	Feb 14	36000	Jan 31 1963
INSTANTANEOUS PEAK STAGE			7.14	Feb 14	15.00	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	377500		288700		310900	
10 PERCENT EXCEEDS	1090		787		1200	
50 PERCENT EXCEEDS	403		294		142	
90 PERCENT EXCEEDS	133		131		35	

11295220 BEAVER CREEK DIVERSION RESERVOIR NEAR ARNOLD, CA

LOCATION.—Lat 38°13'58", long 120°16'43", in NW 1/4 NW 1/4 sec.1, T.4 N., R.15 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank at outlet structure of Beaver Creek Diversion Dam on Beaver Creek, and 4.5 mi east-southeast of Arnold.

DRAINAGE AREA.—29.3 mi^2.

PERIOD OF RECORD.—February 1990 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Calaveras County Water District).

REMARKS.—Reservoir is formed by concrete gravity-type dam completed in July 1989. Usable capacity, 13 acre-ft between elevations 4,186.0 ft, minimum fishwater release elevation, and 4,191.5 ft, crest of spillway. Water is diverted through tunnel to McKay's Point Reservoir (station 11295260) on North Fork Stanislaus River. Released water is used for fishery maintenance. At times, during some years, reservoir is drained below minimum fishwater release elevation to allow replacement of the fish screens. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 15 acre-ft, Jan. 1, 1997, elevation, 4,195.5 ft; minimum, no storage Jan. 3 to Nov. 10, 1997, Oct. 26 to Nov. 21, Dec. 14, 1998, Aug. 2 to Oct. 31, 1999.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 14 acre-ft, Jan. 24, elevation, 4,193.02 ft; minimum, no storage many days in October.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Calaveras County Water District in July 1989)

4,180	6	4,186	9	4,192	13
4,182	7	4,188	11	4,193	14
4,184	8	4,190	12		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 2400 HOURS

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.0	13	12	12	13	12	13	12	12	10	.0
2	10	.0	12	12	12	13	12	13	13	12	.0	.0
3	10	.0	12	12	12	13	12	12	12	12	.0	.0
4	10	.0	12	12	12	12	12	12	12	12	.0	.0
5	10	.0	12	12	12	12	12	13	12	12	.0	.0
6	10	.0	12	13	12	12	12	13	12	12	.0	.0
7	10	.0	12	13	13	12	12	13	12	12	.0	.0
8	10	.0	12	12	14	12	12	13	12	12	.0	.0
9	10	.0	12	12	13	12	12	13	12	12	.0	.0
10	10	.0	13	11	13	12	12	13	12	11	.0	.0
11	10	.0	13	11	13	12	12	13	12	10	.0	.0
12	10	.0	13	11	13	12	12	13	12	10	.0	.0
13	10	.0	13	11	13	12	12	13	12	10	.0	.0
14	10	.0	.0	11	13	12	13	13	12	10	.0	.0
15	10	.0	9.9	12	13	12	13	12	12	10	.0	.0
16	10	.0	10	13	13	12	13	13	12	10	.0	.0
17	10	.0	13	12	13	12	13	13	12	10	.0	.0
18	10	.0	12	13	13	12	13	13	12	10	.0	.0
19	10	.0	12	13	13	12	13	13	12	10	.0	.0
20	10	.0	12	13	13	12	13	13	12	10	.0	.0
21	10	.0	12	13	13	12	13	13	12	10	.0	.0
22	10	10	12	13	13	12	13	13	12	10	.0	.0
23	10	13	12	12	13	12	12	13	12	10	.0	.0
24	10	12	12	12	12	12	13	13	12	10	.0	.0
25	10	12	12	12	13	13	13	13	12	10	.0	.0
26	.0	12	12	12	12	13	13	13	12	10	.0	.0
27	.0	11	12	12	12	12	13	13	12	10	.0	.0
28	.0	12	12	12	13	12	13	13	12	10	.0	.0
29	.0	12	12	12	---	12	12	12	12	10	.0	.0
30	.0	13	12	12	---	12	13	12	12	10	.0	.0
31	.0	---	12	12	---	12	---	12	---	10	.0	---
MAX	10	13	13	13	14	13	13	13	13	12	10	.0
MIN	.0	.0	.0	11	12	12	12	12	12	10	.0	.0
a		4191.74	4190.89	4190.76	4191.10	4190.97	4191.11	4190.95	4190.79	4187.36		
b	-10	+13	-1	0	+1	-1	+1	-1	0	-2	-10	0

CAL YR 1998 MAX 14 MIN .0 b +2
WTR YR 1999 MAX 14 MIN .0 b -10

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

11295220 BEAVER CREEK DIVERSION RESERVOIR NEAR ARNOLD, CA—Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	10	10	10	13	12	12	12	12	10	10	10
2	.0	10	10	10	12	12	12	12	12	10	10	12
3	.0	10	10	10	12	12	12	12	12	10	10	10
4	.0	10	10	10	12	12	12	12	12	10	10	10
5	.0	10	10	10	12	12	12	12	12	10	10	10
6	.0	10	10	10	13	12	12	12	12	10	10	10
7	.0	10	10	10	12	12	12	13	12	10	10	10
8	.0	12	10	10	12	12	12	12	12	10	10	10
9	.0	10	10	10	12	12	12	12	13	10	10	10
10	.0	10	10	10	12	12	12	12	12	10	10	10
11	.0	10	10	12	12	12	12	12	12	10	10	10
12	.0	10	10	11	12	13	12	12	12	10	10	10
13	.0	10	10	10	13	12	12	12	12	10	10	10
14	.0	10	10	10	13	12	12	12	12	10	10	10
15	.0	10	10	13	12	12	12	12	12	10	10	10
16	.0	10	10	13	12	12	12	12	12	10	10	10
17	.0	10	10	12	12	12	12	12	12	10	10	10
18	.0	10	10	12	12	12	12	12	12	10	10	10
19	.0	10	10	13	12	12	12	12	12	10	10	10
20	.0	13	10	12	12	12	12	13	12	10	10	10
21	.0	10	10	12	12	12	12	12	12	10	10	10
22	.0	10	10	12	12	12	12	12	12	10	10	10
23	.0	10	10	12	12	12	12	12	12	10	10	10
24	.0	10	10	14	12	12	12	12	12	10	10	10
25	.0	10	10	13	12	12	12	12	12	10	10	10
26	.0	10	10	12	12	12	12	12	12	10	10	10
27	.0	10	10	12	13	12	12	12	11	10	10	10
28	.0	10	10	12	12	12	12	12	11	10	10	10
29	.0	10	10	12	12	12	12	12	12	10	10	10
30	.0	10	10	12	---	12	12	12	11	10	10	10
31	.0	---	10	12	---	12	---	12	---	10	10	---
MAX	.0	13	10	14	13	13	12	13	13	10	10	12
MIN	.0	10	10	10	12	12	12	12	11	10	10	10
a		4187.34	4187.27	4190.95	4189.59	4190.43	4190.20	4190.60	4188.45	4187.22	4187.18	4187.10
b	0	+10	0	+2	0	0	0	0	-1	-1	0	0

CAL YR 1999 MAX 14 MIN .0 b -2
WTR YR 2000 MAX 14 MIN .0 b +10

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

11295230 BEAVER CREEK BELOW DIVERSION DAM, NEAR ARNOLD, CA

LOCATION.—Lat 38°13'59", long 120°16'46", in NE 1/4 NW 1/4 sec.1, T.4 N., R.15 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, at Beaver Creek Diversion Dam, 4.5 mi east-southeast of Arnold.

DRAINAGE AREA.—29.3 mi^2.

PERIOD OF RECORD.—February 1990 to current year.

REVISED RECORDS.—WDR CA-92-3: 1991 (M).

GAGE.—Acoustic-velocity meter on low-flow discharge, and water-stage recorder on Beaver Creek Diversion Reservoir (station 11295220). Datum of gage is sea level (levels by Calaveras County Water District).

REMARKS.—Entire flow of Beaver Creek in excess of 16.5 ft^3/s required for stream maintenance can be diverted through tunnel and penstock to turbine at McKay's Point Reservoir (stations 11295210 and 11295260). Capacity of tunnel and penstock is 400 ft^3/s and flow in excess of that amount is either released or spilled at Beaver Creek Diversion Dam to the creek. Discharge, including extremes, represents the combined flow of Beaver Creek and spill or release at diversion dam. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,020 ft^3/s, Jan. 1, 1997; minimum daily, 1.2 ft^3/s, Dec. 22, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	e13	30	21	21	22	20	20	21	20	13	e10
2	15	e14	21	21	21	22	20	25	22	20	12	e9.8
3	15	e14	22	21	22	46	20	25	21	20	12	e8.3
4	14	e14	21	21	22	55	20	20	20	20	12	e8.3
5	14	e12	21	21	22	22	20	20	20	20	e11	e8.3
6	13	e12	21	22	22	22	20	35	20	20	e11	e8.3
7	13	e17	21	22	216	22	20	57	20	20	e11	e8.3
8	13	e26	21	21	321	22	20	44	20	20	e11	e8.3
9	13	e17	21	21	572	22	20	38	20	20	e11	e9.1
10	13	e15	26	21	226	22	20	24	20	20	e14	e8.3
11	13	e15	28	21	120	22	20	41	20	19	e11	e8.3
12	13	e15	28	21	71	22	21	67	20	19	e13	e8.3
13	12	e15	30	21	49	22	20	52	20	18	e13	e8.3
14	12	e15	26	21	28	22	20	29	20	18	e13	e8.3
15	13	e15	22	21	23	22	20	22	20	17	e13	e8.3
16	14	e15	22	22	24	22	43	20	20	17	e11	e8.3
17	12	e15	26	22	118	22	60	23	20	17	e11	e8.3
18	12	e14	26	87	46	22	81	38	20	16	e11	e8.3
19	13	e15	21	278	42	22	74	25	20	16	e11	e8.3
20	13	e17	21	343	22	22	55	28	20	16	e11	e8.3
21	12	e17	21	113	22	22	61	40	20	16	e11	e8.3
22	12	17	21	31	25	22	32	62	20	15	e11	e8.3
23	11	20	21	54	22	22	49	91	20	15	e11	e9.3
24	15	40	21	22	22	22	28	78	20	15	e9.8	e9.3
25	16	21	21	22	22	21	36	91	20	15	e9.8	e9.3
26	e11	21	21	21	22	20	40	78	20	14	e9.8	e9.3
27	e11	21	21	21	22	20	30	58	20	14	e9.8	e7.8
28	e11	20	21	21	22	20	32	37	20	14	e9.8	e7.8
29	e11	21	21	22	---	20	20	34	20	13	e9.8	e7.8
30	e11	37	22	22	---	20	20	25	20	13	e9.6	e7.8
31	e11	---	21	21	---	20	---	23	---	13	e9.6	---
TOTAL	398	540	707	1439	2187	726	962	1270	604	530	347.0	255.0
MEAN	12.8	18.0	22.8	46.4	78.1	23.4	32.1	41.0	20.1	17.1	11.2	8.50
MAX	16	40	30	343	572	55	81	91	22	20	14	10
MIN	11	12	21	21	21	20	20	20	20	13	9.6	7.8
AC-FT	789	1070	1400	2850	4340	1440	1910	2520	1200	1050	688	506
a	2.4	177	564	2150	5080	6010	6890	7930	2410	26	0	0

e Estimated.
a Diversion, in acre-feet, to McKay's Point Reservoir, provided by Northern California Power Agency.

11295230 BEAVER CREEK BELOW DIVERSION DAM, NEAR ARNOLD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.73	10.6	32.7	98.1	46.5	69.9	53.5	68.8	36.1	13.3	8.96	7.10
MAX	12.8	21.1	184	610	130	280	185	291	129	21.5	18.2	16.2
(WY)	1999	1997	1997	1997	1997	1995	1995	1995	1998	1998	1998	1998
MIN	3.28	4.48	4.53	5.00	6.32	17.6	17.2	16.3	6.93	4.77	2.61	2.48
(WY)	1991	1991	1991	1991	1991	1990	1990	1992	1992	1994	1994	1992

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	17164		9965.0			
ANNUAL MEAN	47.0		27.3		39.8	
HIGHEST ANNUAL MEAN					102	1997
LOWEST ANNUAL MEAN					9.86	1991
HIGHEST DAILY MEAN	790	Mar 24	572	Feb 9	3570	Jan 2 1997
LOWEST DAILY MEAN	11	Oct 23	7.8	Sep 27	1.2	Dec 22 1994
ANNUAL SEVEN-DAY MINIMUM	11	Oct 26	8.3	Sep 10	2.0	Oct 1 1991
INSTANTANEOUS PEAK FLOW			836	Feb 9	6020	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	34040		19770		28830	
ANNUAL DIVERSION (AC-FT) a	35220		31250			
10 PERCENT EXCEEDS	115		40		67	
50 PERCENT EXCEEDS	21		20		17	
90 PERCENT EXCEEDS	14		9.8		4.1	

a Diversion, in acre-feet, to McKay’s Point Reservoir, provided by Northern California Power Agency.

11295230 BEAVER CREEK BELOW DIVERSION DAM, NEAR ARNOLD, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.8	e9.1	12	9.3	20	20	20	20	20	18	10	11
2	e7.8	e8.0	12	9.5	20	20	20	20	21	18	10	20
3	e7.8	8.5	12	8.6	20	20	20	20	21	18	10	18
4	e7.1	8.4	11	10	20	19	20	20	21	17	10	12
5	e7.1	8.5	11	8.6	20	19	20	20	21	17	9.8	11
6	e7.1	8.3	10	9.4	20	19	20	20	23	17	9.6	10
7	e8.1	8.7	11	9.7	20	19	20	25	21	17	9.4	9.8
8	e8.3	20	10	9.1	20	19	20	142	21	17	9.2	9.3
9	e8.3	15	11	9.4	20	19	20	20	21	16	9.2	9.1
10	e8.3	12	10	9.5	20	19	20	20	21	16	9.1	9.0
11	e8.3	11	10	13	20	19	20	20	21	15	9.1	8.8
12	e8.3	10	10	20	20	19	20	20	21	15	8.9	8.7
13	e9.5	9.9	11	14	24	19	39	20	21	15	8.7	8.7
14	e9.5	9.6	10	12	565	19	20	20	21	14	8.6	8.4
15	e8.3	10	10	17	50	19	20	20	21	14	8.5	8.4
16	e8.3	10	10	39	20	20	20	20	21	14	8.4	8.5
17	e8.3	19	10	27	20	20	20	20	21	14	8.1	8.2
18	e8.3	14	10	104	20	20	39	20	21	13	8.1	8.0
19	e8.3	14	10	20	20	20	20	20	21	13	8.0	7.7
20	e7.8	32	10	20	20	20	20	20	21	13	8.1	7.6
21	e7.8	20	10	20	20	20	20	20	21	12	8.2	7.6
22	e7.8	14	9.7	20	20	20	20	20	21	12	8.1	8.1
23	e7.8	12	9.5	20	20	20	20	20	21	12	7.9	8.7
24	e7.8	12	9.3	461	20	20	20	21	21	12	7.9	8.4
25	e7.8	11	9.5	269	20	20	20	20	21	12	7.7	8.2
26	e7.8	11	9.3	21	20	20	20	20	20	11	7.7	7.8
27	e7.8	11	9.2	20	41	20	20	21	20	11	7.6	7.7
28	e26	10	9.1	20	33	20	20	21	20	11	7.6	7.7
29	e7.8	10	9.1	20	20	20	20	20	20	11	7.6	7.7
30	e7.8	11	9.0	20	---	20	20	20	20	11	8.8	7.5
31	e7.8	---	9.6	20	---	20	---	21	---	10	9.4	---
TOTAL	266.6	368.0	314.3	1290.1	1193	608	638	751	626	436	269.3	281.6
MEAN	8.60	12.3	10.1	41.6	41.1	19.6	21.3	24.2	20.9	14.1	8.69	9.39
MAX	26	32	12	461	565	20	39	142	23	18	10	20
MIN	7.1	8.0	9.0	8.6	20	19	20	20	20	10	7.6	7.5
AC-FT	529	730	623	2560	2370	1210	1270	1490	1240	865	534	559

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	7.82	10.8	30.4	92.5	46.0	65.3	50.5	64.7	34.7	13.3	8.94	7.31
MAX	12.8	21.1	184	610	130	280	185	291	129	21.5	18.2	16.2
(WY)	1999	1997	1997	1997	1997	1995	1995	1995	1998	1998	1998	1998
MIN	3.28	4.48	4.53	5.00	6.32	17.6	17.2	16.3	6.93	4.77	2.61	2.48
(WY)	1991	1991	1991	1991	1991	1990	1990	1992	1992	1994	1994	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	9268.9		7041.9			
ANNUAL MEAN	25.4		19.2		37.7	
HIGHEST ANNUAL MEAN					102	1997
LOWEST ANNUAL MEAN					9.86	1991
HIGHEST DAILY MEAN	572	Feb 9	565	Feb 14	3570	Jan 2 1997
LOWEST DAILY MEAN	7.1	Oct 4	7.1	Oct 4	1.2	Dec 22 1994
ANNUAL SEVEN-DAY MINIMUM	7.5	Sep 30	7.5	Oct 1	2.0	Oct 1 1991
INSTANTANEOUS PEAK FLOW			935	Feb 14	6020	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	18380		13970		27330	
ANNUAL DIVERSION (AC-FT) a	30510		26160			
10 PERCENT EXCEEDS	40		21		59	
50 PERCENT EXCEEDS	20		17		17	
90 PERCENT EXCEEDS	8.3		8.1		4.2	

a Diversion, in acre-feet, to McKay’s Point Reservoir, provided by Northern California Power Agency.

11295240 UTICA CANAL AT PRESSURE TAP, NEAR HATHAWAY PINES, CA

LOCATION.—Lat 38°11'33", long 120°21'14", in SW 1/4 SW 1/4 sec.17, T.4 N., R.15 E., Calaveras County, Hydrologic Unit 18040010, Stanislaus National Forest, at pressure tap in Collierville Tunnel and 0.5 mi east of Hathaway Pines.

PERIOD OF RECORD.—October 1989 to current year.

GAGE.—Acoustic-velocity meter. Elevation of gage is 3,160 ft above sea level, from topographic map.

REMARKS.—Flow is diverted into Collierville Tunnel at McKay's Point Reservoir (stations 11295250 and 11295260) and enters canal through pressure tap in the tunnel. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Utica Power Authority, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 89 ft^3/s, Oct. 17, 1989; no flow for many days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	e16	.00	.00	7.9	.00	.00	27	32	40	46	49
2	46	e7.2	.00	28	17	.00	.00	27	32	39	46	42
3	45	9.0	.00	38	20	.00	.00	26	36	40	46	40
4	46	8.5	.00	38	21	.00	.00	29	38	40	48	43
5	48	8.5	.00	38	28	.00	.00	17	38	41	52	46
6	40	8.5	.00	40	32	.00	.00	32	38	41	50	50
7	36	6.5	.00	43	32	.00	.00	28	38	41	48	50
8	36	1.7	.00	42	34	.00	.00	.54	38	41	48	50
9	29	.00	.00	42	34	.00	.00	.00	36	40	49	49
10	24	.00	.00	44	28	.00	.00	13	36	40	50	49
11	25	.00	.00	44	21	.00	15	23	36	43	50	50
12	25	.00	.00	40	17	.00	21	27	36	43	48	50
13	25	.00	.00	40	4.2	.00	19	26	40	42	48	50
14	25	.00	.00	40	.00	.00	18	26	40	44	50	50
15	25	.00	.00	40	.00	.00	17	28	39	42	52	50
16	25	.00	.00	32	.00	.00	16	10	40	43	50	50
17	25	.00	.00	29	.00	.00	6.4	19	41	43	50	50
18	25	.00	.00	7.8	.00	.00	.00	21	40	44	51	50
19	25	.00	.00	9.7	.00	.00	.00	23	41	44	49	50
20	22	.00	.00	22	.00	.00	7.7	24	40	42	50	50
21	18	.00	.00	29	.00	.00	16	26	41	42	49	50
22	16	.00	.00	33	.00	.00	18	28	40	43	50	50
23	16	.00	.00	28	.00	.00	20	29	40	e42	50	50
24	16	.00	.00	1.8	.00	.00	20	30	40	e42	50	50
25	16	.00	.00	.00	.00	.00	20	30	40	e42	50	50
26	16	.00	.00	.00	.00	.00	22	30	40	46	50	50
27	22	.00	27	.00	.00	.00	23	31	42	44	50	50
28	24	.00	36	.00	.00	.00	23	30	41	46	50	50
29	24	.00	40	.00	.00	.00	23	30	42	46	50	50
30	24	.00	39	.00	---	.00	27	30	41	46	50	50
31	e24	---	5.1	.00	---	.00	---	32	---	44	50	---
TOTAL	856	65.90	147.10	749.30	296.10	0.00	332.10	752.54	1162	1316	1530	1468
MEAN	27.6	2.20	4.75	24.2	10.2	.000	11.1	24.3	38.7	42.5	49.4	48.9
MAX	48	16	40	44	34	.00	27	32	42	46	52	50
MIN	16	.00	.00	.00	.00	.00	.00	.00	32	39	46	40
AC-FT	1700	131	292	1490	587	.00	659	1490	2300	2610	3030	2910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	42.1	36.6	43.0	38.9	34.8	36.6	39.6	55.7	59.5	50.4	44.2	43.5
MAX	74.7	59.3	70.2	77.7	79.0	75.8	81.5	85.2	86.0	81.9	56.0	51.3
(WY)	1990	1992	1994	1990	1991	1990	1990	1992	1992	1993	1995	1993
MIN	16.2	2.20	4.40	.023	.000	.000	3.52	24.3	38.7	36.2	30.4	33.9
(WY)	1997	2000	1997	1997	1997	2000	1999	2000	2000	1990	1990	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	8420.00		8675.04			
ANNUAL MEAN	23.1		23.7		43.8	
HIGHEST ANNUAL MEAN					59.8	1990
LOWEST ANNUAL MEAN					23.7	2000
HIGHEST DAILY MEAN	72	May 25	52	Aug 5	89	Oct 17 1989
LOWEST DAILY MEAN	.00	Feb 5	.00	Nov 9	.00	Feb 4 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 27	.00	Nov 9	.00	Feb 4 1990
ANNUAL RUNOFF (AC-FT)	16700		17210		31720	
10 PERCENT EXCEEDS	46		50		78	
50 PERCENT EXCEEDS	23		25		47	
90 PERCENT EXCEEDS	.00		.00		.70	

e Estimated.

11295250 COLLIERVILLE POWERPLANT NEAR MURPHYS, CA

LOCATION.—Lat 38°08'33", long 120°22'39", in NE 1/4 SE 1/4 sec.1, T.3 N., R.14 E., Calaveras County, Hydrologic Unit 18040010, 800 ft upstream from Stanislaus River and 4.4 mi east of Murphys.

PERIOD OF RECORD.—February 1990 to current year.

GAGE.—Pressure-differential sensors in powerplant penstocks. Elevation of powerplant is 1,120 ft above sea level, from topographic map.

REMARKS.—Flow is diverted from McKay's Point Reservoir (station 11295260) through Collierville Tunnel to the powerplant. A portion of the flow in the tunnel is diverted to Utica Canal (station 11295240) through a pressure tap near Mill Creek in SW 1/4 SW 1/4 sec.17, T.4 N., R.15 E. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,610 ft^3/s, May 8, 2000; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	44	341	44	298	983	934	624	864	563	.00	82
2	193	229	347	.00	320	813	747	1160	770	341	154	234
3	27	244	304	32	153	992	498	903	827	132	130	263
4	30	281	272	168	344	1100	293	918	797	.00	233	2.2
5	249	200	76	148	571	1180	1020	830	658	16	66	49
6	272	250	87	151	190	788	673	1140	348	174	77	44
7	174	154	303	95	850	711	913	1390	691	184	.00	378
8	193	123	240	30	962	1230	979	1030	659	275	.00	422
9	87	266	270	.00	1420	971	798	1230	497	116	190	341
10	113	270	328	.00	1180	1210	722	1000	540	.00	117	188
11	61	167	254	184	707	1220	373	1260	652	444	77	.00
12	134	280	113	97	683	1180	1010	1330	355	543	189	16
13	149	228	77	50	328	1240	956	1450	167	642	202	346
14	141	37	177	108	364	969	1240	1320	721	536	.00	281
15	320	53	79	77	552	1120	1270	990	526	145	.00	281
16	258	239	218	163	771	1200	1130	622	736	225	320	326
17	42	196	165	220	851	1170	1060	962	594	30	154	208
18	20	248	148	495	898	1170	996	1000	475	101	67	.00
19	258	268	95	726	699	1210	1180	1080	539	184	261	48
20	284	199	311	726	804	907	1240	1110	202	80	290	228
21	543	24	641	726	478	732	1220	1180	723	160	126	355
22	473	55	749	698	941	1150	1280	1290	741	284	182	464
23	354	244	570	613	997	958	598	1460	519	278	661	319
24	238	292	214	493	981	1070	655	1380	477	27	731	371
25	162	214	183	446	1030	1120	940	1470	405	100	826	130
26	396	111	24	474	926	1120	1220	1380	42	165	751	501
27	235	145	87	155	430	1050	1160	1460	181	111	699	570
28	336	103	270	249	333	982	1360	1300	622	178	482	564
29	273	210	301	257	---	1190	703	1100	788	276	89	764
30	208	667	249	236	---	1140	750	1080	904	232	371	826
31	195	---	180	221	---	1110	---	1060	---	.00	356	---
TOTAL	6612	6041	7673	8082.00	19061	32986	27918	35509	17020	6542.00	7801.00	8601.20
MEAN	213	201	248	261	681	1064	931	1145	567	211	252	287
MAX	543	667	749	726	1420	1240	1360	1470	904	642	826	826
MIN	20	24	24	.00	153	711	293	622	42	.00	.00	.00
AC-FT	13110	11980	15220	16030	37810	65430	55380	70430	33760	12980	15470	17060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	185	131	208	310	481	654	699	699	498	332	261	244
MAX	333	315	774	820	1170	1101	1240	1339	1340	897	544	364
(WY)	1997	1997	1997	1997	1997	1995	1995	1995	1998	1995	1998	1997
MIN	49.5	40.2	25.3	32.3	9.79	140	309	50.6	55.5	94.7	104	114
(WY)	1993	1992	1992	1992	1991	1991	1994	1992	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	221881		183846.20			
ANNUAL MEAN	608		504		411	
HIGHEST ANNUAL MEAN					696	1995
LOWEST ANNUAL MEAN					115	1992
HIGHEST DAILY MEAN	1450	Jun 3	1470	May 25	1470	May 25 1999
LOWEST DAILY MEAN	11	Sep 20	.00	Jan 2	.00	Feb 10 1990
ANNUAL SEVEN-DAY MINIMUM	125	Oct 8	65	Jan 7	.00	Feb 7 1991
ANNUAL RUNOFF (AC-FT)	440100		364700		298000	
10 PERCENT EXCEEDS	1270		1160		1060	
50 PERCENT EXCEEDS	576		341		250	
90 PERCENT EXCEEDS	136		59		.00	

11295250 COLLIERVILLE POWERPLANT NEAR MURPHYS, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	524	164	397	18	213	502	374	996	207	4.8	783	96
2	521	210	328	20	92	453	508	874	245	.00	810	75
3	232	223	346	77	211	319	985	711	131	51	489	190
4	600	267	104	95	290	141	951	764	61	53	464	78
5	613	136	91	46	136	427	1120	948	161	132	313	175
6	482	64	43	179	97	508	1210	632	311	222	206	351
7	599	103	134	115	229	253	965	872	187	183	268	457
8	527	252	44	.00	133	481	876	1610	107	16	225	110
9	241	322	79	25	185	551	780	1600	245	71	264	3.6
10	226	151	174	156	383	454	917	1020	96	192	113	370
11	603	110	47	111	235	142	756	862	59	126	395	416
12	428	19	11	117	85	139	740	739	268	143	169	485
13	405	40	80	74	432	671	1090	367	452	143	186	615
14	421	166	104	13	1580	620	1430	261	728	255	473	471
15	437	78	77	47	1510	693	893	758	537	.00	356	533
16	250	154	135	3.4	1000	600	600	467	655	6.7	555	452
17	.00	180	219	245	392	353	1040	580	217	129	415	469
18	77	311	27	948	527	830	758	718	.00	126	378	636
19	105	313	.00	700	345	540	807	612	56	473	55	704
20	219	26	122	359	608	756	626	501	291	377	154	520
21	312	.00	207	494	650	702	714	545	296	325	445	195
22	206	189	160	70	453	571	541	811	89	64	498	74
23	.00	92	50	159	432	354	635	675	134	148	478	69
24	44	117	43	1050	388	800	961	572	42	545	627	142
25	208	36	.00	1600	482	476	898	498	94	468	538	115
26	200	167	.00	883	244	760	522	643	492	406	193	207
27	232	155	85	213	578	844	873	130	581	327	331	59
28	223	.00	38	453	440	794	1060	518	647	541	404	132
29	124	247	73	115	462	892	766	213	708	207	363	119
30	.00	155	133	376	---	729	684	454	713	246	273	97
31	150	---	166	416	---	636	---	314	---	677	190	---
TOTAL	9209.00	4447.00	3517.00	9177.40	12812	16991	25080	21265	8810.00	6657.50	11411	8415.6
MEAN	297	148	113	296	442	548	836	686	294	215	368	281
MAX	613	322	397	1600	1580	892	1430	1610	728	677	810	704
MIN	.00	.00	.00	.00	85	139	374	130	.00	.00	55	3.6
AC-FT	18270	8820	6980	18200	25410	33700	49750	42180	17470	13210	22630	16690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	196	133	199	309	477	644	712	698	479	322	271	247
MAX	333	315	774	820	1170	1101	1240	1339	1340	897	544	364
(WY)	1997	1997	1997	1997	1997	1995	1995	1995	1998	1995	1998	1997
MIN	49.5	40.2	25.3	32.3	9.79	140	309	50.6	55.5	94.7	104	114
(WY)	1993	1992	1992	1992	1991	1991	1994	1992	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	180693.20		137792.50			
ANNUAL MEAN	495		376		408	
HIGHEST ANNUAL MEAN					696	1995
LOWEST ANNUAL MEAN					115	1992
HIGHEST DAILY MEAN	1470	May 25	1610	May 8	1610	May 8 2000
LOWEST DAILY MEAN	.00	Jan 2	.00	Oct 17	.00	Feb 10 1990
ANNUAL SEVEN-DAY MINIMUM	41	Dec 23	41	Dec 23	.00	Feb 7 1991
ANNUAL RUNOFF (AC-FT)	358400		273300		295500	
10 PERCENT EXCEEDS	1160		802		1030	
50 PERCENT EXCEEDS	348		294		254	
90 PERCENT EXCEEDS	43		49		.00	

11295260 MCKAYS POINT RESERVOIR NEAR AVERY, CA

LOCATION.—Lat 38°14'01", long 120°17'30", in NE 1/4 NW 1/4 sec.2, T.4 N., R.15 E., Calaveras County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank at outlet structure near upstream face of McKay's Point Dam on North Fork Stanislaus River, and 4.6 mi northeast of Avery.

DRAINAGE AREA.—166 mi^2.

PERIOD OF RECORD.—February 1990 to current year.

REVISED RECORDS.—WDR CA-92-3: 1992 (M).

GAGE.—Water-stage recorder. Datum of gage is sea level (levels by Calaveras County Water District).

REMARKS.—Reservoir is formed by concrete arch-type dam completed in July 1989. Usable capacity, 1,928 acre-ft between elevations 3,280.0 ft, minimum operating head, and 3,370.0 ft, crest of spillway. Water is diverted from reservoir through tunnel to Utica Canal (station 11295240) and Collierville Powerplant (station 11295250, near the confluence of the middle and north forks of the Stanislaus River). Released water is used for fishery maintenance. New capacity table started on Sept. 1, 1991, based on inflow-outflow computations. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 2,572 acre-ft, Jan. 1, 1997, elevation, 3,379.9 ft; minimum, 258 acre-ft, Dec. 3, 1999, elevation, 3,279.66 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 2,287 acre-ft, Jan. 24, elevation, 3,371.30 ft; minimum, 258 acre-ft, Dec. 3, elevation, 3,279.66 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on inflow-outflow computations provided by Calaveras County Water District in September 1991)

3,280	320	3,340	1,325	3,370	2,248
3,300	480	3,360	1,921	3,380	2,575
3,320	869				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 2400 HOURS

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1613	1913	1393	1388	1630	1349	907	1779	1138	1287	1842	1897
2	1575	1783	1142	1562	1441	1555	1283	1536	1450	1243	1940	1676
3	1803	1614	1152	1676	1597	1820	1316	1455	1469	1275	1929	1378
4	2006	1390	1127	1548	1551	1327	1499	1662	1335	1532	1714	1570
5	1801	1325	1370	1439	973	892	457	1586	1334	1763	1801	1669
6	1518	1180	1635	1324	1104	1157	956	1450	1693	1940	1869	1784
7	1436	1183	1446	1329	1305	1477	960	1304	1654	1945	2039	1690
8	1377	1416	1389	1432	1904	925	833	1787	1636	1694	2129	1648
9	1524	1316	1170	1580	2120	1215	1031	1624	1710	1718	1973	1613
10	1626	1209	653	1729	1620	1031	970	1711	1594	1973	1959	1684
11	1835	1398	337	1547	1480	1059	1715	1524	1289	1391	2020	1910
12	1892	1355	353	1529	1347	1331	1338	1711	1375	1352	1874	2059
13	1900	1205	461	1591	1750	1329	1522	1537	1781	1895	1695	1609
14	1960	1339	850	1582	2017	1466	1284	1018	1106	1845	1892	1704
15	1620	1433	1433	1673	1875	1145	1155	881	1482	1890	2074	1587
16	1310	1229	1600	1783	1335	955	1219	1373	1543	1731	1688	1354
17	1660	1444	1767	1800	1344	1245	1043	1398	1323	1931	1613	1346
18	1924	1559	1833	2167	1155	1447	1120	1497	1321	1984	2061	1700
19	1739	1385	1888	2274	1174	880	1602	1372	1290	1888	1887	1937
20	1512	1225	1633	2271	1122	1032	1631	1366	1837	1978	1532	1831
21	1296	1391	885	2137	1570	1366	1505	1335	1704	1921	1488	1490
22	973	1492	972	1723	1197	955	943	1459	1224	1620	1790	1003
23	1131	1350	872	1724	1125	1142	1396	1492	1407	1329	1880	1235
24	1384	1323	1241	1653	1108	1090	1750	1697	1608	1502	1680	1129
25	1726	1225	1288	1550	1089	951	1886	1519	1434	1898	1342	1573
26	1570	1299	1612	1311	871	1014	1752	1679	1685	2014	1523	1389
27	1387	1323	1822	1617	1150	1189	1700	1524	1631	2012	1577	1570
28	1016	1423	1667	1676	1652	1382	1165	1418	1426	1898	1239	1392
29	1185	1413	1459	1688	---	1123	1300	1407	1593	1604	1821	1231
30	1503	1323	1351	1705	---	909	1218	1264	1279	1390	1925	938
31	1684	---	1252	1768	---	776	---	1049	---	1605	1669	---
MAX	2006	1913	1888	2274	2120	1820	1886	1787	1837	2014	2129	2059
MIN	973	1180	337	1311	871	776	457	881	1106	1243	1239	938
a	3352.64	3339.89	3337.08	3355.32	3351.58	3316.24	3335.71	3328.55	3338.17	3350.05	3352.14	3323.67
b	+15	-361	-71	+516	-116	-876	+442	-169	+230	+326	+64	-731

CAL YR 1998 MAX 2321 MIN 337 b -473
WTR YR 1999 MAX 2274 MIN 337 b -731

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

11295260 MCKAYS POINT RESERVOIR NEAR AVERY, CA—Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1492	1673	1106	1784	1229	1263	1438	1189	1719	1440	1471	1571
2	1514	1622	703	1900	1456	1165	1703	1200	1600	1708	1361	1821
3	1845	1632	258	1883	1431	1291	1504	1454	1664	1859	1597	1775
4	1555	1549	345	1830	1301	1809	1633	1578	1833	1991	1228	1913
5	1476	1603	428	1857	1392	1893	1527	1342	1836	1961	1130	1830
6	1458	1753	822	1652	1518	1695	1105	1476	1536	1799	1677	1416
7	1258	1839	1021	1564	1362	1896	1016	1725	1442	1692	1969	1129
8	934	1722	1175	1670	1374	1667	1178	2279	1692	1903	1991	1292
9	1472	1277	1259	1749	1318	1268	1350	1689	1756	1960	1780	1758
10	1738	1362	1109	1573	1151	1016	1085	1479	1896	1819	1850	1702
11	1267	1705	1236	1516	1260	1426	1219	1159	2040	1823	1352	1578
12	1341	1918	1437	1458	1614	1921	1311	840	1812	1782	1473	1191
13	1451	1998	1504	1472	1569	1476	2265	1160	1254	1740	1889	987
14	1538	1898	1540	1575	2268	1292	1636	1599	1103	1467	1734	1510
15	1398	1923	1592	1682	1652	1165	1401	1166	1617	1712	1644	1726
16	1330	1883	1519	1981	1268	1176	1488	1445	1398	1923	1694	1684
17	1711	1792	1279	1875	1653	1633	1345	1424	1398	1889	1709	1635
18	1938	1430	1420	1721	1607	1196	1330	1163	1675	1877	1640	1826
19	2092	1089	1600	1213	1812	1583	1065	1135	1813	1209	1910	1524
20	1927	1396	1577	1399	1481	1523	1139	1409	1515	1372	1882	1364
21	1580	1686	1388	1235	1159	1237	1112	1626	1243	1897	1321	1620
22	1457	1559	1277	1438	1147	1157	1519	1522	1605	2050	1303	1739
23	1758	1595	1372	1486	1159	1587	1640	1453	1838	2003	1697	1823
24	1931	1611	1482	2287	1128	1224	1226	1454	2026	1339	1732	1765
25	1809	1780	1673	1754	857	1579	908	1582	2068	1523	1275	1782
26	1658	1722	1856	1386	1060	1516	1469	1267	1379	1529	1532	1642
27	1436	1668	1835	1770	1255	1444	1652	1815	1513	1751	1672	1749
28	1329	1908	1887	1506	1390	1455	1429	1545	1733	1224	1786	1702
29	1344	1690	1882	1771	1427	1120	1383	1756	1466	1343	1823	1689
30	1630	1643	1752	1556	---	1086	1479	1872	1102	1559	1562	1700
31	1652	---	1637	1231	---	1037	---	1711	---	1533	1461	---
MAX	2092	1998	1887	2287	2268	1921	2265	2279	2068	2050	1991	1913
MIN	934	1089	258	1213	857	1016	908	840	1102	1209	1130	987
a	3351.60	3351.30	3351.10	3336.25	3343.80	3328.03	3345.66	3353.50	3330.80	3347.56	3345.03	3353.16
b	+714	-9	-6	-406	+196	-390	+442	+232	-609	+431	-72	+239

CAL YR 1999 MAX 2274 MIN 258 b +385
WTR YR 2000 MAX 2287 MIN 258 b +762

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

11295270 NORTH FORK STANISLAUS RIVER BELOW MCKAYS POINT DAM, NEAR AVERY, CA

LOCATION.—Lat 38°13'58", long 120°17'33", in NE 1/4 NW 1/4 sec.2, T.4 N., R.15 E., Calaveras County, Hydrologic Unit 18040010, Stanislaus National Forest, at McKay's Point Dam and 4.5 mi northeast of Avery.

DRAINAGE AREA.—166 mi^2.

PERIOD OF RECORD.—August 1989 to current year.

REVISED RECORDS.—WDR CA-91-3: 1990.

GAGE.—Acoustic-flow meter and water-stage recorder on McKay's Point Reservoir (station 11295260). August 1989 to September 1992 at site 500 ft downstream at different datum. Elevation of gage is 3,280 ft above sea level, from topographic map.

