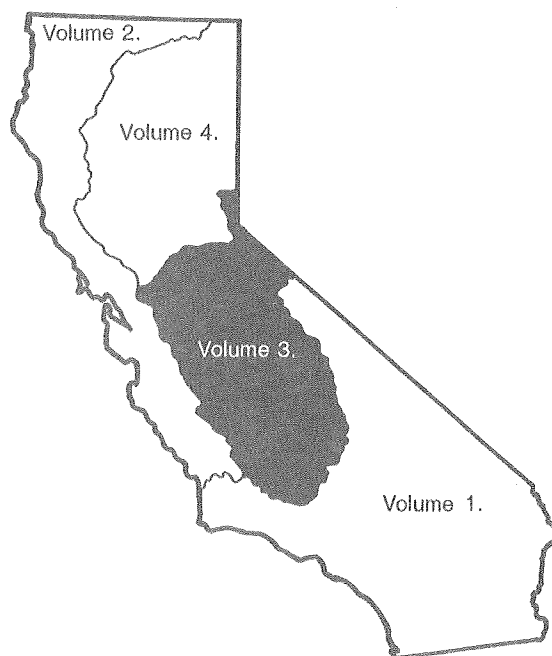


Water Resources Data California Water Year 1995

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-95-3
Prepared in cooperation with the California Department of
Water Resources and with other agencies

CALENDAR FOR WATER YEAR 1995

1994

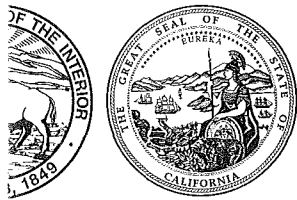
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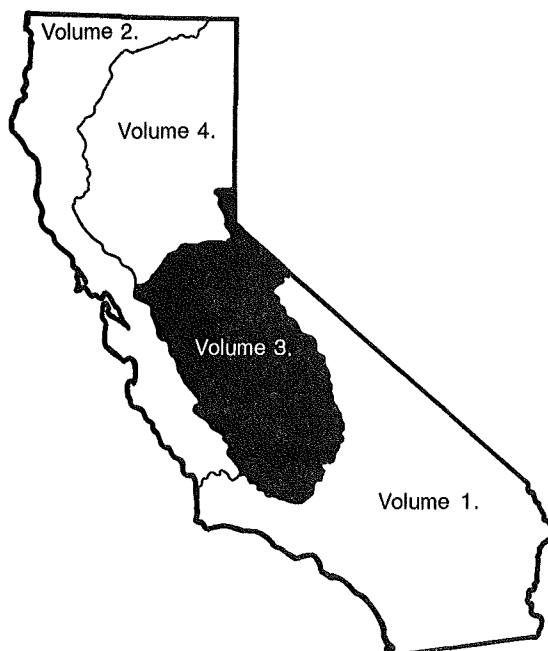
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Water Resources Data California Water Year 1995

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

by P.D. Hayes, G.L. Rockwell, and S.W. Anderson



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-95-3
Prepared in cooperation with the California Department of
Water Resources and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

For information on the water program in California write to:
District Chief, Water Resources Division
U.S. Geological Survey
Federal Building, Room W-2233
2800 Cottage Way
Sacramento, California 95825

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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WATER RESOURCES DIVISION

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James C. Bowers, Assistant Chief, Operations

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

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

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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 WATSTORE 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
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
10336759	Edgewood Creek near Stateline, NV	3.20	1983-87
10338000	Truckee River near Truckee	553	1944-61, 1977-82, 1992-95
10342000	Little Truckee River near Hobart Mills	37.1	1947-72
10343200	Little Truckee River at Highway 89 near Truckee	59.0	1993-94
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 Olancho	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	1945-80
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
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
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

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
11211790	Cottonwood Creek near Elderwood	60.4	1971-85
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
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
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
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
11254000	San Joaquin River near Mendota	3,940	1940-54
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 Nippinawassee	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

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
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
11261100	Salt Slough at Highway 165, near Stevinson	--	1986-94
11261500	San Joaquin River at Fremont Ford Bridge	7,615	1937-70, 1986-89
11262800	Los Banos Creek near Los Banos	159	1959-66
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
11274560	Turlock Irrigation District Lateral No. 5 near Patterson	--	1992-95
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
11278500	Jawbone Creek near Tuolumne	19.1	1911
11279500	South Fork Tuolumne 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
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
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
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	1951-59
11307500	Jesus Maria Creek near Mokelumne Hill	34.6	1950-59
11308000	North Fork Calaveras River near San Andreas	85.2	1950-79
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

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
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
11325500	Mokelumne River at Woodbridge	661	1924-94
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
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
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 McConnell	724	1942-82
11336500	Hadselville Creek at Clay	18.1	1931
11336580	Morrison Creek near Sacramento	53.4	1959-87
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 WATSTORE 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 WATER-QUALITY STATIONS

The following continuous water-quality stations in California have been discontinued. Daily records were collected and are stored in WATSTORE 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	T,WQ,S	1975-95
10339380	Martis Creek Lake near Truckee	39.6	WQ,S	1975-95
10339400	Martis Creek near Truckee	--	WQ,S	1975-95
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
10343500	Sagehen Creek near Truckee	10.5	T	1970-74
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	C	1958-63, 1972, 1979-81
11208000	Marble Fork Kaweah River at Potwisha Camp	51.4	C	1962-72, 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	T	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
11204900	Tule River below Success Dam	393	WQ,T	1962-69, 1971-94
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
11261100	Salt Slough at Highway 165, near Stevinson	--	WQ,C,T,S	1989-94
11262900	Mud Slough near Gustine	--	WQ,S	1989-94
11264500	Merced River at Happy Isles Bridge, near Yosemite	181	B,T	1966-93
11266500	Merced River at Pohono Bridge, near Yosemite	321	T	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
11274538	Orestimba Creek at River Road, near Crows Landing	--	WQ,S	1992-95

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi ²)	Type of record	Period of record
11274554	Spanish Grant Combined Drain near Patterson	--	WQ,S,C,T	1993-95
11274560	Turlock Irrigation District Lateral No. 5 near Crows Landing	--	WQ,S,C,T	1992-95
11274570	San Joaquin River at Patterson Bridge	9,760	WQ,S	1993-94
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
11295400	Stanislaus River near Hathaway Pines	629	T	1970-83
11303000	Stanislaus River at Ripon	1,075	WQ,S,C,T	1989, 1993-94
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	1961-79
11323500	Mokelumne River below Camanche Dam	627	WQ,T,S	1906-07, 1956-76
11325500	Mokelumne River at Woodbridge	661	B,C,T, S,WQ	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).

WATER RESOURCES DATA--CALIFORNIA, WATER YEAR 1995

VOLUME 3--SOUTHERN CENTRAL VALLEY BASINS AND THE GREAT BASIN

FROM WALKER RIVER TO TRUCKEE RIVER

By P.D. Hayes, G.L. Rockwell, and S.W. Anderson

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 167 streamflow-gaging stations, 1 crest-stage partial-record streamflow station; (2) stage and contents records for 42 lakes and reservoirs; (3) water-quality records for 76 streamflow-gaging stations and 6 partial-record stations; and (4) precipitation records for 2 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. Beginning with the 1985 water year, 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 the principal cities of the United States and may be purchased from U.S. Geological Survey, Map Distribution, Box 25286, MS 306, Denver Federal Center, Denver, CO 80225.

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-95-3." 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 in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, 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 (916) 979-2605.

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:

Calaveras County Water District, Steve Felte, General Manager.
 California Department of Water Resources, David N. Kennedy, Director.
 East Bay Municipal Utility District, Thomas Linville, Manager, Water Operations.
 Madera Irrigation District, Robert L. Stanfield, General Manager-Chief Engineer.
 Merced Irrigation District, Ross Rogers, General Manager.
 San Francisco, City and County, Hetch-Hetchy Water and Power, Lawrence T. Klein, General Manager of Public Utilities.
 Tulare County Flood Control District, Douglas C. Wilson, Public Works Director.
 Turlock Irrigation District, Wes Monier, Electric Utility Administrator.
 Woodbridge Irrigation District, Andy Christensen, Manager-Secretary.

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.

The following organizations aided in collecting records: Calaveras County Water District; Olcese Water District; Pacific Gas & Electric Co.; Southern California Edison Co.; Turlock Irrigation District; and Merced and Oakdale-South San Joaquin Irrigation Districts.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 53 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 the activities of man.

National Stream-Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 142 sites in NASQAN are located generally at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for; (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) to detect changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) to provide a nationally consistent database useful for water-quality assessment and hydrologic research.

NASQAN was redesigned in 1995 and will be known as NASQAN II beginning in 1996. NASQAN II will focus on four of the largest river basins in the Nation--the Mississippi, the Columbia, the Colorado, and the Rio Grande. The objective of NASQAN II 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 remobilization 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 Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of wet atmospheric deposition, which includes snow, rain, sleet and hail. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (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, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in about two-thirds of the study units and ultimately will be conducted in 60 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.

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

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1995 water year that began October 1, 1994, and ended September 30, 1995. 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 11218500, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "218500." 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 (fig. 1). 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.

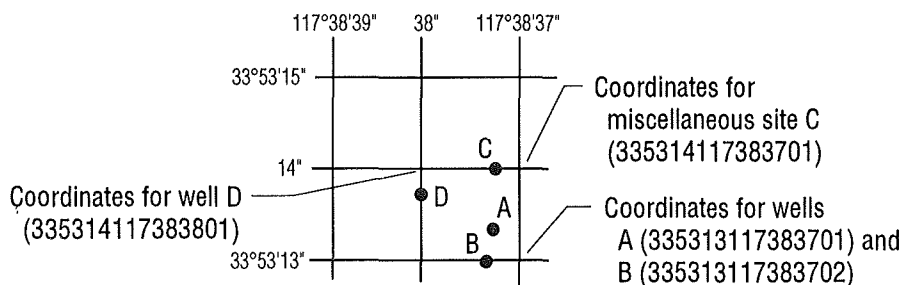


Figure 1. System for numbering miscellaneous sites (latitude and longitude).

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 and crest-stage partial-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 relationships 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 relationship 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 analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes 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, Chapter A6.

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 records, 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 1992 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 to follow 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 in current use, the datum of the current gage referred to sea level (see Definition of Terms), 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, 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. The minimum for the current water year appears below the table of peak data.

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 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. 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 to follow 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 equal 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 (INCHES) 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 $1 \text{ ft}^3/\text{s}$, to the nearest tenth between 1.0 and $10 \text{ ft}^3/\text{s}$, to whole numbers between 10 and $1,000 \text{ ft}^3/\text{s}$, and to three significant figures for more than $1,000 \text{ ft}^3/\text{s}$. 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 22092, 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. 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 in-situ 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 in-situ 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 (1995) 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 ($\mu\text{g/L}$) 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 the 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 Techniques of Water-Resources Investigations (TWRI's) Book 3, Chapters C1 and C3. These methods are consistent with American Society for Testing and Materials (ASTM) standards and generally follow International Organization for Standards (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 the suspended sediment and bed material are included for some stations.

Cross-Sectional Data

Cross-sectional surveys of water temperature, pH, specific conductance, dissolved oxygen, and suspended sediment are done at all NASQAN and Hydrologic benchmark stations during various seasons and surface-water discharges. Documentation of cross-sectional variations 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, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance 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 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.

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, WATSTORE, 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 WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products ranging from data tables to complex statistical analyses, such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- * Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * Daily Values File - Contains more than 220 million daily values of streamflows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- * Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- * Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data include site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, VA 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5 1/4-inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District Offices. (See address on the back of the title page.)

DEFINITION OF TERMS

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

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

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 measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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.

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. For the membrane filter method, these bacteria are defined as the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C \pm 0.5°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter 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. For the membrane filter method, they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C \pm 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

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

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

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

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m³) and periphyton and benthic organisms are expressed in grams per square meter (g/m²).

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 values are expressed in the same units as ash mass.

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

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

Bottom material: See Bed material.

Cell-volume 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 (that is, 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 (that is, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

From cell volume, total algal biomass expressed as biovolume ($\pi\text{m}^3/\text{mL}$) 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.

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

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

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

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

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

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

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

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

Cubic foot per second-day (cfs/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, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic meters.

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

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

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

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water 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.)

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. It is recognized that certain kinds of samples cannot be filtered; to provide for this, procedures that are considered equivalent to filtering through a 0.45-micrometer membrane filter will be identified and announced at a later date.

Dissolved-solids concentration of water is determined either analytically or by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the 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 0.492 to reflect the change.

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

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

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

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

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap that is required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO₃).

Hydrologic Benchmark Network is a network of 56 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 the activities of man.

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

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

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

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

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

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

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

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

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

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

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

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) 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.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 142 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for, (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes in trends with time in the pattern occurrence of water-quality characteristics, and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

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

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

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

Parameter code is a five-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in 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 recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

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

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

Periphyton is the assemblage of micro-organisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, the periphyton also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

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

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

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

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

Blue-green algae are phytoplankton organisms with 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.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells 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 (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

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

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3 \cdot \text{time})$ for phytoplankton] are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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

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; 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.

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 both the United States and Canada, formerly called Sea Level Datum of 1929.

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

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

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

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

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

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

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

Suspended-sediment load (tons per day) is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

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

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of 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 concentration in water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 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.

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

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

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

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

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

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

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

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Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata
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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 indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

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

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

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

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

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

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, 1995, is called the "1995 water year."