REMARKS.—Flow regulated by Union and Utica Reservoirs, Lake Alpine (stations 11293350, 11293370, and 11293460), New Spicer Meadow Reservoir and McKay's Point Reservoir (stations 11293770 and 11295260) with combined capacity, 200,770 acre-ft. Collierville Tunnel diverts at McKay's Point Reservoir to Utica Canal (station 11295240) and Collierville Powerplant (station 11295250). Discharge, including extremes, represents flow through dam's release valve, mini-hydro generator, and flow over spillway. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,000 ft^3/s, Jan. 2, 1997; minimum daily, 3.4 ft^3/s, Nov. 25, 1989.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	27	18	18	18	18	18	18	18	18	18	20
2	18	26	18	18	18	18	18	18	18	18	20	20
3	19	26	18	18	18	18	18	18	18	18	20	20
4	18	26	18	18	18	18	18	18	18	18	20	20
5	19	26	18	18	18	18	18	18	18	18	20	20
6	19	26	18	18	18	18	18	18	18	18	20	20
7	19	26	18	18	18	18	18	18	18	18	20	20
8	19	26	18	18	18	18	18	18	18	18	20	20
9	19	27	18	18	233	18	18	18	18	18	20	20
10	19	26	18	18	18	18	18	18	18	18	20	21
11	19	26	19	18	18	18	18	18	18	18	20	22
12	19	26	21	18	18	18	18	18	18	18	20	22
13	19	27	19	18	18	18	18	18	18	18	20	22
14	19	27	26	18	18	18	18	18	18	18	20	22
15	19	27	28	18	18	18	18	18	18	18	20	22
16	18	27	28	18	18	18	18	18	18	18	20	22
17	18	27	22	18	18	18	18	18	18	18	20	22
18	19	27	20	18	18	18	18	18	18	18	20	22
19	18	27	20	370	18	18	18	18	18	18	20	22
20	18	27	20	598	18	18	18	18	18	18	20	22
21	18	27	19	57	18	18	18	18	18	18	20	22
22	18	27	19	18	18	18	18	18	18	18	20	22
23	21	20	19	18	18	18	18	18	18	18	20	22
24	18	18	18	18	18	18	18	18	19	18	20	22
25	19	18	18	18	18	18	18	18	19	18	20	22
26	24	18	18	18	18	18	18	18	19	18	20	22
27	27	18	18	18	18	18	18	18	19	18	20	22
28	27	18	18	18	18	18	18	18	19	18	20	22
29	27	18	18	18	---	18	18	18	18	18	20	22
30	27	18	18	18	---	18	18	18	18	18	20	22
31	27	---	18	18	---	18	---	18	---	18	20	---
TOTAL	626	730	604	1529	719	558	540	558	545	558	618	641
MEAN	20.2	24.3	19.5	49.3	25.7	18.0	18.0	18.0	18.2	18.0	19.9	21.4
MAX	27	27	28	598	233	18	18	18	19	18	20	22
MIN	18	18	18	18	18	18	18	18	18	18	18	20
AC-FT	1240	1450	1200	3030	1430	1110	1070	1110	1080	1110	1230	1270

11295270 NORTH FORK STANISLAUS RIVER BELOW MCKAYS POINT DAM, NEAR AVERY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.1	20.8	38.6	187	28.2	50.0	36.2	83.2	28.6	20.0	20.1	22.0
MAX	27.6	25.9	210	1622	102	253	189	338	63.5	23.1	24.5	27.5
(WY)	1992	1994	1997	1997	1996	1995	1995	1995	1995	1994	1994	1991
MIN	19.1	6.06	5.55	7.93	17.4	15.8	18.0	18.0	18.2	18.0	10.6	18.2
(WY)	1996	1990	1990	1990	1990	1990	1999	1999	1999	1999	1989	1998

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	10288		8226			
ANNUAL MEAN	28.2		22.5		46.8	
HIGHEST ANNUAL MEAN					173	1997
LOWEST ANNUAL MEAN					16.9	1990
HIGHEST DAILY MEAN	1130	Mar 24	598	Jan 20	21600	Jan 2 1997
LOWEST DAILY MEAN	18	Jan 17	18	Oct 1	3.4	Nov 25 1989
ANNUAL SEVEN-DAY MINIMUM	18	Jan 24	18	Nov 24	4.2	Nov 15 1989
INSTANTANEOUS PEAK FLOW			938	Feb 9	28000	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	20410		16320		33920	
10 PERCENT EXCEEDS	26		22		25	
50 PERCENT EXCEEDS	18		18		19	
90 PERCENT EXCEEDS	18		18		18	

11295270 NORTH FORK STANISLAUS RIVER BELOW MCKAYS POINT DAM, NEAR AVERY, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	18	20	18	19	19	19	18	18	18	20
2	22	22	18	20	19	19	19	19	18	18	18	20
3	22	21	18	19	19	19	19	19	18	18	18	20
4	22	21	19	18	19	19	19	19	18	18	18	20
5	22	21	20	20	19	19	19	19	18	18	18	20
6	22	21	19	20	19	19	19	19	18	18	18	20
7	22	21	18	18	19	19	19	19	18	18	18	20
8	22	19	18	20	19	19	19	698	18	18	18	20
9	22	18	18	20	19	19	19	85	18	18	19	20
10	22	18	18	20	19	19	19	19	18	18	20	20
11	22	18	18	19	19	19	19	19	18	18	20	20
12	22	18	18	18	19	19	19	19	18	18	20	20
13	22	18	18	18	20	19	489	19	18	18	20	20
14	22	18	18	18	590	19	35	19	18	18	20	20
15	22	18	18	18	29	19	19	19	18	18	20	20
16	22	18	18	18	18	19	19	19	18	18	20	20
17	22	18	18	18	18	19	19	19	18	18	20	20
18	22	18	18	19	18	19	19	19	18	18	20	20
19	22	18	18	19	20	19	19	19	18	18	20	20
20	22	18	18	19	21	19	19	19	18	18	20	20
21	22	18	18	18	21	19	19	19	18	18	20	20
22	22	18	19	18	20	19	19	19	18	18	20	20
23	22	18	20	18	19	19	19	19	18	18	20	20
24	22	18	20	151	19	19	19	19	18	18	20	20
25	22	18	20	95	19	19	19	19	18	18	20	20
26	22	18	20	18	19	19	19	19	18	18	20	20
27	22	18	20	18	19	19	19	19	18	18	20	20
28	22	18	20	18	19	19	19	20	18	18	20	20
29	22	18	20	18	19	19	19	20	18	18	20	20
30	22	18	20	18	---	19	19	20	18	18	20	20
31	22	---	20	18	---	19	---	19	---	18	20	---
TOTAL	682	567	581	787	1135	589	1056	1337	540	558	603	600
MEAN	22.0	18.9	18.7	25.4	39.1	19.0	35.2	43.1	18.0	18.0	19.5	20.0
MAX	22	25	20	151	590	19	489	698	18	18	20	20
MIN	22	18	18	18	18	19	19	19	18	18	18	20
AC-FT	1350	1120	1150	1560	2250	1170	2090	2650	1070	1110	1200	1190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

MEAN	22.1	20.6	36.8	172	29.3	47.1	36.1	79.6	27.6	19.8	20.0	21.8
MAX	27.6	25.9	210	1622	102	253	189	338	63.5	23.1	24.5	27.5
(WY)	1992	1994	1997	1997	1996	1995	1995	1995	1995	1994	1994	1991
MIN	19.1	6.06	5.55	7.93	17.4	15.8	18.0	18.0	18.0	18.0	10.6	18.2
(WY)	1996	1990	1990	1990	1990	1990	1999	1999	2000	1999	1989	1998

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	8096		9035			
ANNUAL MEAN	22.2		24.7		44.8	
HIGHEST ANNUAL MEAN					173	1997
LOWEST ANNUAL MEAN					16.9	1990
HIGHEST DAILY MEAN	598	Jan 20	698	May 8	21600	Jan 2 1997
LOWEST DAILY MEAN	18	Jan 1	18	Nov 9	3.4	Nov 25 1989
ANNUAL SEVEN-DAY MINIMUM	18	Jan 1	18	Nov 9	4.2	Nov 15 1989
INSTANTANEOUS PEAK FLOW			1630	Feb 14	28000	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	16060		17920		32460	
10 PERCENT EXCEEDS	22		22		25	
50 PERCENT EXCEEDS	18		19		19	
90 PERCENT EXCEEDS	18		18		18	

11295300 NORTH FORK STANISLAUS RIVER BELOW BEAVER CREEK, NEAR HATHAWAY PINES, CA

LOCATION.—Lat 38°12'26", long 120°18'58", in SW 1/4 SW 1/4 sec.10, T.4 N., R.15 E., Calaveras County, Hydrologic Unit 18040010, Stanislaus National Forest, at confluence with Beaver Creek, and 2.8 mi northeast of Hathaway Pines.

DRAINAGE AREA.—224 mi^2.

PERIOD OF RECORD.—February 1990 to current year.

REVISED RECORD.—WDR CA-91-3: 1990.

GAGE.—Discharge computed as the sum of North Fork Stanislaus River below McKay's Point Dam (station 11295270) and Beaver Creek below diversion dam (station 11295230). Elevation of gage is 2,230 ft above sea level, from topographic map.

REMARKS.—Records consist of release and spill from McKay's Point Reservoir (station 11295260) and Beaver Creek Diversion Reservoir (station 11295220). See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 25,200 ft^3/s, Jan. 2, 1997; minimum daily, 5.1 ft^3/s, December 22, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	e40	48	39	39	40	38	38	39	38	31	e30
2	33	e40	39	39	39	40	38	43	40	38	32	e30
3	34	e40	40	39	40	64	38	43	39	38	32	e28
4	32	e40	39	39	40	73	38	38	38	38	32	e28
5	33	e38	39	39	40	40	38	38	38	38	e31	e28
6	32	e38	39	40	40	40	38	53	38	38	e31	e28
7	32	e43	39	40	234	40	38	75	38	38	e31	e28
8	32	e52	39	39	339	40	38	62	38	38	e31	e28
9	32	e44	39	39	805	40	38	56	38	38	e31	e29
10	32	e41	44	39	244	40	38	42	38	38	e34	e29
11	32	e41	47	39	138	40	38	59	38	37	e31	e30
12	32	e41	49	39	89	40	39	85	38	37	e33	e30
13	31	e42	49	39	67	40	38	70	38	36	e33	e30
14	31	e42	52	39	46	40	38	47	38	36	e33	e30
15	32	e42	50	39	41	40	38	40	38	35	e33	e30
16	32	e42	50	40	42	40	61	38	38	35	e31	e30
17	30	e42	48	40	136	40	78	41	38	35	e31	e30
18	31	e41	46	105	64	40	99	56	38	34	e31	e30
19	31	e42	41	648	60	40	92	43	38	34	e31	e30
20	31	e44	41	941	40	40	73	46	38	34	e31	e30
21	30	e44	40	170	40	40	79	58	38	34	e31	e30
22	30	44	40	49	43	40	50	80	38	33	e31	e30
23	32	40	40	72	40	40	67	109	38	33	e31	e31
24	33	58	39	40	40	40	46	96	39	33	e30	e31
25	35	39	39	40	40	39	54	109	39	33	e30	e31
26	e35	39	39	39	40	38	58	96	39	32	e30	e31
27	e38	39	39	39	40	38	48	76	39	32	e30	e30
28	e38	38	39	39	40	38	50	55	39	32	e30	e30
29	e38	39	39	40	---	38	38	52	38	31	e30	e30
30	e38	55	40	40	---	38	38	43	38	31	e30	e30
31	e38	---	39	39	---	38	---	41	---	31	e30	---
TOTAL	1024	1270	1311	2968	2906	1284	1502	1828	1149	1088	967	890
MEAN	33.0	42.3	42.3	95.7	104	41.4	50.1	59.0	38.3	35.1	31.2	29.7
MAX	38	58	52	941	805	73	99	109	40	38	34	31
MIN	30	38	39	39	39	38	38	38	38	31	30	28
AC-FT	2030	2520	2600	5890	5760	2550	2980	3630	2280	2160	1920	1770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

MEAN	29.8	32.8	74.9	305	74.8	120	89.7	152	64.6	33.3	30.0	29.4
MAX	33.5	42.3	394	2233	223	533	374	629	192	40.2	36.7	34.7
(WY)	1992	1999	1997	1997	1996	1995	1995	1995	1998	1998	1998	1998
MIN	25.9	25.7	23.0	23.7	27.0	33.4	36.1	34.7	27.7	27.3	26.1	25.9
(WY)	1991	1991	1991	1991	1991	1990	1990	1992	1992	1990	1990	1990

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	27572		18187			
ANNUAL MEAN	75.5		49.8		89.9	
HIGHEST ANNUAL MEAN					275	1997
LOWEST ANNUAL MEAN					31.7	1992
HIGHEST DAILY MEAN	1920	Mar 24	941	Jan 20	25200	Jan 2 1997
LOWEST DAILY MEAN	30	Oct 17	28	Sep 3	5.1	Dec 22 1994
ANNUAL SEVEN-DAY MINIMUM	31	Oct 16	28	Sep 3	22	Dec 25 1990
ANNUAL RUNOFF (AC-FT)	54690		36070		65160	
10 PERCENT EXCEEDS	134		58		88	
50 PERCENT EXCEEDS	40		39		36	
90 PERCENT EXCEEDS	33		30		27	

e Estimated.

11295300 NORTH FORK STANISLAUS RIVER BELOW BEAVER CREEK, NEAR HATHAWAY PINES, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e30	e34	30	29	38	39	39	39	38	36	28	31
2	e30	e30	30	30	39	39	39	39	39	36	28	40
3	e30	30	30	28	39	39	39	39	39	36	28	38
4	e29	29	30	28	39	38	39	39	39	35	28	32
5	e29	30	31	29	39	38	39	39	39	35	28	31
6	e29	29	29	29	39	38	39	39	41	35	28	30
7	e30	30	29	28	39	38	39	44	39	35	27	30
8	e30	39	28	29	39	38	39	840	39	35	27	29
9	e30	33	29	29	39	38	39	105	39	34	28	29
10	e30	30	28	30	39	38	39	39	39	34	29	29
11	e30	29	28	32	39	38	39	39	39	33	29	29
12	e30	28	28	38	39	38	39	39	39	33	29	29
13	e32	28	29	32	44	38	528	39	39	33	29	29
14	e32	28	28	30	1160	38	55	39	39	32	29	28
15	e30	28	28	35	79	38	39	39	39	32	29	28
16	e30	28	28	57	38	39	39	39	39	32	28	29
17	e30	37	28	45	38	39	39	39	39	32	28	28
18	e30	32	28	123	38	39	58	39	39	31	28	28
19	e30	32	28	39	40	39	39	39	39	31	28	28
20	e30	50	28	39	41	39	39	39	39	31	28	28
21	e30	38	28	38	41	39	39	39	39	30	28	28
22	e30	32	29	38	40	39	39	39	39	30	28	28
23	e30	30	30	38	39	39	39	39	39	30	28	29
24	e30	30	29	612	39	39	39	40	39	30	28	28
25	e30	29	30	364	39	39	39	39	39	30	28	28
26	e30	29	29	39	39	39	39	39	38	29	28	28
27	e30	29	29	38	60	39	39	40	38	29	28	28
28	e48	28	29	38	52	39	39	41	38	29	28	28
29	e30	28	29	38	39	39	39	40	38	29	28	28
30	e30	29	29	38	---	39	39	40	38	29	29	28
31	e30	---	30	38	---	39	---	40	---	28	29	---
TOTAL	949	936	896	2078	2333	1197	1694	2088	1166	994	874	884
MEAN	30.6	31.2	28.9	67.0	80.4	38.6	56.5	67.4	38.9	32.1	28.2	29.5
MAX	48	50	31	612	1160	39	528	840	41	36	29	40
MIN	29	28	28	28	38	38	39	39	38	28	27	28
AC-FT	1880	1860	1780	4120	4630	2370	3360	4140	2310	1970	1730	1750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

MEAN	29.9	32.7	70.3	281	75.4	113	86.7	144	62.3	33.2	29.9	29.4
MAX	33.5	42.3	394	2233	223	533	374	629	192	40.2	36.7	34.7
(WY)	1992	1999	1997	1997	1996	1995	1995	1995	1998	1998	1998	1998
MIN	25.9	25.7	23.0	23.7	27.0	33.4	36.1	34.7	27.7	27.3	26.1	25.9
(WY)	1991	1991	1991	1991	1991	1990	1990	1992	1992	1990	1990	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	17363		16089			
ANNUAL MEAN	47.6		44.0		85.3	
HIGHEST ANNUAL MEAN					275	1997
LOWEST ANNUAL MEAN					31.7	1992
HIGHEST DAILY MEAN	941	Jan 20	1160	Feb 14	25200	Jan 2 1997
LOWEST DAILY MEAN	28	Sep 3	27	Aug 7	5.1	Dec 22 1994
ANNUAL SEVEN-DAY MINIMUM	28	Dec 14	28	Aug 2	22	Dec 25 1990
ANNUAL RUNOFF (AC-FT)	34440		31910		61820	
10 PERCENT EXCEEDS	58		39		79	
50 PERCENT EXCEEDS	38		35		36	
90 PERCENT EXCEEDS	29		28		27	

e Estimated.

11295900 PINECREST LAKE AT PINECREST, CA

LOCATION.—Lat 38°11'59", long 119°59'20", in NE 1/4 SW 1/4 sec.15, T.4 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on south side of intake tower, 400 ft upstream from dam on South Fork Stanislaus River, and 0.7 mi north of Pinecrest.

DRAINAGE AREA.—26.5 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1981–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder since July 14, 1992. Oct. 1, 1985, to July 13, 1992, nonrecording gage read once daily. Datum of gage is sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete-faced, rockfill dam, completed in 1916; storage began in 1916. Capacity, 18,312 acre-ft, between elevations 5,498.7 ft, outlet drain, and 5,617.5 ft, top of flash boards in spillway. Released water flows down South Fork Stanislaus River to diversion dam for Philadelphia Canal (station 11297000) for use at Spring Gap Powerplant on Middle Fork Stanislaus River. Figures given, including extremes, represent total contents. Records from July 14, 1992, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 18,582 acre-ft, June 5, 1997, elevation, 5,618.39 ft; minimum observed, 3,157 acre-ft, Mar. 3, 4, 1991, elevation, 5,546.6 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 18,512 acre-ft, June 13, elevation, 5,618.16 ft; minimum, 4,336 acre-ft, Jan. 15, elevation, 5,556.79 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated 1938)

5,520	792	5,550	3,534	5,580	8,576
5,530	1,558	5,560	4,738	5,600	13,537
5,540	2,475	5,570	6,395	5,618.5	18,615

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13409	8618	7616	4743	6039	6273	8368	16856	18436	18336	17039	16153
2	13233	8441	7542	4704	6016	6249	8557	17434	18433	18294	17011	16153
3	13060	8276	7457	4658	6003	6229	8839	17962	18445	18264	16980	16123
4	12892	8108	7371	4639	5980	6227	9216	18015	18475	18235	16941	16077
5	12725	7939	7287	4614	5949	6237	9600	18010	18469	18190	16904	16035
6	12546	7766	7203	4589	5909	6222	9950	17959	18439	18116	16856	15990
7	12384	7632	7119	4566	5879	6202	10264	18021	18427	18045	16826	15931
8	12218	7605	7030	4545	5857	6194	10592	18166	18375	17962	16795	15894
9	12056	7546	6918	4519	5840	6167	10834	17953	18270	17874	16750	15852
10	11893	7528	6787	4496	5854	6138	11077	17883	18264	17787	16722	15803
11	11756	7531	6658	4462	5838	6142	11367	17807	18312	17737	16705	15749
12	11632	7531	6526	4426	5825	6155	11690	17769	18418	17717	16691	15704
13	11504	7526	6397	4384	5913	6196	12387	17787	18512	17685	16674	15658
14	11383	7511	6269	4347	6328	6292	12674	17792	18494	17665	16653	15549
15	11257	7515	6146	4336	6385	6399	12815	17795	18427	17630	16641	15424
16	11129	7550	6022	4342	6399	6513	12928	17792	18388	17595	16627	15304
17	10999	7612	5891	4397	6393	6608	13112	17792	18330	17569	16610	15182
18	10872	7632	5778	4826	6371	6725	13197	17874	18264	17532	16588	15022
19	10745	7704	5655	4939	6353	6895	13272	18010	18211	17503	16574	14842
20	10592	7771	5535	5140	6351	7017	13401	18086	18235	17457	16560	14676
21	10402	7793	5417	5218	6345	7058	13578	18137	18318	17431	16545	14499
22	10220	7795	5304	5235	6328	7128	13742	18128	18369	17399	16525	14323
23	10052	7804	5227	5297	6326	7216	13899	18211	18372	17359	16512	14142
24	9879	7838	5162	5707	6292	7300	14093	18372	18342	17313	16499	13975
25	9698	7838	5095	5922	6267	7415	14349	18378	18360	17316	16483	13828
26	9529	7838	5040	6001	6253	7572	14468	18294	18342	17316	16440	13693
27	9358	7838	4980	6028	6320	7758	15187	18406	18306	17316	16380	13643
28	9287	7836	4931	6039	6298	7900	15600	18381	18369	17316	16342	13480
29	9129	7773	4889	6055	6294	8035	16035	18351	18372	17316	16287	13303
30	8954	7693	4846	6078	---	8164	16539	18291	18366	17316	16241	13145
31	8790	---	4796	6068	---	8262	---	18321	---	17316	16190	---
MAX	13409	8618	7616	6078	6399	8262	16539	18406	18512	18336	17039	16153
MIN	8790	7511	4796	4336	5825	6138	8368	16856	18211	17313	16190	13145
a	5580.92	5576.11	5560.43	5568.33	5569.49	5578.64	5610.46	5617.53	5617.68	5614.09	5609.31	5598.49
b	-4786	-1097	-2897	+1272	+226	+1968	+8277	+1782	+45	-1050	-1126	-3045

CAL YR 1999 MAX 18433 MIN 4796 b -2847
WTR YR 2000 MAX 18512 MIN 4336 b -431

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

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CA

LOCATION.—Lat 38°11'51", long 120°00'27", in SW 1/4 SW 1/4 sec.16, T.4 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank, 0.4 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 mi^2.

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). WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 5,235.1 ft above sea level (river-profile survey). October 1911 to January 1917, nonrecording gage at site 1 mi downstream at different datum.

REMARKS.—Low and medium flows regulated beginning in 1916 by Pinecrest Lake (station 11295900) 1.2 mi upstream. No diversion upstream from station. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,820 ft^3/s, Jan. 2, 1997, gage height, 12.34 ft, from rating curve extended above 1,100 ft^3/s on basis of contracted-opening measurement of peak flow at bridge 0.3 mi downstream from station; minimum daily, 1.3 ft^3/s, Nov. 22, 1946.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	84	49	33	47	52	96	264	457	77	15	17
2	95	84	48	28	47	53	108	287	513	63	15	18
3	93	83	48	28	47	52	132	343	500	54	14	18
4	93	82	48	18	47	53	157	603	531	47	14	17
5	93	82	48	20	47	54	165	666	561	51	14	17
6	93	81	47	20	46	53	157	573	505	61	14	17
7	93	77	47	20	46	53	157	560	478	59	14	17
8	92	37	47	20	46	53	161	1270	495	64	18	17
9	92	40	58	20	47	53	143	820	350	67	22	17
10	89	22	67	20	49	52	139	523	302	66	22	16
11	70	8.3	67	26	48	54	153	361	308	39	22	16
12	67	8.0	67	28	48	55	162	286	320	22	21	16
13	67	8.5	67	28	51	56	253	269	406	21	21	17
14	67	9.1	66	28	83	59	177	280	461	21	21	55
15	66	9.3	65	29	74	63	141	288	460	21	21	70
16	66	10	65	30	65	66	126	281	415	20	21	69
17	65	14	65	30	58	67	125	256	373	20	21	69
18	65	11	65	43	55	70	113	308	333	19	20	87
19	64	11	65	40	54	75	108	485	277	18	19	97
20	80	15	65	42	55	79	114	709	199	18	18	96
21	92	13	63	41	54	75	127	838	163	18	18	96
22	88	11	62	37	53	75	128	918	142	17	17	96
23	87	10	44	37	53	78	131	764	147	17	17	96
24	86	9.9	37	48	52	80	143	865	132	17	17	95
25	86	9.8	36	28	52	83	162	996	121	16	17	86
26	86	9.6	36	27	52	91	202	871	126	16	17	75
27	85	9.6	36	31	56	99	239	785	107	16	17	30
28	86	9.6	32	31	54	96	222	820	88	15	17	84
29	85	36	28	29	53	94	189	751	111	15	17	92
30	85	48	28	29	---	97	222	667	98	15	17	91
31	84	---	30	39	---	97	---	512	---	15	17	---
TOTAL	2555	942.7	1596	928	1539	2137	4652	18219	9479	1005	555	1604
MEAN	82.4	31.4	51.5	29.9	53.1	68.9	155	588	316	32.4	17.9	53.5
MAX	95	84	67	48	83	99	253	1270	561	77	22	97
MIN	64	8.0	28	18	46	52	96	256	88	15	14	16
AC-FT	5070	1870	3170	1840	3050	4240	9230	36140	18800	1990	1100	3180

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.8	52.9	58.7	56.8	54.5	68.0	133	421	386	116	49.5	59.7
MAX	121	344	338	429	229	212	386	874	1066	683	127	99.2
(WY)	1983	1951	1951	1997	1982	1986	1982	1969	1983	1983	1983	1968
MIN	6.43	12.0	6.30	11.0	5.91	5.24	29.0	36.8	37.3	9.17	12.8	8.09
(WY)	1945	1943	1969	1987	1987	1977	1977	1977	1992	1977	1988	1984

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1938 - 2000	
ANNUAL TOTAL	49325.7		45211.7			
ANNUAL MEAN	135		124		127	
HIGHEST ANNUAL MEAN					259	1983
LOWEST ANNUAL MEAN					26.6	1977
HIGHEST DAILY MEAN	1080	May 23	1270	May 8	4680	Jan 2 1997
LOWEST DAILY MEAN	8.0	Nov 12	8.0	Nov 12	1.3	Nov 22 1946
ANNUAL SEVEN-DAY MINIMUM	9.6	Nov 11	9.6	Nov 11	2.3	Nov 9 1942
INSTANTANEOUS PEAK FLOW			1440	May 8	7820	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.62	May 8	12.34	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	97840		89680		91700	
10 PERCENT EXCEEDS	458		336		328	
50 PERCENT EXCEEDS	65		60		61	
90 PERCENT EXCEEDS	18		17		21	

11297200 SOUTH FORK STANISLAUS RIVER NEAR STRAWBERRY, CA

LOCATION.—Lat 38°10'40", long 120°02'45", in NW 1/4 NW 1/4 sec.30, T.4 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, on right bank, 400 ft downstream from diversion dam, and 2.8 mi southwest of Strawberry.

DRAINAGE AREA.—48.5 mi^2.

PERIOD OF RECORD.—October 1985 to current year (low-flow records only). Unpublished records for water years 1970, 1976–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 4,915 ft above sea level, from topographic map.

REMARKS.—No records computed above 50 ft^3/s. Flow regulated by Pinecrest Lake (station 11295900). Most of the water is diverted at diversion dam 400 ft upstream to Philadelphia Canal (station 11297000). See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	29	32	8.2	5.2	15	---	---	---	26	19	8.8
2	35	28	32	5.4	5.4	15	---	---	---	11	18	9.0
3	35	28	32	5.3	5.5	14	---	---	---	14	18	8.1
4	34	27	31	5.8	5.1	15	---	---	---	8.1	18	7.8
5	34	27	31	5.3	5.1	17	---	---	---	10	18	7.6
6	34	26	31	5.2	5.1	16	---	---	---	10	18	7.5
7	33	27	31	4.9	5.1	14	---	---	---	8.2	18	7.3
8	33	36	26	4.7	5.4	15	---	---	---	12	18	7.3
9	32	41	27	4.7	6.1	14	---	---	---	15	13	7.6
10	32	23	31	4.7	5.8	13	---	---	---	13	7.4	7.5
11	10	5.1	32	5.3	5.5	15	---	---	---	13	8.0	7.8
12	8.6	4.8	32	5.0	6.0	16	---	---	---	11	8.2	13
13	8.3	5.0	31	5.4	9.0	11	---	---	---	9.8	8.1	15
14	8.1	5.7	31	5.1	---	11	---	---	---	8.8	7.9	14
15	8.0	5.9	31	6.6	33	---	---	---	---	8.2	7.8	12
16	7.8	6.6	31	7.9	20	---	---	---	---	7.7	7.7	11
17	7.5	10	30	8.8	9.4	25	---	---	---	7.8	7.6	11
18	7.3	7.8	30	11	5.4	28	---	---	---	9.2	7.5	28
19	6.8	7.9	29	5.1	5.0	38	---	---	---	7.8	7.5	41
20	22	11	26	5.1	5.2	43	---	---	---	7.4	7.5	40
21	40	9.4	28	5.0	12	36	---	---	---	7.5	7.5	40
22	33	7.4	27	5.1	9.8	33	---	---	---	7.8	7.5	40
23	33	6.8	16	5.2	17	36	---	---	---	7.4	8.0	39
24	33	6.5	7.9	8.3	13	38	---	---	---	7.5	8.1	38
25	32	6.4	5.1	5.1	12	43	---	---	---	8.4	8.5	---
26	32	6.3	4.6	5.1	12	---	---	---	---	7.9	8.4	---
27	31	6.2	4.9	5.1	23	---	---	---	---	7.5	8.4	31
28	34	6.2	4.5	5.1	17	---	---	---	43	7.2	8.4	42
29	31	16	4.7	5.0	16	---	---	---	---	7.2	8.4	32
30	30	31	4.8	5.2	---	---	---	---	50	8.0	8.6	32
31	29	---	5.0	5.4	---	---	---	---	---	16	8.5	---
TOTAL	790.4	464.0	719.5	179.1	---	---	---	---	---	310.4	333.5	---
MEAN	25.5	15.5	23.2	5.78	---	---	---	---	---	10.0	10.8	---
MAX	40	41	32	11	---	---	---	---	---	26	19	---
MIN	6.8	4.8	4.5	4.7	---	---	---	---	---	7.2	7.4	---
AC-FT	1570	920	1430	355	---	---	---	---	---	616	661	---
a	3640	893	1670	1370	2700	3190	3520	3580	3480	1730	374	1730

CAL YR 1999 a 30880
WTR YR 2000 a 27870

a Diversion, in acre-feet, to Philadelphia Canal, provided by Pacific Gas & Electric Co.

11297700 LYONS RESERVOIR NEAR LONG BARN, CA

LOCATION.—Lat 38°05'38", long 120°09'59", in SW 1/4 NE 1/4 sec.24, T.3 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, at left abutment of dam and 1.6 mi west of Long Barn.

DRAINAGE AREA.—66.8 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for 1981–85 water years are available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder. Prior to Dec. 10, 1990, nonrecording gage read three times weekly. Datum of gage is 4,134 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Reservoir is formed by concrete arch dam completed in 1930; storage began in 1930. Usable capacity, 4,850 acre-ft, between gage heights 0.0 ft, invert of outlet, and 86.0 ft, top of spillway gates. Dead storage, 2.5 acre-ft. Part of the released water is diverted to Tuolumne Canal (station 11297500) near the base of the dam. Records from Dec. 10, 1990, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents observed, 6,292 acre-ft, June 4, 5, 7, 9, 10, 1989, gage height, 90.4 ft, maximum gage height, 90.47 ft, June 15, 2000; minimum observed, 832 acre-ft, Nov. 27, 1995, gage height, 48.51 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 5,587 acre-ft, June 15, gage height, 90.47 ft; minimum, 1,503 acre-ft, Oct. 18, gage height, 58.94 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1996)

20	34.2	40	474	70	2,598
25	94.4	50	908	80	3,913
30	186	60	1,592	90	5,507

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1869	1801	1938	2470	3967	4029	4033	4015	5327	5485	3951	2371
2	1869	1816	1978	2455	3967	4024	4032	4021	5558	5446	3915	2327
3	1868	1828	2014	2441	3967	4020	4032	4116	5572	5408	3875	2274
4	1864	1843	2047	2421	3961	4014	4032	4256	5568	5362	3837	2220
5	1861	1853	2081	2398	3958	4015	4030	4273	5572	5310	3797	2168
6	1855	1869	2115	2376	3952	4017	4030	4230	5543	5265	3760	2116
7	1851	1898	2150	2353	3948	4018	4027	4255	5538	5219	3719	2065
8	1847	1940	2185	2332	3945	4020	4030	4531	5560	5171	3702	2012
9	1839	1990	2229	2319	3949	4021	4024	4307	e5560	5135	3656	1972
10	1833	2021	2286	2300	3975	4023	3987	4307	e5560	5091	3648	1922
11	1805	2011	2343	2293	3994	4024	3993	4285	e5560	5049	3587	1873
12	1756	1993	2401	2285	3990	4026	3994	4230	5561	5004	3530	1825
13	1707	1970	2433	2269	4097	4027	4050	4207	5583	4960	3470	1792
14	1659	1951	2444	2260	4117	4029	4012	4210	5585	4911	3409	1759
15	1609	1936	2456	2263	4035	4030	3994	4228	5587	4861	3351	1720
16	1560	1915	2468	2314	4018	4032	3985	4230	5582	4810	3293	1682
17	1511	1917	2479	2363	4020	4033	4015	4199	5577	4757	3232	1641
18	1503	1917	2490	2533	4003	4035	4002	4224	5572	4707	3171	1608
19	1510	1919	2503	2569	3994	4036	3994	4365	5563	4658	3110	1617
20	1518	1926	2514	2630	3999	4038	3964	4518	5544	4607	3048	1619
21	1586	1929	2523	2662	4009	4038	3966	4594	5529	4548	2989	1629
22	1641	1928	2532	2675	4017	4036	3967	4667	5524	4492	2931	1641
23	1681	1920	2541	2718	4018	4036	3967	4627	5522	4437	2869	1650
24	1681	1912	2550	3219	4003	4036	3969	4937	5515	4385	2811	1658
25	1677	1905	2560	3603	4000	4036	3973	5377	5509	4327	2756	1732
26	1683	1894	2553	3732	4009	4035	3987	5446	5509	4273	2699	1823
27	1682	1886	2539	3794	4067	4035	4003	5387	5499	4216	2644	1839
28	1736	1875	2527	3829	4044	4035	4000	5424	5477	4160	2587	1844
29	1755	1867	2513	3854	4039	4033	3987	5372	5499	4100	2531	1844
30	1772	1901	2498	3927	---	4033	3996	5377	5500	4041	2475	1843
31	1786	---	2484	3963	---	4033	---	5394	---	3988	2422	---
MAX	1869	2021	2560	3963	4117	4038	4050	5446	5587	5485	3951	2371
MIN	1503	1801	1938	2260	3945	4014	3964	4015	5327	3988	2422	1608
a	62.17	63.39	69.00	80.33	80.84	80.80	80.55	89.33	89.96	80.50	68.44	62.78
b	-83	+115	+583	+1479	+76	-6	-37	+1398	+106	-1512	-1566	-579

CAL YR 1999 MAX 5527 MIN 1503 b -644
WTR YR 2000 MAX 5587 MIN 1503 b -26

e Estimated.
a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CA

LOCATION.—Lat 38°05'33", long 120°10'04", in NE 1/4 NW 1/4 sec.25, T.3 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank, 600 ft downstream from Lyons Dam, 1.9 mi west of Long Barn, and 15 mi northeast of Sonora.

DRAINAGE AREA.—66.9 mi^2.

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). WSP 1930: Drainage area.

GAGE.—Water-stage recorder and rectangular weir. Elevation of gage is 4,175 ft above sea level (from topographic map). Prior to Sept. 30, 1997, at site 300 ft downstream at different datum.

REMARKS.—Flow regulated by Lyons Reservoir (station 11297700) 600 ft upstream and Pinecrest Lake (station 11295900). Tuolumne Canal (station 11297500) diverts at Lyons Dam. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,900 ft^3/s, Jan. 2, 1997, gage height, 13.03 ft, from rating curve extended above 2,400 ft^3/s, on basis of computation of peak flow over Lyons Dam; no flow at times in 1937–39, 1952.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.9	2.9	3.0	7.4	288	36	457	565	6.5	2.9	3.0
2	2.9	2.9	2.9	3.0	5.3	190	37	546	453	2.8	2.9	3.0
3	2.9	2.9	2.9	3.0	5.9	145	82	476	572	2.8	2.9	3.0
4	2.9	2.9	2.9	3.0	4.5	143	142	911	608	2.8	2.9	3.0
5	2.9	2.9	2.9	3.0	2.7	164	213	1140	640	2.8	2.9	3.0
6	2.9	3.0	2.9	3.0	2.8	198	205	1040	612	2.8	2.9	3.0
7	2.9	2.9	2.9	3.0	3.1	139	197	764	563	2.8	2.9	3.0
8	2.9	2.9	3.0	3.0	23	130	225	949	587	2.8	2.9	3.0
9	2.9	2.9	3.0	2.9	23	99	202	1280	506	2.8	2.9	3.1
10	2.9	2.9	3.0	2.9	13	85	152	601	453	2.8	2.9	3.1
11	2.9	2.9	3.0	2.9	42	96	161	403	228	2.9	2.9	3.1
12	2.9	2.9	3.0	2.9	120	118	185	313	146	2.9	2.9	3.1
13	2.9	2.9	3.0	2.9	678	118	427	247	413	2.9	2.9	3.1
14	2.9	2.9	3.0	2.9	1070	120	467	237	519	2.9	2.9	3.1
15	2.9	3.0	3.0	2.9	566	206	249	263	521	2.9	2.9	3.1
16	2.9	2.9	3.0	2.8	364	348	141	277	479	2.9	2.9	3.1
17	2.9	2.9	3.0	2.7	204	219	103	238	422	2.9	2.9	3.1
18	3.6	2.9	3.0	2.8	88	188	261	264	375	2.9	3.0	3.1
19	3.9	3.0	3.0	2.7	55	207	163	388	311	2.9	3.0	3.1
20	3.7	2.9	3.0	2.7	36	208	129	582	165	2.9	3.0	3.1
21	3.0	2.9	3.0	2.7	33	132	141	732	123	2.9	3.0	3.4
22	2.9	2.9	3.0	2.7	68	98	150	862	48	2.8	3.0	3.3
23	2.9	2.9	3.0	2.7	67	80	134	854	49	2.8	3.0	3.3
24	2.9	2.9	3.0	2.8	114	73	131	678	39	2.8	3.0	3.3
25	2.9	2.9	3.0	2.9	64	71	164	760	29	2.8	3.0	3.3
26	2.9	2.9	3.0	2.8	44	78	261	828	27	2.8	3.0	3.3
27	2.9	2.9	3.0	2.7	54	95	405	795	24	3.0	3.0	3.3
28	2.9	2.9	3.0	2.7	534	93	463	792	15	3.0	3.0	3.3
29	2.9	2.9	3.0	2.7	354	64	302	765	8.1	3.0	3.0	3.3
30	2.9	2.9	3.0	2.8	---	55	324	725	11	3.0	3.0	3.3
31	2.9	---	3.0	5.3	---	46	---	632	---	2.9	3.0	---
TOTAL	92.5	87.3	92.3	90.8	4645.7	4294	6252	19799	9511.1	92.5	91.3	94.3
MEAN	2.98	2.91	2.98	2.93	160	139	208	639	317	2.98	2.95	3.14
MAX	3.9	3.0	3.0	5.3	1070	348	467	1280	640	6.5	3.0	3.4
MIN	2.9	2.9	2.9	2.7	2.7	46	36	237	8.1	2.8	2.9	3.0
AC-FT	183	173	183	180	9210	8520	12400	39270	18870	183	181	187
a	1490	863	851	821	1350	1740	2290	2460	2410	2050	2200	1870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2000, BY WATER YEAR (WY)

MEAN	2.46	10.5	24.3	39.1	48.2	57.9	102	366	324	65.2	3.35	2.17
MAX	14.7	324	399	625	306	291	501	875	1042	602	37.7	5.45
(WY)	1983	1951	1951	1997	1982	1938	1982	1969	1998	1998	1983	1995
MIN	.000	.023	.077	.013	.000	.23	.97	1.02	1.00	.92	.83	.71
(WY)	1938	1939	1939	1939	1939	1939	1977	1977	1977	1949	1940	1949

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1938 - 2000	
ANNUAL TOTAL	52608.5		45142.8			
ANNUAL MEAN	144		123		86.4	
HIGHEST ANNUAL MEAN					234	1983
LOWEST ANNUAL MEAN					1.50	1977
HIGHEST DAILY MEAN	1540	May 23	1280	May 9	6040	Jan 2 1997
LOWEST DAILY MEAN	2.3	Jul 9	2.7	Jan 17	.00	Oct 1 1937
ANNUAL SEVEN-DAY MINIMUM	2.5	Jul 8	2.7	Jan 17	.00	Oct 1 1937
INSTANTANEOUS PEAK FLOW			1460	May 9	12900	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.32	May 9	13.03	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	104300		89540		62580	
ANNUAL DIVERSION (AC-FT) a	19730		20410			
10 PERCENT EXCEEDS	443		470		295	
50 PERCENT EXCEEDS	3.0		3.0		2.5	
90 PERCENT EXCEEDS	2.6		2.9		1.4	

a Diversion, in acre-feet, to Tuolumne Canal, provided by Pacific Gas & Electric Co.