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

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.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to 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 "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. Water temperature--influential factors, field measurement, and data presentation, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. Application of surface geophysics to ground-water investigations, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. Application of seismic-refraction techniques to hydrologic studies, by F.P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. Application of borehole geophysics to water-resources investigations, by W.S. Keys, and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. Borehole geophysics applied to ground-water investigations, by W.S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 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 pages.
- 3-A1. General field and office procedures for indirect discharge measurements, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. Measurement of peak discharge at culverts by indirect methods, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. Measurement of peak discharge at width contractions by indirect methods, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. General procedure for gaging streams, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. Stage measurements at gaging stations, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. Discharge measurements at gaging stations, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. Measurement of time of travel in streams by dye tracing, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. Discharge ratings at gaging stations, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. Measurement of discharge by moving-boat method, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-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 pages.
- 3-A13. Computation of continuous records of streamflow, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. Use of flumes in measuring discharge, by F.A. Kilpatrick and V.R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. Computation of water-surface profiles in open channels, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. Measurement of discharge using tracers, by F.A. Kilpatrick and E.D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

- 3-A17. Acoustic velocity meter systems, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 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 pages.
- 3-A19. Levels at streamflow gaging stations, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.
- 3-A20. Simulation of soluble waste transport and buildup in surface waters using tracers, by F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-A21. Stream-gaging cableways, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.
- 3-B1. Aquifer-test design, observation, and data analysis, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. Introduction to ground-water hydraulics, a programmed text for self-instruction, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. Type curves for selected problems of flow to wells in confined aquifers, by J.E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. Regression modeling of ground-water flow, by R.L. Cooley and R.L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 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 pages.
- 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 pages.
- 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 pages.
- 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 pages.
- 3-C1. Fluvial sediment concepts, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. Field methods for measurement of fluvial sediment, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. Some statistical tools in hydrology, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. Frequency curves, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. Low-flow investigations, by H.C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. Storage analyses for water supply, by H.C. Riggs and C.H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. Regional analyses of streamflow characteristics, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. Computation of rate and volume of stream depletion by wells, by C.T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. Methods for determination of inorganic substances in water and fluvial sediments, by M.J. Fishman and L.C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. Determination of minor elements in water by emission spectroscopy, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. Methods for the determination of organic substances in water and fluvial sediments, by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe, editors: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 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 pages.
- 5-A5. Methods for determination of radioactive substances in water and fluvial sediments, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-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 pages.
- 5-C1. Laboratory theory and methods for sediment analysis, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 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 pages.

- 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 pages.
- 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 pages.
- 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 pages.
- 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 pages.
- 7-C1. Finite difference model for aquifer simulation in two dimensions with results of numerical experiments, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. Computer model of two-dimensional solute transport and dispersion in ground water, by L.F. Konikow and J.D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. A model for simulation of flow in singular and interconnected channels by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. Methods of measuring water levels in deep wells, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. Installation and service manual for U.S. Geological Survey manometers, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. Calibration and maintenance of vertical-axis type current meters, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

EXPLANATION

- ▲ GAGING STATION
 ◆ GAGING AND WATER-QUALITY
 (TEMPERATURE, SEDIMENT)
 STATION

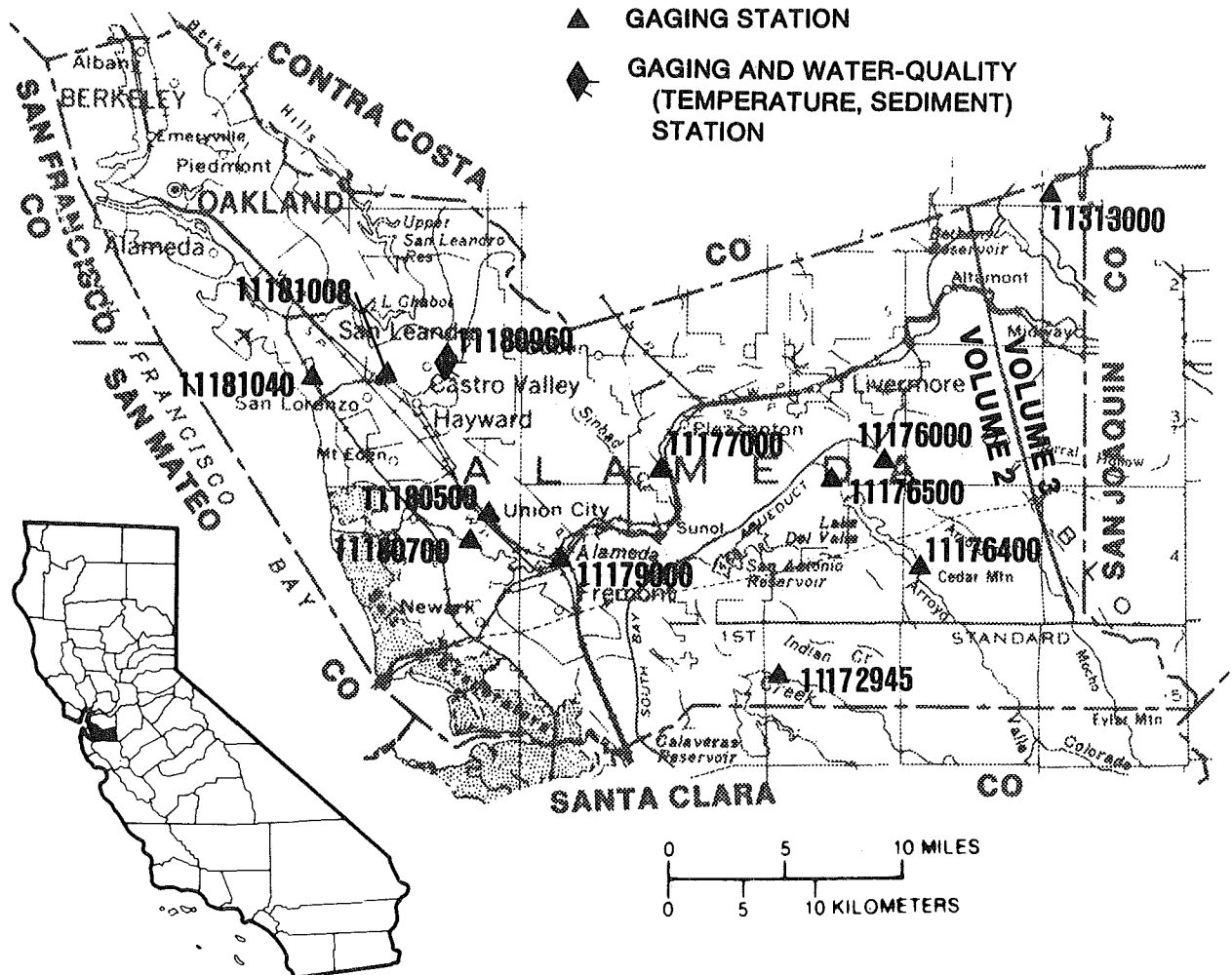


Figure 2. Location of discharge and water-quality stations in Alameda County.
 (NOTE: Records for stations 11176000 through 11181040 published in volume 2.)

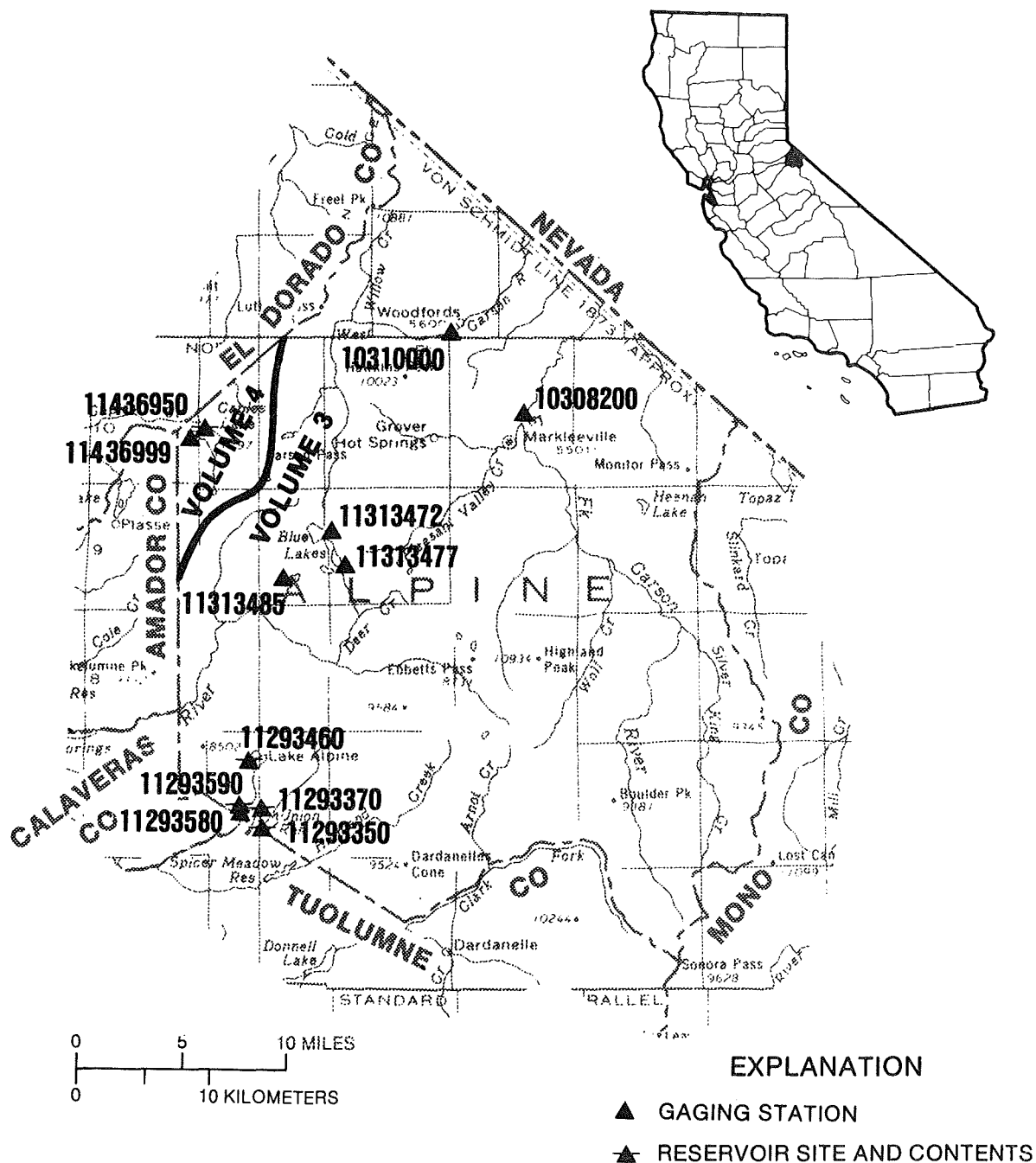


Figure 3. Location of discharge stations in Alpine County.
 (NOTE: Station 10297000 in Douglas County, Nevada, not shown on this map. Record for stations 11436950 and 11436999 published in volume 4.)

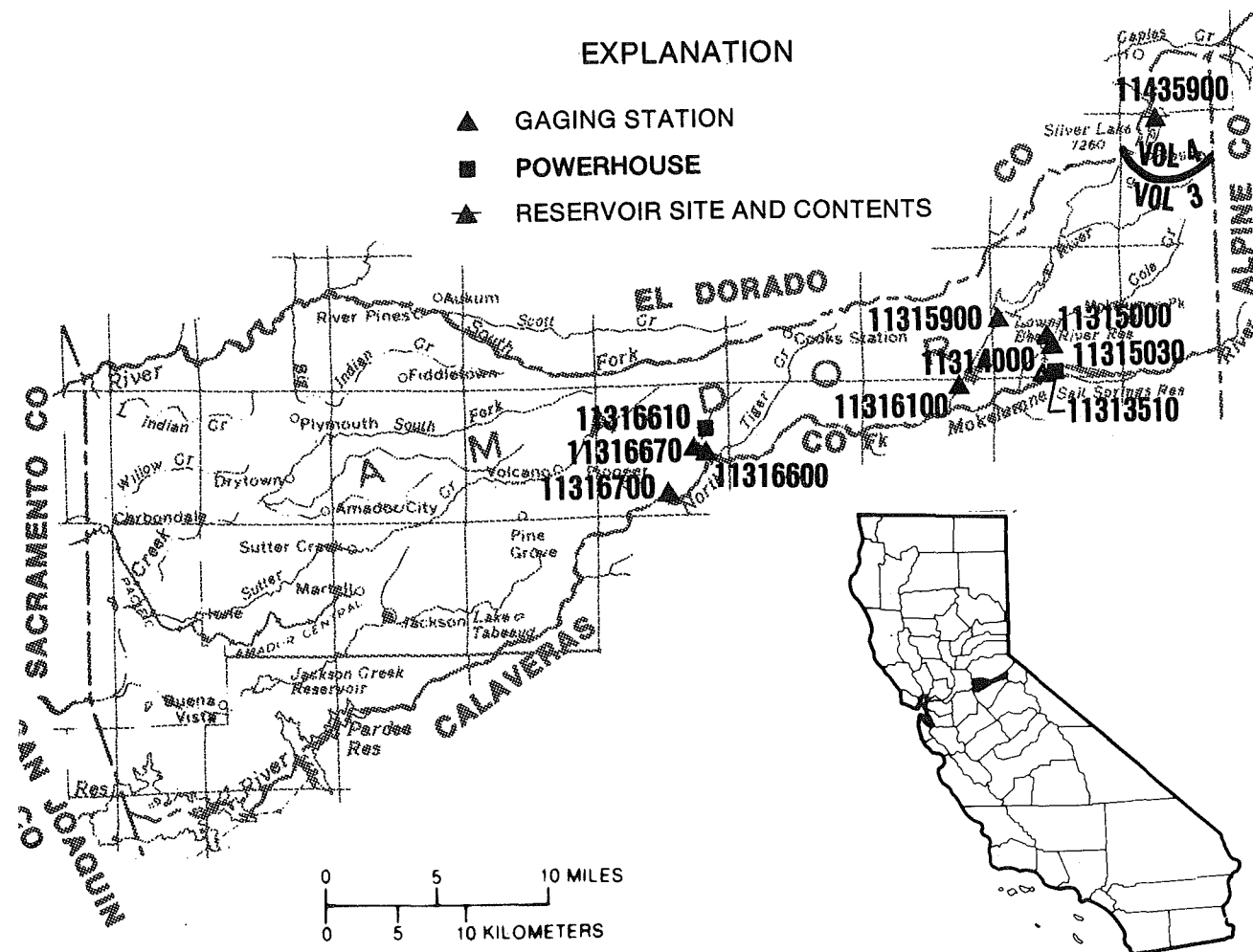


Figure 4. Location of discharge stations in Amador County.
(NOTE: Record for station 11435900 published in volume 4.)

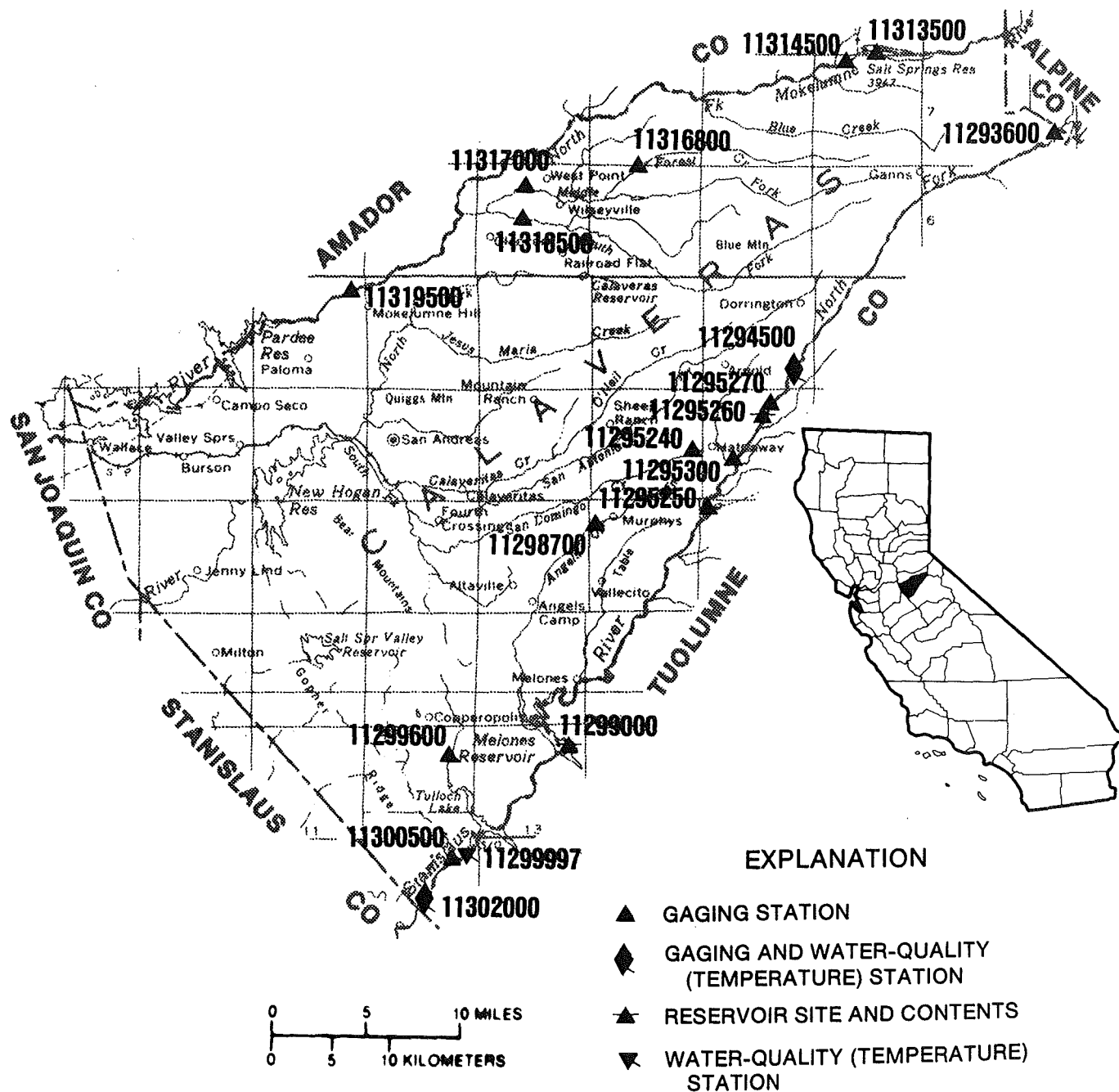


Figure 5. Location of discharge and water-quality stations in Calaveras County.

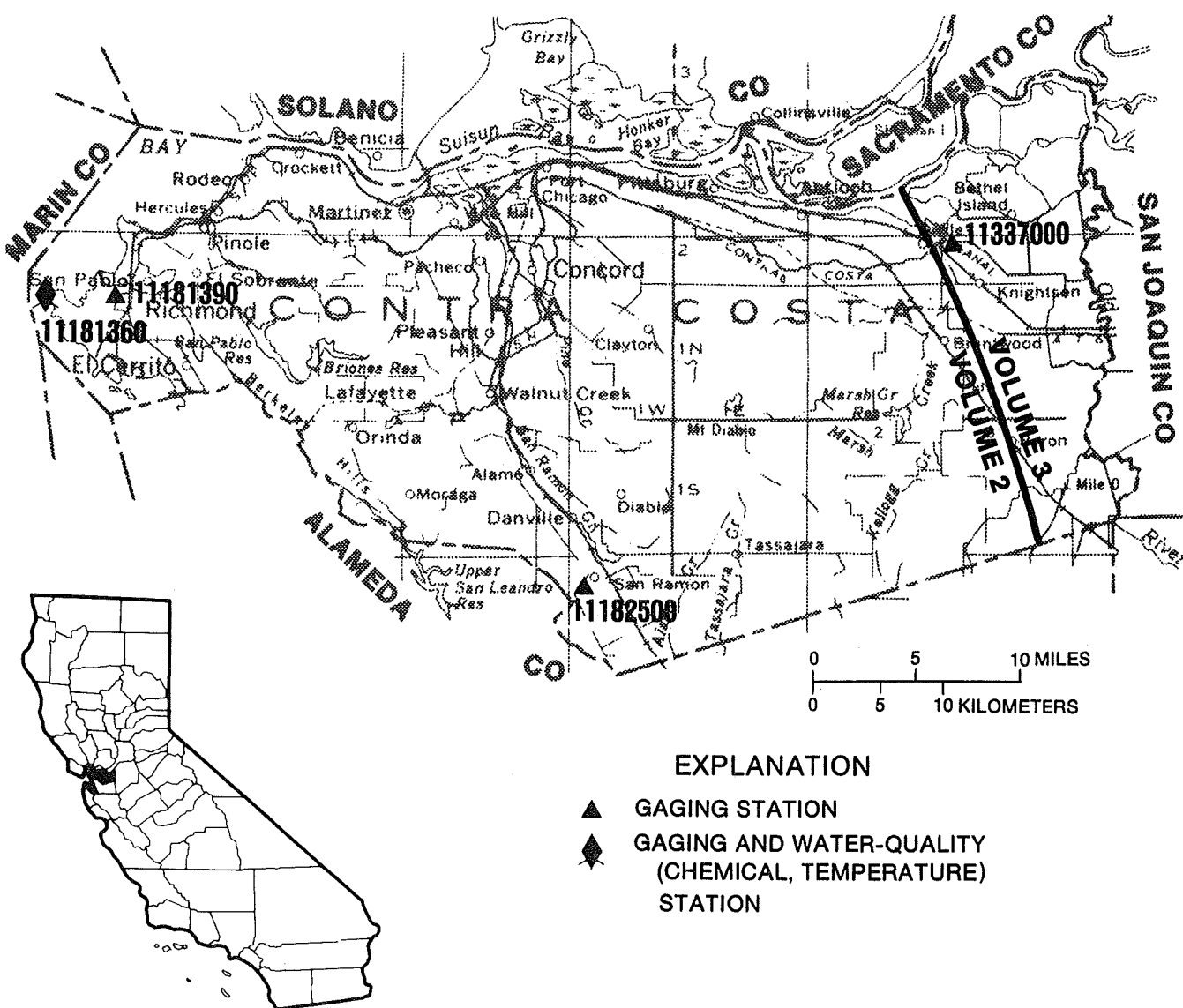
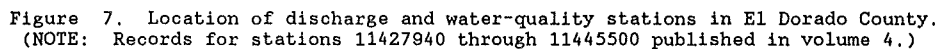


Figure 6. Location of discharge and water-quality stations in Contra Costa County.
 (NOTE: Records for stations 11181360 through 11182500 published in volume 2.)



(NOTE: Records for stations 11427940 through 11445500 published in volume 4.)

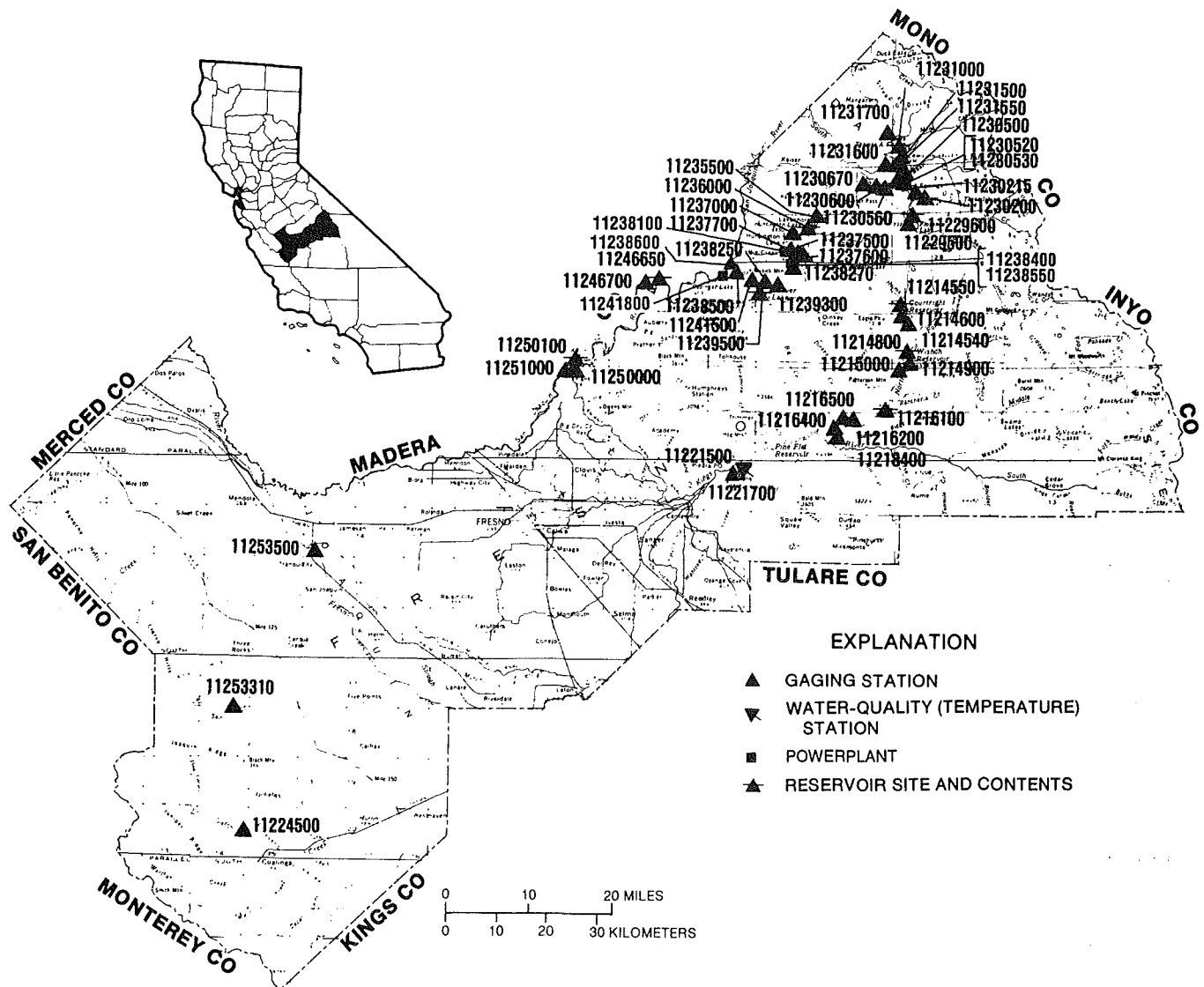


Figure 8. Location of discharge and water-quality stations in Fresno County.