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., Calaveras 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 mi^2.

PERIOD OF RECORD.—1926 (year-end contents 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 sea level (levels by U.S. Army 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 New Melones Powerplant (station 11299200) to Tulloch Reservoir (station 11299995) where it is used for irrigation. Records for the 1971 water year represent contents at 1630 hours. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD (Subsequent to completion of New Melones Dam in 1978).—Maximum contents, 2,400,000 acre-ft, July 8–10, 1983, elevation, 1,086.42 ft; minimum since reservoir first filled in July 1983, 83,630 acre-ft, Oct. 1, 1992, elevation, 721.15 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 2,013,000 acre-ft, Mar. 28–30, elevation, 1,053.45 ft, Mar. 29; minimum, 1,804,000 acre-ft, Sept. 29, 30, elevation, 1,033.96 ft, Sept. 30.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Army Corps of Engineers, dated September 1978)

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		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1831000	1857000	1866000	1881000	1927000	2007000	2010000	1995000	1983000	1956000	1889000	1829000
2	1831000	1858000	1867000	1882000	1927000	2005000	2010000	1993000	1981000	1954000	1888000	1828000
3	1831000	1859000	1868000	1882000	1928000	2003000	2011000	1991000	1980000	1951000	1886000	1827000
4	1831000	1860000	1868000	1882000	1930000	1999000	2010000	1990000	1979000	1949000	1885000	1825000
5	1832000	1860000	1869000	1882000	1931000	2000000	2010000	1990000	1978000	1946000	1882000	1824000
6	1832000	1860000	1869000	1881000	1933000	1999000	2011000	1989000	1978000	1943000	1880000	1822000
7	1833000	1862000	1871000	1882000	1934000	1997000	2009000	1986000	1977000	1942000	1877000	1821000
8	1833000	1864000	1870000	1882000	1935000	1995000	2009000	1990000	1976000	1938000	1875000	1820000
9	1834000	1862000	1870000	1882000	1937000	1995000	2008000	1992000	1974000	1936000	1872000	1818000
10	1834000	1861000	1871000	1881000	1937000	1993000	2007000	1990000	1972000	1934000	1869000	1816000
11	1834000	1862000	1871000	1878000	1939000	1990000	2006000	1989000	1970000	1932000	1867000	1815000
12	1834000	1861000	1872000	1878000	1946000	1988000	2005000	1986000	1967000	1930000	1864000	1816000
13	1835000	1861000	1871000	1879000	1963000	1987000	2005000	1984000	1966000	1928000	1862000	1815000
14	1836000	1861000	1871000	1879000	1965000	1988000	2006000	1982000	1966000	1926000	1859000	1813000
15	1838000	1860000	1872000	1878000	1982000	1989000	2002000	1982000	1967000	1924000	1857000	1813000
16	1839000	1860000	1874000	1878000	1986000	1990000	2002000	1981000	1969000	1921000	1855000	1813000
17	1841000	1860000	1874000	1877000	1993000	1991000	2004000	1980000	1969000	1918000	1854000	1813000
18	1842000	1861000	1875000	1879000	1995000	1993000	2004000	1979000	1968000	1916000	1852000	1812000
19	1843000	1862000	1876000	1881000	1995000	1994000	2006000	1977000	1968000	1915000	1849000	1812000
20	1844000	1861000	1877000	1884000	1993000	1996000	2008000	1976000	1968000	1913000	1846000	1812000
21	1846000	1862000	1878000	1885000	1992000	1999000	2007000	1975000	1967000	1912000	1845000	1811000
22	1847000	1862000	1878000	1886000	1990000	2002000	2006000	1975000	1966000	1910000	1843000	1811000
23	1848000	1863000	1878000	1887000	1993000	2004000	2005000	1974000	1965000	1907000	1842000	1811000
24	1849000	1863000	1878000	1893000	1995000	2006000	2005000	1973000	1963000	1905000	1842000	1810000
25	1851000	1863000	1879000	1909000	1994000	2008000	2004000	1974000	1962000	1903000	1840000	1810000
26	1852000	1864000	1880000	1914000	1993000	2010000	2002000	1978000	1961000	1901000	1838000	1809000
27	1853000	1864000	1880000	1918000	2004000	2012000	2001000	1980000	1960000	1898000	1837000	1807000
28	1853000	1864000	1880000	1920000	2006000	2013000	1999000	1982000	1958000	1896000	1836000	1806000
29	1854000	1865000	1880000	1922000	2008000	2013000	1998000	1983000	1959000	1894000	1834000	1804000
30	1855000	1866000	1881000	1923000	---	2013000	1996000	1984000	1957000	1894000	1833000	1804000
31	1856000	---	1881000	1926000	---	2012000	---	1984000	---	1891000	1831000	---
MAX	1856000	1866000	1881000	1926000	2008000	2013000	2011000	1995000	1983000	1956000	1889000	1829000
MIN	1831000	1857000	1866000	1877000	1927000	1987000	1996000	1973000	1957000	1891000	1831000	1804000
a	1038.95	1039.93	1041.33	1045.51	1053.00	1053.31	1051.91	1050.80	1048.40	1042.26	1036.54	1033.96
b	+27000	+10000	+15000	+45000	+82000	+4000	-16000	-12000	-27000	-66000	-60000	-27000
c	4913	1882	1472	859	1470	2491	3834	4826	7343	8329	7680	5381
d	.00	23140	22120	25230	61830	125300	141200	164000	140400	119300	116300	82380

CAL YR 1999 b -96000
WTR YR 2000 b -25000

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Total evaporation, in acre-feet, published as provided; not reviewed by U.S. Geological Survey.
d Discharge, in acre-feet, through New Melones Powerplant, provided by U.S. Bureau of Reclamation.

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 mi^2.

PERIOD OF RECORD.—August 1983 to current year.

REVISED RECORDS.—WDR CA-86-3: 1984(M).

GAGE.—Water-stage recorder. Datum of gage is 746.13 ft above sea level.

REMARKS.—Records fair. No regulation or diversion upstream from station. See schematic diagram of Stanislaus River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,200 ft^3/s, Feb. 19, 1986, gage height, 9.10 ft, from rating curve extended above 2,500 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 50 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	0045	1,040	4.76	Feb. 27	1845	1,240	4.93
Feb. 13	2115	1,880	5.45	Mar. 5	1045	259	3.77
Feb. 23	0600	1,000	4.73	May 16	0930	66	3.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.29	.14	9.2	84	4.4	2.0	.84	.00	.00	.00
2	.00	.00	.16	.13	7.3	53	4.3	1.9	.78	.00	.00	.00
3	.00	.00	.15	.13	7.1	39	4.2	1.8	.70	.00	.00	.00
4	.00	.00	.13	.13	17	30	4.0	1.7	.67	.00	.00	.00
5	.00	.00	.12	.14	9.8	131	3.9	1.7	.60	.00	.00	.00
6	.00	.00	.12	.14	7.7	64	3.7	1.8	.60	.00	.00	.00
7	.00	.00	.12	.16	6.5	48	3.5	3.2	.59	.00	.00	.00
8	.00	.00	.12	.14	5.7	59	3.4	3.7	1.0	.00	.00	.00
9	.00	.00	.15	.16	5.2	47	3.3	2.5	1.0	.00	.00	.00
10	.00	.00	.25	.16	12	34	3.3	2.2	.80	.00	.00	.00
11	.00	.00	.16	.23	21	28	3.1	2.0	.71	.00	.00	.00
12	.00	.00	.16	.48	269	24	3.0	1.9	.64	.00	.00	.00
13	.00	.00	.22	.25	641	20	4.0	1.9	.57	.00	.00	.00
14	.00	.00	.22	.20	321	17	5.1	1.8	.51	.00	.00	.00
15	.00	.00	.16	.36	84	15	3.5	5.6	.40	.00	.00	.00
16	.00	.00	.15	1.2	87	13	3.3	19	.34	.00	.00	.00
17	.00	.08	.16	1.4	52	12	16	5.0	.32	.00	.00	.00
18	.00	.07	.15	5.1	32	11	6.6	3.3	.28	.00	.00	.00
19	.00	.38	.16	2.0	23	10	4.1	2.6	.28	.00	.00	.00
20	.00	.60	.14	1.7	27	9.2	3.6	2.2	.26	.00	.00	.00
21	.00	.19	.14	1.5	75	8.4	3.2	2.0	.22	.00	.00	.00
22	.00	.12	.14	1.1	55	7.9	3.0	1.8	.17	.00	.00	.00
23	.00	.10	.13	7.9	263	7.5	3.0	1.7	.14	.00	.00	.00
24	.00	.10	.13	169	72	7.2	2.7	1.6	.13	.00	.00	.00
25	.00	.10	.13	403	41	6.8	2.6	1.4	.10	.00	.00	.00
26	.00	.10	.13	32	29	6.3	2.5	1.3	.08	.00	.00	.00
27	.00	.11	.13	12	340	6.2	2.4	1.2	.07	.00	.00	.00
28	.00	.10	.13	7.7	176	6.0	2.3	1.1	.05	.00	.00	.00
29	.00	.10	.13	5.9	139	5.6	2.3	.98	.03	.00	.00	.00
30	.00	.21	.13	15	---	5.1	2.1	.93	.02	.00	.00	.00
31	.00	---	.14	17	---	4.6	---	.88	---	.00	.00	---
TOTAL	0.00	2.36	4.75	686.45	2834.5	819.8	116.4	82.69	12.90	0.00	0.00	0.00
MEAN	.000	.079	.15	22.1	97.7	26.4	3.88	2.67	.43	.000	.000	.000
MAX	.00	.60	.29	403	641	131	16	19	1.0	.00	.00	.00
MIN	.00	.00	.12	.13	5.2	4.6	2.1	.88	.02	.00	.00	.00
AC-FT	.00	4.7	9.4	1360	5620	1630	231	164	26	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2000, BY WATER YEAR (WY)

MEAN	.13	4.40	10.5	34.6	47.3	22.3	5.67	2.52	.50	.052	.000	.006
MAX	1.80	53.1	98.8	144	171	96.6	32.4	13.6	3.63	.46	.005	.11
(WY)	1992	1984	1997	1997	1998	1995	1998	1998	1998	1998	1998	1983
MIN	.000	.000	.000	.000	.16	.62	.62	.17	.000	.000	.000	.000
(WY)	1986	1991	1991	1991	1991	1988	1988	1992	1988	1984	1984	1984

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1983 - 2000	
ANNUAL TOTAL	4044.99		4559.85			
ANNUAL MEAN	11.1		12.5		10.5	
HIGHEST ANNUAL MEAN					28.6	1998
LOWEST ANNUAL MEAN					.32	1988
HIGHEST DAILY MEAN	489	Feb 9	641	Feb 13	1400	Feb 17 1986
LOWEST DAILY MEAN	.00	Jul 3	.00	Oct 1	.00	Sep 16 1983
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 3	.00	Oct 1	.00	Jun 28 1984
INSTANTANEOUS PEAK FLOW			1880	Feb 13	5200	Feb 19 1986
INSTANTANEOUS PEAK STAGE			5.45	Feb 13	9.10	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	8020		9040		7590	
10 PERCENT EXCEEDS	21		18		14	
50 PERCENT EXCEEDS	.17		.15		.22	
90 PERCENT EXCEEDS	.00		.00		.00	

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 Tulloch Dam on Stanislaus River, 1.9 mi upstream from Goodwin Dam, and 5.3 mi northeast of Knights Ferry.

DRAINAGE AREA.—980 mi^2.

PERIOD OF RECORD.—November 1957 to current year.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is sea level (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, first passing through Tulloch Powerplant (station 11299996) 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.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, in connection with a Federal Energy Regulatory Commission project.

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 28, elevation, 509.67 ft; minimum, 53,900 acre-ft, Jan. 13, elevation, 498.64.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated October 1956)

404	4,580	430	11,100	475	33,100
411	6,020	445	16,400	490	45,300
420	8,200	460	23,600	512	69,500

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61300	54300	55700	54800	56700	55700	56700	61000	65800	64800	65900	65400
2	61200	54300	55800	54500	56500	56000	56300	61500	65700	64500	65400	65100
3	61100	54200	55500	56100	56100	55300	56000	62100	65300	64700	65400	64300
4	61100	54400	56100	55400	55700	56000	56700	61300	64900	64700	64700	64500
5	61000	55000	55300	54800	55300	56800	56400	60900	65000	64900	65300	64400
6	60900	55300	54800	56100	54800	55500	56400	60600	65100	65700	65000	65100
7	60900	54600	54000	55200	54400	55500	57500	62400	65300	64500	64800	64600
8	60800	54200	56000	55600	54000	55700	57500	62200	65400	65200	64600	64800
9	60800	55300	55500	54400	55600	54900	57500	61800	65600	65000	64700	65200
10	60300	55700	55700	55000	56000	55500	58000	62500	65500	65200	64700	65400
11	59900	55000	55100	56500	55900	55500	57600	62800	65000	64900	65300	65600
12	59600	55800	54400	55400	57800	56100	57700	64000	65100	65200	65100	64300
13	59500	55000	56200	53900	61000	56300	58300	64500	65500	64600	64500	64700
14	59400	54300	56200	54000	61600	55900	57600	63900	66200	64600	65700	66100
15	59000	55400	55700	54500	59200	55900	61000	63400	66000	64700	65600	66000
16	58000	56000	55100	54400	56900	56000	59100	63900	65300	64900	65400	64900
17	57300	55300	56100	54500	56200	56000	60200	63200	65400	65700	65300	63300
18	56800	54600	55300	56600	55100	55900	61100	63300	65600	65500	65000	65100
19	56600	55200	54600	55100	56000	55800	60000	64200	64900	65700	65100	65100
20	56400	56000	54200	56700	57000	56000	58600	63500	64600	65600	65000	65400
21	56100	55400	55400	56500	56800	56500	59700	63900	64800	65200	65200	64500
22	55800	55400	54800	55900	55900	55100	60100	64000	64800	64800	65700	63300
23	55600	55500	55500	55500	56400	55500	60500	64200	64900	64700	65000	62600
24	55300	56100	56100	56400	56400	55300	60200	64500	65100	65500	64700	62200
25	55100	55400	55400	59200	56400	55700	60500	64800	65200	65500	65400	61800
26	54900	55500	54800	59100	56100	55500	60700	64900	65400	65300	65400	61700
27	54700	56000	55500	58800	55700	55200	60600	64700	65700	65800	64500	61900
28	54700	55200	55900	58400	56900	55300	61200	64800	65000	66600	64600	61600
29	54800	55200	55300	57400	55900	55300	61400	65000	65100	65800	65000	61700
30	54800	54400	55500	57700	---	55800	61300	64900	65500	63800	64900	62000
31	54400	---	55400	56900	---	56400	---	65400	---	65100	65400	---
MAX	61300	56100	56200	59200	61600	56800	61400	65400	66200	66600	65900	66100
MIN	54400	54200	54000	53900	54000	54900	56000	60600	64600	63800	64500	61600
a	499.16	499.20	500.07	501.50	500.51	501.05	505.30	508.30	508.85	508.52	508.70	505.93
b	-7900	0	+1000	+1500	-1000	+500	+4900	+4100	+100	-400	+300	-3400
c	39700	24190	23090	33390	60710	90040	101100	104000	99550	106200	102900	87320

CAL YR 1999 b -1100
WTR YR 2000 b -300

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Diversion, in acre-feet, through Tulloch Powerplant, provided by Oakdale and South San Joaquin Irrigation Districts.

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 mi^2.

PERIOD OF RECORD.—June 1972 to current year.
WATER TEMPERATURE: June 1972 to current year.

PERIOD OF DAILY RECORD.—June 1972 to current year.
WATER TEMPERATURE: June 1972 to current year.

INSTRUMENTATION.—Water-temperature recorder since June 1972.

REMARKS.—Water temperature is affected by regulation from Tulloch Powerplant. Interruptions in record were due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 27.5°C, Aug. 30, 1977; minimum recorded, 5.0°C, Jan. 13, 1973.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 12.5°C, many days in August and September; minimum recorded, 9.0°C, several days in January.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	12.0	11.5	11.0	---	---	9.5	9.5	10.0	9.5	10.0	10.0
2	12.0	12.0	11.5	11.0	---	---	9.5	9.5	10.0	9.5	10.0	10.0
3	12.0	12.0	11.5	11.0	---	---	9.5	9.5	9.5	9.5	10.0	9.5
4	12.0	12.0	11.5	11.0	---	---	9.5	9.5	10.0	9.5	10.0	9.5
5	12.0	12.0	11.5	11.5	---	---	9.5	9.5	10.0	9.5	9.5	9.5
6	12.0	11.5	11.5	11.5	---	---	9.5	9.0	10.0	9.5	9.5	9.5
7	12.0	11.5	11.5	11.5	---	---	9.5	9.0	10.0	9.5	9.5	9.5
8	12.0	11.5	11.5	11.5	---	---	9.0	9.0	10.0	9.5	9.5	9.5
9	11.5	11.5	11.5	11.5	---	---	9.0	9.0	10.0	9.5	9.5	9.5
10	11.5	11.5	11.5	11.5	---	---	9.0	9.0	10.0	9.5	9.5	9.5
11	11.5	11.5	11.5	11.5	---	---	9.0	9.0	10.0	9.5	9.5	9.5
12	11.5	11.5	11.5	11.5	---	---	9.0	9.0	10.0	10.0	9.5	9.5
13	11.5	11.5	11.5	11.5	---	---	9.0	9.0	10.0	10.0	9.5	9.5
14	11.5	11.0	11.5	11.5	---	---	9.0	9.0	10.0	10.0	9.5	9.5
15	11.0	11.0	11.5	11.5	---	---	9.5	9.0	10.0	10.0	9.5	9.5
16	11.0	11.0	11.5	11.5	---	---	9.5	9.0	10.5	10.0	9.5	9.5
17	11.0	11.0	11.5	11.5	10.5	10.5	9.0	9.0	10.5	10.0	10.0	9.5
18	11.0	11.0	11.5	11.5	10.5	10.5	9.0	9.0	10.5	10.5	10.0	9.5
19	11.0	11.0	11.5	11.5	10.5	10.5	9.5	9.0	10.5	10.5	10.0	9.5
20	11.5	11.0	11.5	11.5	10.5	10.5	9.5	9.0	10.5	10.5	10.0	9.5
21	11.5	11.0	11.5	11.5	10.5	10.0	9.5	9.0	10.5	10.0	10.0	9.5
22	11.5	11.0	11.5	11.5	10.5	10.0	9.5	9.0	10.0	10.0	10.0	9.5
23	11.5	11.0	11.5	11.5	10.5	10.0	9.5	9.0	10.0	10.0	10.0	9.5
24	11.5	11.0	11.5	11.5	10.0	10.0	9.5	9.5	10.0	10.0	10.0	9.5
25	11.5	11.0	11.5	11.5	10.0	10.0	9.5	9.5	10.0	10.0	10.0	10.0
26	11.5	11.0	11.5	11.5	10.0	10.0	9.5	9.5	10.0	10.0	10.0	10.0
27	11.5	11.0	11.5	11.5	10.0	10.0	9.5	9.5	10.0	10.0	10.0	10.0
28	11.5	11.0	11.5	11.5	10.0	9.5	9.5	9.5	10.0	10.0	10.0	10.0
29	11.5	11.0	11.5	11.5	10.0	9.5	9.5	9.5	10.0	10.0	10.0	10.0
30	11.5	11.0	---	---	9.5	9.5	9.5	9.5	---	---	10.0	10.0
31	11.5	11.0	---	---	10.0	9.5	9.5	9.5	---	---	10.5	10.0
MONTH	12.0	11.0	---	---	---	---	9.5	9.0	10.5	9.5	10.5	9.5

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	10.0	10.0	10.0	11.0	10.5	11.5	11.5	12.0	12.0	12.5	12.0
2	10.0	10.0	10.5	10.0	11.0	10.5	11.5	11.5	12.0	12.0	12.0	12.0
3	10.0	10.0	10.5	10.0	11.0	10.5	11.5	11.5	12.0	12.0	12.5	12.0
4	10.0	10.0	10.5	10.0	11.0	10.5	11.5	11.5	12.0	12.0	12.0	12.0
5	10.0	10.0	10.5	10.0	11.0	10.5	12.0	11.5	12.0	12.0	12.0	12.0
6	10.0	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.0	12.0	12.5	12.0
7	10.5	10.0	10.5	10.0	11.0	11.0	12.0	11.5	12.0	12.0	12.0	12.0
8	10.5	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0
9	10.5	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0
10	10.5	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.0	12.0	12.0	12.0
11	10.5	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.5	12.0	12.0	12.0
12	10.5	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.5	12.0	12.0	12.0
13	10.5	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.0	12.0	12.0	12.0
14	10.5	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.0	12.0	12.0	12.0
15	10.0	10.0	10.0	10.0	11.0	11.0	12.0	11.5	12.5	12.0	12.0	12.0
16	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.5	12.0	12.0	12.0
17	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.5	12.0	12.0	12.0
18	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.5	12.0	12.0	12.0
19	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0
20	10.0	10.0	10.5	10.0	11.0	11.0	12.0	12.0	12.5	12.0	12.0	12.0
21	10.0	10.0	10.5	10.0	11.0	11.0	12.0	12.0	12.5	12.0	12.0	12.0
22	10.0	10.0	10.5	10.0	11.0	11.0	12.0	12.0	12.5	12.0	12.0	12.0
23	10.0	10.0	10.5	10.0	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0
24	10.0	10.0	10.5	10.0	11.0	11.0	12.0	12.0	12.0	12.0	12.5	12.0
25	10.0	10.0	10.5	10.5	11.5	11.0	12.0	12.0	12.0	12.0	12.5	12.0
26	10.0	10.0	10.5	10.5	11.5	11.0	12.0	12.0	12.5	12.0	12.5	12.0
27	10.5	10.0	10.5	10.5	11.5	11.5	12.0	12.0	12.5	12.0	12.5	12.0
28	10.0	10.0	10.5	10.5	11.5	11.5	12.0	12.0	12.5	12.0	12.5	12.0
29	10.5	10.0	10.5	10.5	11.5	11.5	12.0	12.0	12.5	12.0	12.5	12.0
30	10.0	10.0	10.5	10.5	11.5	11.5	12.0	12.0	12.5	12.0	12.5	12.0
31	---	---	11.0	10.5	---	---	12.0	12.0	12.5	12.0	---	---
MONTH	10.5	10.0	11.0	10.0	11.5	10.5	12.0	11.5	12.5	12.0	12.5	12.0

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 above sea level (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.—Canal diverts from right bank of Stanislaus River at Goodwin Dam for irrigation in Oakdale and South San Joaquin Irrigation Districts.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 1,320 ft^3/s, Aug. 10–17, 1978; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	4.7	.00	3.7	.00	.00	890	677	785	1020	1020	780
2	278	5.4	.00	3.7	.00	.00	900	650	798	1020	1040	780
3	278	8.7	.00	3.7	.00	.00	906	646	809	1020	1040	780
4	278	8.8	.00	3.9	.00	.00	916	782	822	1040	1030	780
5	274	8.6	.00	3.8	.00	.00	932	871	829	1040	1030	777
6	270	8.2	.00	3.9	.00	.00	942	934	821	1020	1030	776
7	270	8.0	.00	161	.00	.00	937	966	847	1020	1030	782
8	270	6.4	.00	262	.00	.00	934	957	877	1020	1030	774
9	269	5.4	.00	264	.00	.00	909	939	884	1010	1030	769
10	267	5.2	.00	267	.00	.00	904	941	888	1000	1030	761
11	261	5.2	.00	380	.00	.00	906	802	873	996	1030	759
12	261	5.4	.00	440	.00	.00	887	718	863	928	1040	755
13	67	5.4	.00	442	.00	.00	883	703	864	892	1040	747
14	5.0	1.9	.00	442	.00	.00	884	697	866	900	1040	744
15	5.0	.00	.00	444	141	.00	906	697	887	888	1040	739
16	5.1	.00	.00	445	265	.00	916	678	896	884	1040	755
17	5.1	.00	.00	445	269	.00	831	659	903	886	1050	754
18	4.9	.00	.00	445	291	.00	575	651	903	885	1050	692
19	5.0	.00	.00	445	306	.00	427	657	899	882	967	660
20	5.4	.00	.00	445	307	.00	406	665	899	884	926	659
21	5.2	.00	.00	186	307	.00	408	684	905	942	920	660
22	5.2	.00	3.1	3.7	308	.00	405	685	903	969	824	649
23	5.1	.00	4.1	3.9	309	.00	414	680	934	978	761	628
24	5.1	.00	5.4	4.2	122	.00	508	678	966	979	761	625
25	5.1	.00	5.4	4.7	.00	.00	585	677	978	974	749	627
26	5.1	.00	5.3	2.6	.00	344	604	720	983	969	745	707
27	4.9	.00	4.6	2.0	.00	593	636	766	987	975	748	766
28	4.8	.00	3.7	1.9	.00	670	654	770	991	975	730	767
29	4.7	.00	3.7	293	.00	804	655	767	999	981	766	554
30	4.9	.00	3.7	475	---	873	671	770	1010	985	786	323
31	4.7	---	3.7	268	---	881	---	774	---	985	780	---
TOTAL	3416.3	87.30	42.70	6594.7	2625.00	4165.00	22331	23261	26869	29947	29103	21329
MEAN	110	2.91	1.38	213	90.5	134	744	750	896	966	939	711
MAX	283	8.8	5.4	475	309	881	942	966	1010	1040	1050	782
MIN	4.7	.00	.00	1.9	.00	.00	405	646	785	882	730	323
AC-FT	6780	173	85	13080	5210	8260	44290	46140	53290	59400	57730	42310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2000, BY WATER YEAR (WY)

MEAN	156	54.4	30.7	78.3	122	243	686	893	936	876	761	484
MAX	490	408	404	363	456	1087	1160	1265	1259	1260	1251	1031
(WY)	1981	1999	1999	1987	1985	1972	1984	1975	1978	1967	1978	1967
MIN	.000	.000	.000	.000	.000	.000	41.9	84.0	147	78.2	70.9	5.55
(WY)	1920	1920	1920	1916	1916	1930	1995	1977	1924	1924	1924	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1914 - 2000	
ANNUAL TOTAL	180995.50		169771.00			
ANNUAL MEAN	496		464		449	
HIGHEST ANNUAL MEAN					684	1984
LOWEST ANNUAL MEAN					114	1977
HIGHEST DAILY MEAN	1150	Jul 11	1050	Aug 17	1320	Aug 10 1978
LOWEST DAILY MEAN	.00	Jan 8	.00	Nov 15	.00	Oct 30 1914
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 8	.00	Nov 15	.00	Oct 30 1914
ANNUAL RUNOFF (AC-FT)	359000		336700		325300	
10 PERCENT EXCEEDS	1070		982		1070	
50 PERCENT EXCEEDS	591		460		343	
90 PERCENT EXCEEDS	.00		.00		.00	

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. Elevation of gage is 350 ft above sea level, 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.—Canal diverts water from left bank of Stanislaus River at Goodwin Dam 0.3 mi upstream for irrigation in Oakdale Irrigation District.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 556 ft^3/s, July 8–11, 1967; maximum discharge, 595 ft^3/s, June 10, 1991, gage height, 10.09 ft, result of damage to canal due to vandalism; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	.00	.00	.00	.00	.00	305	369	366	460	496	423
2	309	.00	.00	.00	.00	.00	329	369	366	471	495	411
3	308	.00	.00	.00	.00	.00	334	369	366	475	495	407
4	308	.00	.00	.00	.00	.00	357	369	373	483	495	397
5	304	.00	.00	15	.00	.00	380	369	378	484	495	397
6	298	.00	.00	25	.00	.00	381	367	383	484	487	402
7	297	.00	.00	10	.00	.00	392	356	383	484	483	401
8	297	.00	.00	.00	.00	.00	400	347	368	485	493	389
9	301	.00	.00	.00	.00	.00	380	356	364	485	486	368
10	313	.00	.00	.00	.00	.00	351	357	364	485	470	351
11	281	.00	.00	.00	.00	.00	341	357	364	483	466	342
12	260	.00	.00	.00	.00	.00	344	351	364	483	486	342
13	62	.00	.00	.00	.00	.00	352	346	362	483	485	350
14	.00	.00	.00	.00	.00	.00	351	351	361	483	485	358
15	.00	.00	.00	.00	.00	.00	351	346	360	484	486	348
16	.00	.00	.00	.00	.00	.00	359	296	365	477	487	332
17	.00	.00	.00	.00	.00	.00	190	264	387	474	487	331
18	.00	.00	.00	.00	.00	.00	47	270	378	480	492	335
19	.00	.00	.00	.00	.00	.00	34	285	355	479	495	337
20	.00	.00	.00	.00	.00	.00	27	293	374	465	486	337
21	.00	.00	.00	.00	.00	.00	22	306	364	466	470	339
22	.00	.00	.00	.00	.00	.00	22	341	401	475	461	347
23	.00	.00	.00	.00	.00	.00	21	362	408	478	461	347
24	.00	.00	.00	.00	.00	.00	153	383	417	482	461	347
25	.00	.00	.00	.00	.00	.00	291	391	415	482	462	347
26	.00	.00	.00	.00	.00	.00	361	392	394	488	473	347
27	.00	.00	.00	.00	.00	.00	375	401	388	489	466	341
28	.00	.00	.00	.00	.00	94	369	388	413	489	462	336
29	.00	.00	.00	.00	.00	177	369	382	424	496	453	336
30	.00	.00	.00	.00	---	218	369	377	437	496	437	333
31	.00	---	.00	.00	---	250	---	372	---	496	431	---
TOTAL	3648.00	0.00	0.00	50.00	0.00	739.00	8357	10882	11442	14924	14787	10778
MEAN	118	.000	.000	1.61	.000	23.8	279	351	381	481	477	359
MAX	313	.00	.00	25	.00	250	400	401	437	496	496	423
MIN	.00	.00	.00	.00	.00	.00	21	264	355	460	431	331
AC-FT	7240	.00	.00	99	.00	1470	16580	21580	22700	29600	29330	21380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2000, BY WATER YEAR (WY)

MEAN	97.9	4.84	1.01	1.64	2.13	47.9	227	358	374	371	338	253
MAX	404	51.5	15.8	71.0	77.9	364	496	544	552	554	547	518
(WY)	1979	1940	1987	1987	1976	1972	1962	1965	1965	1967	1967	1958
MIN	.000	.000	.000	.000	.000	.000	.004	97.5	49.8	25.8	.62	1.20
(WY)	1995	1915	1916	1916	1915	1918	1983	1915	1924	1924	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1914 - 2000	
ANNUAL TOTAL	74598.00		75607.00			
ANNUAL MEAN	204		207		176	
HIGHEST ANNUAL MEAN					277	1979
LOWEST ANNUAL MEAN					52.8	1924
HIGHEST DAILY MEAN	490	Jul 15	496	Jul 29	556	Jul 8 1967
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 14	.00	Jun 21 1914
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 14	.00	Oct 16 1914
ANNUAL RUNOFF (AC-FT)	148000		150000		127400	
10 PERCENT EXCEEDS	467		482		475	
50 PERCENT EXCEEDS	214		283		77	
90 PERCENT EXCEEDS	.00		.00		.00	

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 mi^2.

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 Co.'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 above sea level.

REMARKS.—Flow regulated by New Melones Reservoir (station 11299000) since 1978 and Tulloch Reservoir (station 11299995) since 1957. South San Joaquin Canal (station 11300500) and Oakdale Canal (station 11301000) divert at Goodwin Dam.

COOPERATION.—Records were provided by Oakdale and South San Joaquin Irrigation Districts, under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 40,200 ft^3/s, Dec. 24, 1964, gage height, 28.85 ft in gage well, 31.2 ft outside, from floodmarks; minimum daily, 0.12 ft^3/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 ft^3/s, by computation of flow over Goodwin Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	372	377	373	321	322	3530	796	1490	1500	308	301	305
2	352	375	375	320	317	3520	792	1490	1500	304	302	299
3	349	382	376	324	322	3530	792	1500	1490	299	300	302
4	349	380	374	327	314	3520	789	1490	1490	306	298	298
5	345	379	376	317	311	3530	796	1490	1500	311	298	299
6	349	374	373	317	315	3500	790	1500	1500	301	296	310
7	351	377	371	324	318	3500	798	1500	1490	299	300	305
8	348	381	366	326	313	3470	806	1490	1500	299	299	307
9	345	374	376	316	312	3250	804	1500	1500	301	303	306
10	592	377	365	316	320	2990	893	1500	1500	308	300	301
11	623	377	342	321	322	2970	1120	1490	1500	303	300	300
12	621	376	345	325	425	2750	1210	1510	1370	299	300	301
13	626	376	343	318	530	2240	1320	1500	1180	297	303	299
14	624	377	345	316	1250	1730	1380	1500	978	298	301	301
15	620	377	345	317	1460	1490	1110	1490	829	302	301	300
16	498	375	343	323	1460	1470	1100	1500	694	299	298	302
17	371	373	347	330	1460	1480	1100	1500	699	296	296	302
18	368	372	345	317	1980	1490	1030	1510	625	299	304	302
19	368	372	343	316	2470	1500	903	1500	458	301	300	301
20	370	372	341	319	2500	969	1260	1490	406	299	299	301
21	373	373	341	322	2500	804	1500	1510	339	299	299	295
22	369	372	342	320	2470	792	1490	1500	303	300	300	299
23	368	374	316	317	2460	800	1500	1490	310	299	296	298
24	368	373	328	329	2460	789	1490	1500	304	302	304	298
25	368	373	319	362	2470	793	1500	1500	302	299	303	297
26	371	373	319	316	2460	794	1490	1490	305	300	302	296
27	373	374	319	315	2460	790	1490	1490	302	296	306	303
28	381	374	321	313	2950	793	1490	1500	300	302	303	297
29	377	373	332	318	3500	795	1500	1500	306	300	304	301
30	377	374	323	317	---	794	1500	1490	302	300	304	309
31	377	---	323	316	---	794	---	1490	---	301	306	---
TOTAL	12943	11256	10747	9955	40751	61167	34539	46400	26782	9327	9326	9034
MEAN	418	375	347	321	1405	1973	1151	1497	893	301	301	301
MAX	626	382	376	362	3500	3530	1500	1510	1500	311	306	310
MIN	345	372	316	313	311	789	789	1490	300	296	296	295
AC-FT	25670	22330	21320	19750	80830	121300	68510	92030	53120	18500	18500	17920

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1978, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	128	215	690	1194	1103	1060	1154	1651	1249	96.4	4.18	17.8
MAX	749	681	3521	5040	4309	3265	3686	6233	5100	1063	22.5	231
(WY)	1976	1966	1965	1969	1969	1969	1967	1969	1967	1967	1967	1969
MIN	.19	4.56	.40	11.5	2.19	4.74	2.48	1.52	1.35	1.60	1.09	.51
(WY)	1977	1977	1978	1977	1960	1960	1972	1961	1961	1960	1960	1960

SUMMARY STATISTICS	WATER YEARS 1957 - 1978	
ANNUAL MEAN	725	
HIGHEST ANNUAL MEAN	2131	1969
LOWEST ANNUAL MEAN	6.47	1977
HIGHEST DAILY MEAN	29400	Dec 24 1964
LOWEST DAILY MEAN	.14	Oct 6 1976
ANNUAL SEVEN-DAY MINIMUM	.15	Oct 13 1976
INSTANTANEOUS PEAK FLOW	40200	Dec 24 1964
INSTANTANEOUS PEAK STAGE	28.85	Dec 24 1964
ANNUAL RUNOFF (AC-FT)	525500	
10 PERCENT EXCEEDS	2300	
50 PERCENT EXCEEDS	43	
90 PERCENT EXCEEDS	1.9	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	506	422	766	1056	1310	1397	929	963	728	572	528	428
MAX	1738	2246	4581	6005	6036	4905	1936	2046	1798	1861	1791	1634
(WY)	1999	1984	1984	1997	1997	1986	1998	1998	1998	1998	1998	1998
MIN	172	161	140	132	140	143	236	275	185	229	157	155
(WY)	1991	1991	1992	1990	1990	1991	1991	1991	1984	1984	1991	1991

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1984 - 2000	
ANNUAL TOTAL	415391		282227			
ANNUAL MEAN	1138		771		798	
HIGHEST ANNUAL MEAN					1893	1997
LOWEST ANNUAL MEAN					185	1991
HIGHEST DAILY MEAN	4340	Feb 12	3530	Mar 1	6840	Feb 26 1997
LOWEST DAILY MEAN	316	Dec 23	295	Sep 21	51	Oct 10 1990
ANNUAL SEVEN-DAY MINIMUM	322	Dec 23	298	Sep 20	85	Oct 10 1990
INSTANTANEOUS PEAK FLOW			3610	Mar 2	7350	Jan 3 1997
INSTANTANEOUS PEAK STAGE			12.41	Mar 2	15.59	Jan 3 1997
ANNUAL RUNOFF (AC-FT)	823900		559800		578500	
10 PERCENT EXCEEDS	2710		1500		1690	
50 PERCENT EXCEEDS	805		371		404	
90 PERCENT EXCEEDS	369		300		163	

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—February 1966 to current year.
WATER TEMPERATURE: February 1966 to current year.

PERIOD OF DAILY RECORD.—February 1966 to current year.
WATER TEMPERATURE: February 1966 to current year.

INSTRUMENTATION.—Temperature recorder since February 1966.

REMARKS.—Temperature recorder located 2,300 ft upstream from gaging station. Water temperature is affected by regulation from Goodwin Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 30.5°C, July 25, 1974; minimum recorded, 5.5°C, Feb. 3, 1972.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 14.0°C, July 18, Aug. 1–3; minimum recorded, 9.0°C, on several days in January.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	12.0	12.0	11.5	11.5	11.5	10.0	9.5	10.0	9.5	11.0	10.5
2	13.0	12.0	12.0	11.5	11.5	11.0	10.0	9.5	10.5	9.5	10.5	10.5
3	13.0	12.0	12.0	11.5	11.5	11.0	9.5	9.0	10.0	10.0	10.5	10.0
4	12.5	12.0	12.0	11.5	11.0	11.0	9.5	9.0	10.0	10.0	10.5	10.0
5	12.5	12.0	12.0	11.5	11.5	11.0	9.5	9.0	10.0	10.0	10.5	10.0
6	12.5	12.0	12.0	11.5	11.5	11.0	9.5	9.0	10.0	9.5	10.5	10.0
7	12.5	11.5	12.0	11.5	11.5	11.0	9.5	9.0	10.5	10.0	10.5	10.0
8	12.5	11.5	12.0	12.0	11.0	11.0	9.5	9.0	10.5	10.0	10.5	10.0
9	12.5	11.5	12.0	11.5	11.0	11.0	9.5	9.0	10.5	10.0	10.5	10.0
10	12.5	11.5	12.0	12.0	11.0	11.0	9.5	9.0	10.5	10.0	10.5	10.0
11	12.0	11.5	12.0	12.0	11.0	10.5	9.5	9.0	10.0	10.0	10.5	10.0
12	12.0	11.5	12.0	11.5	11.0	10.5	9.5	9.5	10.0	10.0	11.0	10.0
13	12.0	11.5	12.0	11.5	11.0	10.5	9.5	9.0	10.0	10.0	11.0	10.0
14	12.0	11.5	12.0	12.0	11.0	10.5	9.5	9.0	10.5	10.0	10.5	10.0
15	12.0	11.5	12.5	12.0	11.0	10.5	9.5	9.5	10.5	10.0	10.5	10.0
16	12.0	11.5	12.5	12.0	11.0	10.5	10.0	9.5	10.5	10.0	10.5	10.0
17	12.0	11.5	12.0	11.5	11.0	10.5	9.5	9.5	10.5	10.5	10.5	9.5
18	12.0	11.5	12.0	11.5	10.5	10.5	10.0	9.5	11.0	10.5	10.5	10.0
19	12.0	11.5	11.5	11.5	10.5	10.5	10.0	9.5	11.0	10.5	10.5	10.0
20	12.0	11.5	12.0	11.5	10.5	10.0	10.0	9.5	11.0	10.5	10.5	9.5
21	12.0	11.5	12.0	11.5	10.5	10.0	9.5	9.5	11.0	10.5	10.5	10.0
22	12.0	11.5	11.5	11.0	10.5	10.0	10.0	9.5	10.5	10.5	11.0	10.0
23	12.0	11.5	11.5	11.0	10.5	10.0	10.0	9.5	10.5	10.5	10.5	10.5
24	12.0	11.5	11.5	11.0	10.5	10.0	10.0	10.0	10.5	10.5	11.0	10.5
25	12.0	11.5	11.5	11.5	10.5	10.0	10.0	10.0	10.5	10.0	11.0	10.5
26	12.0	11.5	11.5	11.5	10.0	9.5	10.0	10.0	11.0	10.5	11.0	10.5
27	12.0	12.0	12.0	11.5	10.0	9.5	10.0	9.5	10.5	10.5	10.5	10.0
28	13.0	12.0	12.0	11.5	10.0	9.5	10.0	9.5	11.0	10.5	11.0	10.0
29	12.0	11.5	11.5	11.5	10.0	9.5	10.0	9.5	10.5	10.5	11.0	10.0
30	12.0	11.5	12.0	11.5	10.0	9.5	10.0	9.5	---	---	11.5	10.5
31	12.0	11.5	---	---	10.0	9.5	10.0	9.5	---	---	11.5	10.5
MONTH	13.0	11.5	12.5	11.0	11.5	9.5	10.0	9.0	11.0	9.5	11.5	9.5

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	10.5	12.0	11.0	12.5	11.5	13.0	12.0	14.0	12.5	13.0	12.5
2	12.0	11.0	12.0	11.0	12.5	11.5	13.0	12.0	14.0	13.0	13.0	12.5
3	12.0	11.0	12.0	11.0	12.5	11.5	13.0	12.0	14.0	13.0	13.0	12.0
4	12.0	11.0	12.0	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.0
5	12.0	11.0	12.0	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.0
6	12.0	11.0	12.0	11.0	12.5	12.0	13.5	12.0	13.5	12.5	13.0	12.0
7	12.0	11.0	11.5	11.5	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.0
8	12.0	11.0	12.0	11.0	12.5	12.0	13.5	12.0	13.5	12.5	13.0	12.0
9	12.0	11.0	11.5	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.0
10	12.0	11.0	11.5	11.0	12.5	11.5	13.5	12.5	13.5	12.5	13.0	12.0
11	12.0	11.0	11.5	10.5	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.0
12	12.0	11.5	11.5	10.5	12.5	12.0	13.5	12.0	13.5	12.5	13.0	12.5
13	12.0	11.5	11.5	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.5
14	12.0	11.5	11.5	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.5	12.5
15	11.5	11.0	11.5	10.5	12.5	11.5	13.5	12.0	13.5	12.5	13.0	12.5
16	11.0	10.5	11.0	11.0	12.5	11.5	13.0	12.0	13.5	12.5	13.5	12.5
17	11.0	10.5	11.5	11.0	12.5	11.5	13.0	12.0	13.5	12.5	13.0	12.5
18	11.0	10.5	12.0	11.0	12.5	11.5	14.0	12.0	13.5	12.5	13.5	12.5
19	11.0	10.0	12.0	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.5	12.5
20	11.0	10.0	12.0	11.0	12.5	11.5	13.5	12.0	13.5	12.0	13.5	12.5
21	11.0	10.5	12.0	11.0	12.5	11.5	13.5	12.0	13.5	12.5	13.5	12.5
22	11.0	10.5	12.0	11.0	12.5	11.5	13.5	12.5	13.5	12.5	13.0	12.5
23	11.5	10.5	12.0	11.5	12.5	11.5	13.5	12.5	13.5	12.5	13.0	12.5
24	11.5	10.5	12.0	11.5	13.0	11.5	13.5	12.5	13.5	12.5	13.0	12.0
25	12.0	11.0	12.5	11.5	13.0	11.5	13.5	12.5	13.5	12.5	13.0	12.5
26	12.0	11.0	12.5	11.0	13.0	11.5	13.5	12.5	13.5	12.5	13.5	12.5
27	12.0	11.0	12.5	11.5	13.0	11.5	13.5	12.5	13.5	12.5	13.5	12.5
28	12.0	11.0	12.5	11.5	13.0	12.0	13.5	12.5	13.5	12.5	13.0	12.5
29	12.0	11.0	12.5	11.5	13.0	12.0	13.5	12.5	13.0	12.5	13.5	12.5
30	12.0	11.0	12.5	11.5	13.0	12.0	13.5	12.5	13.0	12.5	13.5	12.5
31	---	---	12.5	11.5	---	---	13.5	12.5	13.5	12.5	---	---
MONTH	12.0	10.0	12.5	10.5	13.0	11.5	14.0	12.0	14.0	12.0	13.5	12.0

11302500 STANISLAUS RIVER AT OAKDALE, CA

LOCATION.—Lat 37°46'38", long 120°51'07", in Eight Square Leagues on Stanislaus River Grant, Stanislaus County, Hydrologic Unit 18040002, on left bank at State Highway 120 bridge, at Oakdale.

DRAINAGE AREA.—1,032 mi^2.

PERIOD OF RECORD.—August 1985 to current year.
WATER TEMPERATURE: August 1985 to current year.

PERIOD OF DAILY RECORD.—August 1985 to current year.
WATER TEMPERATURE: August 1985 to current year.

INSTRUMENTATION.—Water-temperature recorder since Aug. 28, 1985.

REMARKS.—Interruptions in record were due to malfunction of the recording instrument. Water temperature can be affected by releases from Woodward Reservoir Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.—
WATER TEMPERATURE: Maximum recorded, 26.0°C, June 21, 22, 1992; minimum recorded, 5.0°C, Dec. 22–25, 1990.

EXTREMES FOR CURRENT YEAR.—
WATER TEMPERATURE: Maximum recorded, 21.5°C, June 28, 29; minimum recorded, 8.0°C, Jan. 6, 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.5	13.0	12.0	12.0	11.5	10.0	9.0	11.5	10.0	11.5	10.5
2	16.0	14.5	13.5	12.0	11.5	10.5	9.5	9.0	11.5	10.0	11.0	10.5
3	16.0	14.5	13.0	12.0	11.0	10.0	9.0	8.5	11.5	10.5	12.0	11.0
4	16.0	14.5	13.0	12.0	10.5	9.5	9.5	8.5	11.5	11.0	11.5	10.5
5	16.0	14.5	13.0	12.0	11.0	10.0	9.5	8.5	12.0	10.5	11.0	10.5
6	16.0	14.5	13.0	12.0	11.0	10.0	9.0	8.0	12.0	10.5	11.0	10.5
7	15.5	14.0	13.0	12.0	11.0	10.5	9.5	8.5	12.0	10.5	11.0	10.0
8	15.5	14.0	13.5	12.5	10.5	9.5	9.5	8.0	12.5	11.5	11.0	10.5
9	15.5	14.0	13.0	12.0	11.0	10.5	9.5	8.5	12.0	11.5	11.0	10.5
10	15.0	14.0	13.0	12.0	11.0	10.0	9.5	8.5	12.0	11.5	11.5	10.0
11	14.5	13.0	13.0	12.0	10.5	9.5	10.0	9.0	11.5	10.5	12.0	10.5
12	14.5	12.5	13.0	12.0	10.5	9.0	10.5	9.5	11.0	10.0	12.0	10.5
13	14.0	12.5	13.0	11.5	11.0	10.5	10.5	9.5	11.0	10.5	12.0	10.5
14	14.0	12.5	13.0	12.0	10.5	9.5	10.0	9.5	12.0	11.0	12.0	10.5
15	14.0	12.5	13.5	12.5	10.0	9.0	10.5	10.0	11.5	10.5	12.5	10.5
16	14.0	12.5	13.5	12.5	10.0	9.0	11.0	10.5	11.0	11.0	12.0	10.5
17	13.5	12.0	13.0	12.0	10.0	9.0	10.5	10.5	11.5	10.5	12.0	10.5
18	13.5	12.0	12.5	11.5	10.5	9.5	11.5	10.5	11.5	10.5	12.5	10.5
19	13.5	12.0	11.5	11.0	10.5	9.5	11.5	11.0	11.5	11.0	12.5	11.0
20	13.5	12.0	12.5	11.5	10.0	9.0	11.5	11.0	11.5	11.0	12.5	10.5
21	13.5	12.0	12.0	11.5	10.0	9.0	11.0	10.0	12.0	11.0	12.5	10.0
22	13.5	12.0	11.5	10.5	10.0	9.0	11.0	10.0	11.5	11.0	13.5	10.5
23	14.0	12.5	11.0	10.0	10.0	9.0	11.0	10.5	11.5	10.5	13.5	11.0
24	14.0	12.5	11.0	10.0	9.5	9.0	11.5	11.0	11.0	10.5	13.0	11.0
25	13.5	12.0	11.0	10.0	9.5	8.5	12.5	11.5	11.5	10.5	13.5	11.0
26	13.5	12.0	11.5	10.5	9.5	9.0	12.0	11.5	12.0	11.0	13.5	11.0
27	14.0	12.5	12.0	11.0	9.5	8.5	11.5	10.5	11.5	11.0	13.0	11.5
28	14.5	13.5	11.5	11.0	9.5	8.5	11.0	10.0	11.5	11.0	13.0	11.0
29	13.5	12.5	11.5	11.5	9.5	8.5	11.0	9.5	11.5	11.0	13.5	11.0
30	13.5	12.0	12.5	11.5	9.5	8.5	10.5	10.5	---	---	14.0	11.5
31	13.5	12.0	---	---	10.0	9.0	11.0	10.0	---	---	14.0	11.5
MONTH	16.5	12.0	13.5	10.0	12.0	8.5	12.5	8.0	12.5	10.0	14.0	10.0

11302500 STANISLAUS RIVER AT OAKDALE, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.5	11.5	14.5	12.5	15.5	13.0	20.5	17.5	21.0	18.5	---	---
2	15.0	12.0	15.0	12.5	15.5	13.0	---	---	21.0	18.5	---	---
3	15.0	12.5	15.0	12.5	15.5	13.0	---	---	21.0	18.5	---	---
4	15.0	13.0	14.5	12.5	16.0	13.5	---	---	21.0	18.0	---	---
5	14.5	12.5	14.0	12.5	15.5	13.0	---	---	21.0	18.0	---	---
6	14.5	12.5	13.5	12.5	16.0	13.5	---	---	20.5	17.5	---	---
7	14.5	12.5	13.0	12.0	15.5	13.5	---	---	20.0	17.5	---	---
8	14.5	12.5	14.5	12.5	15.0	13.5	---	---	20.0	17.0	---	---
9	14.5	12.5	14.0	12.5	15.5	13.0	---	---	19.5	17.0	---	---
10	15.0	12.5	13.5	12.0	15.5	13.0	---	---	19.5	17.0	---	---
11	14.5	12.5	14.0	11.5	15.5	13.0	---	---	---	17.0	---	---
12	14.0	13.0	13.5	11.5	16.0	13.5	---	---	---	---	---	---
13	14.0	12.5	13.5	12.0	16.5	14.0	21.0	18.0	---	---	---	---
14	14.0	12.5	13.5	12.0	17.0	14.5	21.0	18.0	---	---	---	---
15	13.5	12.5	13.0	12.0	17.5	14.5	20.5	18.0	---	---	---	---
16	13.0	12.5	12.5	12.0	18.0	15.5	20.5	18.0	---	---	---	---
17	12.5	12.0	14.0	12.0	18.0	15.5	20.5	17.5	---	---	---	---
18	13.5	11.0	14.5	12.0	17.5	15.0	20.5	17.5	---	---	---	---
19	14.0	11.5	15.0	12.5	19.0	15.5	21.0	17.5	---	---	---	---
20	14.0	11.5	15.0	12.5	20.0	16.5	21.0	18.0	---	---	---	---
21	13.5	11.5	15.0	13.0	20.0	17.0	21.0	18.0	---	---	---	---
22	12.5	11.5	15.0	13.0	21.0	18.0	21.0	18.0	---	---	---	---
23	13.5	11.0	15.0	13.0	20.5	17.5	21.0	17.5	---	---	---	---
24	13.5	11.5	15.0	13.0	20.5	17.5	21.0	18.0	---	---	---	---
25	14.0	12.0	15.0	13.0	21.0	18.0	21.0	18.5	---	---	---	---
26	14.5	12.0	15.5	13.0	21.0	18.0	20.5	18.0	---	---	---	---
27	14.0	12.5	15.5	13.0	21.0	18.5	20.0	17.5	---	---	---	---
28	14.0	12.0	15.5	13.0	21.5	18.5	20.5	17.5	---	---	---	---
29	14.0	12.0	15.5	13.0	21.5	18.5	20.5	18.0	---	---	---	---
30	14.5	12.0	15.0	13.0	21.0	18.0	20.5	18.5	---	---	---	---
31	---	---	15.0	13.0	---	---	21.0	18.0	---	---	---	---
MONTH	15.0	11.0	15.5	11.5	21.5	13.0	---	---	---	---	---	---

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 mi^2.

WATER-DISCHARGE RECORDS

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 above sea level. October 1940 to Nov. 17, 1953, at site 100 ft upstream at same datum.

REMARKS.—Records good. Flow regulated by reservoirs and powerplants upstream from station. South San Joaquin and Oakdale Canals (stations 11300500 and 11301000) divert at Goodwin Dam 34 mi upstream for irrigation in the vicinity of Oakdale. See REMARKS for Stanislaus River below Goodwin Dam, near Knights Ferry (station 11302000).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 62,500 ft^3/s, Dec. 24, 1955, gage height, 63.25 ft; minimum daily, 0.11 ft^3/s, Aug. 4–6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Feb. 12, 1938, reached a stage of 64.4 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	544	414	417	360	407	3430	969	1590	1550	426	392	397
2	520	413	413	359	387	3520	936	1540	1540	429	401	420
3	522	413	411	358	377	3440	982	1530	1530	459	408	453
4	520	417	408	360	390	3430	932	1520	1520	418	412	406
5	495	440	405	362	411	3450	913	1530	1550	457	412	390
6	460	431	408	354	378	3790	923	1570	1540	435	382	390
7	459	417	408	352	369	3680	907	1650	1540	410	385	375
8	458	452	406	355	367	3520	912	1670	1610	422	376	366
9	501	424	403	354	364	3510	949	1600	1600	434	392	395
10	497	403	413	352	363	3380	968	1570	1570	420	404	423
11	631	417	407	368	379	3110	986	1580	1560	423	395	447
12	659	426	396	359	549	3050	1170	1540	1590	403	398	369
13	645	427	393	376	906	2890	1270	1570	1460	396	408	387
14	641	419	389	382	1470	2480	1370	1570	1270	389	428	406
15	614	419	388	391	1750	2030	1400	1600	1070	405	411	399
16	623	423	385	362	1580	1790	1220	1670	935	424	375	385
17	564	435	385	371	1610	1720	1360	1640	829	422	378	412
18	479	410	382	413	1570	1690	1420	1610	832	398	375	427
19	445	407	383	407	1890	1670	1170	1590	794	404	406	403
20	417	411	381	371	2290	1630	1050	1590	666	394	413	388
21	411	406	380	361	2400	1220	1340	1530	597	390	397	384
22	406	406	377	376	2510	1070	1530	1560	552	396	379	375
23	428	405	375	410	2630	1020	1560	1530	492	405	385	373
24	433	405	365	465	2950	1010	1550	1550	498	413	379	410
25	424	403	367	754	2630	984	1530	1540	472	409	380	440
26	425	402	362	968	2520	974	1580	1530	468	419	385	400
27	427	401	360	566	2510	954	1540	1550	451	382	426	369
28	499	403	359	476	2750	945	1550	1550	440	413	391	375
29	433	404	361	431	2960	952	1580	1550	425	419	386	386
30	412	411	365	402	---	965	1590	1560	426	415	414	384
31	417	---	361	409	---	936	---	1540	---	395	405	---
TOTAL	15409	12464	12013	12984	41667	68240	37157	48720	31377	12824	12278	11934
MEAN	497	415	388	419	1437	2201	1239	1572	1046	414	396	398
MAX	659	452	417	968	2960	3790	1590	1670	1610	459	428	453
MIN	406	401	359	352	363	936	907	1520	425	382	375	366
AC-FT	30560	24720	23830	25750	82650	135400	73700	96640	62240	25440	24350	23670

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2000, BY WATER YEAR (WY)

MEAN	398	475	901	1231	1311	1444	1525	2030	1436	520	375	357
MAX	1951	4518	7602	6273	6499	5094	5047	7703	5531	3633	2834	2041
(WY)	1999	1951	1951	1997	1997	1943	1983	1952	1967	1983	1983	1983
MIN	6.34	20.3	26.0	77.8	64.3	47.5	41.0	42.8	25.1	9.88	.63	2.95
(WY)	1978	1978	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1941 - 2000	
ANNUAL TOTAL	448024		317067			
ANNUAL MEAN	1227		866		999	
HIGHEST ANNUAL MEAN					2548	1983
LOWEST ANNUAL MEAN					44.9	1977
HIGHEST DAILY MEAN	4260	Feb 24	3790	Mar 6	47000	Dec 24 1955
LOWEST DAILY MEAN	359	Dec 28	352	Jan 7	.11	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	362	Dec 25	356	Jan 4	.13	Aug 2 1977
INSTANTANEOUS PEAK FLOW			3910	Mar 6	62500	Dec 24 1955
INSTANTANEOUS PEAK STAGE			50.67	Mar 6	63.25	Dec 24 1955
ANNUAL RUNOFF (AC-FT)	888700		628900		723400	
10 PERCENT EXCEEDS	2770		1620		2640	
50 PERCENT EXCEEDS	812		426		406	
90 PERCENT EXCEEDS	408		375		140	

11303000 STANISLAUS RIVER AT RIPON, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1985–88, 1993 to current year. Data for the period October 1985 to March 1987 are available in U.S. Geological Survey Open-File Report 88-479. Data for the period April 1987 to September 1988 are available in U.S. Geological Survey Open-File Report 91-74.
CHEMICAL DATA: Water years 1985–88, 1994.
SPECIFIC CONDUCTANCE: Water years 1986–89. July 1997 to current year.
WATER TEMPERATURE: Water years 1986–89. October 1994 to current year.
SEDIMENT DATA: Water year 1985–88, 1994.

PERIOD OF DAILY RECORD.—Water years 1986–89. October 1994 to current year.
SPECIFIC CONDUCTANCE: Water years 1986–89. July 1997 to current year.
WATER TEMPERATURE: Water years 1986–89. October 1994 to current year.

INSTRUMENTATION.—Water-temperature recorder from October 1994 to June 1997, water-quality monitor since July 1997.

REMARKS.—Specific conductance and water temperature may be affected by upstream regulation.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum recorded, 226 microsiemens, Feb. 26, 1988; minimum recorded, 38 microsiemens, Mar. 2, 1989.
WATER TEMPERATURE: Maximum recorded, 27.5°C, July 21, 1989; minimum recorded, 2.5°C, Dec. 11, 22, 1997.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 162 microsiemens, Jan. 11; minimum recorded, 69 microsiemens, May 16, June 2, 5.
WATER TEMPERATURE: Maximum recorded, 25.0°C, Aug. 2, 3; minimum recorded, 7.5°C, Dec. 30, Jan. 6, 8.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	104	101	105	102	111	109	114	112	125	119	93	90
2	107	101	105	102	111	108	114	113	127	125	92	89
3	107	103	105	102	109	108	114	113	131	125	90	89
4	107	99	105	102	109	108	113	112	125	117	89	85
5	114	97	103	97	109	107	114	112	124	117	86	85
6	115	111	102	99	108	107	114	113	127	120	91	85
7	111	109	111	99	109	108	113	113	127	126	85	82
8	110	106	110	100	109	108	114	112	128	125	84	82
9	106	105	105	103	111	109	114	112	133	127	83	81
10	107	105	107	104	110	108	115	112	132	123	82	80
11	107	88	107	103	109	108	162	113	136	124	84	82
12	88	85	106	102	112	109	120	113	126	108	84	84
13	86	86	107	100	114	111	124	113	119	106	88	84
14	88	86	105	102	113	111	122	113	121	106	89	85
15	89	88	107	103	113	112	118	115	108	92	90	86
16	89	87	108	103	113	112	118	114	94	91	90	84
17	94	87	112	105	112	111	119	114	98	91	85	83
18	110	92	109	107	111	110	123	111	98	96	84	82
19	110	106	111	108	114	110	119	110	98	93	83	82
20	109	107	109	108	114	112	123	117	93	91	84	81
21	108	105	110	108	117	111	118	116	98	92	103	84
22	107	106	109	106	117	112	126	118	99	95	107	97
23	107	101	110	106	113	111	125	119	101	93	109	96
24	106	102	109	107	118	111	119	107	100	94	97	95
25	107	102	110	108	118	114	123	98	94	89	97	95
26	106	102	110	108	119	116	117	110	89	87	96	94
27	105	102	110	108	116	114	135	115	89	88	97	94
28	103	91	110	108	115	113	144	133	91	89	96	94
29	105	95	110	108	115	113	148	144	90	88	96	92
30	106	104	111	109	115	113	150	126	---	---	95	93
31	105	102	---	---	114	112	127	124	---	---	97	93
MONTH	115	85	112	97	119	107	162	98	136	87	109	80

11303000 STANISLAUS RIVER AT RIPON, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	96	93	77	74	74	71	121	113	114	106	100	94
2	97	94	77	75	74	69	117	113	109	102	97	94
3	98	92	77	75	71	70	114	106	103	100	98	90
4	99	96	75	74	72	70	117	110	103	99	100	96
5	97	93	75	73	72	69	113	108	105	101	99	96
6	94	91	77	74	72	70	116	108	107	101	100	95
7	96	92	76	73	75	70	121	112	106	102	101	97
8	93	90	75	73	73	70	119	108	109	102	103	97
9	91	88	74	72	72	71	109	103	110	102	100	97
10	91	88	74	72	73	71	109	106	107	101	99	91
11	92	82	72	70	74	71	111	105	108	104	96	91
12	83	77	73	70	74	71	113	102	108	100	104	94
13	80	78	72	70	77	71	108	105	104	100	103	97
14	79	75	72	70	83	77	113	107	101	92	103	95
15	83	75	72	70	90	82	113	105	102	95	103	96
16	82	79	72	69	97	86	109	103	109	101	104	93
17	80	75	72	71	98	93	106	103	108	101	101	92
18	83	75	74	71	96	89	107	104	106	99	99	93
19	93	79	74	71	100	88	107	104	102	95	100	94
20	94	77	76	71	109	100	112	105	102	94	103	97
21	77	70	75	72	115	106	110	107	104	101	103	97
22	72	70	73	70	122	107	109	103	103	100	102	97
23	73	71	74	71	128	118	110	101	105	99	103	97
24	74	71	74	71	119	107	107	102	104	99	101	93
25	74	72	72	70	121	112	106	101	104	101	97	94
26	76	73	73	70	119	111	103	100	105	92	100	93
27	76	74	73	70	119	112	106	101	97	88	104	100
28	76	74	72	70	124	115	106	102	99	93	104	100
29	76	74	72	70	124	113	105	102	99	91	101	96
30	76	75	73	70	124	117	107	103	98	91	105	100
31	---	---	74	71	---	---	107	104	100	93	---	---
MONTH	99	70	77	69	128	69	121	100	114	88	105	90

11303000 STANISLAUS RIVER AT RIPON, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	17.0	14.0	13.0	12.5	11.5	9.5	9.0	12.0	11.0	12.0	11.5
2	18.0	16.5	14.0	13.0	12.0	11.0	9.5	8.5	12.0	11.0	12.0	11.5
3	18.0	16.5	14.5	13.0	11.5	10.5	9.0	8.0	12.0	11.5	12.0	11.0
4	17.5	16.0	14.0	13.0	10.5	9.5	8.5	8.0	12.5	11.5	12.0	11.5
5	17.5	16.0	14.0	13.5	10.0	9.5	9.0	8.0	12.0	11.5	12.0	11.5
6	17.5	16.0	14.0	13.0	10.5	9.5	8.5	7.5	12.5	11.5	11.5	11.0
7	17.0	15.5	14.0	13.0	11.0	10.0	8.5	8.0	13.0	11.5	11.5	11.0
8	17.5	15.5	14.0	13.5	10.5	9.5	9.0	7.5	13.5	12.0	11.5	11.0
9	17.5	16.0	14.0	13.0	10.5	9.5	9.0	8.5	13.5	12.5	11.5	11.0
10	17.5	16.0	14.0	13.0	10.5	10.0	9.5	8.0	13.5	12.5	11.5	11.0
11	17.5	16.0	14.0	13.0	10.0	9.0	10.0	9.0	12.5	12.0	12.0	11.5
12	16.5	15.0	13.5	13.0	10.0	9.0	10.0	9.5	12.0	11.5	12.5	11.5
13	15.5	14.5	13.5	12.5	10.5	9.5	10.5	9.5	11.5	11.0	12.5	12.0
14	15.5	14.5	13.5	13.0	10.0	9.0	10.5	10.0	12.5	11.5	13.0	12.0
15	15.5	14.0	14.5	13.0	9.5	8.5	11.0	10.5	12.5	12.0	13.0	12.0
16	15.0	14.0	14.0	13.0	9.0	8.0	11.5	10.5	12.0	11.5	13.0	12.0
17	15.0	13.5	14.0	13.0	9.5	8.5	11.0	11.0	11.5	11.0	12.5	12.0
18	15.0	14.0	13.0	12.0	9.5	8.5	12.0	11.0	12.0	11.0	13.0	11.5
19	14.5	13.5	12.5	12.0	9.5	9.0	13.0	11.5	12.0	11.5	13.0	12.0
20	14.5	13.0	12.5	12.0	10.0	9.0	13.0	12.0	12.5	12.0	12.5	11.5
21	15.0	13.5	12.5	11.5	9.5	8.5	12.5	11.0	12.5	12.0	13.0	11.5
22	15.0	13.5	11.5	10.5	9.5	8.5	12.0	11.5	12.0	11.5	14.0	12.0
23	15.0	14.0	11.0	10.0	9.5	8.5	12.0	11.5	12.0	11.5	14.5	13.0
24	15.0	14.0	11.0	10.0	9.0	8.0	12.5	11.5	11.5	11.0	14.5	13.0
25	15.0	13.5	11.0	10.0	9.0	8.0	13.0	12.0	12.0	11.0	14.5	13.0
26	14.5	13.5	11.0	10.0	9.0	8.0	12.5	12.0	12.0	11.5	14.5	13.0
27	15.5	14.0	11.5	10.5	9.0	8.0	12.5	11.5	12.5	12.0	14.0	13.0
28	17.0	15.0	11.5	11.0	9.0	8.0	12.0	11.0	12.0	11.5	14.0	12.5
29	15.5	14.0	11.5	11.0	9.0	8.0	11.5	10.5	12.0	11.5	14.0	12.0
30	14.5	13.5	12.5	11.5	8.5	7.5	11.5	11.0	---	---	14.5	13.0
31	14.5	13.0	---	---	9.0	8.0	11.5	11.0	---	---	14.5	13.0
MONTH	18.5	13.0	14.5	10.0	12.5	7.5	13.0	7.5	13.5	11.0	14.5	11.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	13.5	15.0	14.0	16.5	14.5	23.0	20.5	24.5	22.5	18.5	18.0
2	15.5	13.5	15.5	14.0	16.5	15.0	22.0	20.0	25.0	23.0	19.5	18.0
3	16.0	14.5	15.5	14.5	16.5	15.0	22.0	19.5	25.0	22.5	19.5	17.5
4	16.5	14.5	15.5	14.0	16.5	15.0	22.0	19.5	24.0	22.0	19.5	17.0
5	16.0	14.5	15.0	14.0	16.5	15.0	22.0	19.5	24.5	22.0	19.5	17.0
6	15.5	14.0	14.5	13.5	16.5	15.0	22.0	19.5	24.5	22.0	19.5	17.5
7	15.5	14.0	13.5	13.0	16.5	15.0	22.0	19.5	23.5	21.5	20.0	17.5
8	16.0	14.0	14.5	13.5	16.0	15.0	22.0	19.5	23.0	20.5	20.5	18.0
9	15.5	14.0	15.0	14.0	15.5	14.0	23.0	20.0	23.0	20.5	20.0	18.5
10	15.5	14.0	14.5	13.5	16.0	14.5	23.5	21.0	22.5	20.5	20.5	18.0
11	16.0	14.5	14.0	12.5	16.0	14.5	23.5	21.0	23.0	20.5	20.5	18.5
12	15.5	14.5	14.0	13.0	17.0	15.5	23.5	21.0	23.0	20.5	19.5	18.5
13	15.0	14.0	14.5	13.5	17.5	16.0	23.0	21.0	23.0	20.5	20.0	18.5
14	14.5	13.5	14.0	13.5	18.5	16.5	23.5	20.5	22.5	20.5	20.5	18.5
15	14.5	13.5	14.0	13.5	19.5	17.0	23.5	21.0	23.0	20.5	21.0	19.0
16	14.0	13.5	13.5	13.0	20.0	18.0	22.5	21.0	23.0	20.5	21.0	19.0
17	13.5	13.0	14.0	12.5	20.5	18.5	22.0	20.0	23.5	20.5	21.0	19.0
18	13.5	12.0	15.0	13.5	20.0	18.5	22.5	20.0	23.0	20.5	21.0	19.5
19	14.0	12.5	16.0	14.5	20.0	18.0	23.0	20.5	22.0	20.0	21.5	19.5
20	15.0	13.0	16.0	15.0	21.5	19.5	23.0	20.5	21.5	19.5	22.0	20.0
21	14.5	13.5	16.5	15.0	22.0	20.0	23.5	21.0	22.0	19.5	21.0	19.5
22	13.5	13.0	16.5	15.5	23.0	21.0	23.5	21.0	22.0	20.0	20.5	19.5
23	13.5	12.0	16.0	15.0	23.0	21.0	23.5	21.0	22.0	20.0	19.5	18.0
24	14.0	12.5	16.5	15.0	22.5	21.0	24.0	21.5	22.0	19.5	19.5	18.0
25	14.0	13.0	16.0	15.0	23.0	21.0	24.0	21.5	22.5	20.0	19.5	18.0
26	15.0	13.5	16.5	15.0	23.5	21.0	23.5	21.5	22.5	20.0	19.5	17.5
27	15.0	14.0	16.5	15.0	24.0	21.5	23.0	20.5	22.0	20.5	19.5	18.0
28	14.5	13.5	16.5	15.5	24.5	22.0	23.5	21.0	22.0	20.0	19.0	17.5
29	14.5	13.0	16.5	15.0	24.0	22.0	24.0	21.5	21.5	19.0	19.0	17.0
30	15.0	13.5	16.0	14.5	23.5	21.5	24.0	22.0	19.0	18.0	19.5	17.5
31	---	---	16.0	14.5	---	---	24.5	22.0	19.0	17.5	---	---
MONTH	16.5	12.0	16.5	12.5	24.5	14.0	24.5	19.5	25.0	17.5	22.0	17.0

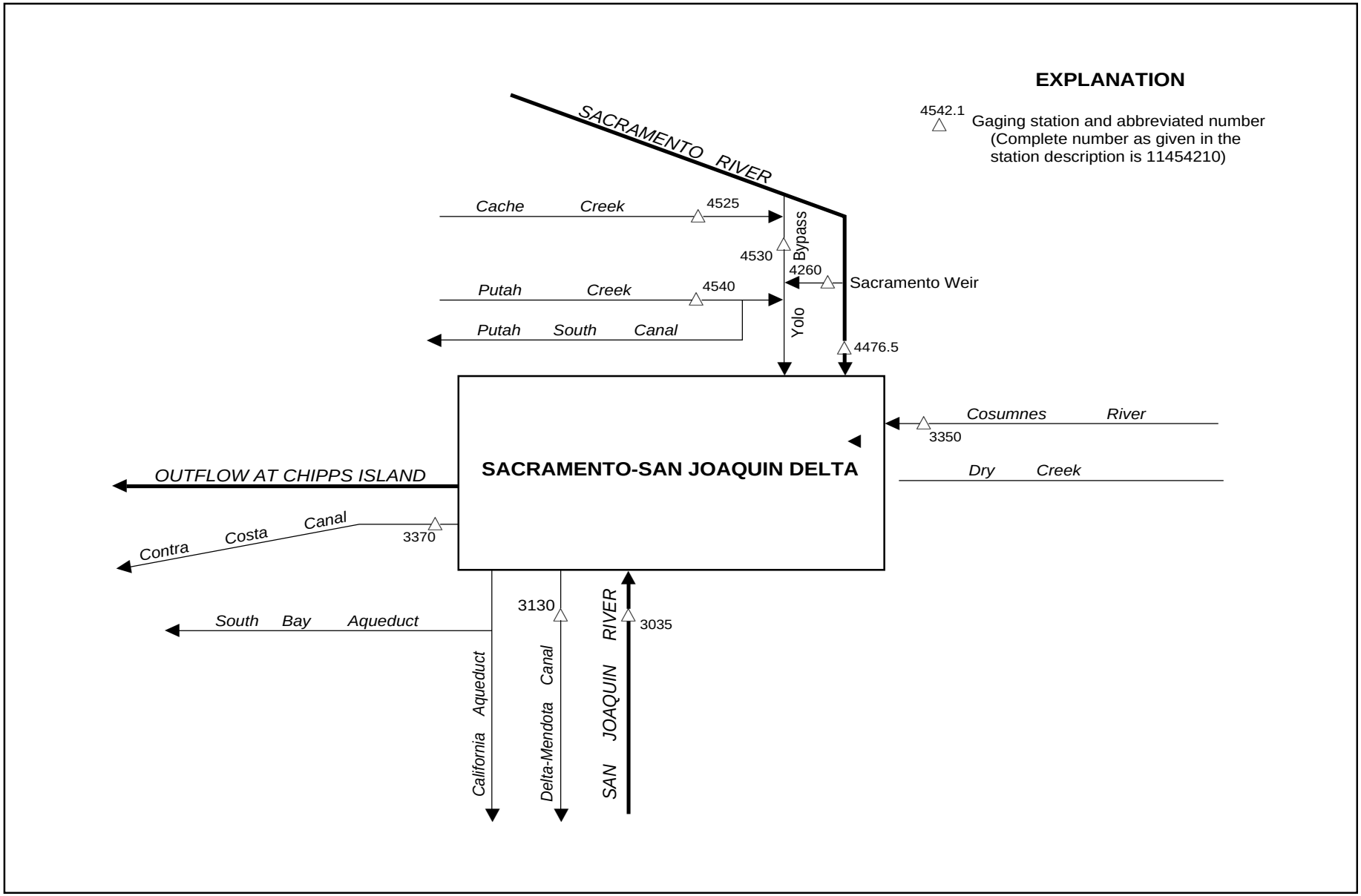

Figure 31. Principal inflows and diversions, Sacramento–San Joaquin Delta.

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA

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 mi^2, includes about 2,100 mi^2 in James Bypass.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 1922 to current year (1922–23 and 1925–29, low-flow records only).

REVISED RECORDS.—WSP 831: 1936. WSP 931: 1940. WSP 1930: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is sea level. 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. See schematic diagram of Sacramento–San Joaquin Delta.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge recorded, 79,000 ft^3/s, Dec. 9, 1950, elevation, 32.81 ft, present datum, including flow through breaks in levee; maximum elevation, 34.88 ft, Jan. 5, 1997; minimum discharge, 19 ft^3/s, Aug. 10, 1961.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2220	2550	1920	e1610	2760	14600	5190	5740	3300	1850	1970	2320
2	2410	2450	1880	e1620	2700	14800	4690	5630	3250	1840	1920	2430
3	2390	2430	1850	e1630	2510	14700	4290	5480	3310	1950	1910	2530
4	2490	2460	1820	e1610	2410	14600	4020	5410	3410	1880	1880	2550
5	2550	2580	1810	1600	2330	15300	3770	5620	3400	1900	1970	2410
6	2490	2600	1810	1610	2310	16100	3550	5580	3290	1860	2050	2330
7	2490	2440	1780	1590	2270	16700	3400	5700	3150	1890	2040	2240
8	2450	2340	1760	1570	2200	16500	3390	6050	3210	1900	1800	2160
9	2520	2290	1750	1590	2150	16400	3310	6000	3360	1950	1760	2210
10	2580	2210	1750	1610	2140	16500	3090	5870	3360	1920	1730	2300
11	2640	2170	1760	1610	2140	16200	2990	5860	3520	1830	1740	2340
12	2630	2170	1740	1720	2340	15800	3030	5770	3610	1840	1750	2290
13	2510	2190	1700	1740	3490	15500	3120	5640	3470	1860	1840	2250
14	2480	2160	1670	1720	5230	14900	4360	5580	3290	1910	1820	2240
15	2500	2120	1650	1800	8120	14100	5660	5190	3090	1940	1710	2410
16	2530	2160	1670	1830	8710	13400	5900	4830	2800	1980	1630	2940
17	2560	2120	1690	1880	9490	13000	6310	4560	2590	1960	1760	2450
18	2720	2070	1690	1980	11700	12500	7070	4260	2560	1880	1970	2250
19	2690	2040	1700	2120	12300	11100	6920	4030	2540	1850	2180	2130
20	2610	2020	1650	2080	12400	11200	6200	4000	2410	1760	2390	2290
21	2600	2010	1620	2100	12400	10700	6230	4200	2260	1760	2550	2420
22	2650	1990	1600	2150	12200	9150	6290	4170	2110	1900	2580	2350
23	2650	1970	1560	2260	12600	8330	6310	4030	2010	1970	2610	2460
24	2580	1920	1570	2600	13500	7870	6320	4090	2030	2000	2750	2530
25	2530	1910	1570	3150	13800	7530	6120	4010	2110	1910	2810	2520
26	2510	1890	1590	3620	13300	7280	5940	4000	2080	1850	2860	2370
27	2490	e1860	1580	3700	13200	6840	5810	3840	2060	1910	2990	2200
28	2500	e1860	1550	3230	13600	6370	5600	3740	1930	1900	2860	2050
29	2540	e1870	1530	3190	14900	5950	5730	3560	1840	1900	2550	1970
30	2500	1890	1530	2920	---	5690	5770	3430	1820	1960	2490	1960
31	2480	---	e1590	2780	---	5420	---	3350	---	2040	2420	---
TOTAL	78490	64740	52340	66220	219200	375030	150380	149220	83170	58850	67290	69900
MEAN	2532	2158	1688	2136	7559	12100	5013	4814	2772	1898	2171	2330
MAX	2720	2600	1920	3700	14900	16700	7070	6050	3610	2040	2990	2940
MIN	2220	1860	1530	1570	2140	5420	2990	3350	1820	1760	1630	1960
AC-FT	155700	128400	103800	131300	434800	743900	298300	296000	165000	116700	133500	138600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2000, BY WATER YEAR (WY)

MEAN	2297	2320	3643	5225	7393	7664	7263	7764	6598	2658	1444	1792
MAX	13320	10680	25130	30380	35060	40040	36450	31770	36650	19230	9035	11310
(WY)	1984	1984	1951	1997	1997	1983	1983	1983	1938	1983	1983	1983
MIN	246	430	506	804	758	444	200	380	118	92.8	124	179
(WY)	1978	1978	1978	1962	1991	1961	1961	1961	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1924 - 2000	
ANNUAL TOTAL	1570730		1434830			
ANNUAL MEAN	4303		3920		4653	
HIGHEST ANNUAL MEAN					21280	1983
LOWEST ANNUAL MEAN					575	1977
HIGHEST DAILY MEAN	16000	Feb 14	16700	Mar 7	70000	Dec 9 1950
LOWEST DAILY MEAN	1530	Dec 29	1530	Dec 29	30	Aug 10 1961
ANNUAL SEVEN-DAY MINIMUM	1560	Dec 24	1560	Dec 24	59	Jul 19 1961
INSTANTANEOUS PEAK FLOW			16800	Mar 7	79000	Dec 9 1950
INSTANTANEOUS PEAK STAGE			21.57	Mar 7	34.88	Jan 5 1997
ANNUAL RUNOFF (AC-FT)	3116000		2846000		3371000	
10 PERCENT EXCEEDS	8720		8440		12900	
50 PERCENT EXCEEDS	2640		2480		2110	
90 PERCENT EXCEEDS	1860		1740		670	

e Estimated.