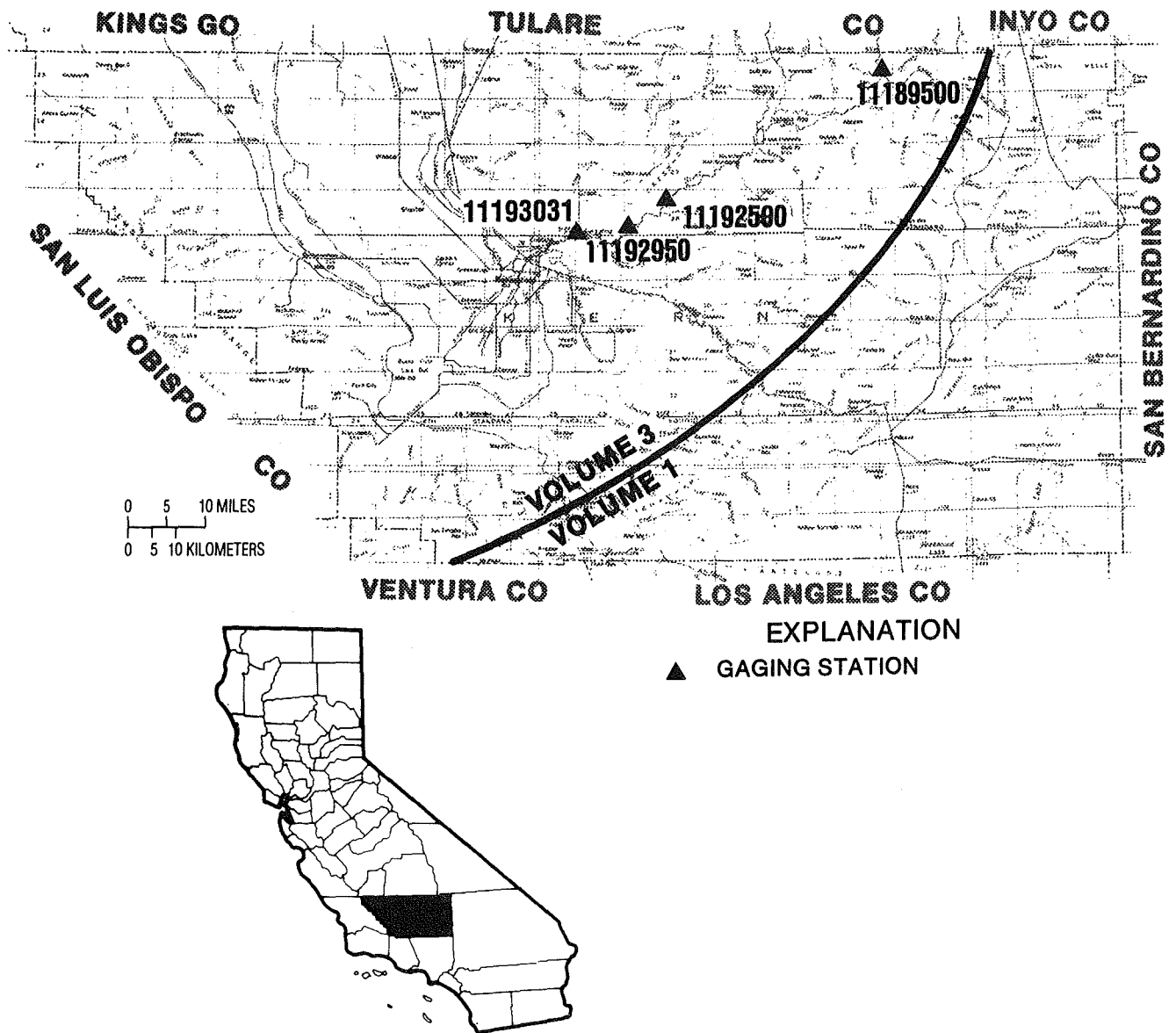
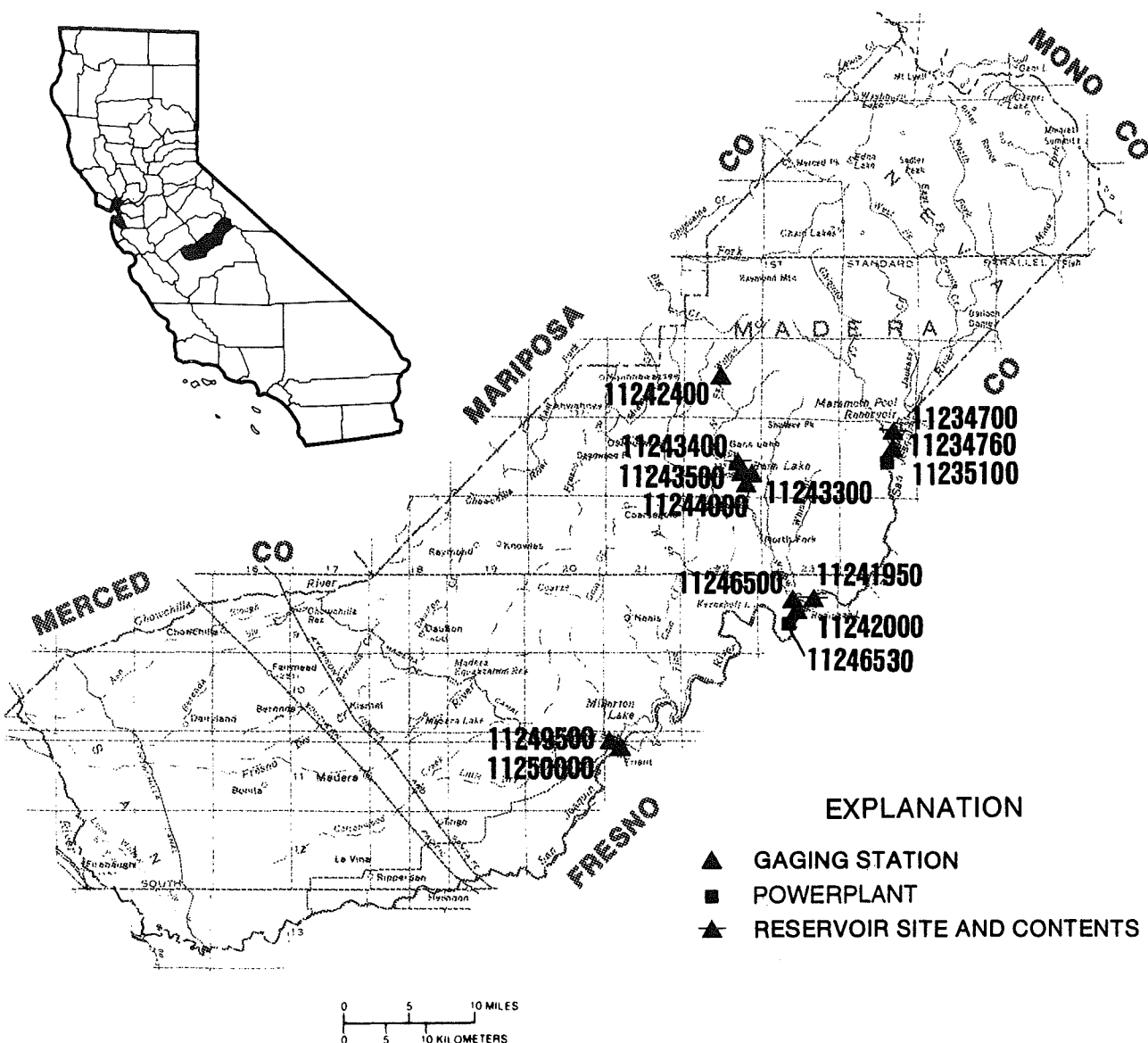


Figure 9. Location of discharge stations in Kern County.



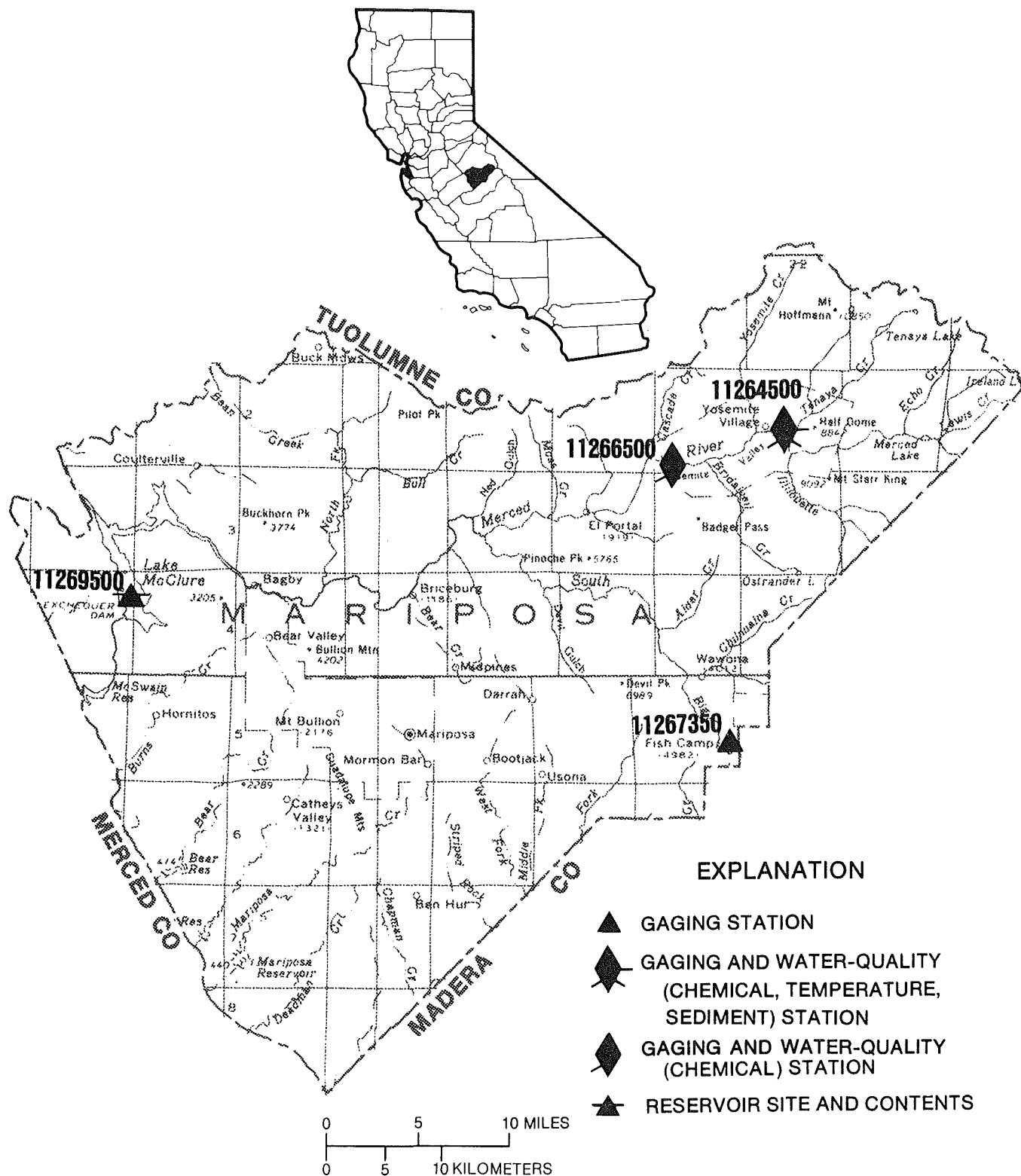


Figure 11. Location of discharge and water-quality stations in Mariposa County.