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1951 to current year.
CHEMICAL DATA: Water years 1951 to current year.
BIOLOGICAL DATA: Water years 1974–81.
SEDIMENT DATA: Water years 1957 to current year.
SPECIFIC CONDUCTANCE: Water years 1951–63, 1973–82, 1985 to current year.
TURBIDITY: Water years 1972–84.
WATER TEMPERATURE: Water years 1951 to current year.

PERIOD OF DAILY RECORD.—March 1951 to current year.
CHEMICAL DATA: March 1951 to May 1963.
SPECIFIC CONDUCTANCE: March 1951 to May 1963, January 1973 to October 1981, June 1985 to current year.
WATER TEMPERATURE: March 1951 to current year.
SUSPENDED-SEDIMENT DISCHARGE: November 1956 to current year.

INSTRUMENTATION.—Conductivity recorder, January 1973 to October 1981. Temperature recorder, October 1961 to September 1963 and December 1972 to May 1985. Water-quality monitor since June 1985.

REMARKS.—Mean daily specific-conductance records, January 1973 to October 1981, provided by U.S. Bureau of Reclamation. Maximum and minimum specific-conductance values, June 1985 to September 1988, are available in files of the U.S. Geological Survey. Interruptions in record were due to malfunction of recording instrument. Chemical Data for water year 2000 available in the files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum daily, 2,350 microsiemens, Aug. 11, 1961; minimum daily, 60 microsiemens, June 21, 1953.
WATER TEMPERATURE: Maximum recorded, 35.5°C, Aug. 9, 1990; minimum recorded, 2.0°C, Dec. 26, 1987.
SEDIMENT CONCENTRATION: Maximum daily mean, 1,590 mg/L, Dec. 25, 1964; minimum daily mean, 6 mg/L, Jan. 1, 1991.
SEDIMENT LOAD: Maximum daily, 54,100 tons, Dec. 25, 1964; minimum daily, 2 tons, Aug. 10, 1961.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum recorded, 923 microsiemens, Feb. 10; minimum recorded, 193 microsiemens, Mar. 8.
WATER TEMPERATURE: Maximum recorded, 28.0°C, June 28, 29; minimum recorded, 8.0°C, several days in December and January.
SEDIMENT CONCENTRATION: Maximum daily mean, 453 mg/L, Feb. 15; minimum daily mean, 15 mg/L, Dec. 23, 24, 30.
SEDIMENT LOAD: Maximum daily, 9,870 tons, Feb. 15; minimum daily, 63 tons, Dec. 24, 30.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
01...N	1415	2220	23.0	78	468	88
06...N	1200	2490	19.5	69	464	91
NOV						
02...N	1400	2440	17.0	54	356	87
03...N	1200	2440	15.5	49	323	92
30...N	1415	1890	12.0	30	153	82
DEC						
08...N	1100	1760	10.0	19	90	92
JAN						
04...N	1545	1610	9.0	23	100	76
26...N	0730	3430	12.5	112	1040	88
FEB						
16...N	1430	8550	13.0	228	5260	72
23...N	1340	12600	--	76	2590	92
MAR						
07...N	1315	16600	12.0	82	3680	62
09...N	1100	16400	12.0	67	2970	60
APR						
11...N	1500	2960	15.0	40	320	83
26...N	1330	5930	18.0	62	993	77
MAY						
19...N	1500	4040	20.0	53	578	81
30...N	1420	3420	20.5	53	489	82
JUN						
14...N	1100	3330	22.0	57	512	83
15...N	1415	3070	24.5	60	497	88
JUL						
12...N	1730	1870	26.0	63	318	89
17...N	1430	1970	24.5	36	191	80
26...N	1530	1860	25.5	36	181	84
AUG						
08...N	1445	1780	24.5	30	144	82
09...N	1600	1770	26.0	23	110	81
23...N	0930	2610	22.0	84	592	80
SEP						
07...N	1030	2270	20.0	37	227	80
20...N	1030	2280	23.0	58	357	90

N Suspended-sediment data determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) protocol.

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PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT) (00063)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPERATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
NOV											
30...	1520	1	1890	12.0	--	--	45	95	100	--	--
30...	1525	1	1890	12.0	--	1	28	83	97	100	--
30...	1530	1	1890	12.0	--	2	51	93	99	100	--
30...	1535	1	1890	12.0	--	3	50	96	100	--	--
30...	1540	1	1890	12.0	--	6	52	88	98	100	--
MAR											
07...	1400	1	16600	12.0	--	--	9	70	96	99	100
07...	1403	1	16600	12.0	--	2	38	94	98	100	--
07...	1405	1	16600	12.0	--	3	37	76	90	96	100
07...	1408	1	16600	12.0	--	2	37	92	99	100	--
07...	1412	1	16600	12.0	1	14	87	100	--	--	--
AUG											
08...	1610	1	1770	24.5	--	2	37	83	94	99	100
08...	1615	1	1770	24.5	--	5	54	95	98	100	--
08...	1620	1	1770	24.5	--	2	35	91	100	--	--
08...	1625	1	1770	24.5	--	4	45	97	100	--	--
08...	1630	1	1770	24.5	--	4	46	94	99	100	--

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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	589	527	566	546	790	759	878	839	803	763	257	221
2	527	496	595	566	761	745	890	840	811	777	228	212
3	511	490	579	506	793	744	889	833	871	799	256	228
4	519	497	532	471	798	767	858	832	910	871	274	256
5	527	463	478	401	791	769	881	848	905	890	270	263
6	517	481	492	403	791	778	862	843	912	890	275	244
7	522	479	583	476	799	770	852	817	910	880	250	210
8	546	500	608	583	799	783	839	822	901	885	216	193
9	559	514	599	566	795	770	855	827	914	891	213	194
10	539	489	601	563	785	764	861	831	923	870	223	213
11	524	498	656	601	782	765	900	827	875	827	223	209
12	524	---	656	606	783	770	847	802	847	749	223	210
13	506	460	638	608	809	777	851	813	813	540	242	223
14	565	506	632	608	808	792	849	817	605	352	251	241
15	567	533	642	626	793	781	846	767	352	246	263	250
16	551	535	700	626	786	755	811	767	265	241	268	258
17	546	525	690	672	759	746	789	748	249	217	270	251
18	525	476	716	676	754	742	779	696	229	201	305	270
19	476	442	782	707	750	741	710	670	246	211	328	305
20	471	459	774	753	787	750	749	701	254	229	306	280
21	473	465	798	750	809	787	763	715	262	250	315	289
22	482	459	796	783	789	776	741	673	262	247	351	315
23	473	418	805	792	795	769	762	706	255	237	361	346
24	498	473	799	783	809	793	708	642	270	245	387	361
25	513	493	810	791	831	809	654	540	259	227	406	386
26	531	500	821	802	843	827	594	541	260	239	413	401
27	574	505	821	794	848	834	682	541	278	240	411	393
28	588	566	799	776	847	826	694	668	290	271	438	398
29	579	551	807	774	836	825	670	641	272	242	449	426
30	586	545	809	790	837	827	738	660	---	---	467	432
31	588	550	---	---	874	836	768	738	---	---	468	432
MONTH	589	---	821	401	874	741	900	540	923	201	468	193
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	454	429	309	294	516	467	533	439	---	---	---	---
2	463	440	310	295	520	481	663	457	---	---	---	---
3	526	462	308	300	507	478	700	614	---	---	---	---
4	537	526	318	303	479	443	731	662	---	---	---	---
5	558	524	344	312	---	---	665	612	---	---	---	---
6	580	551	327	312	---	---	631	600	---	---	524	502
7	590	569	332	314	---	---	628	595	---	---	535	504
8	611	586	334	317	---	---	608	555	---	---	558	---
9	593	544	324	289	---	---	611	549	632	591	---	---
10	611	576	317	301	---	---	644	577	631	556	---	---
11	609	595	320	306	---	---	652	---	590	553	---	---
12	605	555	330	307	---	---	---	---	632	554	---	---
13	555	505	321	278	---	---	---	---	622	575	---	---
14	607	282	325	297	---	---	---	---	652	575	---	---
15	290	274	332	293	---	---	---	---	639	581	---	---
16	317	290	369	332	570	506	---	---	657	611	---	---
17	324	310	418	369	574	552	---	---	643	552	---	---
18	329	293	457	408	607	552	---	---	552	484	---	---
19	340	307	479	452	635	588	---	---	---	---	---	---
20	406	340	484	464	667	583	---	---	---	---	---	---
21	409	327	480	429	648	602	---	---	---	---	---	---
22	342	319	438	417	676	635	---	---	---	---	---	---
23	346	317	454	437	740	657	---	---	---	---	---	---
24	339	324	440	417	717	658	---	---	---	---	---	---
25	331	321	426	401	725	682	---	---	---	---	---	---
26	325	303	426	401	711	670	---	---	---	---	---	---
27	315	293	447	421	729	677	---	---	---	---	---	---
28	321	298	492	447	692	551	---	---	---	---	---	---
29	308	287	496	477	668	522	---	---	---	---	---	---
30	303	293	509	483	701	489	---	---	---	---	---	---
31	---	---	504	475	---	---	---	---	---	---	---	---
MONTH	611	274	509	278	---	---	---	---	---	---	---	---

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.0	21.0	17.0	16.0	13.0	12.0	10.0	9.0	12.5	11.5	12.5	12.0
2	22.0	20.5	17.0	16.0	12.5	11.5	9.5	8.5	12.5	12.0	12.5	12.0
3	21.0	20.0	16.0	15.0	11.5	10.5	9.5	8.0	12.5	12.0	12.5	12.0
4	21.0	19.5	16.0	14.5	11.0	10.0	9.0	8.0	12.5	12.0	13.0	12.5
5	20.0	18.5	16.0	15.0	11.0	9.5	9.5	8.5	12.5	12.0	13.0	12.5
6	20.0	19.0	16.0	15.0	11.0	9.5	9.0	8.0	13.5	12.0	13.0	12.5
7	19.5	18.5	15.5	15.0	11.5	10.0	9.5	8.0	13.5	12.5	13.0	12.5
8	20.0	18.0	15.5	14.5	10.5	9.5	9.5	8.0	14.5	13.0	12.5	12.0
9	20.5	18.5	15.5	14.5	10.5	9.5	9.5	8.5	14.5	13.5	12.5	12.0
10	20.5	19.0	15.5	14.5	10.5	9.5	10.0	8.5	14.5	13.5	13.0	12.0
11	21.0	19.5	15.5	14.5	10.0	9.0	10.0	8.5	13.5	12.5	13.5	12.5
12	20.5	19.0	15.5	14.5	10.0	9.0	10.5	9.5	13.0	12.0	14.0	13.0
13	20.0	18.5	15.5	14.5	10.5	9.5	10.5	9.5	12.5	11.5	14.5	13.0
14	20.0	18.5	15.0	14.5	10.0	9.0	11.0	10.0	12.5	11.5	14.5	13.5
15	19.0	18.0	16.0	14.5	9.5	8.5	11.0	10.5	12.5	11.5	15.0	14.0
16	18.0	17.0	15.5	15.0	9.5	8.0	11.5	11.0	12.5	12.0	15.0	14.0
17	17.5	16.0	15.5	14.5	9.5	8.0	11.5	11.5	12.0	11.5	14.5	13.5
18	17.5	16.0	15.0	14.0	9.5	8.5	12.0	11.0	12.0	11.5	14.5	13.5
19	17.5	16.5	14.0	13.0	10.0	9.0	13.0	12.0	12.5	11.5	14.5	14.0
20	17.5	16.5	14.0	13.0	10.5	9.0	13.5	13.0	12.5	12.0	14.5	13.0
21	18.0	16.5	14.0	12.5	10.5	9.0	13.5	12.5	13.0	12.5	13.5	12.5
22	18.0	16.5	12.5	11.5	10.0	9.0	13.5	12.5	13.0	12.5	14.5	13.5
23	18.0	16.5	12.0	10.5	10.0	8.5	13.0	12.5	12.5	12.0	14.5	14.0
24	17.5	16.5	11.5	10.5	9.5	8.5	13.0	12.5	12.0	11.5	15.0	14.5
25	18.0	16.5	12.0	10.5	9.5	8.0	13.5	12.5	12.0	11.5	15.5	14.5
26	17.5	16.5	12.0	10.5	9.5	8.0	13.0	12.5	12.5	11.5	15.5	14.5
27	18.0	16.5	12.0	11.0	9.5	8.0	13.0	12.5	12.5	12.5	15.5	15.0
28	18.5	17.5	12.0	11.5	9.5	8.0	12.5	12.0	13.0	12.5	15.0	14.5
29	17.5	16.5	12.0	11.5	9.5	8.0	12.0	11.5	13.0	12.5	15.0	14.5
30	17.0	16.0	13.0	11.5	9.5	8.0	12.0	11.5	---	---	15.0	14.5
31	17.0	16.0	---	---	9.5	8.5	12.0	11.5	---	---	15.5	14.5
MONTH	23.0	16.0	17.0	10.5	13.0	8.0	13.5	8.0	14.5	11.5	15.5	12.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	14.5	18.5	17.0	21.0	18.5	26.0	24.0	---	---	20.5	20.0
2	17.0	15.5	19.0	17.5	21.5	19.5	25.5	23.0	---	---	20.5	19.5
3	18.0	16.5	19.5	18.0	21.5	19.5	25.0	22.5	---	---	21.5	19.5
4	18.5	17.0	19.0	18.0	22.0	20.0	25.0	22.5	---	---	21.0	19.5
5	18.5	17.0	18.5	17.5	---	20.0	24.5	22.5	---	---	21.0	19.5
6	19.0	17.0	18.0	16.5	---	---	24.5	22.0	---	---	21.0	19.0
7	19.0	17.0	16.5	16.0	---	---	24.0	22.0	---	---	22.0	19.5
8	19.0	17.5	17.0	16.0	---	---	24.0	21.5	25.0	---	22.5	20.5
9	18.5	17.0	17.5	16.5	---	---	25.0	22.0	26.0	23.0	22.5	20.5
10	19.0	17.0	17.0	16.5	---	---	26.0	23.0	25.5	23.0	22.5	20.5
11	19.5	17.5	16.5	15.5	---	---	26.0	23.5	26.0	23.0	23.0	20.5
12	19.0	18.5	17.0	15.5	---	---	26.0	23.5	26.5	23.5	22.0	21.0
13	19.0	18.0	17.0	16.5	---	---	26.0	23.5	26.5	23.5	22.5	20.5
14	18.5	16.0	17.0	16.5	---	---	26.0	23.5	26.5	23.5	23.5	21.5
15	16.0	15.0	17.5	16.5	25.5	---	26.0	23.5	26.5	23.5	23.0	21.5
16	15.5	14.5	16.5	16.0	26.0	24.0	25.5	23.5	26.5	23.5	22.0	19.5
17	15.0	14.0	17.5	16.0	26.0	23.5	---	22.5	26.5	24.0	22.5	20.0
18	15.0	13.5	19.0	17.0	25.5	23.5	---	---	25.5	23.5	23.5	21.5
19	15.5	14.0	20.5	18.5	25.5	23.0	---	---	24.0	22.5	24.5	22.0
20	17.0	15.5	21.5	19.5	26.5	24.0	---	---	23.5	21.0	24.5	23.0
21	17.5	16.5	22.5	21.0	27.0	24.5	---	---	24.0	21.0	24.0	22.5
22	17.5	17.0	23.0	21.5	27.5	25.0	---	---	24.0	21.5	22.5	21.5
23	17.5	16.5	22.5	21.5	27.0	24.5	---	---	23.5	22.0	21.5	20.5
24	17.5	16.5	22.5	21.0	27.0	24.5	---	---	23.0	21.5	21.5	19.0
25	18.0	16.5	22.0	20.5	27.0	24.5	---	---	23.0	21.0	21.5	19.5
26	18.5	17.0	21.5	20.0	27.5	24.5	---	---	23.0	21.0	21.5	20.0
27	19.0	18.0	22.0	20.0	27.5	25.5	---	---	23.0	21.5	21.5	20.0
28	18.0	17.0	22.0	20.0	28.0	25.5	---	---	23.5	21.5	21.5	19.5
29	17.5	16.0	21.5	20.0	28.0	25.5	---	---	22.5	20.5	21.5	19.0
30	18.0	16.5	21.0	19.5	27.0	25.0	---	---	20.5	19.5	22.0	20.0
31	---	---	20.5	19.0	---	---	---	---	21.0	19.0	---	---
MONTH	19.5	13.5	23.0	15.5	---	---	---	---	---	---	24.5	19.0

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SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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	2220	75	448	2550	52	359	1920	30	157
2	2410	83	541	2450	53	348	1880	27	139
3	2390	82	530	2430	57	377	1850	28	139
4	2490	79	531	2460	59	390	1820	27	132
5	2550	82	568	2580	56	389	1810	25	120
6	2490	76	513	2600	55	388	1810	21	102
7	2490	76	509	2440	44	294	1780	23	112
8	2450	76	504	2340	37	236	1760	26	124
9	2520	80	544	2290	43	265	1750	22	103
10	2580	80	555	2210	46	277	1750	19	92
11	2640	86	614	2170	53	310	1760	18	83
12	2630	76	537	2170	47	276	1740	19	89
13	2510	70	473	2190	48	284	1700	21	95
14	2480	63	420	2160	45	260	1670	19	86
15	2500	64	431	2120	45	255	1650	17	76
16	2530	67	458	2160	45	261	1670	19	87
17	2560	65	448	2120	43	245	1690	19	86
18	2720	66	486	2070	39	220	1690	21	98
19	2690	71	516	2040	40	222	1700	21	98
20	2610	68	481	2020	41	225	1650	22	99
21	2600	71	500	2010	37	202	1620	20	85
22	2650	72	516	1990	34	183	1600	17	74
23	2650	70	501	1970	31	164	1560	15	64
24	2580	72	499	1920	30	155	1570	15	63
25	2530	64	439	1910	33	168	1570	16	67
26	2510	61	413	1890	33	167	1590	21	89
27	2490	54	361	e1860	31	e155	1580	16	66
28	2500	41	279	e1860	29	e145	1550	16	65
29	2540	36	244	e1870	26	e133	1530	16	66
30	2500	45	301	1890	28	143	1530	15	63
31	2480	55	370	---	---	---	e1590	18	e78
TOTAL	78490	---	14530	64740	---	7496	52340	---	2897
		JANUARY			FEBRUARY			MARCH	
1	e1610	25	e107	2760	84	625	14600	107	4210
2	e1620	27	e118	2700	89	647	14800	91	3620
3	e1630	24	e105	2510	84	571	14700	82	3260
4	e1610	23	e101	2410	78	508	14600	81	3200
5	1600	23	99	2330	71	447	15300	86	3530
6	1610	23	98	2310	71	444	16100	82	3580
7	1590	24	102	2270	71	433	16700	82	3700
8	1570	23	99	2200	67	394	16500	72	3220
9	1590	24	102	2150	64	372	16400	64	2830
10	1610	27	116	2140	68	394	16500	63	2790
11	1610	28	124	2140	81	470	16200	65	2850
12	1720	34	156	2340	68	433	15800	56	2400
13	1740	37	171	3490	142	1390	15500	56	2350
14	1720	37	171	5230	274	4020	14900	60	2410
15	1800	40	195	8120	453	9870	14100	60	2290
16	1830	45	224	8710	268	6300	13400	64	2330
17	1880	50	257	9490	324	8320	13000	60	2130
18	1980	56	300	11700	285	8930	12500	68	2300
19	2120	69	395	12300	207	6860	11100	74	2220
20	2080	70	392	12400	155	5200	11200	74	2240
21	2100	63	356	12400	119	3960	10700	69	2000
22	2150	76	444	12200	104	3440	9150	75	1850
23	2260	93	571	12600	110	3740	8330	66	1490
24	2600	100	701	13500	113	4100	7870	68	1450
25	3150	121	1030	13800	103	3860	7530	67	1360
26	3620	124	1220	13300	99	3540	7280	66	1290
27	3700	133	1330	13200	94	3340	6840	64	1180
28	3230	120	1050	13600	93	3430	6370	62	1070
29	3190	123	1060	14900	125	5000	5950	68	1090
30	2920	112	886	---	---	---	5690	70	1080
31	2780	89	666	---	---	---	5420	62	904
TOTAL	66220	---	12746	219200	---	91038	375030	---	72224

e Estimated.

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

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)
		APRIL			MAY			JUNE	
1	5190	62	869	5740	67	1040	3300	46	412
2	4690	62	791	5630	64	979	3250	46	403
3	4290	61	710	5480	61	909	3310	53	471
4	4020	63	682	5410	60	882	3410	52	476
5	3770	57	579	5620	65	980	3400	49	453
6	3550	54	519	5580	68	1020	3290	48	425
7	3400	52	477	5700	69	1050	3150	45	384
8	3390	54	499	6050	66	1080	3210	49	424
9	3310	52	467	6000	69	1120	3360	52	475
10	3090	44	370	5870	69	1090	3360	52	475
11	2990	42	340	5860	68	1070	3520	58	551
12	3030	48	392	5770	63	988	3610	57	557
13	3120	62	522	5640	59	898	3470	60	561
14	4360	99	1180	5580	55	828	3290	63	561
15	5660	111	1700	5190	52	726	3090	62	517
16	5900	82	1300	4830	54	700	2800	59	448
17	6310	76	1300	4560	55	677	2590	64	449
18	7070	79	1510	4260	52	600	2560	70	481
19	6920	72	1340	4030	53	577	2540	70	480
20	6200	69	1150	4000	58	625	2410	74	485
21	6230	84	1420	4200	60	682	2260	69	419
22	6290	87	1480	4170	54	613	2110	71	406
23	6310	82	1400	4030	51	559	2010	80	432
24	6320	76	1300	4090	55	603	2030	78	426
25	6120	71	1170	4010	61	662	2110	78	443
26	5940	70	1120	4000	54	585	2080	78	439
27	5810	74	1160	3840	50	514	2060	85	473
28	5600	82	1230	3740	50	506	1930	79	413
29	5730	81	1250	3560	54	522	1840	84	414
30	5770	74	1140	3430	49	457	1820	88	433
31	---	---	---	3350	46	419	---	---	---
TOTAL	150380	---	29367	149220	---	23961	83170	---	13786
		JULY			AUGUST			SEPTEMBER	
1	1850	87	434	1970	61	326	2320	56	349
2	1840	78	390	1920	41	211	2430	60	396
3	1950	83	438	1910	40	203	2530	55	375
4	1880	85	433	1880	80	408	2550	60	411
5	1900	84	428	1970	83	443	2410	42	277
6	1860	84	424	2050	71	391	2330	49	306
7	1890	86	439	2040	53	293	2240	61	369
8	1900	85	435	1800	34	168	2160	53	307
9	1950	86	454	1760	37	177	2210	41	245
10	1920	83	433	1730	63	294	2300	39	245
11	1830	74	363	1740	67	316	2340	43	269
12	1840	70	350	1750	67	316	2290	53	329
13	1860	69	346	1840	47	232	2250	52	315
14	1910	56	290	1820	54	267	2240	53	322
15	1940	51	267	1710	69	320	2410	58	379
16	1980	39	210	1630	70	310	2940	71	569
17	1960	44	234	1760	76	363	2450	46	305
18	1880	62	313	1970	90	480	2250	45	273
19	1850	70	349	2180	114	669	2130	42	244
20	1760	60	284	2390	88	571	2290	49	307
21	1760	58	277	2550	89	615	2420	55	359
22	1900	87	447	2580	83	581	2350	62	392
23	1970	85	451	2610	83	587	2460	60	397
24	2000	80	432	2750	85	634	2530	50	339
25	1910	66	343	2810	85	647	2520	51	344
26	1850	47	234	2860	78	599	2370	47	302
27	1910	48	245	2990	68	551	2200	38	226
28	1900	71	365	2860	80	620	2050	39	214
29	1900	69	356	2550	76	524	1970	37	199
30	1960	69	366	2490	54	361	1960	37	197
31	2040	75	416	2420	53	345	---	---	---
TOTAL	58850	---	11246	67290	---	12822	69900	---	9561
YEAR	1434830		301674						

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 sea level (levels by U.S. 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. See schematic diagram of Sacramento–San Joaquin Delta.

COOPERATION.—Records were provided by U.S. Bureau of Reclamation and are rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 4,940 ft^3/s, Aug. 11, 1969, Aug. 7, 1998; no flow for many days in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4170	4250	4180	4130	4080	4150	3470	869	1520	4250	4260	4420
2	4130	4250	4090	4060	4090	4110	3360	867	1000	4220	4360	4320
3	4130	4250	4040	4120	4110	4070	3480	872	999	4240	4390	4340
4	4200	4270	4020	4090	4100	4080	3420	870	1000	4350	4430	4310
5	4180	4240	4020	4120	4100	4050	3480	866	1490	4270	4430	4300
6	4280	4240	4020	4100	4100	4070	3480	865	1650	4300	4410	4340
7	4310	4170	4020	4090	4090	4060	4010	863	1650	4330	4470	4340
8	4250	4250	4030	4100	4080	4050	4220	863	1650	4330	4370	4370
9	4230	4300	4020	4100	4110	4040	4230	867	2280	4340	4400	4250
10	4230	4240	1740	4110	4120	3720	4220	858	2530	4340	4400	4240
11	4220	4280	828	4110	4130	3590	4230	860	2520	4320	4410	4290
12	4230	4250	828	4110	4140	3590	4220	858	2530	4320	4400	4200
13	4230	4260	678	4090	4060	3590	4230	859	2530	4340	4390	4240
14	4210	4270	714	4070	4050	3590	2860	860	2530	4320	4400	4280
15	4260	4260	716	4070	4040	3600	1020	861	2540	4300	4380	4260
16	4280	4270	708	4080	4030	3600	1020	865	3780	4290	4390	4260
17	4240	4160	711	1850	4110	3590	977	862	4200	4280	4400	4250
18	4240	4170	713	921	4150	3580	1490	855	4170	4350	4400	4260
19	4240	4190	713	907	4150	3570	1110	862	4170	4320	4400	4290
20	4240	4180	715	789	4140	3580	873	861	4200	4340	4410	4280
21	4260	4160	716	732	4130	3570	876	862	4200	4340	4430	4260
22	4290	4200	714	730	4130	3570	905	861	4280	4360	4410	4200
23	4300	4170	715	728	4080	3570	926	861	4270	4360	4410	4130
24	4290	4090	3270	728	4080	2300	886	865	4210	4350	4340	4140
25	4280	4050	3940	2260	4140	1780	253	1790	4240	4300	4310	4140
26	4290	4020	3920	4010	4140	1780	.00	2780	4230	4340	4310	4140
27	4280	4050	3920	4020	4150	1770	362	2780	4220	4330	4340	4150
28	4290	4060	4010	4030	4140	2310	871	2790	4250	4350	4310	4160
29	4270	4130	4020	4010	4150	2520	869	2770	4280	4350	4360	4150
30	4250	4180	4020	4040	---	2390	868	2760	4220	4340	4420	4180
31	4430	---	4090	4030	---	2950	---	2760	---	4320	4420	---
TOTAL	131730	125860	78839	99335	119120	104790	66216.00	39142	91339	133890	135960	127490
MEAN	4249	4195	2543	3204	4108	3380	2207	1263	3045	4319	4386	4250
MAX	4430	4300	4180	4130	4150	4150	4230	2790	4280	4360	4470	4420
MIN	4130	4020	678	728	4030	1770	.00	855	999	4220	4260	4130
AC-FT	261300	249600	156400	197000	236300	207900	131300	77640	181200	265600	269700	252900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2000, BY WATER YEAR (WY)

MEAN	2454	1866	1606	1938	2394	2630	2661	2545	2946	3705	3693	2936
MAX	4333	4239	4273	4271	4584	4563	4400	4540	4591	4740	4703	4591
(WY)	1996	1994	1996	1996	1976	1976	1976	1976	1973	1989	1989	1988
MIN	368	.000	.000	.000	.000	.000	99.6	58.3	113	354	977	539
(WY)	1952	1973	1953	1952	1952	1952	1952	1952	1951	1977	1952	1952

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1951 - 2000	
ANNUAL TOTAL	1282224.00		1253711.00			
ANNUAL MEAN	3513		3425		2634	
HIGHEST ANNUAL MEAN					4144	1976
LOWEST ANNUAL MEAN					230	1952
HIGHEST DAILY MEAN	4490	Mar 19	4470	Aug 7	4940	Aug 11 1969
LOWEST DAILY MEAN	.00	Jan 1	.00	Apr 26	.00	Jun 1 1951
ANNUAL SEVEN-DAY MINIMUM	503	Jan 1	585	Apr 25	.00	Jun 1 1951
ANNUAL RUNOFF (AC-FT)	2543000		2487000		1908000	
10 PERCENT EXCEEDS	4410		4340		4420	
50 PERCENT EXCEEDS	4230		4120		2930	
90 PERCENT EXCEEDS	1520		864		140	

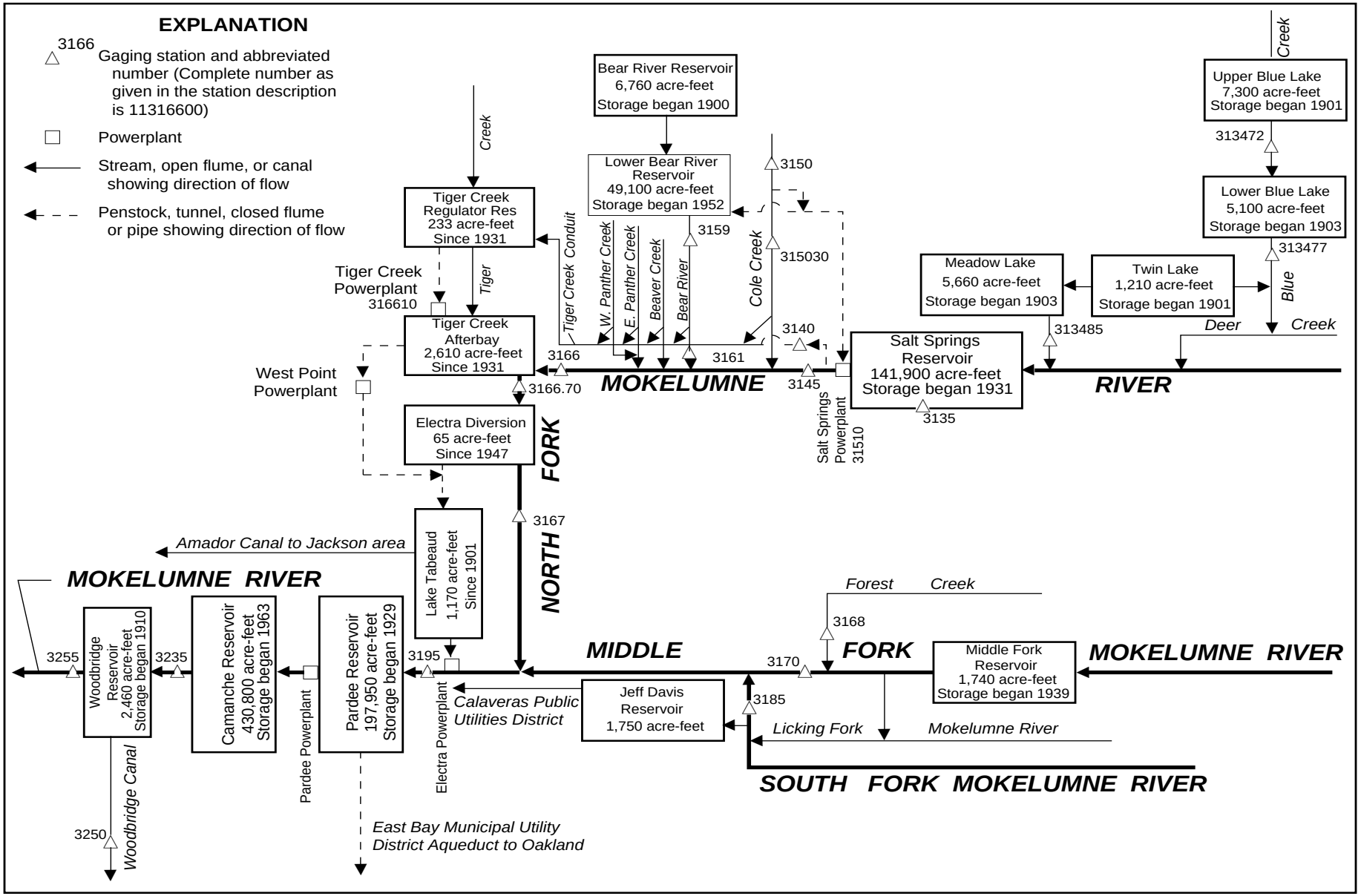

Figure 32. Diversions and storage in Mokelumne River Basin.

11313472 UPPER BLUE LAKE OUTLET NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°37'35", long 119°56'10", in NW 1/4 NW 1/4 sec.19, T.9 N., R.19 E., Alpine County, Hydrologic Unit 18040012, Eldorado National Forest, on left bank, 1,000 ft downstream from Upper Blue Lake Dam, and 9.8 mi southwest of Markleeville.

DRAINAGE AREA.—2.64 mi^2.

PERIOD OF RECORD.—October 1988 to current year. Unpublished records for water years 1981–88 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 8,100 ft above sea level, from topographic map. Prior to October 1987, nonrecording gage at same site at different datum.

REMARKS.—Records not computed for winter months or above 9.9 ft^3/s. Low and medium flow regulated by Upper Blue Lake (capacity, 7,300 acre-ft) 1,000 ft upstream. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.7	5.2	4.4	---	---	---	---	5.1	---	---	---
2	---	7.0	5.2	4.3	---	---	---	---	5.1	---	---	---
3	---	5.5	5.2	4.3	---	---	---	4.9	5.1	---	---	---
4	---	5.0	5.1	4.3	---	---	---	5.1	5.3	---	---	---
5	---	4.6	5.1	4.3	---	---	---	5.2	5.5	---	---	---
6	7.4	4.1	5.1	---	---	---	---	5.0	5.4	---	---	---
7	---	3.7	5.0	---	---	---	---	5.1	5.5	---	---	---
8	---	3.3	4.9	---	---	---	---	7.1	5.2	---	---	---
9	---	3.0	4.9	---	---	---	---	5.8	5.0	---	---	---
10	---	2.7	4.9	---	---	---	---	5.4	5.0	---	---	---
11	---	2.6	4.9	---	---	---	---	5.1	5.1	---	---	---
12	---	2.5	4.7	---	---	---	---	5.1	5.2	---	---	---
13	9.9	2.5	4.7	---	---	---	---	5.1	5.4	---	---	---
14	9.9	2.4	4.7	---	---	---	---	5.2	5.4	---	---	---
15	9.7	2.4	4.7	---	---	---	---	5.3	5.3	---	---	---
16	9.7	2.3	4.6	---	---	---	---	5.1	5.1	---	---	---
17	9.6	3.8	4.5	---	---	---	---	5.2	5.0	---	---	---
18	9.5	5.3	4.5	---	---	---	---	5.7	5.0	---	---	---
19	9.4	5.3	4.4	---	---	---	---	6.2	4.8	---	---	---
20	9.3	5.2	4.4	---	---	---	---	6.7	4.8	---	---	---
21	9.1	5.3	4.4	---	---	---	---	7.3	4.7	---	---	---
22	9.0	5.3	4.4	---	---	---	---	5.7	4.7	---	---	---
23	8.8	5.3	4.4	---	---	---	---	4.6	4.6	---	---	---
24	8.6	5.2	4.4	---	---	---	---	5.5	4.6	---	---	---
25	8.4	5.2	4.4	---	---	---	---	5.3	4.6	---	---	---
26	8.2	5.2	4.4	---	---	---	---	5.2	4.6	---	---	---
27	8.1	5.2	4.4	---	---	---	---	5.3	4.6	---	---	---
28	9.0	5.3	4.4	---	---	---	---	5.4	4.6	---	---	---
29	8.5	5.2	4.4	---	---	---	---	5.4	---	---	---	---
30	8.2	5.2	4.4	---	---	---	---	5.1	---	---	---	---
31	8.0	---	4.4	---	---	---	---	5.0	---	---	---	---
TOTAL	---	133.3	145.1	---	---	---	---	---	---	---	---	---
MEAN	---	4.44	4.68	---	---	---	---	---	---	---	---	---
MAX	---	7.7	5.2	---	---	---	---	---	---	---	---	---
MIN	---	2.3	4.4	---	---	---	---	---	---	---	---	---
AC-FT	---	264	288	---	---	---	---	---	---	---	---	---

11313477 LOWER BLUE LAKE OUTLET NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°36'24", long 119°55'31", in SW 1/4 NE 1/4 sec.30, T.9 N., R.19 E., Alpine County, Hydrologic Unit 18040012, Eldorado National Forest, on left bank, 800 ft downstream from Lower Blue Lake Dam, and 10.0 mi southwest of Markleeville.

DRAINAGE AREA.—4.66 mi^2.

PERIOD OF RECORD.—October 1987 to current year. Unpublished records for water years 1981–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 7,870 ft above sea level, from topographic map. Prior to October 1987, nonrecording gage at same site and datum.