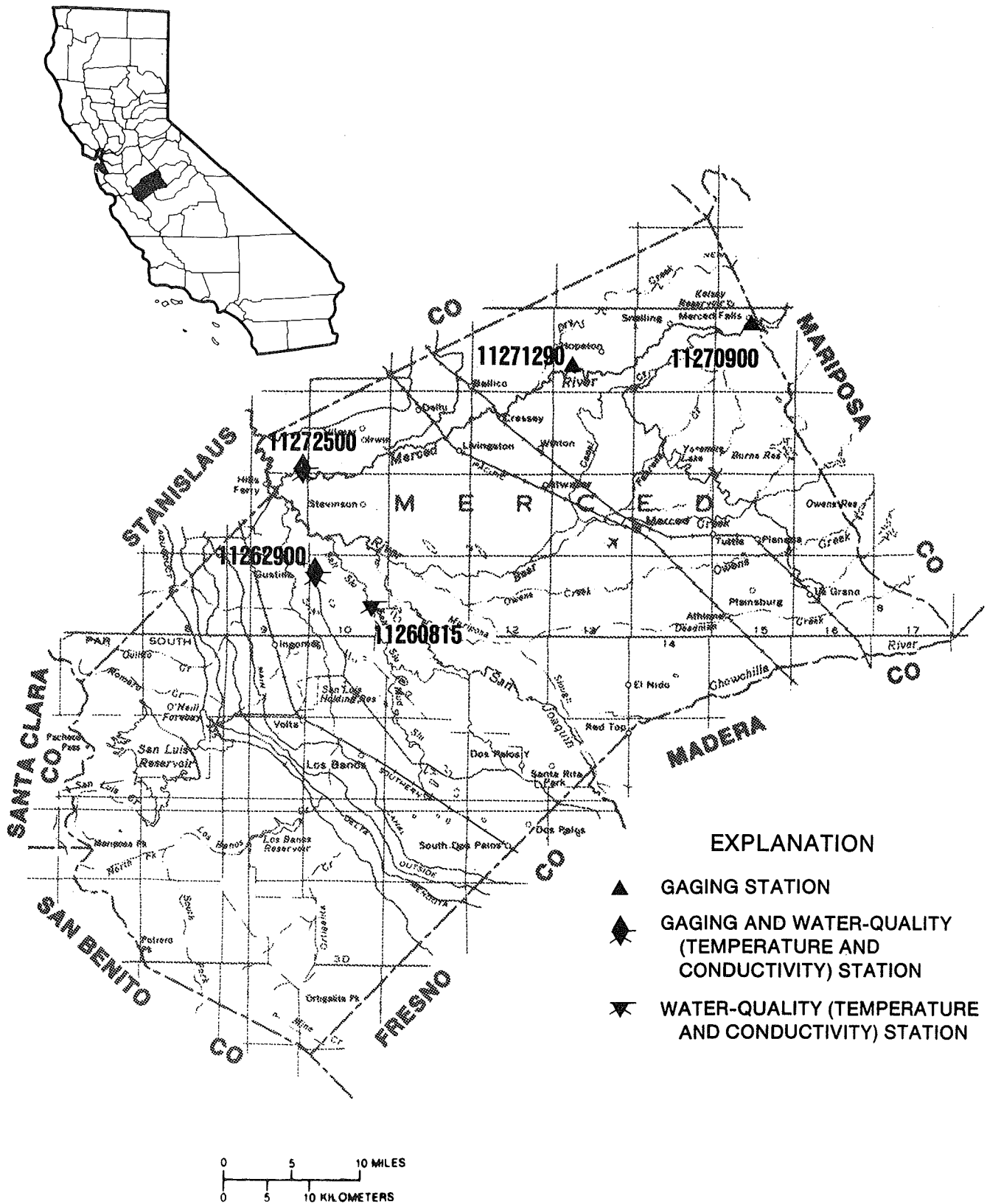
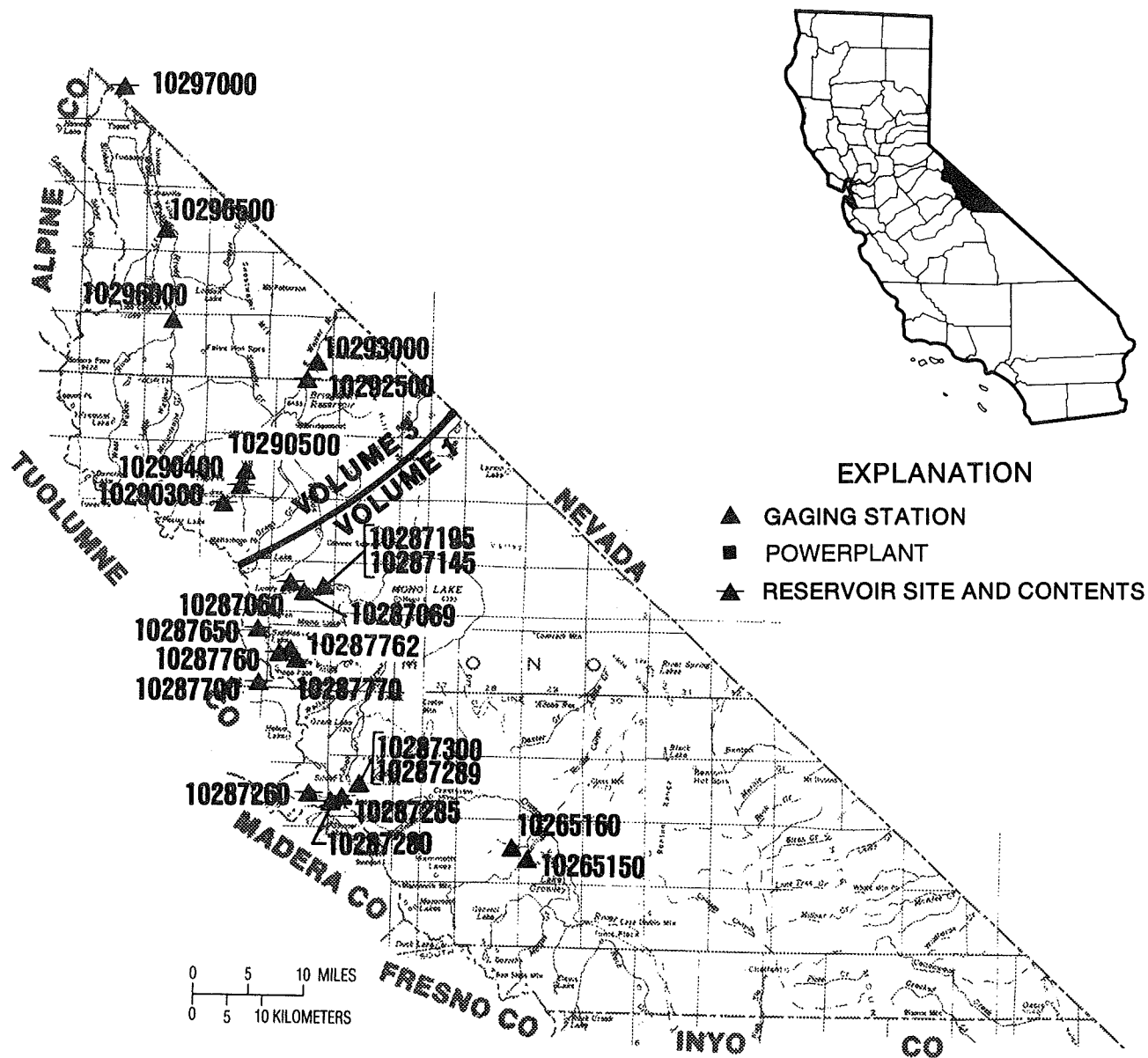


Figure 12. Location of discharge and water-quality stations in Merced County.



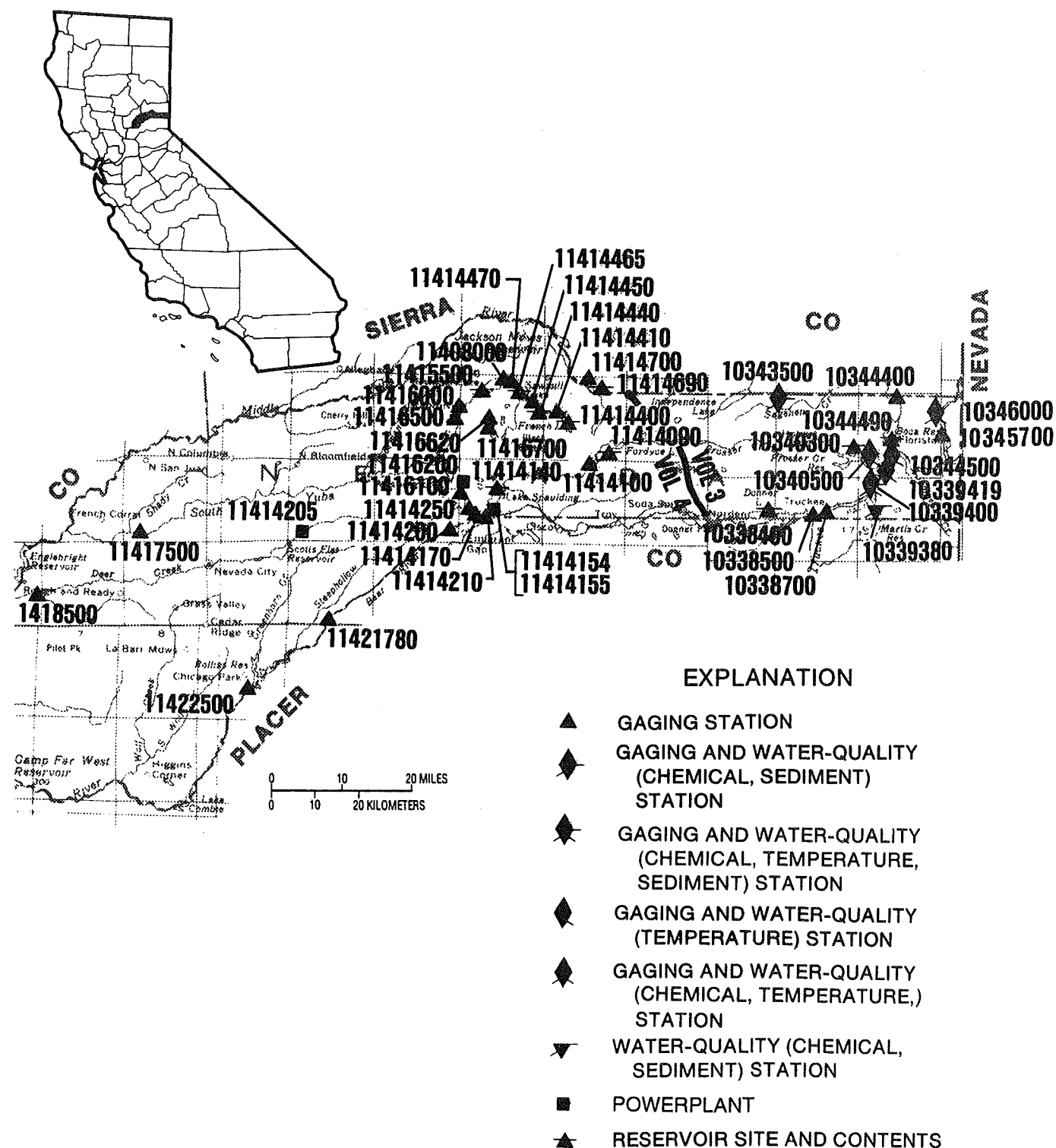


Figure 14. Location of discharge and water-quality stations in Nevada County.
(NOTE: Records for stations 11408000 through 11422500 published in volume 4.)

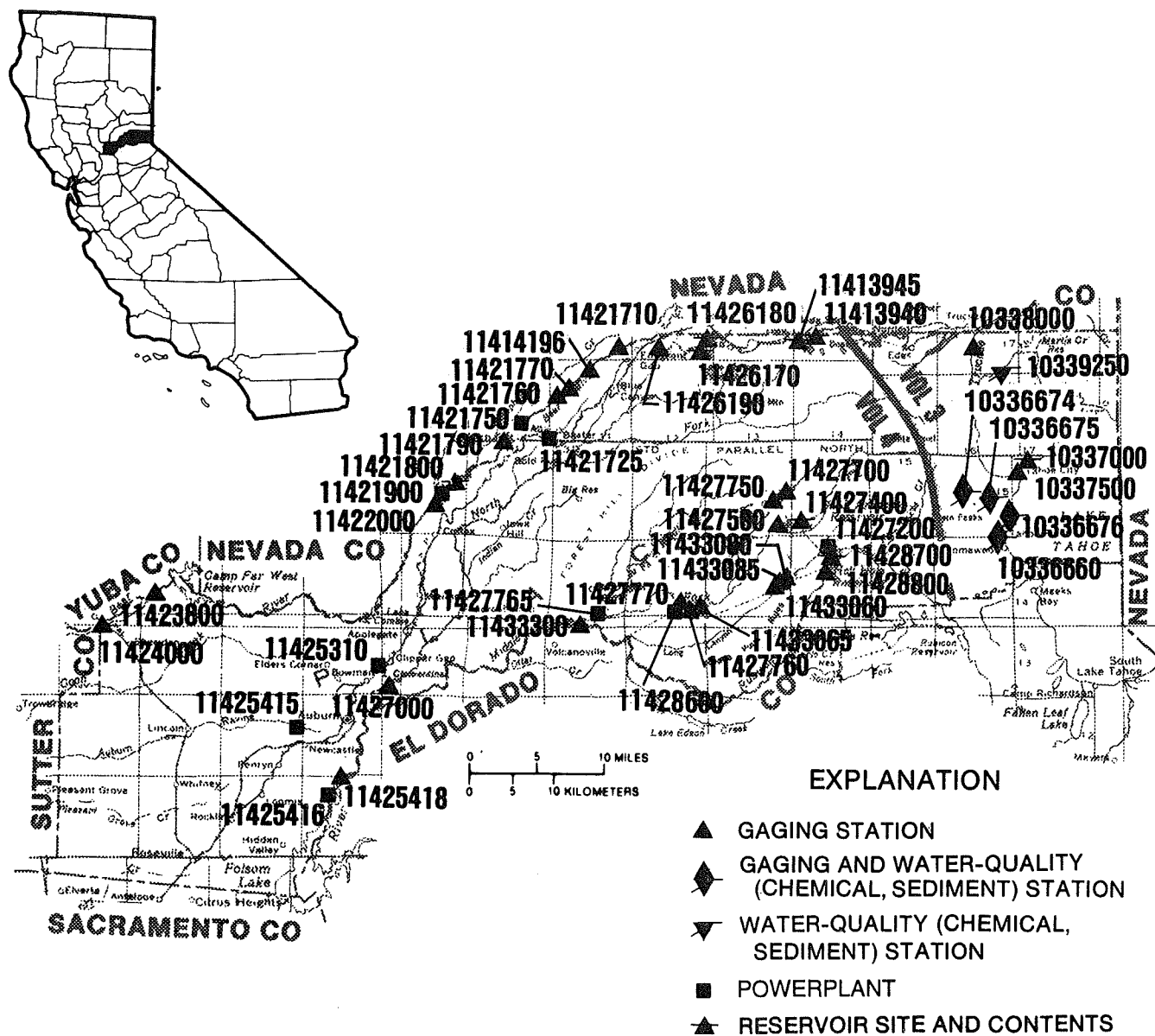


Figure 15. Location of discharge and water-quality stations in Placer County.
 (NOTE: Records for stations 11413940 through 11433300 published in volume 4.)