REMARKS.—Records not computed for winter months or above 75 ft^3/s. Low and medium flow regulated by Lower Blue Lake (capacity, 5,100 acre-ft) 800 ft upstream. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	16	5.8	3.9	---	---	---	---	21	17	20	19
2	39	16	6.0	3.8	---	---	---	---	21	18	20	19
3	39	15	6.2	3.8	---	---	---	19	21	18	20	19
4	38	14	6.5	3.9	---	---	---	19	21	18	20	19
5	37	13	6.4	3.9	---	---	---	20	21	18	20	19
6	37	12	6.3	---	---	---	---	21	21	18	20	18
7	36	11	6.3	---	---	---	---	21	21	18	20	18
8	36	10	6.7	---	---	---	---	24	21	18	20	18
9	36	9.9	6.6	---	---	---	---	24	21	18	20	18
10	35	9.4	6.5	---	---	---	---	24	21	18	20	18
11	35	8.8	6.3	---	---	---	---	24	21	18	20	18
12	34	8.3	6.2	---	---	---	---	24	19	18	20	18
13	34	8.1	6.2	---	---	---	---	24	17	19	20	18
14	33	7.9	6.0	---	---	---	---	23	17	20	20	23
15	33	7.9	6.0	---	---	---	---	23	17	20	20	27
16	32	7.7	5.8	---	---	---	---	23	17	20	20	27
17	31	7.9	5.8	---	---	---	---	23	17	20	20	27
18	29	7.7	5.7	---	---	---	---	23	17	20	20	27
19	28	7.6	5.7	---	---	---	---	24	18	20	20	27
20	27	6.7	5.5	---	---	---	---	25	18	20	20	27
21	26	6.7	5.0	---	---	---	---	25	18	20	20	27
22	25	6.6	4.7	---	---	---	---	21	18	20	19	27
23	24	6.6	4.6	---	---	---	---	18	18	20	19	26
24	23	6.5	4.5	---	---	---	---	19	18	20	19	26
25	22	6.5	4.3	---	---	---	---	20	18	20	19	26
26	21	6.5	4.2	---	---	---	---	20	17	20	19	26
27	20	6.5	4.2	---	---	---	---	20	17	20	19	26
28	20	6.4	4.2	---	---	---	---	21	17	20	19	26
29	19	6.2	4.0	---	---	---	---	21	17	20	19	26
30	18	6.0	4.0	---	---	---	---	21	17	20	19	26
31	17	---	4.0	---	---	---	---	21	---	20	19	---
TOTAL	923	269.4	170.2	---	---	---	---	---	563	594	610	686
MEAN	29.8	8.98	5.49	---	---	---	---	---	18.8	19.2	19.7	22.9
MAX	39	16	6.7	---	---	---	---	---	21	20	20	27
MIN	17	6.0	4.0	---	---	---	---	---	17	17	19	18
AC-FT	1830	534	338	---	---	---	---	---	1120	1180	1210	1360

11313485 MEADOW LAKE OUTLET NEAR MARKLEEVILLE, CA

LOCATION.—Lat 38°35'53", long 119°58'40", in SE 1/4 SE 1/4 sec.27, T.9 N., R.18 E., Alpine County, Hydrologic Unit 18040012, Eldorado National Forest, on right bank, 700 ft downstream from Meadow Lake Dam, and 12.5 mi southwest of Markleeville.

DRAINAGE AREA.—5.66 mi^2.

PERIOD OF RECORD.—October 1987 to current year. Unpublished records for water years 1981–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 7,660 ft above sea level, from topographic map. Prior to October 1987, nonrecording gage at same site and datum.

REMARKS.—Records not computed for winter months or above 60 ft^3/s. Low and medium flow regulated by Meadow Lake, capacity, 5,660 acre-ft. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	9.6	5.6	4.0	---	---	---	---	55	12	28	26
2	24	9.2	6.0	4.0	---	---	---	---	45	11	27	26
3	23	8.8	6.2	4.0	---	---	---	9.5	40	11	27	26
4	23	8.5	5.4	---	---	---	---	9.9	40	10	27	26
5	22	8.4	5.7	---	---	---	---	10	38	9.9	27	25
6	22	8.3	5.0	---	---	---	---	10	48	17	27	25
7	21	8.2	4.4	---	---	---	---	11	50	24	27	24
8	21	8.2	4.5	---	---	---	---	13	53	23	27	24
9	20	8.2	4.2	---	---	---	---	12	53	22	27	24
10	20	8.2	4.5	---	---	---	---	12	56	22	27	24
11	19	8.0	4.2	---	---	---	---	12	55	22	27	24
12	19	8.0	4.2	---	---	---	---	12	55	21	27	23
13	18	8.0	4.6	---	---	---	---	13	54	23	26	23
14	17	8.0	4.6	---	---	---	---	13	54	26	26	24
15	16	7.9	4.1	---	---	---	---	13	---	25	26	24
16	15	7.6	4.9	---	---	---	---	13	---	25	26	24
17	15	7.3	4.9	---	---	---	---	13	---	26	26	24
18	15	7.1	4.9	---	---	---	---	13	56	26	26	24
19	14	6.8	5.0	---	---	---	---	14	51	26	26	24
20	12	6.7	5.0	---	---	---	---	14	44	26	26	23
21	12	6.6	4.6	---	---	---	---	15	34	25	26	23
22	12	6.6	4.0	---	---	---	---	15	32	25	25	23
23	12	6.4	4.0	---	---	---	---	15	30	25	25	23
24	12	6.5	4.0	---	---	---	---	17	29	25	25	23
25	12	6.2	4.0	---	---	---	---	22	29	24	25	23
26	12	6.3	4.0	---	---	---	---	37	28	24	25	23
27	12	6.2	4.0	---	---	---	---	---	28	25	25	22
28	12	5.8	4.0	---	---	---	---	---	27	26	25	22
29	12	5.9	4.0	---	---	---	---	---	20	26	25	22
30	12	5.4	4.0	---	---	---	---	---	13	26	26	22
31	10	---	4.0	---	---	---	---	---	---	27	26	---
TOTAL	510	222.9	142.5	---	---	---	---	---	---	685.9	811	713
MEAN	16.5	7.43	4.60	---	---	---	---	---	---	22.1	26.2	23.8
MAX	24	9.6	6.2	---	---	---	---	---	---	27	28	26
MIN	10	5.4	4.0	---	---	---	---	---	---	9.9	25	22
AC-FT	1010	442	283	---	---	---	---	---	---	1360	1610	1410

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CA

LOCATION.—Lat 38°29'55", long 120°12'52", in NW 1/4 SE 1/4 sec.33, T.8 N., R.16 E., Calaveras County, Hydrologic Unit 18040012, Eldorado National Forest, near center of Salt Springs Dam on North Fork Mokelumne River, 1.8 mi upstream from Cole Creek, and 18 mi northeast of West Point.

DRAINAGE AREA.—169 mi^2.

PERIOD OF RECORD.—March 1931 to current year. Prior to October 1964, records published as usable contents.

REVISED RECORDS.—WSP 1930: Drainage area, WDR CA-00-3: 1999 (month-end gage heights).

GAGE.—Water-stage recorder. Prior to Oct. 1, 1991, nonrecording gage read once daily. Datum of gage is sea level (levels by Pacific Gas & 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 Salt Springs Powerplant (station 11313510) just downstream from dam and discharged into Tiger Creek Powerplant Conduit (station 11314000). Figures given, including extremes, represent total contents. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 142,208 acre-ft, June 22, 1999, elevation, 3,958.36 ft; no contents at times in 1932–33, 1945, 1962.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 142,062 acre-ft, May 27, June 1, elevation, 3,958.21 ft; minimum, 11,896 acre-ft, Jan. 10, elevation, 3,757.40 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated October 1964)

3,700	1,251	3,720	3,519	3,740	7,324	3,800	28,017
3,705	1,679	3,725	4,324	3,750	9,799	3,850	54,852
3,710	2,199	3,730	5,229	3,760	12,689	3,900	90,786
3,715	2,812	3,735	6,230	3,780	19,632	3,960	143,788

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 2400 HOURS (REVISED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84685	65585	52298	39858	26155	18851	7971	32318	138231	142081	121830	103224
2	84089	65100	51951	39347	25398	18512	7597	33839	138370	142071	120844	102674
3	83461	64519	52016	38739	24609	18724	7329	34783	137371	141984	119881	102060
4	82783	63911	51880	37878	23966	18681	7324	35302	136778	141669	118910	101173
5	82019	63260	51610	37016	23237	18232	7324	36131	137268	141187	117976	100186
6	81330	62708	51423	36094	22675	17686	7324	37946	138546	140607	116982	99380
7	80602	62345	51023	35127	23615	17099	7316	40897	138832	139975	115961	98732
8	79971	62002	50756	34247	24310	16633	7316	43763	138463	139657	115066	98247
9	79262	61500	50260	33428	25816	16237	7314	46165	138398	138999	114635	97778
10	78601	60918	49778	32581	26261	15579	7324	48247	138943	138416	114343	e96730
11	77955	60368	49310	31922	25943	14940	7314	51005	139512	137849	113840	96229
12	77263	59789	48862	31157	25897	14314	7316	54707	139782	137315	113497	95072
13	76630	59200	48461	29988	24953	13685	7316	58621	140023	136787	113078	94309
14	76645	58607	48043	29196	24404	13202	7392	60951	139965	136360	112278	93711
15	76129	57972	47775	28474	23796	12644	8230	63042	139763	135768	111478	93096
16	75545	57383	47361	27923	23307	12056	9282	65044	139580	135055	111059	92498
17	74956	56851	46931	27533	23771	11491	10722	67718	e139460	134297	110757	91826
18	74077	56228	46526	27883	23665	11077	12583	69774	140740	133561	110417	90933
19	73261	55525	46081	28946	23208	10792	14759	74397	140100	132831	110098	89998
20	72639	54914	45824	29965	22848	10496	17020	77955	140883	132092	109766	89388
21	72354	54246	45484	30152	23038	10062	19216	82095	142188	131327	109202	88847
22	71712	53802	44991	29965	22926	9663	20845	87174	142208	130533	108534	88329
23	71115	53711	44496	30049	22290	9305	21925	93186	140883	129672	108050	87848
24	70595	53545	43987	29908	21657	9017	22828	98847	140892	128848	107566	87259
25	70010	53113	43463	30175	21041	8752	24093	105908	141385	128000	107129	86385
26	69128	52608	42939	29862	20547	8686	26296	112278	141385	127149	106770	85498
27	68575	52063	42452	29327	19944	8750	26627	118786	141357	126266	106341	84825
28	68036	51487	41949	28556	19382	8691	25533	124936	141650	125350	105638	84236
29	67468	51111	41429	27872	---	8539	30515	129595	141896	124486	104871	83655
30	66871	52093	40881	27246	---	8335	31342	133534	142139	123626	104319	83080
31	66250	---	40326	26830	---	8208	---	136579	---	122732	103858	---
MAX	84685	65585	52298	39858	26261	18851	31342	136579	142208	142081	121830	103224
MIN	66250	51111	40326	26830	19382	8208	7314	32318	136778	122732	103858	83080
a	3867.13	3845.55	3824.91	3797.36	3779.34	3743.73	3806.70	3952.42	3958.29	3937.43	3915.82	3890.13
b	-19081	-14157	-11767	-13496	-7448	-11174	+23134	+105237	+5560	-19407	-18874	-20778
c	10870	11240	11660	1190	0	0	2030	14040	13490	14340	12230	8550

CAL YR 1998 MAX 139446 MIN 9669 b +30112 c 109800
WTR YR 1999 MAX 142208 MIN 7314 b -2251 c 99640

e Estimated.
a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Release, in acre-feet, through Salt Springs Powerplant, provided by Pacific Gas & Electric Co.

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CA—Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82483	62066	41161	15769	19943	34583	39793	95175	142062	135863	112538	89116
2	81551	61409	40209	15295	20070	34353	40704	98729	142032	135159	111497	88282
3	80650	60769	39182	14776	20240	34122	41616	102498	142003	134372	110533	87355
4	79847	60161	38103	14216	20387	33879	42525	106000	141955	133505	109832	86380
5	79209	59468	37137	13768	20465	33646	44340	109243	141800	132584	108805	86044
6	78532	58475	36172	13398	20528	33484	46263	111628	141762	131609	107927	85448
7	77913	57592	35235	12987	20583	33328	48240	114381	141553	130645	107236	84843
8	77248	57078	34300	12483	20661	33173	50258	121740	141877	129715	106628	84156
9	76270	56456	33381	12076	20791	33009	52319	128935	141848	128766	106105	83148
10	75382	55911	32465	11896	21055	32841	54304	129632	141925	127769	105473	82140
11	74569	55108	31568	11998	21261	32867	56630	130321	141955	126761	104801	81414
12	73930	54517	30672	12113	21500	32928	58365	130899	141925	125707	103779	80824
13	73275	53716	29799	12106	22280	33129	62932	131460	142013	124862	102861	80225
14	72590	52757	28906	12167	25554	33352	65093	132025	141906	123978	102043	79622
15	71955	52204	28017	12085	26539	33568	66531	132311	141848	123419	101475	78931
16	71024	51762	27514	12037	27204	33791	67653	133027	141964	122877	100880	77920
17	70086	51390	26614	12406	27663	34027	69146	134439	141955	122348	100297	76905
18	69415	50817	25737	13302	28269	34256	70079	136248	141955	121749	99625	76189
19	68848	50252	24857	14562	28810	34478	70745	137777	141857	121199	98652	75456
20	68229	49744	23999	15994	29423	34702	71457	138760	141257	120655	97518	74444
21	67639	49110	23052	16182	29935	34921	72489	139142	140759	120086	96802	73574
22	66935	48491	21967	15977	30489	35135	73770	139437	140518	119556	96187	72904
23	65974	47888	21193	15863	31002	35344	74913	140711	140267	119049	95553	71890
24	65038	47261	20395	17504	31537	35549	76499	141457	139938	118489	95016	71312
25	65017	46665	19782	18432	32146	35857	78255	141027	139522	117941	94196	71341
26	65010	45660	19195	18954	32852	36414	80703	141496	138970	117401	93306	71363
27	65051	44617	18558	19252	33582	36981	84095	142062	138405	116765	92143	71334
28	65161	43576	17978	19400	34324	37545	87262	141638	137814	116163	91441	71327
29	64548	42673	17380	19525	34812	38114	89472	141886	137229	115420	90866	71428
30	63799	41904	16835	19686	---	38682	91912	141800	136573	114435	90335	71442
31	62822	---	16279	19847	---	38903	---	141993	---	113600	89733	---
MAX	82483	62066	41161	19847	34812	38903	91912	142062	142062	135863	112538	89116
MIN	62822	41904	16279	11896	19943	32841	39793	95175	136573	113600	89733	71312
a	3862.18	3827.86	3770.88	3780.56	3814.25	3822.24	3901.41	3958.14	3952.46	3927.24	3898.67	3874.48
b	-20258	-20918	-25625	+3568	+14965	+4091	+53009	+50081	-5420	-22973	-23867	-18291
c	8840	7110	0	3680	5310	13630	13420	14200	13980	13370	9700	5370

CAL YR 1999 MAX 142208 MIN 7314 b -24047 c 81810
WTR YR 2000 MAX 142062 MIN 11896 b -11638 c 108600

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Release, in acre-feet, through Salt Springs Powerplant, provided by Pacific Gas & Electric Co.

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.16 E., Calaveras County, Hydrologic Unit 18040012, Stanislaus National Forest, on left bank, 0.5 mi downstream from Salt Springs Dam, 1.3 mi upstream from Cole Creek, and 18 mi northeast of West Point.

DRAINAGE AREA.—170 mi^2.

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. Elevation of gage is 3,590 ft above sea level, 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) 0.5 mi upstream. Water is imported from Bear River and Cole Creek to Salt Springs No. 2 Powerplant (station 11313510) upstream from station since December 1952. Then most of the water bypasses station through Tiger Creek Powerplant Conduit (station 11314000). See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 17,000 ft^3/s, May 16, 1996, gage height, 17.66 ft, from rating curve extended above 3,900 ft^3/s on basis of computations of flow over dam and discharge through powerplant; minimum daily, 0.3 ft^3/s, Mar. 17, 23, 31, and Apr. 1, 1931.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	42	25	25	34	639	155	35	952	253	276	35
2	43	31	25	25	33	636	148	35	875	254	294	35
3	43	25	25	25	33	632	26	35	867	266	215	35
4	43	26	25	25	33	630	26	35	1110	272	36	35
5	42	26	25	26	33	628	26	35	1180	271	35	35
6	42	25	25	26	33	625	26	35	842	269	35	36
7	43	25	25	25	32	539	26	35	983	268	36	36
8	43	26	25	26	32	330	25	35	853	266	36	35
9	43	25	25	26	32	244	25	158	466	263	36	35
10	43	25	25	29	33	184	25	441	488	261	35	36
11	43	25	25	29	30	114	33	422	425	265	35	36
12	43	26	26	29	26	162	70	379	484	276	35	36
13	43	26	25	29	27	125	55	381	692	188	35	36
14	43	26	64	29	25	29	39	383	726	37	36	36
15	42	48	25	29	24	25	25	546	556	35	36	36
16	42	25	25	30	25	26	30	584	616	35	36	36
17	42	25	25	29	105	26	51	585	439	35	36	35
18	42	25	25	31	122	26	42	504	417	34	36	36
19	42	25	25	31	122	27	27	435	611	34	35	36
20	48	26	25	31	122	27	55	783	529	34	35	36
21	42	25	25	31	124	27	55	1520	432	35	35	36
22	42	25	25	31	206	27	56	2050	373	34	35	36
23	42	26	25	31	222	25	57	1850	240	34	35	36
24	42	25	25	42	199	25	27	1680	241	34	35	37
25	42	25	25	41	151	26	25	2600	237	34	35	37
26	41	25	24	36	151	26	26	2010	236	35	36	37
27	41	26	25	34	164	26	25	1510	256	35	35	36
28	43	26	25	33	206	26	25	2030	253	35	36	36
29	41	26	25	33	377	26	26	1490	248	43	36	36
30	42	26	25	33	---	86	31	1440	248	42	35	36
31	42	---	25	34	---	142	---	1010	---	211	35	---
TOTAL	1317	808	814	934	2756	6136	1288	25071	16875	4188	1777	1075
MEAN	42.5	26.9	26.3	30.1	95.0	198	42.9	809	562	135	57.3	35.8
MAX	48	48	64	42	377	639	155	2600	1180	276	294	37
MIN	41	25	24	25	24	25	25	35	236	34	35	35
AC-FT	2610	1600	1610	1850	5470	12170	2550	49730	33470	8310	3520	2130
a	28050	30410	26620	12310	4960	21950	25710	30250	30650	33110	33170	25560

a Diversion, in acre-feet, to Tiger Creek Powerplant Conduit, provided by Pacific Gas & Electric Co.

11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	43.4	53.7	81.2	79.3	102	125	238	752	926	190	66.9	52.6
MAX	320	802	1390	665	710	969	1502	2473	3267	1887	406	330
(WY)	1996	1951	1951	1997	1942	1928	1938	1982	1983	1995	1983	1965
MIN	1.33	1.11	.73	.94	.91	1.87	1.55	3.11	3.77	3.02	2.89	2.80
(WY)	1941	1941	1944	1944	1944	1944	1944	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1927 - 2000	
ANNUAL TOTAL	72989		63039			
ANNUAL MEAN	200		172		226	
HIGHEST ANNUAL MEAN					710	1983
LOWEST ANNUAL MEAN					4.27	1977
HIGHEST DAILY MEAN	2330	Jun 15	2600	May 25	11400	May 16 1996
LOWEST DAILY MEAN	22	Jan 5	24	Dec 26	.30	Mar 17 1931
ANNUAL SEVEN-DAY MINIMUM	22	Jan 30	25	Dec 20	.39	Mar 19 1931
INSTANTANEOUS PEAK FLOW			2670	May 25	17000	May 16 1996
INSTANTANEOUS PEAK STAGE			8.16	May 25	17.66	May 16 1996
ANNUAL RUNOFF (AC-FT)	144800		125000		163500	
ANNUAL DIVERSION (AC-FT) a	339000		302700			
10 PERCENT EXCEEDS	543		512		614	
50 PERCENT EXCEEDS	29		36		22	
90 PERCENT EXCEEDS	22		25		4.5	

a Diversion, in acre-feet, to Tiger Creek Powerplant Conduit, provided by Pacific Gas & Electric Co.

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CA

LOCATION.—Lat 38°31'09", long 120°12'42", in SW 1/4 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, 0.3 mi upstream from diversion dam, 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 mi^2.

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 and concrete control since Oct. 30, 1974. Elevation of gage is 5,920 ft above sea level, from topographic map. Prior to Oct. 30, 1974, at site 0.4 mi upstream at different datum.

REMARKS.—Occasional pumping upstream from station for domestic use in summer-home tract began in September 1961. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,140 ft^3/s, Dec. 23, 1964, gage height, 10.21 ft, site and datum then in use, from rating curve extended above 900 ft^3/s on basis of slope-area measurement at gage height 9.69 ft; no flow for many days in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.32	5.7	1.8	46	35	102	282	144	6.6	.29	.23
2	.12	.29	8.5	e1.7	45	32	148	281	140	5.6	.28	1.9
3	.12	.27	6.7	1.5	38	35	213	268	137	4.9	.24	.75
4	.12	.27	5.4	e1.5	32	45	266	278	141	4.4	.24	.39
5	.11	.28	e4.8	e1.5	30	47	246	273	137	4.1	.23	.29
6	.11	.26	4.2	1.4	35	37	217	199	115	3.9	.20	.23
7	.10	.27	e3.8	1.4	39	33	216	370	110	3.6	.20	.20
8	.12	1.1	3.4	1.3	45	30	216	981	126	3.4	.18	.17
9	.15	.87	3.2	1.4	46	29	178	300	93	3.0	.17	.16
10	.15	.74	2.8	1.6	37	32	174	204	74	2.7	.14	.15
11	.12	.67	2.8	1.9	32	37	208	145	70	2.3	.14	.15
12	.12	.61	3.0	1.9	65	50	220	129	73	2.0	.25	.14
13	.12	.55	3.6	2.2	356	67	485	133	89	1.7	.52	.14
14	.15	1.4	3.4	4.4	116	94	208	137	90	1.5	.38	.14
15	.18	2.9	3.4	11	74	108	146	144	73	1.3	.11	.14
16	.17	7.1	3.5	13	55	95	114	130	62	1.1	.11	.14
17	.17	16	3.8	186	51	84	143	136	49	.99	.11	.12
18	.16	9.0	4.2	126	45	101	105	181	43	.88	.10	.12
19	.15	25	5.0	150	46	137	88	249	36	.78	.11	.11
20	.17	19	5.8	89	44	118	109	302	30	.71	.18	.11
21	.17	13	4.8	53	41	74	150	334	24	.64	.18	.11
22	.17	9.9	3.9	40	38	70	167	297	20	.57	.18	.10
23	.17	8.1	3.8	223	41	94	149	279	17	.54	.15	.11
24	.18	4.0	3.1	102	33	107	163	350	14	.51	.09	.11
25	.20	3.4	3.1	57	32	134	188	297	13	.49	.09	.11
26	.22	4.0	3.6	53	43	154	244	243	11	.46	.09	.11
27	.23	4.3	4.5	49	41	164	297	239	12	.43	.09	.11
28	2.6	3.8	5.1	42	40	145	248	223	11	.38	.09	.11
29	1.1	3.5	4.6	31	44	133	193	198	9.3	.37	.09	.11
30	.58	4.9	2.2	28	---	132	238	167	7.8	.34	.11	.10
31	.37	---	e2.0	28	---	106	---	147	---	.31	.15	---
TOTAL	8.74	145.80	127.7	1306.5	1630	2559	5839	7896	1971.1	60.50	5.49	6.86
MEAN	.28	4.86	4.12	42.1	56.2	82.5	195	255	65.7	1.95	.18	.23
MAX	2.6	25	8.5	223	356	164	485	981	144	6.6	.52	1.9
MIN	.10	.26	2.0	1.3	30	29	88	129	7.8	.31	.09	.10
AC-FT	17	289	253	2590	3230	5080	11580	15660	3910	120	11	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2000, BY WATER YEAR (WY)

MEAN	4.12	22.0	37.6	38.9	42.7	65.3	144	254	151	21.7	1.41	.91
MAX	88.3	368	361	292	228	212	242	509	564	263	25.2	15.6
(WY)	1983	1951	1965	1997	1982	1986	1936	1969	1983	1983	1983	1983
MIN	.045	.10	.14	.30	.30	1.87	38.9	50.1	5.22	.38	.013	.000
(WY)	1967	1960	1960	1933	1933	1933	1975	1934	1992	1976	1931	1931

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1928 - 2000	
ANNUAL TOTAL	25897.67		21556.69			
ANNUAL MEAN	71.0		58.9		65.3	
HIGHEST ANNUAL MEAN					131	1983
LOWEST ANNUAL MEAN					16.6	1977
HIGHEST DAILY MEAN	624	May 23	981	May 8	3760	Dec 23 1964
LOWEST DAILY MEAN	.10	Oct 7	.09	Aug 24	.00	Aug 1 1931
ANNUAL SEVEN-DAY MINIMUM	.11	Oct 2	.09	Aug 24	.00	Aug 1 1931
INSTANTANEOUS PEAK FLOW			1300	May 8	6140	Dec 23 1964
INSTANTANEOUS PEAK STAGE			4.34	May 8	10.21	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	51370		42760		47320	
10 PERCENT EXCEEDS	243		198		203	
50 PERCENT EXCEEDS	15		5.2		15	
90 PERCENT EXCEEDS	.15		.13		.17	

e Estimated.

11315030 COLE CREEK BELOW DIVERSION DAM, NEAR SALT SPRINGS DAM, CA

LOCATION.—Lat 38°30'54", long 120°12'53", in NW 1/4 SE 1/4 sec.28, T.8 N., R.16 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on right bank, 200 ft downstream from diversion dam, 1.1 mi north of Salt Springs Dam, and 6.7 mi southwest of Mokelumne Peak.

DRAINAGE AREA.—21.8 mi^2.

PERIOD OF RECORD.—December 1987 to current year (low-flow records only). Unpublished records for water years 1981–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and broad-crested weir. Elevation of gage is 5,830 ft above sea level, from topographic map. Prior to Dec. 3, 1987, nonrecording gage at same site and datum.

REMARKS.—No records computed above 3.9 ft^3/s. Flow regulated by Cole Creek Diversion Dam. Water is diverted for power since December 1952 to a tunnel from Lower Bear River Reservoir to Salt Springs Powerplant No. 2 (station 11313510) 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 were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.15	.30	3.7	1.9	3.3	3.3	3.7	3.7	---	3.4	.60	.39
2	e.15	.29	---	1.7	3.3	---	---	3.9	---	3.4	.58	2.4
3	e.15	.25	---	1.6	3.3	---	---	3.7	---	3.6	.57	1.2
4	e.15	.21	---	1.7	3.3	---	---	3.7	---	3.4	.54	.63
5	e.15	.22	---	1.5	3.3	---	3.9	3.7	---	3.4	.51	.48
6	e.15	.22	3.8	1.4	3.3	---	3.7	3.6	---	3.5	.49	.40
7	e.15	.22	3.8	1.3	3.3	---	3.7	---	---	3.5	.46	.34
8	e.20	1.2	3.5	1.2	3.2	---	3.7	---	---	3.4	.45	.30
9	e.20	.99	3.3	1.2	3.2	---	3.6	---	---	3.3	.35	.28
10	e.20	.75	3.0	1.3	---	3.4	3.7	3.7	3.7	2.8	.25	.26
11	e.20	.69	2.8	1.4	---	3.5	3.7	3.6	3.7	2.5	.22	.25
12	e.20	.65	2.8	1.7	3.4	3.5	3.7	3.6	3.7	2.3	.21	.25
13	.22	.58	2.9	1.6	---	3.6	3.7	3.6	3.7	2.1	.21	.25
14	.21	1.3	2.8	1.8	---	3.8	3.8	3.6	---	1.9	.20	.24
15	.22	2.0	3.1	2.8	---	3.8	3.7	3.6	---	1.7	.20	.23
16	.20	3.5	3.0	3.2	3.6	3.8	3.6	3.6	---	1.6	.18	.22
17	.18	---	3.2	3.2	3.5	3.7	3.8	3.7	3.6	1.5	.17	.21
18	.18	---	3.2	---	---	3.9	3.6	---	3.6	1.4	.16	.20
19	.18	---	3.3	3.7	---	---	3.6	---	3.6	1.2	.16	.19
20	.18	---	3.3	---	---	---	3.6	---	3.6	1.2	.16	.17
21	.18	---	3.4	3.6	---	3.7	3.7	---	3.6	1.1	.16	.16
22	.18	---	3.4	3.3	---	3.7	3.7	---	3.6	1.0	.16	.16
23	.16	---	3.3	3.4	---	3.8	3.6	---	3.6	.95	.16	.18
24	.18	---	3.2	---	---	3.9	3.7	---	3.5	.91	.15	.20
25	.18	3.9	3.0	---	---	---	3.7	---	3.5	.87	.14	.19
26	.17	3.5	2.6	---	---	---	3.7	---	3.4	.83	.14	.18
27	.17	3.5	2.4	3.5	---	---	---	---	3.5	.79	.14	.18
28	2.2	3.6	2.6	3.4	---	---	3.7	---	3.5	.76	.14	.17
29	.89	3.6	2.7	3.4	3.3	---	3.6	---	3.4	.70	.14	.16
30	.49	3.5	2.4	3.3	---	---	3.7	---	3.4	.67	.18	.16
31	.33	---	2.1	3.3	---	3.8	---	---	---	.64	.26	---
TOTAL	8.75	---	---	---	---	---	---	---	---	60.32	8.44	10.63
MEAN	.28	---	---	---	---	---	---	---	---	1.95	.27	.35
MAX	2.2	---	---	---	---	---	---	---	---	3.6	.60	2.4
MIN	.15	---	---	---	---	---	---	---	---	.64	.14	.16
AC-FT	17	---	---	---	---	---	---	---	---	120	17	21

e Estimated.

11315900 BEAR RIVER BELOW LOWER BEAR RIVER DAM, CA

LOCATION.—Lat 38°32'11", long 120°15'24", in NW 1/4 NW 1/4 sec.19, T.8 N., R.16 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on left bank, 250 ft downstream from outlet valve on Lower Bear River Reservoir, 0.2 mi below Lower Bear River Reservoir Dam, 1.4 mi upstream from Rattlesnake Creek, and 3.5 mi northwest of Salt Springs Dam.

DRAINAGE AREA.—37.4 mi^2.

PERIOD OF RECORD.—December 1987 to current year (low-flow records only). Unpublished records for water years 1981–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 5,500 ft above sea level, from topographic map. Prior to Dec. 3, 1987, nonrecording gage at same site and datum.

REMARKS.—No records computed above 9.3 ft^3/s. Flow regulated since 1900 by Bear River Reservoir, capacity, 6,760 acre-ft, and since December 1952 by Lower Bear River Reservoir 0.2 mi upstream, capacity, 49,100 acre-ft. Water diverted for power since December 1952 from Lower Bear River Reservoir through tunnel to Salt Springs Powerplant No. 2 (station 11313510) 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 were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	3.7	3.7	2.9	3.7	3.8	2.2	4.9	---	6.8	5.8	6.4
2	4.9	3.0	3.7	2.9	3.5	3.8	2.2	4.9	---	6.8	5.6	6.7
3	4.9	3.1	3.7	2.9	3.6	3.9	2.2	5.1	---	6.3	5.6	6.3
4	4.9	2.9	3.6	2.9	3.7	4.1	2.3	5.3	---	5.4	5.7	6.2
5	4.9	3.0	3.6	2.9	3.6	3.9	2.2	5.5	---	5.3	5.7	6.1
6	4.9	3.1	3.6	2.8	3.5	3.6	2.2	5.5	---	5.3	5.7	6.1
7	4.9	3.1	3.6	2.8	3.4	3.4	2.3	7.0	---	5.2	5.6	6.1
8	4.9	3.6	3.6	2.8	3.4	3.3	2.4	8.3	---	5.2	5.6	6.2
9	4.9	3.2	3.5	2.8	3.6	3.2	2.4	6.8	---	5.2	5.5	6.3
10	4.8	3.1	3.5	2.8	4.1	3.3	2.4	8.7	---	5.2	5.5	6.3
11	4.9	3.0	3.5	3.1	3.8	3.5	2.4	---	---	5.2	5.6	6.3
12	4.9	3.0	3.5	3.1	3.7	3.6	2.4	---	---	5.2	5.7	6.2
13	4.8	3.0	3.6	2.9	4.9	3.1	3.1	---	---	5.1	5.7	6.2
14	4.8	2.9	3.5	2.8	7.6	2.9	3.0	---	---	5.0	5.7	6.3
15	4.8	2.9	3.5	3.5	4.8	2.7	2.9	---	---	4.9	5.6	6.2
16	4.8	3.1	3.6	3.2	4.4	2.7	2.7	---	---	4.8	5.6	6.2
17	4.8	3.5	3.6	4.0	4.2	2.6	3.3	---	---	5.0	5.6	6.1
18	4.7	3.0	3.6	5.4	4.1	2.7	3.1	---	---	5.4	5.6	6.2
19	4.7	3.5	3.6	3.8	4.0	2.8	3.0	---	---	5.6	5.6	6.2
20	4.8	3.8	3.5	4.0	4.3	2.4	3.0	---	9.2	5.6	5.7	6.2
21	4.7	3.5	3.5	3.4	4.2	2.3	2.9	---	8.4	5.7	5.7	6.2
22	4.7	3.5	3.5	3.4	4.0	2.3	3.2	---	7.9	5.7	5.7	6.1
23	4.6	3.5	3.5	4.2	4.0	2.5	3.1	---	7.7	5.7	5.7	6.1
24	4.6	3.3	3.5	9.1	3.8	2.5	3.3	---	7.0	5.6	5.9	6.1
25	4.6	3.4	3.5	6.2	3.8	2.5	3.6	---	7.0	5.6	6.2	6.1
26	4.6	3.4	3.5	4.5	3.9	2.4	4.3	---	6.9	5.7	6.2	6.1
27	4.6	3.4	3.5	3.8	4.9	2.4	4.5	---	6.9	5.9	6.2	6.1
28	5.4	3.4	3.5	3.6	4.1	2.4	4.7	---	6.9	5.9	6.2	6.1
29	4.8	3.3	3.5	3.5	4.0	2.3	4.8	---	6.9	5.9	6.3	6.1
30	4.7	3.4	3.2	3.6	---	2.3	4.8	---	6.9	5.8	6.3	6.1
31	4.7	---	2.9	3.5	---	2.2	---	---	---	5.8	6.2	---
TOTAL	148.9	97.6	109.2	113.1	118.6	91.4	90.9	---	---	171.8	179.3	185.9
MEAN	4.80	3.25	3.52	3.65	4.09	2.95	3.03	---	---	5.54	5.78	6.20
MAX	5.4	3.8	3.7	9.1	7.6	4.1	4.8	---	---	6.8	6.3	6.7
MIN	4.6	2.9	2.9	2.8	3.4	2.2	2.2	---	---	4.8	5.5	6.1
AC-FT	295	194	217	224	235	181	180	---	---	341	356	369

11316100 BEAR RIVER BELOW BEAR RIVER DIVERSION DAM, CA

LOCATION.—Lat 38°29'33", long 120°17'21", 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 downstream from diversion dam on Bear River and highway bridge, 1.4 mi upstream from mouth, and 3.5 mi northwest of Salt Springs Dam.

DRAINAGE AREA.—47.8 mi^2.

PERIOD OF RECORD.—December 1987 to current year (low-flow records only). Unpublished records for water years 1983–87 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and sharp-crested weir. Elevation of gage is 3,710 ft above sea level, from topographic map. Prior to Dec. 8, 1987, nonrecording gage at same site and datum.

REMARKS.—No records computed above 10 ft^3/s. 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 Powerplant No. 2 (station 11313510) on North Fork Mokelumne River. Water diverted at diversion dam 200 ft upstream to Tiger Creek Powerplant Conduit for use at Tiger Creek Powerplant (station 11316610). Spill at the diversion bypasses this site. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.0	5.5	6.0	5.8	---	5.9	6.1	6.9	6.7	5.5	5.9
2	6.1	6.0	6.0	6.0	6.1	---	5.8	5.9	6.9	6.7	5.5	5.8
3	6.1	6.0	6.4	6.0	6.1	---	5.8	5.8	6.9	6.7	5.5	5.7
4	6.1	6.0	6.4	6.0	6.2	---	5.8	6.2	6.9	6.7	5.6	5.7
5	6.0	6.0	6.2	5.9	6.2	---	7.0	6.5	6.8	6.7	5.5	5.6
6	6.1	6.0	6.0	5.9	6.2	---	8.2	6.5	6.8	5.9	5.5	5.7
7	6.1	5.9	6.0	5.9	6.1	---	6.2	6.5	6.8	5.3	---	5.7
8	6.2	5.6	6.0	5.9	6.0	---	6.2	6.4	6.8	5.4	---	5.7
9	6.1	5.8	6.0	5.9	6.1	---	6.1	6.2	6.8	5.3	5.5	5.6
10	6.1	5.9	6.0	5.8	6.3	4.6	6.1	5.9	6.7	5.3	5.5	5.6
11	6.1	5.9	6.0	5.8	6.3	6.9	6.2	6.0	6.7	5.3	5.5	5.6
12	6.2	---	6.0	5.8	6.2	6.5	6.7	6.2	6.7	5.3	5.5	5.6
13	6.2	---	5.9	5.8	6.2	6.2	6.7	6.2	6.7	5.3	5.4	5.6
14	6.2	5.7	5.8	5.8	5.3	6.1	6.6	6.2	6.7	5.3	5.4	5.6
15	6.2	4.3	5.8	5.9	5.0	6.2	6.4	5.9	6.7	5.3	5.4	5.6
16	6.2	5.1	5.8	5.8	4.9	6.2	6.2	6.0	6.7	5.4	5.4	5.6
17	6.2	5.9	5.8	5.6	4.9	6.1	6.2	6.0	6.7	5.5	5.4	5.6
18	6.2	6.2	5.8	5.4	5.0	6.2	6.4	6.4	6.7	5.4	5.4	5.6
19	6.2	5.8	5.9	5.9	5.2	6.0	6.6	7.0	5.7	5.4	5.4	5.6
20	6.1	5.5	5.9	7.7	5.2	5.5	6.6	7.0	5.6	5.4	5.4	5.6
21	6.0	5.6	5.8	8.8	5.2	5.5	6.6	7.0	5.6	5.4	5.4	5.6
22	6.1	6.1	5.7	6.1	---	5.7	6.6	7.1	5.9	5.4	5.4	5.6
23	6.1	6.4	5.7	6.3	---	5.6	6.6	7.1	6.5	5.4	7.4	5.6
24	6.1	6.4	5.6	6.1	---	5.5	6.0	7.1	6.5	5.4	7.5	6.2
25	6.3	6.4	5.8	6.4	4.4	5.5	6.1	7.1	6.6	5.4	6.2	6.2
26	5.8	6.3	5.9	6.6	4.4	5.4	6.2	7.1	6.7	5.4	6.0	6.2
27	5.9	6.4	5.9	6.3	4.3	5.4	5.8	7.0	6.7	5.4	5.9	6.2
28	---	6.3	6.0	6.0	---	5.4	5.7	7.0	6.7	5.4	5.9	6.2
29	6.1	6.0	6.0	5.7	---	5.4	5.9	7.0	6.7	6.6	5.9	6.2
30	4.5	5.5	5.9	5.5	---	5.5	6.1	7.0	6.7	5.5	5.9	6.1
31	6.0	---	6.0	5.6	---	5.9	---	7.0	---	5.5	5.9	---
TOTAL	---	---	183.5	188.2	---	---	189.3	202.4	197.8	175.1	---	173.1
MEAN	---	---	5.92	6.07	---	---	6.31	6.53	6.59	5.65	---	5.77
MAX	---	---	6.4	8.8	---	---	8.2	7.1	6.9	6.7	---	6.2
MIN	---	---	5.5	5.4	---	---	5.7	5.8	5.6	5.3	---	5.6
AC-FT	---	---	364	373	---	---	375	401	392	347	---	343

11316600 NORTH FORK MOKELUMNE RIVER ABOVE TIGER CREEK, NEAR WEST POINT, CA

LOCATION.—Lat 38°26'48", long 120°29'21", in SW 1/4 NE 1/4 sec.24, T.7 N., R.13 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on right bank, 0.4 mi upstream from Tiger Creek and Tiger Creek Powerplant, 3.9 mi northeast of West Point, 18.3 mi downstream from Salt Springs Dam, and at mile 106.4.