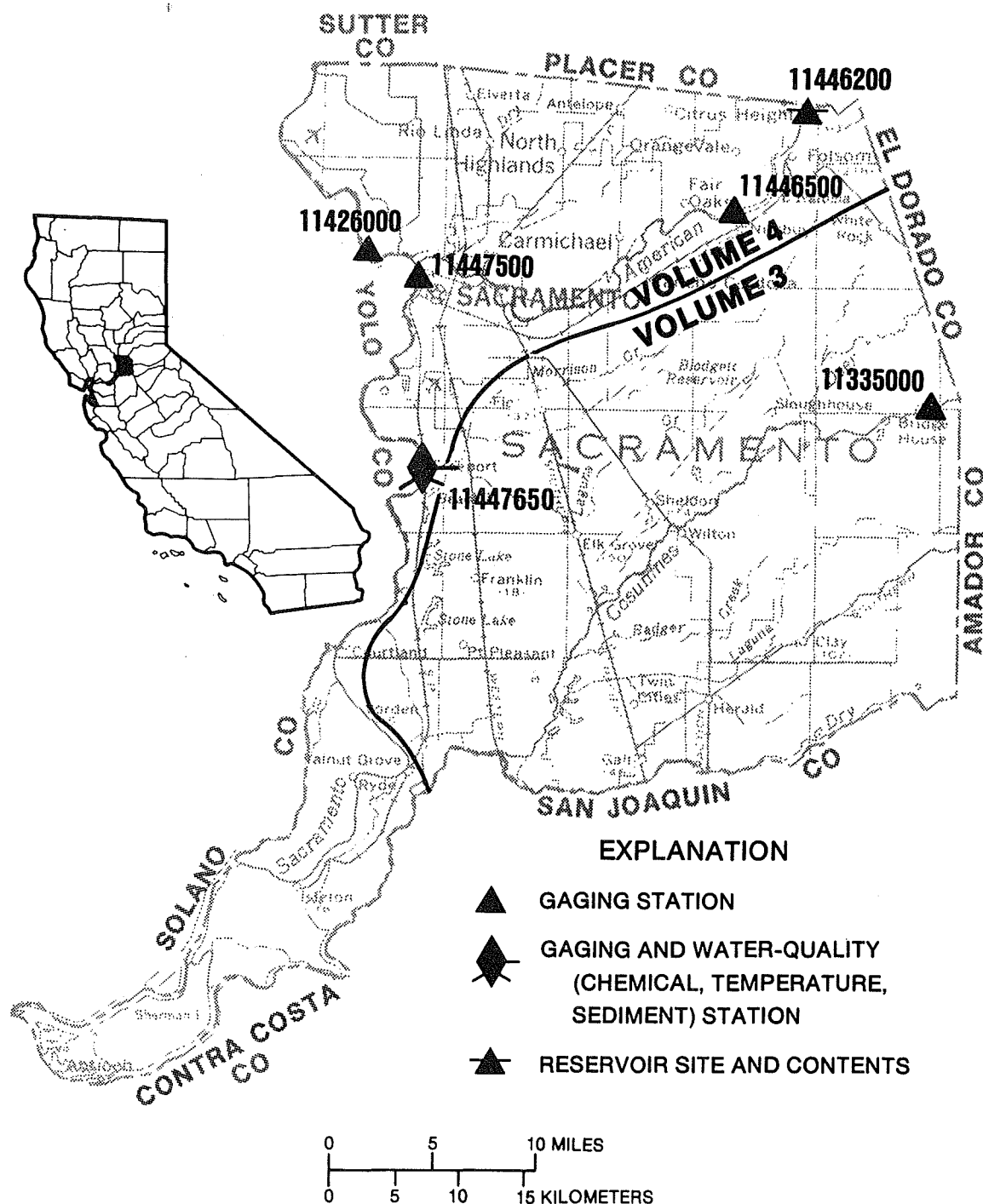


Figure 16. Location of discharge and water-quality stations in Sacramento County.
(NOTE: Records for stations 11426000 through 11447650 published in volume 4.)

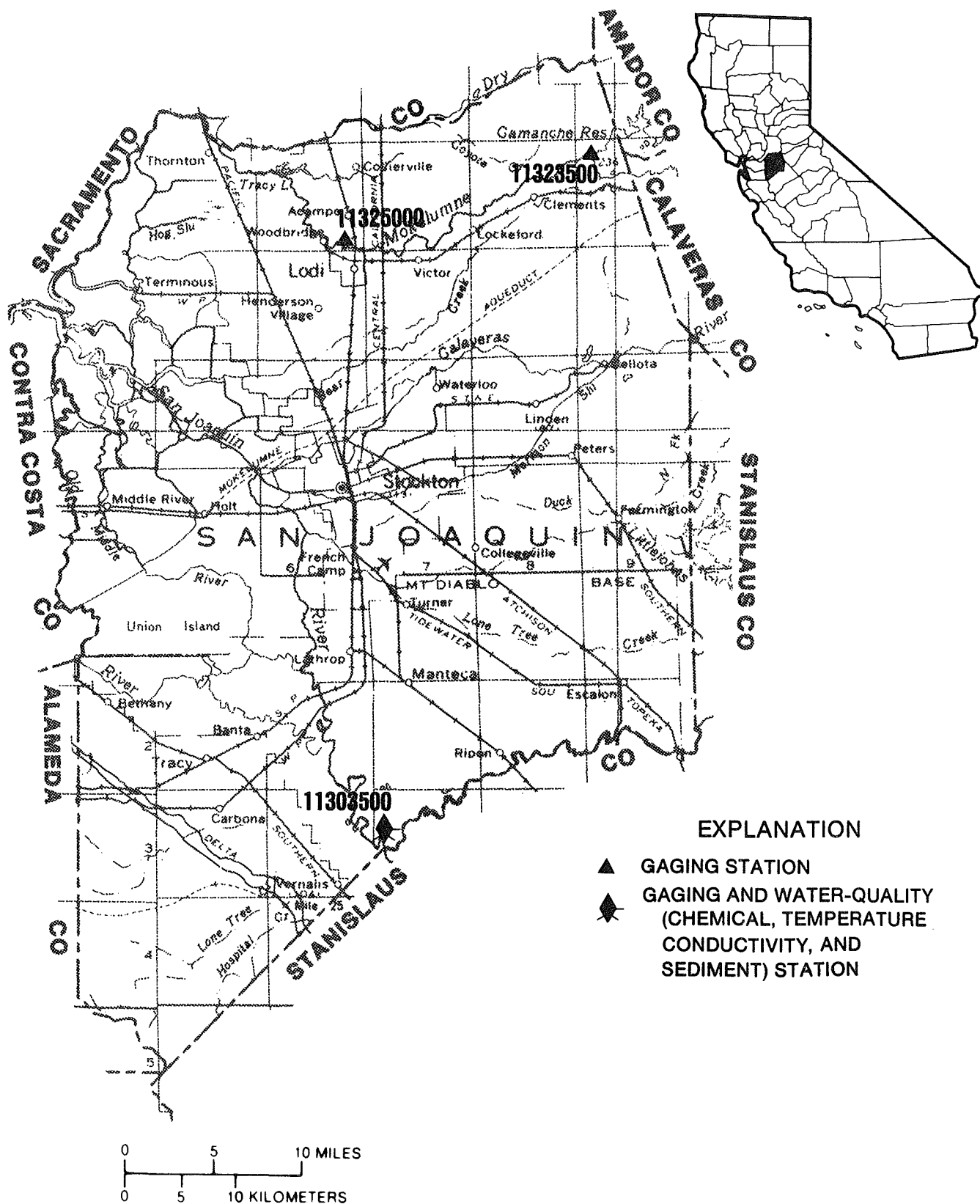


Figure 17. Location of discharge and water-quality stations in San Joaquin County.

EXPLANATION

- ▲ GAGING STATION
- ▲ RESERVOIR SITE AND CONTENTS

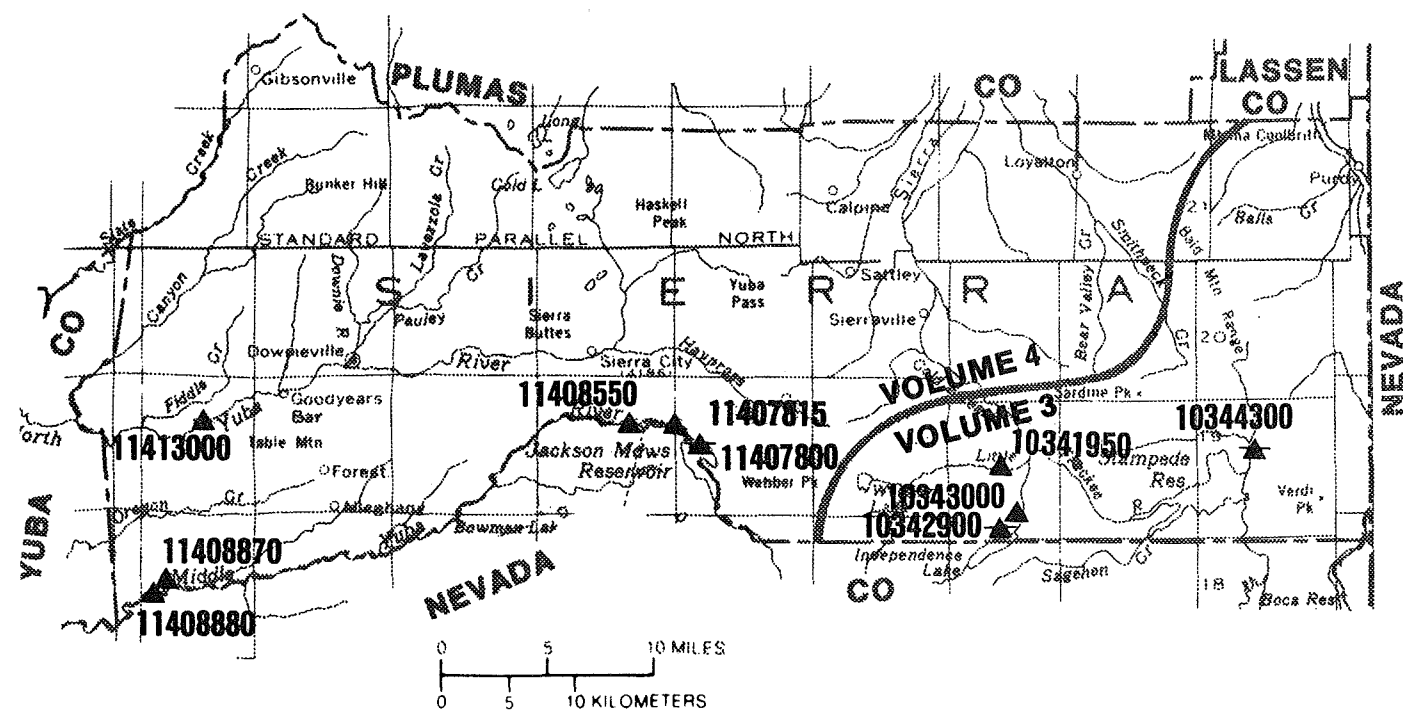


Figure 18. Location of discharge stations in Sierra County.
 (NOTE: Records for stations 11407800 through 11413000 published in volume 4.)

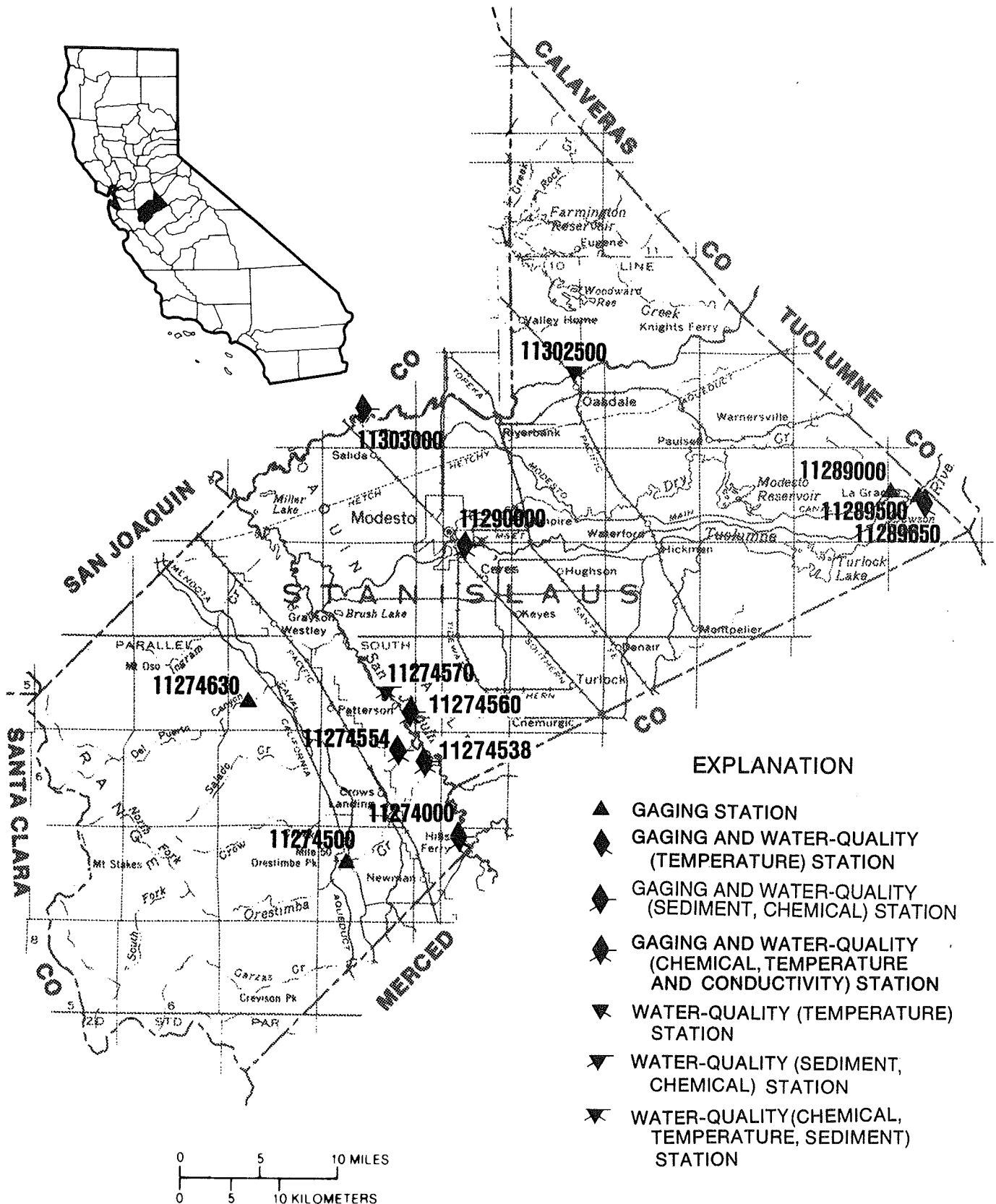


Figure 19. Location of discharge and water-quality stations in Stanislaus County.