DRAINAGE AREA.—333 mi^2.

PERIOD OF RECORD.—October 1985 to current year. Unpublished records for water years 1970–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,337.50 ft above sea level (levels by Pacific Gas & Electric Co.).

REMARKS.—Flow regulated since 1931 by Salt Springs Reservoir (station 11313500) 18.3 mi upstream. Some water is diverted through Tiger Creek Powerplant Conduit (station 11314000). Additional water is diverted out of the Bear River and several smaller tributaries into Tiger Creek Powerplant Conduit. All the water enters the North Fork Mokelumne River at Tiger Creek Powerplant (station 11316610) 0.4 mi downstream. Water is occasionally diverted at the weir for cooling at the Tiger Creek Powerplant (station 11316610). See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 38,500 ft^3/s, Jan. 2, 1997, gage height, 12.49 ft; minimum daily, 29 ft^3/s, Jul. 26, 1996.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	56	82	61	193	1000	429	310	1250	316	293	73
2	62	56	77	61	187	975	430	314	1320	320	325	121
3	62	38	74	61	182	948	350	309	1190	326	324	91
4	64	36	69	61	204	938	357	305	1450	338	107	79
5	62	36	67	61	184	974	317	304	1540	337	72	74
6	65	36	67	60	170	951	320	295	1180	336	70	72
7	67	38	68	61	160	893	333	342	1270	332	69	70
8	67	67	67	61	152	690	331	1300	1180	330	73	69
9	69	49	67	61	153	540	323	589	869	325	70	69
10	67	41	67	60	202	520	309	801	714	320	69	69
11	67	39	65	72	225	410	306	817	628	319	69	69
12	67	56	65	91	234	432	345	717	679	335	69	69
13	67	42	68	74	393	488	659	701	791	325	68	69
14	65	38	85	73	1780	345	488	689	838	110	67	69
15	67	39	79	79	865	364	389	843	712	86	67	69
16	65	54	65	155	638	365	343	978	704	85	67	69
17	65	62	65	115	558	361	438	953	575	85	67	69
18	65	52	65	302	540	357	433	1020	520	85	67	69
19	65	52	65	257	490	385	345	1270	639	80	67	69
20	65	74	65	243	468	390	351	1540	648	79	67	69
21	69	74	62	207	485	352	356	2610	524	79	67	69
22	65	74	61	150	521	336	358	3270	512	79	66	69
23	65	73	61	158	623	333	349	2830	323	79	65	69
24	65	73	61	1180	568	330	324	2160	315	74	66	69
25	67	72	61	1260	493	333	299	3470	318	74	65	71
26	62	77	61	577	480	336	300	2890	309	74	66	63
27	62	73	61	305	844	347	313	2260	325	74	65	62
28	88	73	61	241	737	347	324	2800	326	74	65	62
29	60	73	61	210	735	330	306	2260	321	77	66	62
30	58	77	61	206	---	344	297	2080	317	78	67	62
31	56	---	61	215	---	419	---	1390	---	182	67	---
TOTAL	2024	1700	2064	6778	13464	16133	10822	42417	22287	5813	2872	2135
MEAN	65.3	56.7	66.6	219	464	520	361	1368	743	188	92.6	71.2
MAX	88	77	85	1260	1780	1000	659	3470	1540	338	325	121
MIN	56	36	61	60	152	330	297	295	309	74	65	62
AC-FT	4010	3370	4090	13440	26710	32000	21470	84130	44210	11530	5700	4230
a	27570	29860	26410	17130	12810	25330	27240	29970	29660	31520	31550	24620

a Diversion, in acre-feet, to Tiger Creek Powerplant, provided by Pacific Gas & Electric Co.

11316600 NORTH FORK MOKELUMNE RIVER ABOVE TIGER CREEK, NEAR WEST POINT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	105	80.6	135	366	401	507	541	1120	1136	348	121	112
MAX	323	301	948	3242	1702	1855	1602	2796	4265	2303	340	323
(WY)	1996	1997	1997	1997	1986	1986	1986	1996	1995	1995	1993	1995
MIN	39.4	44.2	46.9	49.8	51.4	76.8	87.3	70.0	49.8	37.0	36.2	34.2
(WY)	1989	1992	1994	1991	1991	1988	1988	1992	1987	1987	1987	1994

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1986 - 2000	
ANNUAL TOTAL	168782		128509			
ANNUAL MEAN	462		351		414	
HIGHEST ANNUAL MEAN					1052	1995
LOWEST ANNUAL MEAN					59.9	1988
HIGHEST DAILY MEAN	3120	Jun 15	3470	May 25	25200	Jan 2 1997
LOWEST DAILY MEAN	36	Nov 4	36	Nov 4	29	Jul 26 1996
ANNUAL SEVEN-DAY MINIMUM	42	Nov 1	42	Nov 1	32	Aug 4 1987
INSTANTANEOUS PEAK FLOW			3720	May 25	38500	Jan 2 1997
INSTANTANEOUS PEAK STAGE			5.94	May 25	12.49	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	334800		254900		299800	
ANNUAL DIVERSION (AC-FT) a	348200		313700			
10 PERCENT EXCEEDS	1220		866		1150	
50 PERCENT EXCEEDS	260		136		87	
90 PERCENT EXCEEDS	62		61		44	

a Diversion, in acre-feet, to Tiger Creek Powerplant, provided by Pacific Gas & Electric Co.

11316670 NORTH FORK MOKELUMNE RIVER BELOW TIGER CREEK RESERVOIR, NEAR WEST POINT, CA

LOCATION.—Lat 38°26'25", long 120°30'14", in SE 1/4 SE 1/4 sec.23, T.7 N., R.13 E., Amador County, Hydrologic Unit 18040012, on right bank, 500 ft downstream from Tiger Creek Reservoir Dam, and 3.1 mi northeast of West Point.

DRAINAGE AREA.—357 mi^2.

PERIOD OF RECORD.—October 1985 to current year (low-flow records only). Unpublished records for water years 1982–85 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,220 ft above sea level, from topographic map.

REMARKS.—No records computed above 50 ft^3/s. Flow regulated since 1931 by Salt Springs Reservoir (station 11313500) 20 mi upstream. Most of the water is diverted at Tiger Creek Reservoir to West Point Powerplant. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	42	45	49	45	---	---	39	---	---	---	47
2	42	42	45	49	45	---	---	39	---	---	---	47
3	42	42	45	49	45	---	---	39	---	---	---	47
4	42	42	45	49	45	---	---	---	---	---	50	45
5	42	42	45	49	45	---	---	---	---	---	49	45
6	42	42	45	49	45	---	---	---	---	---	49	45
7	44	42	45	48	45	---	33	---	---	---	49	45
8	42	42	45	49	45	---	29	---	---	---	48	45
9	42	42	45	49	45	---	29	---	---	---	47	45
10	42	42	45	49	46	---	29	---	---	---	47	45
11	42	42	45	49	47	---	---	---	---	---	47	47
12	42	42	45	49	47	---	---	---	---	---	47	47
13	42	41	45	49	---	---	---	---	---	---	49	46
14	42	41	45	49	---	---	---	---	---	39	49	45
15	42	41	45	49	---	---	---	---	---	39	49	45
16	41	41	45	49	---	---	---	---	---	38	49	45
17	41	42	45	49	---	---	---	---	---	38	49	45
18	41	42	45	49	---	---	---	---	---	38	49	45
19	41	42	45	49	---	---	---	---	---	38	49	45
20	41	42	45	48	47	---	---	---	---	38	49	45
21	41	44	45	47	47	---	---	---	---	38	49	45
22	41	45	45	47	---	---	---	---	---	41	49	45
23	42	45	45	47	---	---	---	---	---	46	49	45
24	42	45	45	---	---	---	40	---	---	47	49	---
25	42	45	46	---	33	---	38	---	---	47	49	---
26	42	45	47	---	24	---	38	---	---	47	49	---
27	42	45	49	47	---	---	38	---	---	45	47	---
28	42	45	49	45	---	---	39	---	---	45	47	---
29	42	45	49	45	---	---	39	---	---	45	47	---
30	42	45	49	45	---	---	39	---	---	45	47	---
31	42	---	49	45	---	---	---	---	---	---	47	---
TOTAL	1297	1285	1418	---	---	---	---	---	---	---	---	---
MEAN	41.8	42.8	45.7	---	---	---	---	---	---	---	---	---
MAX	44	45	49	---	---	---	---	---	---	---	---	---
MIN	41	41	45	---	---	---	---	---	---	---	---	---
AC-FT	2570	2550	2810	---	---	---	---	---	---	---	---	---

11316700 NORTH FORK MOKELUMNE RIVER BELOW ELECTRA DIVERSION DAM, NEAR WEST POINT, CA

LOCATION.—Lat 38°25'15", long 120°32'56", in SW 1/4 NE 1/4 sec.33, T.7 N., R.13 E., Amador County, Hydrologic Unit 18040012, on right bank, 300 ft downstream from Electra Diversion Dam, and 2.0 mi northwest of West Point.

DRAINAGE AREA.—365 mi^2.

PERIOD OF RECORD.—October 1985 to current year (low-flow records only). Unpublished records for water years 1982–84 available in files of the U.S. Geological Survey.

GAGE.—Water-stage recorder and sharp-crested weir since March 1987. Elevation of gage is 1,980 ft above sea level, from topographic map.

REMARKS.—No records computed above 33 ft^3/s. Flow regulated since 1931 by numerous reservoirs and diversions upstream. Most of the water is diverted at Electra Diversion Dam to Electra Powerplant. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	12	12	12	---	15	18	---	17	19	17
2	17	17	12	12	12	---	15	18	---	17	17	17
3	17	15	12	12	12	---	13	18	---	17	19	17
4	17	12	12	12	12	---	13	18	---	17	17	18
5	17	12	12	12	12	---	13	21	---	19	17	18
6	17	12	12	12	12	---	13	---	---	21	17	17
7	17	12	12	12	12	---	13	---	---	23	18	17
8	17	12	12	12	13	---	13	---	---	18	18	17
9	17	12	12	12	13	23	13	---	---	18	18	17
10	17	12	12	12	13	18	13	---	---	18	17	17
11	17	12	12	12	12	15	13	---	---	18	17	17
12	17	12	12	12	12	15	14	---	---	18	17	17
13	17	12	12	12	---	24	---	---	---	18	17	17
14	17	12	12	12	---	---	---	---	---	18	17	17
15	17	12	12	12	---	---	17	---	---	18	17	17
16	17	12	12	12	---	---	17	---	---	18	17	17
17	17	12	12	12	---	---	15	---	---	17	17	17
18	17	12	12	12	25	---	16	---	---	18	17	17
19	17	12	12	12	21	---	16	---	---	18	17	17
20	17	12	12	12	20	27	16	---	---	18	17	17
21	17	12	12	12	20	27	15	---	18	18	17	16
22	17	12	12	12	16	---	15	---	18	18	17	16
23	17	12	12	12	33	---	15	---	19	18	17	17
24	17	12	12	---	12	---	13	---	20	18	17	17
25	17	12	12	---	12	---	13	---	20	18	17	17
26	17	12	12	---	12	---	12	---	17	18	17	17
27	17	12	12	13	---	---	13	---	18	18	17	17
28	17	12	12	12	---	---	12	---	17	18	17	17
29	17	12	12	12	---	---	15	---	17	18	17	17
30	17	12	12	14	---	---	18	---	17	18	18	17
31	17	---	12	---	---	15	---	---	---	18	18	---
TOTAL	527	373	372	---	---	---	---	---	---	562	536	510
MEAN	17.0	12.4	12.0	---	---	---	---	---	---	18.1	17.3	17.0
MAX	17	17	12	---	---	---	---	---	---	23	19	18
MIN	17	12	12	---	---	---	---	---	---	17	17	16
AC-FT	1050	740	738	---	---	---	---	---	---	1110	1060	1010

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 mi^2.

PERIOD OF RECORD.—July 1960 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 2,950 ft above sea level, from topographic map.

REMARKS.—No regulation. Minor diversions upstream from station for irrigation and domestic use. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by East Bay Municipal Utility District, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,020 ft^3/s, Feb. 19, 1986, gage height, 8.12 ft, from rating curve extended above 500 ft^3/s on basis of slope-area measurement at gage height 7.41 ft; minimum daily, 0.11 ft^3/s, Aug. 14, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 120 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	2240	557	5.56	Feb. 27	0720	221	4.72
Feb. 14	1325	388	5.18				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.8	7.9	5.2	32	86	43	26	17	8.5	5.1	5.8
2	3.7	4.5	6.7	5.5	30	75	42	26	16	8.4	4.4	11
3	3.7	4.4	6.8	4.7	30	70	41	25	15	8.0	4.3	6.7
4	3.4	4.0	6.5	5.6	36	67	41	24	14	7.6	4.7	5.5
5	2.8	4.2	6.2	4.8	31	74	40	23	14	7.7	4.9	5.3
6	3.1	4.1	6.0	4.7	28	68	38	24	14	7.5	4.7	5.2
7	3.6	5.3	6.0	5.5	25	62	36	31	13	7.6	4.2	4.9
8	3.7	15	5.9	4.8	24	65	35	54	17	8.1	3.8	4.7
9	3.6	8.0	6.3	4.8	23	62	33	35	15	8.0	3.8	4.6
10	3.4	6.1	5.8	4.7	34	59	32	31	14	7.6	3.9	4.7
11	3.1	5.9	5.4	6.6	37	56	31	29	14	7.1	3.8	4.3
12	2.9	5.6	5.7	9.1	49	54	30	27	13	7.7	4.0	3.7
13	3.0	5.4	6.1	6.7	104	53	44	26	13	7.9	3.9	4.2
14	3.1	5.4	6.0	6.0	281	54	44	25	12	7.9	3.9	4.3
15	3.1	6.4	5.8	8.7	151	56	39	31	12	7.6	3.8	4.6
16	3.1	7.5	5.7	24	115	57	37	44	12	7.8	2.9	4.4
17	3.2	14	5.8	21	90	57	53	39	12	7.4	3.0	4.1
18	3.2	8.1	5.8	52	75	57	50	35	12	6.6	3.2	3.8
19	3.0	10	5.5	38	66	59	45	32	11	6.3	4.1	3.2
20	3.0	14	5.6	45	61	60	42	30	10	7.0	4.0	2.9
21	3.0	9.1	5.5	31	67	56	41	28	9.5	7.1	3.6	2.9
22	3.2	7.8	5.2	25	67	54	39	26	9.3	6.8	3.4	4.0
23	3.3	7.4	5.3	31	91	53	37	25	9.9	6.6	3.4	4.8
24	3.4	7.3	5.2	215	70	53	35	24	e9.7	6.1	3.3	4.4
25	3.1	7.2	5.3	238	62	53	33	23	e9.6	5.9	3.2	3.9
26	3.2	6.6	5.3	93	59	52	32	22	e9.4	5.7	3.3	3.0
27	3.6	6.4	5.4	57	155	53	31	21	e9.3	5.3	3.3	3.2
28	13	6.1	5.4	45	122	53	30	20	9.1	5.1	3.2	3.4
29	6.2	5.8	5.2	37	104	51	29	19	8.8	5.5	2.9	3.8
30	5.1	6.3	5.1	37	---	49	27	18	8.7	5.5	3.4	4.1
31	4.8	---	5.4	37	---	46	---	17	---	5.2	4.4	---
TOTAL	116.5	212.7	179.8	1113.4	2119	1824	1130	860	363.3	217.1	117.8	135.4
MEAN	3.76	7.09	5.80	35.9	73.1	58.8	37.7	27.7	12.1	7.00	3.80	4.51
MAX	13	15	7.9	238	281	86	53	54	17	8.5	5.1	11
MIN	2.8	4.0	5.1	4.7	23	46	27	17	8.7	5.1	2.9	2.9
AC-FT	231	422	357	2210	4200	3620	2240	1710	721	431	234	269

e Estimated.

11316800 FOREST CREEK NEAR WILSEYVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.09	9.11	20.1	40.6	47.9	53.5	50.2	35.7	14.2	6.40	3.85	3.29
MAX	11.9	59.5	138	244	243	209	174	129	54.8	18.5	10.5	8.36
(WY)	1983	1984	1965	1997	1986	1983	1982	1995	1998	1998	1983	1983
MIN	.63	1.80	2.17	2.40	2.35	4.58	2.96	3.92	1.59	.46	.33	.50
(WY)	1978	1993	1977	1991	1991	1977	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	10833.5		8389.0			
ANNUAL MEAN	29.7		22.9		24.0	
HIGHEST ANNUAL MEAN					67.9	1983
LOWEST ANNUAL MEAN					2.39	1977
HIGHEST DAILY MEAN	361	Feb 9	281	Feb 14	1550	Jan 2 1997
LOWEST DAILY MEAN	2.8	Oct 5	2.8	Oct 5	.11	Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	3.1	Oct 11	3.1	Oct 11	.15	Aug 11 1977
INSTANTANEOUS PEAK FLOW			557	Jan 24	2020	Feb 19 1986
INSTANTANEOUS PEAK STAGE			5.56	Jan 24	8.12	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	21490		16640		17360	
10 PERCENT EXCEEDS	77		56		62	
50 PERCENT EXCEEDS	9.6		7.9		8.0	
90 PERCENT EXCEEDS	3.8		3.4		2.1	

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, 4.5 mi upstream from South Fork Mokelumne River, and 0.6 mi south of West Point.

DRAINAGE AREA.—68.4 mi^2.

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. Elevation of gage is 2,450 ft above sea level, 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.—Flow slightly regulated by Schaads Reservoir, capacity, 1,740 acre-ft, 6 mi upstream from station, since January 1940. Maximum output of Schaads Powerplant is 35 ft^3/s and is operational only when reservoir level is within 4 ft of spill gates. Several small diversions upstream from station. At times water is diverted 4 mi upstream from station to Licking Fork Mokelumne River via Middle Fork Ditch, capacity, 10 ft^3/s; because of leakage, only 5 ft^3/s may reach Licking Fork Mokelumne River. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by East Bay Municipal Utility District, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,040 ft^3/s, Jan. 2, 1997, gage height, 9.28 ft, from rating curve extended above 4,010 ft^3/s; no flow for many days in 1931 and Sept. 9, 1934.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 400 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	2330	1,850	6.55	Feb. 23	0705	482	3.96
Feb. 14	1420	1,240	5.48	Feb. 27	0905	732	4.55

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	18	14	100	280	125	88	58	15	13	14
2	14	12	17	15	90	242	120	85	57	16	12	32
3	15	13	26	13	82	221	119	82	55	18	7.0	24
4	14	13	42	14	122	204	120	80	56	17	8.7	17
5	14	12	41	14	95	229	119	78	57	17	9.6	15
6	13	11	36	13	81	213	115	75	57	17	11	14
7	13	11	16	14	73	191	108	97	57	15	13	14
8	13	30	15	13	69	213	105	168	62	15	9.0	13
9	13	33	16	13	69	205	103	136	60	14	9.9	13
10	12	31	16	13	98	189	98	111	60	14	12	13
11	11	30	16	16	120	180	95	101	60	13	12	12
12	12	27	15	32	184	170	95	92	51	13	11	11
13	11	12	16	43	347	168	139	86	31	13	11	12
14	10	11	16	42	940	168	148	80	31	14	11	12
15	9.7	13	15	45	506	174	127	95	29	13	10	12
16	10	14	15	66	363	173	117	131	28	13	7.8	12
17	10	23	15	58	286	173	166	120	29	14	6.6	12
18	11	16	15	112	236	169	161	110	29	26	7.0	10
19	12	20	15	90	203	174	138	100	41	41	10	10
20	11	24	14	109	190	178	131	93	55	40	11	9.9
21	9.8	18	13	92	210	167	127	88	55	30	11	10
22	9.4	17	13	65	212	165	126	83	57	7.8	8.6	13
23	9.3	16	13	75	343	160	121	80	42	8.1	8.7	16
24	10	15	14	621	240	154	107	77	18	8.4	8.6	15
25	11	15	14	829	203	153	105	73	18	8.6	8.7	13
26	11	15	14	295	190	153	102	70	30	9.7	9.1	11
27	12	15	14	175	545	158	100	68	48	9.5	9.7	10
28	25	15	14	133	415	155	100	64	47	12	9.2	10
29	17	14	14	109	336	147	97	61	47	13	8.4	11
30	15	16	14	105	---	140	91	60	35	12	8.2	11
31	14	---	14	118	---	132	---	59	---	13	11	---
TOTAL	384.2	525	546	3366	6948	5598	3525	2791	1360	490.1	303.8	401.9
MEAN	12.4	17.5	17.6	109	240	181	118	90.0	45.3	15.8	9.80	13.4
MAX	25	33	42	829	940	280	166	168	62	41	13	32
MIN	9.3	11	13	13	69	132	91	59	18	7.8	6.6	9.9
AC-FT	762	1040	1080	6680	13780	11100	6990	5540	2700	972	603	797

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.3	22.4	49.8	93.6	128	141	149	109	44.3	16.8	9.40	7.81
MAX	37.5	223	389	680	768	653	561	372	181	71.8	40.8	31.1
(WY)	1983	1951	1956	1997	1986	1983	1982	1983	1983	1998	1969	1969
MIN	.86	2.64	3.33	4.75	5.70	9.06	6.47	4.17	.95	.22	.071	.15
(WY)	1932	1930	1977	1977	1991	1977	1977	1931	1924	1924	1931	1931

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1912 - 2000	
ANNUAL TOTAL	33274.2		26239.0			
ANNUAL MEAN	91.2		71.7		64.8	
HIGHEST ANNUAL MEAN					218	1983
LOWEST ANNUAL MEAN					5.25	1977
HIGHEST DAILY MEAN	1280	Feb 9	940	Feb 14	3740	Jan 2 1997
LOWEST DAILY MEAN	9.3	Oct 23	6.6	Aug 17	.00	Aug 23 1931
ANNUAL SEVEN-DAY MINIMUM	10	Oct 20	8.8	Aug 24	.00	Aug 23 1931
INSTANTANEOUS PEAK FLOW			1850	Jan 24	5040	Jan 2 1997
INSTANTANEOUS PEAK STAGE			6.55	Jan 24	9.28	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	66000		52050		46940	
10 PERCENT EXCEEDS	228		173		169	
50 PERCENT EXCEEDS	40		26		21	
90 PERCENT EXCEEDS	13		10		4.0	

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, 2.5 mi upstream from mouth, and 2.4 mi southwest of West Point.

DRAINAGE AREA.—75.1 mi^2.

PERIOD OF RECORD.—October 1933 to current year.

REVISED RECORDS.—WSP 1315-A: 1934(M). WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Elevation of gage is 1,950 ft above sea level, from topographic map. October 1933 to Sept. 19, 1957, at site 1,100 ft downstream at different datum.

REMARKS.—The Middle Fork Ditch can divert 10 ft^3/s from the Middle Fork Mokelumne River which, due to leakage, delivers about 5 ft^3/s to the Licking Fork Mokelumne River. There are two pumps with a combined capacity of 8.9 ft^3/s that can pump water to Jeff Davis Reservoir upstream from the station. There are other small diversions upstream from the station for irrigation and domestic use. See schematic diagram of Mokelumne River Basin.

COOPERATION.— Records were collected by East Bay Municipal Utility District, under general supervision of the U.S Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,610 ft^3/s, Jan. 2, 1997, gage height, 12.72 ft, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement of peak flow; no flow many days during August and September 1934.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	2325	2,310	7.90	Feb. 23	0720	829	5.63
Feb. 14	1350	1,920	7.41	Feb. 27	0840	977	5.93

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	26	18	121	365	169	87	56	26	15	14
2	12	17	22	18	110	315	166	81	53	26	14	33
3	12	16	22	18	105	283	167	78	51	26	13	21
4	12	15	20	13	151	258	166	75	50	26	13	16
5	13	15	20	8.8	115	291	165	73	48	25	13	15
6	13	14	20	8.2	99	263	157	73	47	26	12	13
7	13	15	19	8.3	90	238	148	105	46	26	13	13
8	13	41	19	8.0	82	262	140	190	61	25	12	12
9	13	24	19	7.8	80	259	133	132	56	25	12	11
10	12	19	20	13	149	237	127	111	51	24	12	11
11	12	18	19	21	172	225	121	102	48	23	12	11
12	9.2	17	18	34	317	218	117	94	47	23	11	10
13	6.6	17	19	24	575	213	165	89	46	22	11	10
14	6.7	16	20	21	1390	218	164	85	44	21	9.9	9.6
15	6.8	17	19	28	721	232	141	109	41	20	8.8	9.9
16	6.8	19	18	75	488	237	131	146	40	20	9.7	9.6
17	6.9	36	18	60	376	235	228	133	38	20	9.6	8.5
18	7.2	23	18	213	306	231	193	119	38	20	9.7	8.4
19	7.2	26	18	145	259	243	164	106	37	18	9.1	7.6
20	6.9	39	18	139	240	247	152	96	37	19	9.3	7.5
21	6.9	26	18	104	277	227	143	90	e36	19	9.6	7.5
22	7.0	23	18	68	275	216	135	84	e36	18	9.5	8.9
23	7.1	21	18	76	555	212	130	80	e35	18	15	10
24	7.3	21	18	944	357	208	122	77	e34	17	14	10
25	7.5	20	18	1130	279	207	114	73	e33	17	12	9.3
26	7.6	20	18	406	244	206	108	71	e32	17	14	8.7
27	7.9	20	18	236	720	210	103	68	e31	17	14	8.6
28	32	19	17	171	576	209	99	65	30	17	11	8.8
29	23	19	17	132	449	199	95	63	28	16	8.1	9.2
30	18	21	17	132	---	192	91	60	27	16	10	8.9
31	16	---	17	149	---	180	---	58	---	16	12	---
TOTAL	341.6	630	586	4429.1	9678	7336	4254	2873	1257	649	358.3	341.0
MEAN	11.0	21.0	18.9	143	334	237	142	92.7	41.9	20.9	11.6	11.4
MAX	32	41	26	1130	1390	365	228	190	61	26	15	33
MIN	6.6	14	17	7.8	80	180	91	58	27	16	8.1	7.5
AC-FT	678	1250	1160	8790	19200	14550	8440	5700	2490	1290	711	676

e Estimated.

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.6	30.7	73.4	137	181	191	184	123	47.5	21.9	12.5	10.2
MAX	41.6	270	465	907	959	825	704	461	163	62.9	36.1	31.6
(WY)	1983	1951	1956	1997	1986	1983	1982	1995	1983	1983	1952	1983
MIN	1.65	3.21	2.83	1.85	2.53	11.3	7.48	10.9	4.49	1.00	.039	.13
(WY)	1989	1991	1991	1991	1991	1977	1977	1977	1992	1934	1934	1934

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1934 - 2000	
ANNUAL TOTAL	38549.8		32733.0			
ANNUAL MEAN	106		89.4		85.0	
HIGHEST ANNUAL MEAN					264	1983
LOWEST ANNUAL MEAN					6.14	1977
HIGHEST DAILY MEAN	1810	Feb 9	1390	Feb 14	5780	Feb 17 1986
LOWEST DAILY MEAN	6.6	Oct 13	6.6	Oct 13	.00	Aug 6 1934
ANNUAL SEVEN-DAY MINIMUM	6.9	Oct 13	6.9	Oct 13	.00	Aug 12 1934
INSTANTANEOUS PEAK FLOW			2310	Jan 24	7610	Jan 2 1997
INSTANTANEOUS PEAK STAGE			7.90	Jan 24	12.72	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	76460		64930		61570	
10 PERCENT EXCEEDS	267		233		220	
50 PERCENT EXCEEDS	32		26		27	
90 PERCENT EXCEEDS	12		9.3		6.1	

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 mi^2.

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, 1903–04.
CHEMICAL DATA: Water year 1980. Water years 1971–79 in files of California Department of Water Resources.
WATER TEMPERATURE: Water years 1961–79 (daily record).

REVISED RECORDS.—WSP 1445: 1903–04, 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 above sea level (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.—Flow regulated by Salt Springs Reservoir (station 11313500) beginning in 1931, several smaller reservoirs, and four powerplants. Diversion upstream from station for irrigation and domestic use. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by East Bay Municipal Utility District, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 41,300 ft^3/s, Jan. 2, 1997, gage height, 25.60 ft, present datum; minimum observed, 5 ft^3/s, Aug. 13–15, 17, 18, 1904.

REVISIONS.—The maximum gage height for the water year 1996 has been revised to 20.81 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	682	694	589	580	742	2140	1250	775	1820	1040	903	631
2	569	660	542	332	531	2040	1250	891	2060	925	899	598
3	654	613	614	279	601	1810	1220	902	1810	993	910	819
4	580	705	700	281	574	1700	1120	872	2130	897	751	669
5	662	666	703	360	625	1860	1070	933	2200	1030	655	658
6	599	643	647	346	486	1770	1140	984	1900	940	605	748
7	584	684	725	475	689	1620	1110	1080	1950	939	651	660
8	602	616	705	293	519	1550	956	2140	1730	990	670	585
9	613	710	668	297	388	1440	1040	1540	1700	963	645	654
10	692	731	643	281	539	1320	1000	1450	1260	1040	725	685
11	322	729	431	306	863	1430	1080	1570	1300	885	704	642
12	699	594	450	420	1270	1370	1040	1490	1280	1120	604	639
13	709	559	591	265	1820	1300	1370	1350	1370	938	633	648
14	609	743	544	289	5310	1330	1490	1360	1520	659	598	690
15	626	628	514	326	3100	1520	1280	1500	1440	818	612	745
16	592	498	620	356	2130	1510	1110	1590	1370	545	785	522
17	608	552	712	457	1660	1500	1370	1570	1240	873	659	521
18	569	729	494	818	1400	1530	1330	1720	1170	689	571	683
19	532	655	625	1100	1320	1500	1280	1990	1140	777	630	635
20	641	687	494	818	1250	1480	1170	2260	1230	729	669	571
21	632	642	503	771	1300	1350	1110	3000	1040	743	706	677
22	661	664	524	776	1160	1330	1130	4140	979	588	695	596
23	588	562	488	694	2000	1400	1250	3730	841	607	651	677
24	722	630	485	2940	1580	1460	1080	2720	1010	732	636	502
25	106	690	524	5150	1210	1340	844	4250	957	704	606	96
26	36	698	399	2150	1070	1420	901	3780	940	669	591	107
27	37	659	408	1250	2690	1390	922	2860	897	696	730	83
28	311	740	545	747	2500	1400	964	3620	987	649	623	85
29	749	626	466	651	1820	1540	949	3000	893	520	467	88
30	613	523	333	626	---	1310	907	2890	1030	660	908	84
31	627	---	279	766	---	1300	---	2140	---	792	614	---
TOTAL	17226	19530	16965	25200	41147	46960	33733	64097	41194	25150	21106	15998
MEAN	556	651	547	813	1419	1515	1124	2068	1373	811	681	533
MAX	749	743	725	5150	5310	2140	1490	4250	2200	1120	910	819
MIN	36	498	279	265	388	1300	844	775	841	520	467	83
AC-FT	34170	38740	33650	49980	81620	93150	66910	127100	81710	49890	41860	31730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2000, BY WATER YEAR (WY)

MEAN	514	585	769	933	1064	1185	1380	1922	1824	750	557	528
MAX	898	3275	4375	5659	4788	3950	4114	5092	6243	3384	1117	949
(WY)	1984	1951	1951	1997	1986	1983	1982	1952	1983	1983	1983	1983
MIN	8.97	25.3	70.1	65.5	100	115	221	273	262	106	77.5	67.7
(WY)	1978	1930	1931	1991	1977	1977	1977	1987	1977	1928	1930	1930

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1928 - 2000	
ANNUAL TOTAL	443587		368306			
ANNUAL MEAN	1215		1006		1000	
HIGHEST ANNUAL MEAN					2511	1983
LOWEST ANNUAL MEAN					208	1977
HIGHEST DAILY MEAN	6980	Feb 9	5310	Feb 14	31300	Jan 2 1997
LOWEST DAILY MEAN	36	Oct 26	36	Oct 26	6.6	Oct 2 1977
ANNUAL SEVEN-DAY MINIMUM	352	Oct 22	149	Sep 24	7.0	Sep 28 1977
INSTANTANEOUS PEAK FLOW			9310	Jan 25	41300	Jan 2 1997
INSTANTANEOUS PEAK STAGE			15.06	Jan 25	25.60	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	879900		730500		724100	
10 PERCENT EXCEEDS	2420		1780		2190	
50 PERCENT EXCEEDS	888		736		624	
90 PERCENT EXCEEDS	535		482		245	

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA

LOCATION.—Lat 38°13'34", long 121°01'24", in NE 1/4 SE 1/4 sec.6, T.4 N., R.9 E., San Joaquin County, Hydrologic Unit 18040005, at Camanche Dam, and 4.2 mi northeast of Clements.

DRAINAGE AREA.—621 mi^2.

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."
CHEMICAL DATA: Water years 1906–07, 1965–66. Published as "at Clements" in 1906–07.
WATER TEMPERATURE: Water years 1962–68, 1970–76.
SEDIMENT DATA: Water years 1956–70. Prior to 1962 water year, published as "near Clements".

REVISED RECORDS.—WSP 751: Drainage area. WSP 881: 1905–09 (yearly summaries only). WSP 1445: 1911, 1917(M), 1925(M). WDR CA-94-3: 1993(M).

GAGE.—Ultrasonic flowmeters on outlet pipes at dam and water-stage recorder on spillway. Elevation of ultrasonic flowmeters is 140 ft above sea level, from topographic map. Datum of spillway gage is 235.50 ft above sea level. Auxiliary water-stage recorder 1 mi downstream, datum 82.71 ft above sea level. Oct. 1, 1961 to September 1999, water-stage recorder on left bank 1 mi downstream (present auxiliary gage). See WSP 1930 for history of changes prior to Oct. 1, 1961.

REMARKS.—Flow regulated by Camanche Reservoir (station 11322300) beginning December 1963, Salt Springs Reservoir (station 11313500) beginning March 1931, Pardee Reservoir (station 11320000) beginning March 1929, and several small reservoirs. East Bay Municipal Utility District aqueducts, maximum capacity, 511 ft^3/s with Pardee Reservoir full, are the largest of several diversions upstream from the station. See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by East Bay Municipal Utility District, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,800 ft^3/s, Nov. 21, 1950, gage height, 24.40 ft, site and datum then in use; no flow on several days in 1924. Maximum discharge since construction of Camanche Dam in 1963, 6,060 ft^3/s, Feb. 19, 1986, gage height, 11.21 ft; minimum daily, 23 ft^3/s, Oct. 6, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	331	330	331	330	998	2230	802	586	746	753	402	339
2	330	331	331	330	995	2400	806	649	751	699	402	341
3	331	336	337	330	996	2400	758	659	756	647	401	331
4	330	330	341	330	1000	2400	639	663	753	645	397	328
5	330	326	332	330	1000	2400	595	652	755	651	397	328
6	330	330	332	330	1000	2400	599	652	750	651	396	331
7	330	331	331	331	1000	2400	604	654	749	648	396	334
8	330	335	330	330	1000	2400	612	654	753	652	403	331
9	330	332	330	330	1000	2400	605	654	753	654	403	336
10	329	332	330	330	1000	2290	606	652	753	654	403	339
11	332	332	330	330	997	2090	603	652	753	645	402	342
12	334	331	337	330	1000	1880	606	646	749	649	402	338
13	329	330	330	330	1000	1690	540	649	748	653	398	336
14	331	331	332	330	1010	1600	447	653	750	652	403	372
15	330	333	333	330	1490	1600	403	650	753	648	405	402
16	330	330	331	330	2000	1600	404	649	756	649	407	399
17	330	334	328	330	1990	1610	403	652	756	616	408	403
18	330	333	328	331	1990	1600	398	651	758	610	408	404
19	336	337	329	332	2000	1600	411	684	756	607	408	404
20	332	332	330	333	2000	1600	414	702	746	603	408	402
21	330	332	332	330	2000	1490	405	698	754	612	409	401
22	331	336	330	327	2000	1290	401	696	760	602	403	400
23	332	329	332	329	2000	1200	403	710	754	600	399	401
24	331	334	335	332	2000	1200	403	720	749	598	382	401
25	330	331	333	330	2000	1200	413	722	747	597	368	399
26	331	333	329	330	2000	1200	409	741	751	545	367	400
27	330	332	329	332	2000	1200	399	746	753	503	368	399
28	330	327	330	476	2010	1080	404	745	753	505	368	360
29	329	331	330	591	2000	884	405	746	759	501	369	332
30	330	333	329	597	---	807	444	755	760	510	367	329
31	330	---	328	801	---	806	---	752	---	459	344	---
TOTAL	10249	9954	10270	11382	43476	52947	15341	21094	22584	19018	12193	10962
MEAN	331	332	331	367	1499	1708	511	680	753	613	393	365
MAX	336	337	341	801	2010	2400	806	755	760	753	409	404
MIN	329	326	328	327	995	806	398	586	746	459	344	328
AC-FT	20330	19740	20370	22580	86230	105000	30430	41840	44800	37720	24180	21740

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1963, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	450	543	710	745	883	913	1193	1608	1458	557	478	467
MAX	670	3188	4568	3529	2473	3155	3451	4217	3164	1194	691	678
(WY)	1939	1951	1951	1956	1938	1938	1938	1952	1952	1952	1962	1958
MIN	58.0	63.1	95.6	112	77.6	132	136	179	241	296	267	108
(WY)	1932	1932	1960	1962	1948	1931	1961	1961	1931	1961	1961	1931

SUMMARY STATISTICS	WATER YEARS 1931 - 1963	
ANNUAL MEAN	832	
HIGHEST ANNUAL MEAN	1669	1938
LOWEST ANNUAL MEAN	221	1961
HIGHEST DAILY MEAN	26900	Nov 21 1950
LOWEST DAILY MEAN	35	Apr 24 1955
ANNUAL SEVEN-DAY MINIMUM	49	Feb 12 1948
INSTANTANEOUS PEAK FLOW	28800	Nov 21 1950
INSTANTANEOUS PEAK STAGE	24.40	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	603000	
10 PERCENT EXCEEDS	1890	
50 PERCENT EXCEEDS	551	
90 PERCENT EXCEEDS	213	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	558	482	516	845	1059	1096	975	1066	1036	835	662	546
MAX	2061	2157	2938	4978	4315	5117	3726	3889	3847	2932	1770	1447
(WY)	1966	1984	1984	1997	1997	1986	1983	1982	1995	1998	1998	1995
MIN	33.3	83.6	78.7	83.6	60.8	77.9	125	170	254	249	235	123
(WY)	1978	1989	1967	1967	1967	1989	1991	1988	1977	1991	1991	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1965 - 2000	
ANNUAL TOTAL	330960		239470			
ANNUAL MEAN	907		654		805	
HIGHEST ANNUAL MEAN					2400	1983
LOWEST ANNUAL MEAN					172	1988
HIGHEST DAILY MEAN	3100	Feb 21	2400	Mar 2	5750	Feb 18 1986
LOWEST DAILY MEAN	325	Sep 7	326	Nov 5	23	Oct 6 1977
ANNUAL SEVEN-DAY MINIMUM	325	Sep 4	329	Dec 26	28	Oct 14 1977
INSTANTANEOUS PEAK FLOW			2420	Mar 1	6060	Feb 19 1986
INSTANTANEOUS PEAK STAGE			a 6.78	Mar 5	11.21	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	656500		475000		583000	
10 PERCENT EXCEEDS	1250		1350		2020	
50 PERCENT EXCEEDS	758		405		474	
90 PERCENT EXCEEDS	330		330		111	

a Auxiliary gage.

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 above sea level (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.—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.