EXPLANATION

- ▲ GAGING STATION
- △ GAGING STATION (PARTIAL RECORD)
- ▼ WATER-QUALITY (TEMPERATURE) STATION
- POWERPLANT

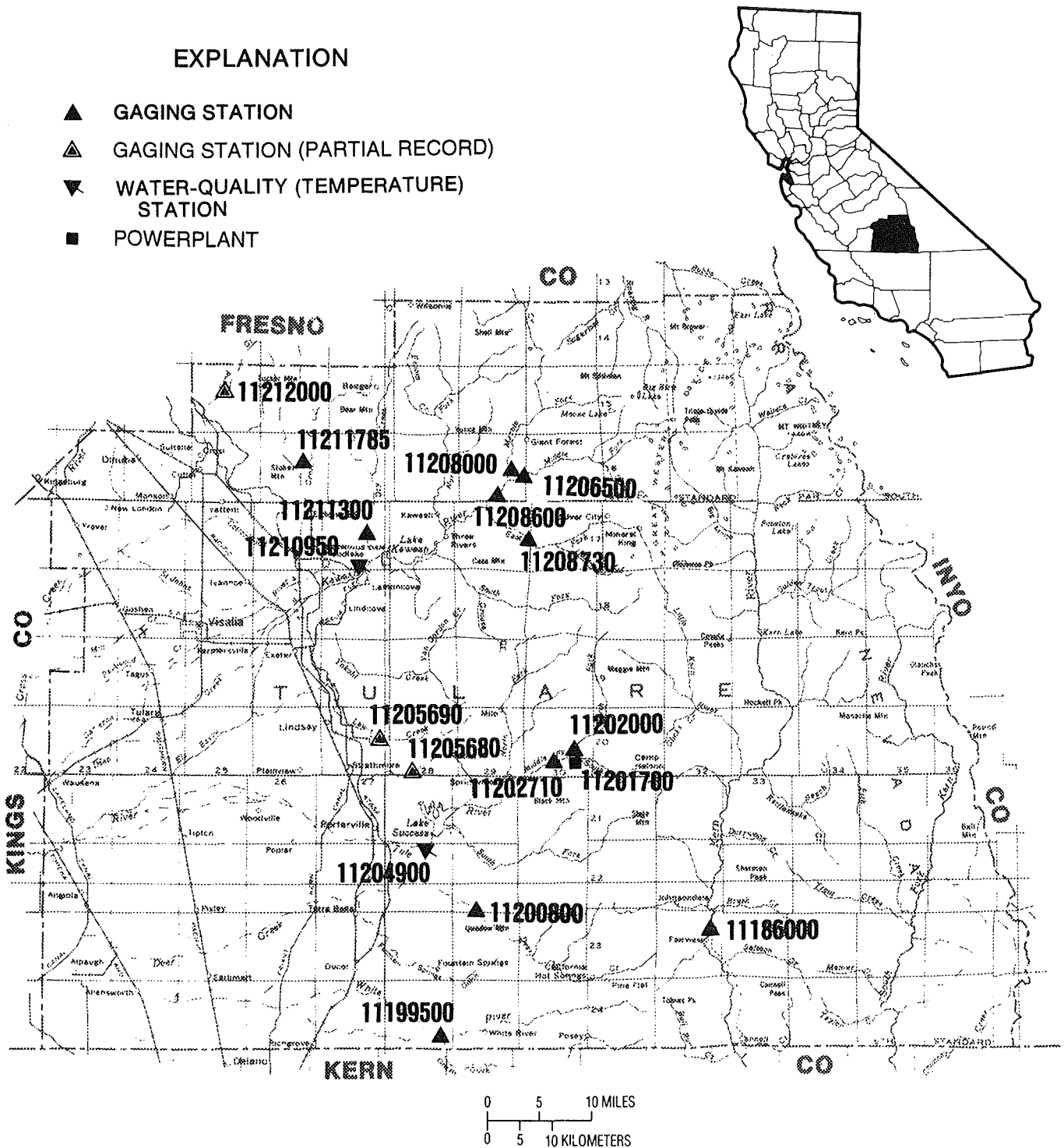


Figure 20. Location of discharge and water-quality stations in Tulare County.

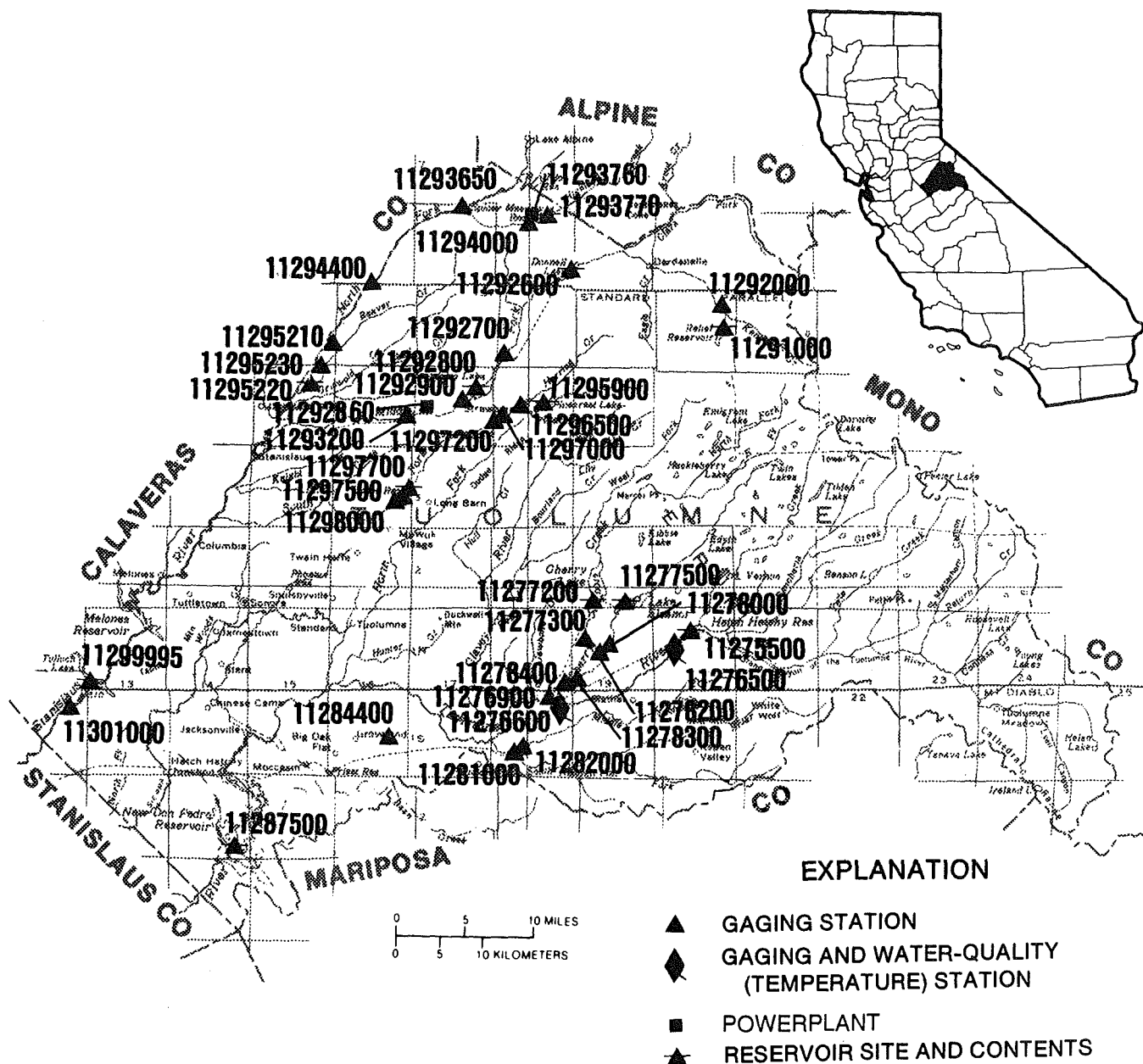


Figure 21. Location of discharge and water-quality stations in Tuolumne County.

GAGING STATION AND WATER-QUALITY RECORDS

Remark Codes

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

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
e	Estimated value
>	Actual value is greater than value shown
<	Actual value is less than 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 measurement
1	Laboratory value
2	Laboratory fixed-end point titration
A	Samples collected by another agency
N	Suspended-sediment concentration value determined from a sample collected and processed according to National Water-Quality Assessment (NAWQA) protocol.

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) 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 $\mu\text{g/L}$ 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. Full implementation of the protocols is intended during the 1995 water year.

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).

WALKER LAKE BASIN

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 mi².

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

GAGE.--Non-recording 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 contents observed Oct. 17, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,920 acre-ft, June 26, elevation, 7,209.62 ft; minimum observed, 504 acre-ft, Oct. 27, elevation, 7,201.80 ft.

MONTHEND ELEVATION AND CONTENTS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.	7,201.35	378	--
October 31.	7,202.08	582	+204
November 30.	7,204.35	1,240	+658
December 31.	7,206.44	1,890	+650
CALENDAR YEAR 1994	--	--	+110
January 31.	7,205.30	1,530	-360
February 28.	7,205.79	1,680	+150
March 31.	7,207.54	2,240	+560
April 30.	7,207.70	2,290	+50
May 31.	7,208.01	2,390	+100
June 30.	7,209.56	2,890	+500
July 31.	7,209.00	2,710	-180
August 31.	7,208.30	2,490	-220
September 30.	7,207.79	2,320	-170
WATER YEAR 1995.	--	--	+1,942

NOTE: Monthend elevations and contents are interpolated from readings made during the year.

WALKER LAKE BASIN

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 mi².

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

GAGE.--Non-recording 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, November 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 5,050 acre-ft, June 26, elevation, 7,202.44 ft; minimum observed, 1,750 acre-ft, October 27, elevation 7,194.38 ft.

MONTHEND ELEVATION AND CONTENTS, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
September 30.	7,193.00	1,200	--
October 31.	7,194.52	1,810	+610
November 30.	7,195.53	2,210	+400
December 31.	7,196.31	2,520	+310
CALANDAR YEAR 1994	--	--	-1,680
January 31.	7,200.17	4,080	+1,560
February 28.	7,200.07	4,040	-40
March 31.	7,200.70	4,300	+260
April 30.	7,200.78	4,340	+40
May 31.	7,201.80	4,770	+430
June 30.	7,202.38	5,030	+260
July 31.	7,201.79	4,770	-260
August 31.	7,201.09	4,470	-300
September 30.	7,200.40	4,180	-290
WATER YEAR 1995.	--	--	+2,980

NOTE: Monthend elevations and contents 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 mi².

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

REVISED RECORDS.--WSP 1927: Drainage area.