COOPERATION.—Records were collected by Woodbridge Irrigation District, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 482 ft^3/s, July 8, 1953; no flow at times in each year. Lowest daily mean, −64 ft^3/s, May 4, 1938 (the water level in Woodbridge Reservoir was drawn down and water from the canal drained back into the reservoir. In order that the figures may represent the net diverted flow, the reverse flow was indicated by negative figures).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	36	.00	.00	.00	.00	.00	112	179	233	237	147
2	126	.00	.00	.00	.00	.00	.00	133	178	227	240	140
3	123	.00	.00	.00	.00	.00	13	151	177	224	247	136
4	121	.00	.00	.00	.00	.00	35	158	176	222	251	135
5	123	.00	.00	.00	.00	.00	50	162	178	218	254	129
6	122	.00	.00	.00	.00	.00	70	163	178	206	252	126
7	123	.00	.00	.00	.00	.00	97	162	182	205	249	125
8	120	.00	.00	.00	.00	.00	99	160	191	212	243	127
9	119	.00	.00	.00	.00	.00	100	156	197	210	236	128
10	117	.00	.00	.00	.00	.00	115	149	200	216	233	128
11	118	.00	.00	.00	.00	.00	123	147	202	221	231	128
12	119	.00	.00	.00	.00	.00	130	144	196	225	226	130
13	121	.00	.00	.00	.00	.00	133	145	192	234	222	131
14	118	.00	.00	.00	.00	.00	131	144	204	245	219	132
15	116	.00	.00	.00	.00	.00	126	145	216	248	219	134
16	113	.00	.00	.00	.00	.00	119	145	221	249	217	136
17	112	.00	.00	.00	.00	.00	108	144	221	245	218	136
18	112	.00	.00	.00	.00	.00	103	144	220	243	219	135
19	110	.00	.00	.00	.00	.00	104	145	221	243	217	138
20	109	.00	.00	.00	.00	.00	103	143	222	244	215	139
21	109	.00	.00	.00	.00	.00	103	143	222	241	215	138
22	104	.00	.00	.00	.00	.00	104	140	225	239	218	136
23	101	.00	.00	.00	.00	.00	103	144	221	237	218	136
24	100	.00	.00	.00	.00	.00	104	154	218	239	212	135
25	102	.00	.00	.00	.00	.00	102	156	217	244	201	135
26	99	.00	.00	.00	.00	.00	100	163	219	248	195	138
27	100	.00	.00	.00	.00	.00	100	166	222	248	187	140
28	97	.00	.00	.00	.00	.00	105	169	225	254	186	141
29	91	.00	.00	.00	.00	.00	106	171	229	251	174	133
30	90	.00	.00	.00	---	.00	104	179	234	251	165	125
31	92	---	.00	.00	---	.00	---	183	---	248	158	---
TOTAL	3458	36.00	0.00	0.00	0.00	0.00	2790.00	4720	6183	7270	6774	4017
MEAN	112	1.20	.000	.000	.000	.000	93.0	152	206	235	219	134
MAX	131	36	.00	.00	.00	.00	133	183	234	254	254	147
MIN	90	.00	.00	.00	.00	.00	.00	112	176	205	158	125
AC-FT	6860	71	.00	.00	.00	.00	5530	9360	12260	14420	13440	7970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2000, BY WATER YEAR (WY)

MEAN	107	24.0	4.52	.23	.18	22.0	112	206	258	271	253	179
MAX	218	137	83.5	5.95	5.55	158	295	376	401	412	378	294
(WY)	1955	1959	1959	1931	1931	1953	1953	1950	1950	1953	1953	1948
MIN	.000	-.14	.000	.000	.000	.000	.000	64.6	95.9	63.0	66.8	5.37
(WY)	1978	1939	1927	1927	1927	1927	1927	1998	1926	1926	1926	1992

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1926 - 2000	
ANNUAL TOTAL	33511.26		35248.00			
ANNUAL MEAN	91.8		96.3		121	
HIGHEST ANNUAL MEAN					206	1953
LOWEST ANNUAL MEAN					49.2	1928
HIGHEST DAILY MEAN	245	Jul 10	254	Jul 28	482	Jul 8 1953
LOWEST DAILY MEAN	.00	Jan 1	.00	Nov 2	-64	May 4 1938
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Nov 2	-6.3	Oct 31 1938
ANNUAL RUNOFF (AC-FT)	66470		69910		87590	
10 PERCENT EXCEEDS	223		225		309	
50 PERCENT EXCEEDS	104		106		98	
90 PERCENT EXCEEDS	.00		.00		.00	

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA

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 mi^2.

PERIOD OF RECORD.—Water years 1924–94 (low-flow records only 1924–25). October 1996 to current year.
CHEMICAL DATA: Water years 1951–94.
SPECIFIC CONDUCTANCE: Water years 1952–58, 1975–77.
WATER TEMPERATURE: Water years 1951–58, 1961–86.
SEDIMENT: Water years 1975–94.

REVISED RECORDS.—WSP 1930: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 14.9 ft above sea level (levels by East Bay Municipal Utility District). See WSP 2130 for history of changes prior to July 26, 1968.

REMARKS.—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). See schematic diagram of Mokelumne River Basin.

COOPERATION.—Records were collected by East Bay Municipal Utility District, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 27,000 ft^3/s, Nov. 22, 1950, gage height 29.58 ft, from rating curve extended above 6,200 ft^3/s on basis of contracted-opening measurement of peak flow; minimum daily, 0.23 ft^3/s, Nov. 15, 1977. Maximum discharge since construction of Camanche Dam in 1963, 5,340 ft^3/s, Mar. 8, 1986, gage height, 23.19 ft; maximum gage height, 23.31 ft, Jan. 9, 1997.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	572	274	273	795	1970	770	323	499	419	97	125
2	121	433	272	273	886	2230	761	420	488	410	73	121
3	116	290	274	272	916	2300	761	422	483	328	69	126
4	118	278	274	269	942	2300	619	442	493	331	57	121
5	125	278	275	267	936	2330	515	435	500	353	54	131
6	137	278	271	266	934	2320	447	434	500	360	52	131
7	131	287	271	265	936	2320	428	465	498	361	60	115
8	129	336	274	265	941	2330	449	464	487	344	87	111
9	131	297	277	266	938	2320	443	458	487	338	94	109
10	132	288	277	266	969	2320	432	460	484	328	87	106
11	131	279	276	269	982	2190	426	462	476	327	87	112
12	132	279	276	262	1120	2020	413	458	502	325	89	116
13	132	281	273	260	1100	1860	414	450	459	317	81	119
14	138	282	273	266	1130	1690	353	456	449	319	84	125
15	133	282	275	276	1040	1640	285	466	432	308	85	184
16	134	286	275	285	1670	1630	269	469	424	308	88	190
17	135	286	276	280	1850	1630	327	465	420	313	83	182
18	142	281	275	313	1870	1620	280	458	424	282	77	175
19	142	294	273	285	1870	1610	267	450	446	276	101	179
20	142	294	271	284	1890	1610	274	484	431	276	97	178
21	141	283	272	282	1920	1600	270	478	425	275	85	174
22	139	279	275	279	1940	1450	263	486	429	269	107	180
23	142	276	272	333	2100	1290	261	480	440	262	112	178
24	142	277	273	421	1990	1240	258	489	426	266	110	180
25	143	280	274	428	1950	1230	258	490	424	268	98	191
26	144	277	273	351	1940	1230	262	496	425	260	90	178
27	149	275	272	299	2020	1220	260	496	433	172	88	182
28	170	274	272	291	2010	935	247	494	430	156	106	173
29	164	273	272	458	1980	924	247	492	416	152	96	145
30	160	279	272	530	---	839	249	483	417	150	125	133
31	159	---	273	532	---	763	---	495	---	157	138	---
TOTAL	4279	8954	8482	9666	41565	52961	11508	14320	13647	9010	2757	4470
MEAN	138	298	274	312	1433	1708	384	462	455	291	88.9	149
MAX	170	572	277	532	2100	2330	770	496	502	419	138	191
MIN	116	273	271	260	795	763	247	323	416	150	52	106
AC-FT	8490	17760	16820	19170	82440	105000	22830	28400	27070	17870	5470	8870

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1963, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	277	469	655	713	870	848	989	1282	1121	200	133	198
MAX	571	2529	4283	3435	2341	3032	3278	3990	2958	728	309	400
(WY)	1939	1951	1951	1956	1938	1938	1938	1952	1952	1952	1931	1958
MIN	3.76	13.6	29.4	56.6	45.0	34.5	7.02	11.3	11.3	17.1	17.2	10.0
(WY)	1932	1932	1960	1962	1948	1961	1931	1931	1931	1955	1955	1931

SUMMARY STATISTICS	WATER YEARS 1931 - 1963	
ANNUAL MEAN	644	
HIGHEST ANNUAL MEAN	1507	1938
LOWEST ANNUAL MEAN	62.2	1960
HIGHEST DAILY MEAN	19600	Dec 9 1950
LOWEST DAILY MEAN	2.4	Oct 2 1931
ANNUAL SEVEN-DAY MINIMUM	2.4	Oct 2 1931
INSTANTANEOUS PEAK FLOW	27000	Nov 22 1950
INSTANTANEOUS PEAK STAGE	29.58	Nov 22 1950
ANNUAL RUNOFF (AC-FT)	466700	
10 PERCENT EXCEEDS	1680	
50 PERCENT EXCEEDS	346	
90 PERCENT EXCEEDS	28	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	415	447	465	803	952	898	713	688	570	386	274	274
MAX	1716	1979	2825	4746	4285	4711	3641	3522	2736	2561	1462	1067
(WY)	1966	1984	1984	1997	1997	1986	1983	1982	1983	1998	1998	1983
MIN	2.12	23.3	38.5	33.1	20.2	9.34	9.02	8.66	8.34	9.24	6.58	5.13
(WY)	1978	1978	1990	1977	1977	1989	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1965 - 2000	
ANNUAL TOTAL	261841		181619			
ANNUAL MEAN	717		496		572	
HIGHEST ANNUAL MEAN					2170	1983
LOWEST ANNUAL MEAN					21.8	1977
HIGHEST DAILY MEAN	2900	Feb 21	2330	Mar 5	5240	Mar 8 1986
LOWEST DAILY MEAN	94	Sep 1	52	Aug 6	.23	Nov 15 1977
ANNUAL SEVEN-DAY MINIMUM	100	Sep 9	65	Aug 2	.24	Nov 12 1977
INSTANTANEOUS PEAK FLOW			2360	Mar 7	5340	Mar 8 1986
INSTANTANEOUS PEAK STAGE			15.25	Mar 7	23.31	Jan 9 1997
ANNUAL RUNOFF (AC-FT)	519400		360200		414200	
10 PERCENT EXCEEDS	1190		1340		1660	
50 PERCENT EXCEEDS	484		282		238	
90 PERCENT EXCEEDS	130		117		26	

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 mi^2.

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. Elevation of gage is 1,820 ft above sea level, from topographic map. Feb. 1 to May 31, 1924, nonrecording gage at site 0.2 mi upstream at different datum.

REMARKS.—Records good. 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. Seepage from North Fork Extension Ditch siphon could constitute a major part or all the flow at low stages. Some water is released from Jenkinson Lake for irrigation downstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 22,400 ft^3/s, Jan. 2, 1997, gage height, 20.30 ft, from rating curve extended above 5,000 ft^3/s; no flow Aug. 7–18, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.4	17	7.5	20	431	110	67	30	9.6	6.4	8.0
2	6.2	6.4	11	7.6	19	377	98	63	27	9.6	6.6	18
3	6.2	6.4	12	7.4	20	e349	97	61	24	9.3	6.5	8.9
4	6.0	6.4	9.1	7.3	38	e332	101	59	20	9.4	6.5	7.9
5	6.0	6.4	8.3	7.3	29	e316	110	60	17	9.3	6.5	7.6
6	6.0	6.4	7.9	7.2	24	310	113	59	14	9.3	6.4	7.5
7	6.0	7.2	7.9	7.4	21	295	106	110	13	9.3	6.4	7.3
8	6.0	20	8.3	7.3	19	295	97	273	22	9.2	6.3	7.1
9	6.0	9.0	8.1	7.3	18	285	91	231	29	9.1	6.3	7.1
10	5.8	7.5	9.0	7.3	24	258	83	164	27	8.9	6.3	7.1
11	5.7	7.1	8.1	9.7	31	235	79	134	24	8.8	6.3	7.1
12	5.7	6.9	7.9	14	65	222	77	105	19	9.0	6.3	7.0
13	5.6	6.9	9.1	9.1	134	214	155	87	17	8.8	6.4	7.1
14	5.5	6.8	8.7	8.3	e690	214	225	78	14	8.4	6.3	6.9
15	5.5	7.3	8.1	11	e500	226	182	110	12	8.3	6.3	7.0
16	5.5	7.6	7.9	29	e520	235	153	181	12	8.2	6.3	7.0
17	5.5	17	7.8	23	e450	236	175	171	11	8.4	6.2	6.9
18	5.5	8.9	7.7	43	353	228	185	147	11	8.4	6.2	6.9
19	5.5	11	7.6	29	336	227	159	131	11	8.3	6.2	6.7
20	5.5	16	7.6	56	305	235	143	116	11	8.1	6.2	6.7
21	5.5	10	7.6	31	296	219	130	95	11	8.1	6.1	6.7
22	5.5	8.5	7.4	27	290	201	121	81	11	8.1	6.1	7.1
23	5.5	7.9	7.3	32	e410	188	115	77	10	8.0	6.0	7.8
24	5.6	7.7	7.3	e275	321	177	104	69	10	7.8	6.0	7.2
25	5.7	7.6	7.3	e325	252	169	91	64	10	6.6	6.0	7.1
26	5.7	7.6	7.3	68	182	165	83	58	10	6.8	6.0	6.9
27	5.8	7.6	7.3	38	e570	162	79	50	10	7.0	6.0	6.9
28	17	7.4	7.3	29	e710	166	81	43	10	7.0	6.0	6.9
29	7.6	7.3	7.2	24	529	158	78	37	9.9	6.9	6.0	6.9
30	6.6	13	7.1	23	---	146	71	31	9.8	6.4	6.5	6.8
31	6.4	---	7.3	24	---	126	---	30	---	6.2	6.6	---
TOTAL	192.8	262.2	259.5	1201.7	7176	7397	3492	3042	466.7	256.6	194.2	226.1
MEAN	6.22	8.74	8.37	38.8	247	239	116	98.1	15.6	8.28	6.26	7.54
MAX	17	20	17	325	710	431	225	273	30	9.6	6.6	18
MIN	5.5	6.4	7.1	7.2	18	126	71	30	9.8	6.2	6.0	6.7
AC-FT	382	520	515	2380	14230	14670	6930	6030	926	509	385	448
a	-1747	-131	-176	+4800	+4109	-45	-65	-52	-797	-2063	-2476	-1434
b	1153	402	357	379	336	382	616	616	974	1359	1517	970
c	127	26	8	14	20	75	105	153	226	264	262	149

e Estimated.
a Change in contents, in acre-feet, in Jenkinson Lake.
b Diversion, in acre-feet, from Jenkinson Lake provided by U.S. Bureau of Reclamation.
c Total evaporation, in acre-feet, from Jenkinson Lake provided by U.S. Bureau of Reclamation; not reviewed by U.S. Geological Survey.

11333000 CAMP CREEK NEAR SOMERSET, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.11	8.71	43.7	94.8	121	144	154	112	28.7	11.5	7.11	5.39
MAX	32.9	71.3	469	1095	820	745	621	452	220	37.2	23.7	17.2
(WY)	1983	1984	1984	1997	1986	1983	1982	1967	1998	1995	1972	1982
MIN	.71	1.62	2.01	2.82	2.43	2.84	1.59	2.42	.57	.51	.12	.67
(WY)	1978	1978	1977	1977	1977	1977	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1955 - 2000	
ANNUAL TOTAL	36349.8		24166.8			
ANNUAL MEAN	99.6		66.0		61.2	
HIGHEST ANNUAL MEAN					215	1983
LOWEST ANNUAL MEAN					1.89	1977
HIGHEST DAILY MEAN	1740	Feb 9	710	Feb 28	10700	Jan 2 1997
LOWEST DAILY MEAN	5.5	Oct 14	5.5	Oct 14	.00	Aug 7 1977
ANNUAL SEVEN-DAY MINIMUM	5.5	Oct 14	5.5	Oct 14	.00	Aug 7 1977
INSTANTANEOUS PEAK FLOW			1020	Feb 14	22400	Jan 2 1997
INSTANTANEOUS PEAK STAGE			6.44	Feb 14	20.30	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	72100		47930		44320	
ANNUAL RUNOFF (AC-FT) a	80090		58300		64550	
10 PERCENT EXCEEDS	322		225		180	
50 PERCENT EXCEEDS	11		9.5		8.2	
90 PERCENT EXCEEDS	6.3		6.2		3.0	

a Adjusted for change in contents, evaporation, and diversion from Jenkinson Lake.

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 county bridge at Michigan Bar, 5.5 mi southwest of Latrobe, and 16.3 river mi downstream from confluence of north and middle Forks of Cosumnes River.

DRAINAGE AREA.—536 mi^2.

PERIOD OF RECORD.—October 1907 to current year. Monthly discharge only for some periods, published in WSP 1315-A.
CHEMICAL DATA: Water years 1953–80.
WATER TEMPERATURE: Water years 1963–79.
SEDIMENT DATA: Water years 1958–74.

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 above sea level. 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. See REMARKS for Camp Creek near Somerset (station 11333000) for diversion out of basin. Numerous small diversions upstream from station for irrigation and domestic use. See schematic diagram of Sacramento–San Joaquin Delta.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 93,000 ft^3/s, Jan. 2, 1997, gage height, 18.54 ft, from rating curve extended above 34,000 ft^3/s on basis of slope-area determination of peak flow; no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in March 1907 reached a stage of 16.3 ft, estimated discharge, 71,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 4,000 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	0200	10,900	9.60	Feb. 23	0915	7,130	8.56
Feb. 14	1315	11,200	9.69	Feb. 27	1815	9,410	9.23

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	42	107	58	636	2720	702	443	245	73	34	25
2	25	38	126	60	569	2120	668	432	231	69	32	38
3	25	37	101	59	606	1840	669	420	217	67	31	90
4	26	37	96	58	1190	1560	675	403	202	67	30	80
5	26	36	82	58	880	2040	702	390	192	67	29	54
6	27	36	75	64	695	1770	697	388	184	66	28	44
7	27	38	71	62	595	1530	667	452	173	66	27	38
8	27	57	68	58	528	1630	638	988	187	65	27	36
9	28	121	70	61	486	1660	618	1050	240	64	27	33
10	28	92	67	59	649	1470	597	744	215	63	25	31
11	28	67	69	63	1440	1320	571	640	194	56	25	31
12	27	57	67	96	5290	1230	555	551	180	55	25	30
13	25	54	66	131	5040	1160	659	496	166	54	24	30
14	23	51	67	101	9680	1110	1050	456	154	55	24	30
15	23	51	72	90	5180	1120	832	551	138	54	24	29
16	23	53	69	130	3900	1130	734	985	127	54	23	29
17	22	74	67	312	2910	1130	846	836	120	54	21	28
18	23	123	65	538	2010	1090	1040	702	113	53	21	28
19	23	101	64	824	1660	1080	782	620	112	52	21	28
20	23	e175	64	684	1430	1100	700	568	109	48	20	26
21	23	e200	64	686	1600	1040	650	528	99	46	21	25
22	24	e110	63	471	1700	977	608	494	98	45	21	26
23	24	87	62	521	5160	926	594	459	94	45	21	26
24	24	76	61	4960	2410	900	562	432	90	45	22	29
25	24	69	61	6990	1680	879	532	410	88	45	22	31
26	24	67	61	2520	1370	867	511	384	85	41	21	29
27	24	64	60	1380	7020	863	498	353	83	38	20	28
28	33	63	60	959	5010	874	497	323	79	38	20	27
29	77	62	59	744	3500	847	486	299	75	36	20	26
30	76	70	58	693	---	805	460	278	74	35	22	24
31	51	---	57	781	---	750	---	257	---	35	23	---
TOTAL	909	2208	2199	24271	74824	39538	19800	16332	4364	1651	751	1029
MEAN	29.3	73.6	70.9	783	2580	1275	660	527	145	53.3	24.2	34.3
MAX	77	200	126	6990	9680	2720	1050	1050	245	73	34	90
MIN	22	36	57	58	486	750	460	257	74	35	20	24
AC-FT	1800	4380	4360	48140	148400	78420	39270	32390	8660	3270	1490	2040

e Estimated.

11335000 COSUMNES RIVER AT MICHIGAN BAR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.4	140	435	957	1213	1207	1065	693	256	61.3	20.8	15.0
MAX	335	2493	3380	7129	6610	5255	3992	2362	1111	346	114	82.0
(WY)	1963	1951	1965	1997	1986	1983	1982	1995	1998	1983	1983	1983
MIN	.000	7.90	18.3	21.4	35.9	43.5	33.7	48.5	4.42	.096	.000	.000
(WY)	1978	1930	1977	1991	1991	1977	1977	1977	1924	1977	1908	1924

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1908 - 2000	
ANNUAL TOTAL	227509		187876			
ANNUAL MEAN	623		513		504	
HIGHEST ANNUAL MEAN					1687	1983
LOWEST ANNUAL MEAN					21.8	1977
HIGHEST DAILY MEAN	13000	Feb 9	9680	Feb 14	61600	Jan 2 1997
LOWEST DAILY MEAN	22	Oct 17	20	Aug 20	.00	Jul 25 1908
ANNUAL SEVEN-DAY MINIMUM	23	Oct 14	21	Aug 17	.00	Jul 25 1908
INSTANTANEOUS PEAK FLOW			11200	Feb 14	93000	Jan 2 1997
INSTANTANEOUS PEAK STAGE			9.69	Feb 14	18.54	Jan 2 1997
ANNUAL RUNOFF (AC-FT)	451300		372700		365200	
10 PERCENT EXCEEDS	1610		1170		1300	
50 PERCENT EXCEEDS	114		80		102	
90 PERCENT EXCEEDS	28		25		7.0	

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 mi^2.

PERIOD OF RECORD.—August 1959 to September 1987, October 1997 to current year.

REVISED RECORDS.— WDR CA-72-2: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 7.60 ft above sea level. 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 good. No regulation or diversion above station. Summer flow is sustained by wastewater from domestic and industrial use. During major storm events record can be affected by backwater from Beach Lake located 5.7 mi downstream from gage. Flow is diverted by pumps into the Sacramento River.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,730 ft^3/s, Feb. 17, 1986, gage height, 10.40 ft; no flow at times in 1960, 1962, 1965.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than a base discharge of 400 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	0845	1,660	7.74	Feb. 27	0615	710	5.02
Jan. 30	1500	638	4.78	Mar. 5	0545	521	4.36
Feb. 14	0715	2,010	8.64	Apr. 17	1030	556	4.49
Feb. 23	0200	1,210	6.54				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	2.5	7.2	3.0	17	59	5.1	4.5	3.1	3.5	6.9	9.7
2	4.7	4.0	2.8	3.1	12	29	5.4	4.5	3.1	4.1	8.1	6.3
3	4.2	3.5	3.0	3.2	44	21	5.6	5.2	2.8	3.9	7.1	4.5
4	4.7	2.7	2.4	3.4	29	23	5.6	5.1	3.1	4.4	7.1	4.0
5	4.0	2.5	2.3	3.5	18	187	5.2	5.2	3.2	4.6	7.0	4.0
6	4.0	1.9	2.4	3.2	12	48	5.6	15	3.7	4.4	6.6	3.8
7	4.5	46	2.6	3.3	9.1	47	5.6	21	4.2	4.5	6.7	4.1
8	4.1	31	2.8	3.2	7.5	162	5.6	17	4.6	4.3	5.6	3.4
9	3.8	7.3	2.8	3.0	8.4	86	6.2	5.1	4.4	4.6	4.5	3.0
10	3.9	8.4	3.4	3.4	114	34	6.1	6.5	4.4	4.8	4.3	2.3
11	3.1	5.1	2.5	26	362	21	6.5	5.2	3.4	4.7	4.6	1.5
12	2.8	3.7	2.9	5.2	640	14	7.4	5.2	3.1	5.6	5.1	1.2
13	3.6	3.6	2.9	4.7	635	11	30	5.4	2.8	5.9	4.9	.81
14	4.7	3.6	2.6	5.3	958	10	7.8	7.9	3.9	5.9	5.1	.85
15	4.7	7.8	2.8	11	254	8.2	7.1	68	4.0	5.9	5.8	.98
16	4.0	39	2.9	25	210	7.2	7.1	10	3.3	6.1	5.9	.86
17	4.5	15	2.6	18	112	6.3	212	5.7	3.0	6.0	6.2	.87
18	5.2	5.4	2.6	117	46	6.4	29	6.0	3.0	5.5	6.5	.84
19	3.8	81	2.6	27	24	5.7	10	4.7	2.8	6.1	5.9	1.2
20	4.3	17	3.0	9.8	52	5.7	8.5	4.2	3.2	5.5	5.8	1.3
21	3.5	9.3	2.9	5.9	101	5.8	7.0	4.4	3.6	4.7	6.3	1.1
22	3.5	6.3	3.1	4.2	139	6.0	6.8	4.5	3.2	4.9	6.3	1.2
23	4.0	4.1	3.3	81	705	5.3	5.3	4.2	2.9	5.0	6.1	1.3
24	3.7	3.9	3.4	990	114	5.5	4.7	3.5	2.7	6.0	5.7	3.1
25	3.5	2.8	3.3	347	38	5.4	4.9	3.0	2.8	5.3	5.9	4.1
26	2.0	2.5	3.4	41	45	5.0	4.7	3.0	2.7	5.6	5.9	5.4
27	2.5	2.4	3.5	20	526	4.7	4.5	3.0	3.0	5.1	6.1	5.2
28	11	2.6	3.6	12	104	4.8	4.6	2.9	3.4	6.4	6.1	4.3
29	2.4	2.9	3.2	9.3	133	5.8	4.4	2.9	3.4	6.5	5.4	4.3
30	2.5	6.9	3.2	148	---	7.0	4.8	2.9	3.6	6.9	5.3	4.5
31	2.6	---	2.9	53	---	5.4	---	3.0	---	6.5	5.6	---
TOTAL	123.2	334.7	94.9	1992.7	5469.0	852.2	433.1	248.7	100.4	163.2	184.4	90.01
MEAN	3.97	11.2	3.06	64.3	189	27.5	14.4	8.02	3.35	5.26	5.95	3.00
MAX	11	81	7.2	990	958	187	212	68	4.6	6.9	8.1	9.7
MIN	2.0	1.9	2.3	3.0	7.5	4.7	4.4	2.9	2.7	3.5	4.3	.81
AC-FT	244	664	188	3950	10850	1690	859	493	199	324	366	179

11336580 MORRISON CREEK NEAR SACRAMENTO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.2	20.9	26.5	59.5	72.8	31.8	15.0	6.31	5.62	6.15	5.86	6.23
MAX	77.8	67.5	106	212	415	213	91.4	17.6	8.71	17.6	12.4	21.9
(WY)	1963	1982	1984	1969	1986	1983	1982	1998	1970	1974	1959	1981
MIN	2.59	3.16	3.06	4.24	6.26	6.72	2.45	3.68	2.62	2.09	2.37	3.00
(WY)	1978	1960	2000	1976	1964	1960	1977	1979	1977	1977	1977	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1959 - 2000	
ANNUAL TOTAL	5038.23		10086.51			
ANNUAL MEAN	13.8		27.6		21.9	
HIGHEST ANNUAL MEAN					59.6	1983
LOWEST ANNUAL MEAN					4.76	1977
HIGHEST DAILY MEAN	561	Feb 9	990	Jan 24	1940	Jan 5 1982
LOWEST DAILY MEAN	.93	Sep 20	.81	Sep 13	.00	Jul 12 1960
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 16	.92	Sep 12	.07	Jul 11 1960
INSTANTANEOUS PEAK FLOW			2010	Feb 14	2730	Feb 17 1986
INSTANTANEOUS PEAK STAGE			8.64	Feb 14	10.40	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	9990		20010		15880	
10 PERCENT EXCEEDS	21		40		33	
50 PERCENT EXCEEDS	4.6		4.9		5.9	
90 PERCENT EXCEEDS	2.7		2.7		3.0	

11336585 LAGUNA CREEK NEAR ELK GROVE, CA

LOCATION.—Lat 38°25'24", long 121°21'08", in NE 1/4 NE 1/4 sec.31, T.7 N., R.6 E., Sacramento County, Hydrologic Unit 18020109, on left bank, 50 ft downstream from bridge on Waterman Road, at intersection with Bond Road, and 1 mi northeast of Elk Grove.

DRAINAGE AREA.—31.9 mi^2.

PERIOD OF RECORD.—October 1995 to current year.

GAGE.—Water-stage recorder. Datum of gage is 40 ft above sea level, from topographic map.

REMARKS.—Records good except for discharges during period of beaver activity downstream of station, Oct. 1, 1999, through Jan. 13, 2000, and those below 1 ft^3/s, which are poor. Station is located 7.8 mi upstream of Morrison Creek. Low flow sustained by residential and agricultural wastewater.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,020 ft^3/s, Jan. 23, 1997, gage height, 7.54 ft; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than a base discharge of 500 ft^3/s, or maximum:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	0100	790	6.00	Feb. 23	1345	705	5.85
Feb. 12	1600	923	6.21	Feb. 27	1830	547	5.53

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	.25	.05	.00	10	79	.08	.21	.35	.38	.07	.72
2	.83	.28	.05	.00	6.2	21	.06	.20	.05	.39	.22	.69
3	1.3	.25	.06	.00	5.0	11	.04	.21	.01	.25	.19	.45
4	1.2	.21	.09	.00	30	8.5	.05	.24	.00	.13	.46	.42
5	1.4	.18	.09	.00	15	52	.13	.35	.00	.09	1.9	.43
6	1.2	.16	.07	.00	7.0	65	.13	.50	.01	.04	2.6	.33
7	.95	.15	.07	.00	4.7	15	.13	.64	.02	.04	1.9	.52
8	1.0	.60	.07	.00	3.3	120	.22	1.1	.14	.06	2.2	.43
9	.83	.69	.07	.00	3.1	97	.74	.91	.38	.54	1.9	.22
10	1.1	.53	.09	.00	29	28	1.3	.80	.53	.58	1.7	.11
11	1.1	.46	.08	.00	262	10	.79	.49	.38	.35	1.4	.14
12	.84	.42	.07	.00	696	6.6	.19	.31	.43	.12	1.2	.10
13	.76	.33	.07	.00	424	4.6	.06	.45	.35	.06	1.2	.31
14	1.2	.11	.07	.00	697	3.3	.41	1.4	.27	.20	1.8	.24
15	1.1	.09	.06	.00	225	2.6	.18	.77	.29	1.3	1.8	.30
16	.85	.09	.05	.00	87	2.1	.00	1.7	.29	.81	1.4	.56
17	.66	.08	.05	.00	109	1.9	3.8	1.5	.25	.60	.98	.52
18	.77	.07	.05	7.5	31	1.5	2.1	1.5	.18	.58	.41	.39
19	.78	.25	.05	6.1	12	1.4	.71	.64	.15	.22	.23	.35
20	.59	.81	.05	3.5	8.9	1.3	.10	.33	.15	.11	.19	.24
21	.51	.63	.04	2.1	79	1.0	.02	.29	.15	.37	.11	.14
22	.50	.54	.04	1.5	57	.73	.00	.24	.15	.66	.04	.03
23	.56	.41	.04	6.6	597	.68	.00	.17	.17	.43	.13	.05
24	.60	.26	.03	357	143	.68	.00	.11	.18	.11	.18	.15
25	.61	.14	.03	574	35	.61	.00	.06	.21	.03	.19	.50
26	.61	.08	.02	85	14	.54	.00	.03	.22	.07	.27	1.1
27	.52	.07	.00	18	397	.53	.00	.03	.16	.01	.13	1.8
28	.60	.07	.02	9.0	146	.41	.00	.07	.26	.01	.09	1.5
29	.40	.06	.01	7.6	81	.25	.00	.09	.27	.09	.12	2.2
30	.33	.05	.00	11	---	.15	.06	.08	.25	.28	.41	1.4
31	.26	---	.00	20	---	.09	---	.26	---	.22	.80	---
TOTAL	24.38	8.32	1.54	1108.90	4214.2	537.47	11.30	15.68	6.25	9.13	26.22	16.34
MEAN	.79	.28	.050	35.8	145	17.3	.38	.51	.21	.29	.85	.54
MAX	1.4	.81	.09	574	697	120	3.8	1.7	.53	1.3	2.6	2.2
MIN	.26	.05	.00	.00	3.1	.09	.00	.03	.00	.01	.04	.03
AC-FT	48	17	3.1	2200	8360	1070	22	31	12	18	52	32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

MEAN	.41	.75	21.5	72.5	122	10.2	3.23	.93	.25	.40	.71	.70
MAX	.79	1.67	92.1	206	263	21.9	8.91	2.24	.55	.72	1.20	.95
(WY)	2000	1998	1997	1997	1998	1996	1998	1998	1997	1999	1997	1996
MIN	.000	.000	.050	7.47	3.51	.000	.38	.13	.000	.000	.048	.26
(WY)	1996	1996	2000	1999	1997	1997	2000	1999	1996	1996	1996	1997

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	3061.73		5979.73			
ANNUAL MEAN	8.39		16.3		18.9	
HIGHEST ANNUAL MEAN					29.6	1998
LOWEST ANNUAL MEAN					8.59	1999
HIGHEST DAILY MEAN	522	Feb 9	697	Feb 14	1530	Feb 3 1998
LOWEST DAILY MEAN	.00	Jan 1	.00	Dec 27	.00	Oct 1 1995
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Dec 30	.00	Oct 1 1995
INSTANTANEOUS PEAK FLOW			923	Feb 12	2020	Jan 23 1997
INSTANTANEOUS PEAK STAGE			6.21	Feb 12	7.54	Jan 23 1997
ANNUAL RUNOFF (AC-FT)	6070		11860		13710	
10 PERCENT EXCEEDS	10		10		15	
50 PERCENT EXCEEDS	.34		.33		.33	
90 PERCENT EXCEEDS	.00		.02		.00	

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 September 1987, October 1993 to current year.

GAGE.—Water-stage recorder and acoustic-velocity meter. From Jan. 1, 1953, to Sept. 30, 1993, recording flow meters on pumps. Prior to Jan. 1, 1953, water-stage recorder at site 3.2 mi downstream at datum 121.72 ft above sea level (levels by U.S. 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. See schematic diagram of Sacramento–San Joaquin Delta.

COOPERATION.—Records of daily discharge were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 436 ft^3/s, Aug. 19, 1995; no flow, on some days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	85	100	.00	145	1	317	146	333	327	243	230
2	64	118	106	2	183	1	304	142	401	297	249	257
3	56	117	72	74	246	2	327	114	352	307	180	246
4	76	117	60	160	279	1	316	142	395	326	55	252
5	85	97	57	230	281	1	327	151	388	314	103	255
6	119	62	63	252	277	3	334	161	396	328	123	255
7	120	61	45	246	248	1	346	159	395	238	146	238
8	111	61	38	249	201	33	361	59	368	219	244	268
9	117	61	38	249	218	63	366	3	386	219	269	275
10	121	62	25	249	261	60	369	2	397	272	266	275
11	120	63	38	269	299	60	380	3	401	346	253	282
12	121	61	38	291	275	71	377	3	396	350	232	286
13	119	62	39	239	264	61	374	3	346	356	229	286
14	120	61	40	219	260	60	381	3	275	326	233	265
15	119	66	40	280	125	78	358	1	230	259	245	150
16	119	65	40	279	72	176	248	3	312	238	243	233
17	118	66	40	250	70	287	220	3	390	236	252	235
18	119	63	40	102	72	300	129	6	394	239	279	237
19	119	60	34	101	78	293	120	3	364	232	292	229
20	119	60	27	100	81	209	121	3	328	235	313	232
21	119	60	.00	98	75	283	111	4	332	235	316	223
22	93	81	.00	100	33	301	108	3	337	241	289	221
23	62	99	2	94	4	300	101	122	345	239	302	208
24	62	76	.00	83	.00	305	113	193	342	240	311	207
25	62	99	2	90	.00	300	129	195	338	259	310	185
26	63	101	.00	87	3	313	143	206	339	250	309	132
27	64	99	27	87	1	298	151	206	290	242	311	90
28	61	101	40	107	1	286	152	206	280	239	306	82
29	66	78	41	145	3	297	151	207	337	235	273	85
30	62	100	21	140	---	308	157	207	325	239	234	108
31	64	---	.00	140	---	257	---	204	---	245	207	---
TOTAL	2910	2362	1113.00	5012.00	4055.00	5009	7391	2863	10512	8328	7617	6527
MEAN	93.9	78.7	35.9	162	140	162	246	92.4	350	269	246	218
MAX	121	118	106	291	299	313	381	207	401	356	316	286
MIN	56	60	.00	.00	.00	1.0	101	1.0	230	219	55	82
AC-FT	5770	4690	2210	9940	8040	9940	14660	5680	20850	16520	15110	12950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2000, BY WATER YEAR (WY)

MEAN	116	89.7	73.3	70.0	69.5	74.8	99.5	126	165	178	178	149
MAX	305	218	213	182	167	185	246	238	350	339	398	359
(WY)	1995	1995	1995	1995	1995	1988	2000	1987	2000	1995	1995	1995
MIN	36.5	3.17	18.8	10.2	6.79	17.9	23.6	8.23	46.9	56.6	59.0	18.3
(WY)	1953	1998	1998	1998	1998	1951	1950	1999	1952	1952	1952	1999

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1950 - 2000	
ANNUAL TOTAL	27280.00		63699.00			
ANNUAL MEAN	74.7		174		117	
HIGHEST ANNUAL MEAN					253	1995
LOWEST ANNUAL MEAN					41.0	1952
HIGHEST DAILY MEAN	234	Jul 25	401	Jun 2	436	Aug 19 1995
LOWEST DAILY MEAN	.00	Jan 1	.00	Dec 21	.00	Mar 2 1994
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 5	1.3	Feb 24	.00	Jan 5 1999
ANNUAL RUNOFF (AC-FT)	54110		126300		84960	
10 PERCENT EXCEEDS	190		329		214	
50 PERCENT EXCEEDS	60		154		102	
90 PERCENT EXCEEDS	.00		5.4		41	

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the U.S. Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low- or flood-flow analyses, depending on the type of data collected.

Discharge measurements made at miscellaneous sites during water year 2000

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		CARSON RIVER BASIN				
103087898	Aspen Creek above Leviathan Creek, near Markleeville, CA	Lat 38°42'02", long 119°39'30", in NE 1/4 NW 1/4 sec.15, T.10 N., R.21 E., Alpine County, Hydrologic Unit 16050201, 3.2 mi north of Highway 89 and 6.5 mi east of Markleeville	0.92	1999–2000	10-13-99	0.37
					12-03-99	.27
					12-27-99	.31
					01-27-00	.62
					02-25-00	.49
					03-27-00	.39
					04-19-00	.41
					05-24-00	.33
					06-26-00	.26
					07-20-00	.17
					08-29-00	.20
					09-28-00	.22

Records collected at crest-stage partial-record stations are presented in the following table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage station is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current year is given. Information on some lower floods may have been obtained but is not published here. The years given in the period of record represent water years for which the annual maximum has been obtained.

Annual maximum discharge at crest-stage partial-record stations during water year 2000

Station number	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		TULARE LAKE BASIN					
11205690	Lewis Creek near Lindsay, CA	Lat 36°11'10", long 118°59'27", in NW 1/4 SW 1/4 sec.18, T.20 S., R.28 E., Tulare County, Hydrologic Unit 18030012, 0.3 mi upstream from culvert on Road 258, 40 ft upstream from unnamed tributary, and 7.03 mi southeast of the town of Lindsay.	21.5	1969a, 1974–00	03-05-00	23.45	442

a Published as a miscellaneous measurement.

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