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 poor. Flow regulated by Upper and Lower Twin Lakes. No flow for many days in some years. Annual mean listed below is average discharge for water years 1954-75. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 660 ft³/s, June 21, 1911, gage height, 5.2 ft, at site 2.5 mi downstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	7.6	2.3	2.0	24	13	33	74	215	523	325	113
2	14	6.4	2.2	3.9	24	13	32	82	255	500	310	108
3	14	6.4	2.3	4.2	23	13	31	87	283	485	295	109
4	14	6.3	2.2	4.9	23	14	31	89	315	474	277	114
5	8.8	6.1	2.3	4.5	22	13	31	88	351	464	272	121
6	4.5	5.9	1.7	4.9	22	13	35	84	376	466	279	125
7	4.4	6.0	1.4	5.9	21	13	40	81	339	504	281	121
8	4.7	6.1	e1.4	6.1	20	13	34	78	293	535	267	115
9	4.8	4.4	1.4	6.0	20	11	28	77	243	562	251	106
10	4.7	3.6	1.4	6.1	19	19	29	76	211	587	231	100
11	4.5	3.6	1.3	6.2	18	32	29	76	200	554	216	94
12	4.4	3.5	1.3	6.7	18	33	31	76	211	495	201	89
13	4.5	3.3	1.3	6.9	17	33	33	77	246	423	191	85
14	4.5	3.2	e1.3	7.2	18	34	35	79	296	371	181	81
15	4.5	2.6	1.3	6.3	18	31	37	79	325	341	161	77
16	4.5	2.2	1.4	7.5	17	35	37	78	330	319	155	67
17	4.5	1.6	1.4	8.1	15	34	37	76	303	329	157	67
18	4.5	1.3	1.2	8.3	14	35	36	76	265	345	158	67
19	4.6	e1.2	1.2	8.5	14	35	37	77	238	348	159	67
20	4.6	1.2	1.2	8.5	13	40	36	82	222	344	155	66
21	4.5	1.2	1.3	8.8	13	49	34	98	214	339	147	66
22	5.0	1.6	1.3	8.8	12	51	33	121	212	340	145	65
23	6.8	2.8	1.3	9.1	12	58	34	141	218	336	149	64
24	8.4	2.8	1.3	9.2	12	56	35	153	242	318	160	63
25	9.1	2.6	1.3	9.3	12	52	47	156	294	302	169	62
26	8.6	2.4	1.4	9.8	13	48	66	151	361	287	169	60
27	8.3	2.3	1.4	13	13	44	64	144	426	278	163	58
28	8.2	2.3	1.3	16	13	41	64	143	487	279	154	57
29	8.3	2.4	1.3	19	---	38	65	147	534	294	140	55
30	8.5	2.4	1.6	21	---	36	67	159	556	323	128	53
31	8.4	---	e1.8	23	---	34	---	179	---	339	122	---
TOTAL	217.1	105.3	46.8	269.7	480	984	1181	3184	9061	12404	6168	2495
MEAN	7.00	3.51	1.51	8.70	17.1	31.7	39.4	103	302	400	199	83.2
MAX	14	7.6	2.3	23	24	58	67	179	556	587	325	125
MIN	4.4	1.2	1.2	2.0	12	11	28	74	200	278	122	53
AC-FT	431	209	93	535	952	1950	2340	6320	17970	24600	12230	4950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1995, BY WATER YEAR (WY)

	MEAN	20.2	7.43	4.78	9.48	13.3	15.0	46.2	101	185	162	98.8	51.3
MAX		37.5	25.0	21.9	39.0	63.4	31.7	79.4	187	349	400	199	89.0
(WY)		1970	1968	1968	1970	1963	1995	1959	1969	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 1995 WATER YEAR

WATER YEARS 1954 - 1995

ANNUAL TOTAL	36595.9		
ANNUAL MEAN	100	61.7	
HIGHEST ANNUAL MEAN		100	1995
LOWEST ANNUAL MEAN		33.8	1961
HIGHEST DAILY MEAN	587	587	Jul 10 1995
LOWEST DAILY MEAN	1.2	.00	Nov 3 1953
ANNUAL SEVEN-DAY MINIMUM	1.3	.00	Nov 3 1953
INSTANTANEOUS PEAK FLOW	608	608	Jul 10 1995
INSTANTANEOUS PEAK STAGE	4.45	4.62	Jun 6 1969
ANNUAL RUNOFF (AC-FT)	72590	44720	
10 PERCENT EXCEEDS	318	156	
50 PERCENT EXCEEDS	35	28	
90 PERCENT EXCEEDS	2.3	.30	

e Estimated.

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1994 to current year.

REMARKS.--In May 1994, station was incorporated into the Walker Lake Basin study. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		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)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
NOV 14...	1410	3.2	56	7.2	1.0	7.5	0.40	590	8.8	95	22	7.7
MAR 28...	1010	42	55	7.7	-2.5	2.0	0.10	589	11.2	105	23	7.8
APR 25...	0947	34	57	7.5	12.5	6.0	0.20	587	9.6	101	24	8.1
JUN 20...	0930	229	56	7.9	14.0	11.0	0.40	588	8.7	102	23	7.8
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	
NOV 14...	0.75	2.0	0.2	0.60	27	22	4.4	0.30	0.10	<0.010	5.9	
MAR 28...	0.73	2.0	0.2	0.60	29	24	4.2	0.40	0.10	<0.010	5.9	
APR 25...	0.80	2.1	0.2	0.60	28	23	4.4	0.60	0.20	<0.010	5.8	
JUN 20...	0.74	2.0	0.2	0.60	37	30	3.2	0.40	0.10	<0.010	6.6	
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)
NOV 14...	36	35	0.05	<0.010	<0.050	<0.015	<0.20	0.010	0.010	<0.010	2	<1
MAR 28...	38	36	0.05	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	<0.010	<1	<1
APR 25...	38	36	0.05	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	<0.010	1	<1
JUN 20...	41	40	0.06	<0.010	<0.050	<0.015	<0.20	0.020	<0.010	<0.010	2	<1
DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	
NOV 14...	<1	8	<1	<10	<1.0	<1	<1	<1	3	17	<1	<10
MAR 28...	<1	8	<1	<10	<1.0	<1	<1	<1	<1	<3	<1	<10
APR 25...	<1	8	<1	<10	<1.0	<1	<1	<1	<1	4	<1	<10
JUN 20...	<1	8	<1	20	<1.0	<1	<1	<1	<1	6	<1	<10

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

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NOV 14...	3	<0.1	4	<1	<1	<1.0	70	<1	-106.0	-14.0	<1.0
MAR 28...	<1	<0.1	4	<1	<1	<1.0	40	<1	-108.0	-14.0	<1.0
APR 25...	2	<0.1	4	<1	<1	<1.0	40	<1	-106.0	-13.9	<1.0
JUN 20...	<1	<0.1	4	<1	<1	<1.0	60	<1	-108.0	-14.3	<1.0

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 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 6,466.44 ft above sea level (project datum).

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began December 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 contents at times in water years 1929, 1930, 1960, 1977, 1988, and 1989.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,760 acre-ft, Aug. 10, elevation, 6,460.10 ft; minimum 2,800 acre-feet, Oct. 1, elevation, 6,434.75 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 (AC-FT) WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2800	e3910	5240	6720	11050	e16050	30120	27200	e22150	36280	42550	41090
2	e2810	e3990	e5280	6740	11200	e16200	30270	27180	e22200	36570	42490	40880
3	2850	e4020	e5380	6770	11370	e16450	30360	26820	e22600	36650	42340	40680
4	2870	e4100	e5400	6840	11520	e16750	30410	26350	e23200	36840	42310	40390
5	2990	e4120	e5510	6870	11670	e17000	30460	25910	e24000	36930	42340	40180
6	3040	e4190	e5590	6930	11800	17340	30490	25430	e24700	37040	42340	39860
7	3080	e4210	e5610	7010	11940	17510	30560	24860	e25150	37320	42400	39570
8	3130	e4300	5720	7070	12130	17700	30530	24260	e25300	37590	42430	39290
9	3170	4350	5740	7230	12280	18440	30630	23680	25320	37760	42460	38980
10	3210	4430	5760	7660	12430	20180	30650	23160	25120	37980	42430	38620
11	3240	4490	5820	7890	12590	21480	30700	22750	25080	37980	42260	38260
12	3260	4550	5870	8070	12730	22170	30770	22620	25210	37590	42260	37820
13	3300	4590	5910	8360	12870	22620	30700	22500	25500	37070	42340	37340
14	3310	4610	5940	8710	13020	23200	30560	22330	26070	36420	42340	36870
15	3350	4660	5980	8900	13120	23640	30360	22330	26680	35990	42200	36470
16	3390	4670	6030	9040	13200	24060	30220	22150	27110	35910	42020	36100
17	3420	4680	6080	9180	13340	24370	30000	21930	27340	36040	41850	35700
18	3450	4700	6140	9300	13430	24770	29790	21760	27430	36390	41760	35280
19	3470	4720	6180	9390	13570	25230	29520	21660	27780	36930	41670	34900
20	3500	4750	6220	9500	13720	26070	29260	21640	28240	37480	41550	34530
21	3530	4780	6260	9650	13890	26680	28950	21720	28650	38230	41530	34140
22	3560	4830	6290	9740	14090	27390	28680	21970	29090	39180	41470	33910
23	3590	4860	6340	9870	14320	27460	28380	22170	29670	40070	41440	33600
24	3600	4910	6380	9990	14580	27870	28100	22440	30360	40850	41470	33420
25	3640	4970	6420	10110	14830	28190	27850	22520	31280	41470	41530	33250
26	3650	5010	6470	10250	15110	28490	27620	22380	32970	42050	41530	33040
27	e3690	5050	6510	10370	e15450	28810	27320	22250	34320	42200	41580	32920
28	e3710	5110	6580	10480	e15810	29140	27200	22110	35330	42110	41580	32810
29	e3790	5160	6630	10610	---	29430	27040	22050	35650	42110	41530	32610
30	e3810	5210	6650	10740	---	29690	27180	22050	35960	42370	41410	32380
31	e3880	---	6670	10870	---	29910	---	e22090	---	42520	41320	---
MAX	3880	5210	6670	10870	15810	29910	30770	27200	35960	42520	42550	41090
MIN	2710	3910	5240	6720	11050	16050	27040	21640	22150	35910	41320	32380
a	e6436.72	6438.69	6440.49	6444.57	e6448.21	6455.31	6454.14	e6451.75	6457.70	6460.02	6459.61	6456.32
b	+1080	+1330	+1460	+4200	+4940	+14100	-2730	-5090	+13870	+6560	-1200	-8940

CAL YR 1994 MAX 17830 MIN 2690 b -4320
WTR YR 1995 MAX 42550 MIN 2800 b +29580

e Estimated.

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 mi².

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 October 1, 1921, nonrecording gage at site 0.5 mi upstream at different datum. October 1, 1921 to February 21, 1924, water-stage recorder at site 1 mi downstream at different datum. February 22, 1924 to September 30, 1931, water-stage recorder, and October 1, 1931 to May 25, 1939, nonrecording gage at present site at datum 2.34 ft lower. May 26, 1939 to November 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.

42, 460 total before = 46,540

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	22	34	34	27	26	99	396	616	969	574	290
2	30	22	34	35	27	24	99	470	662	968	606	313
3	30	23	34	35	26	24	118	494	664	969	631	334
4	29	23	33	35	27	24	155	534	664	971	570	334
5	29	23	33	35	27	24	170	533	667	969	508	333
6	29	23	33	35	27	24	170	531	669	969	492	333
7	29	23	34	35	27	24	170	530	671	980	493	341
8	29	27	34	36	27	35	161	528	671	1100	472	354
9	29	32	34	37	27	42	146	527	670	1160	441	353
10	29	32	34	38	28	50	146	525	669	1160	442	353
11	29	32	33	38	39	48	160	493	668	1150	425	360
12	29	31	33	38	30	43	205	395	667	1150	367	372
13	29	31	33	38	26	43	229	377	649	1120	309	372
14	29	32	33	38	28	43	229	377	543	1080	337	361
15	29	33	37	38	40	31	228	377	545	945	371	341
16	29	33	32	39	41	22	228	378	546	796	349	340
17	29	34	27	39	41	23	228	378	547	750	348	340
18	29	34	27	33	41	23	244	378	547	639	340	339
19	29	34	29	34	41	23	253	396	464	510	325	338
20	29	34	30	29	33	23	253	422	334	436	325	338
21	29	34	32	26	27	23	253	423	334	334	325	324
22	29	34	33	30	27	23	261	443	335	274	332	276
23	29	35	33	27	27	23	274	498	335	274	342	252
24	29	34	34	27	28	23	273	538	336	275	324	232
25	29	33	33	27	28	34	285	539	337	295	303	224
26	29	34	33	27	28	34	312	555	337	326	296	218
27	29	34	33	26	29	34	330	583	370	469	281	222
28	29	34	33	25	29	40	330	582	624	617	281	209
29	29	34	33	26	---	50	330	581	864	576	281	215
30	29	34	33	31	---	65	330	582	965	558	277	240
31	23	---	33	27	---	92	---	584	---	565	270	---
TOTAL	896	918	1014	1018	853	1060	6669	14947	16970	23354	12037	9251
MEAN	28.9	30.6	32.7	32.8	30.5	34.2	222	482	566	753	388	308
MAX	30	35	37	39	41	92	330	584	965	1160	631	372
MIN	23	22	27	25	26	22	99	377	334	274	270	209
AC-FT	1780	1820	2010	2020	1690	2100	13230	29650	33660	46320	23880	18350

WALKER LAKE BASIN

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.5	28.3	34.5	35.0	43.7	84.2	173	251	307	299	238	153
MAX	301	325	398	260	200	417	721	880	1001	797	638	406
(WY)	1984	1983	1984	1942	1963	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1922 - 1995			
ANNUAL TOTAL	24708				88987							
ANNUAL MEAN	67.7				244				142			
HIGHEST ANNUAL MEAN									443			
LOWEST ANNUAL MEAN									37.5			
HIGHEST DAILY MEAN	231				Jun 3				1360			
LOWEST DAILY MEAN	22				Jan 10				.20			
ANNUAL SEVEN-DAY MINIMUM	23				Oct 31				.20			
INSTANTANEOUS PEAK FLOW					1170				1390			
INSTANTANEOUS PEAK STAGE					6.26				4.95			
ANNUAL RUNOFF (AC-FT)	49010				176500				103200			
10 PERCENT EXCEEDS	129				610				340			
50 PERCENT EXCEEDS	55				99				91			
90 PERCENT EXCEEDS	24				27				6.8			

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1958 to September 1971; April 1973 to November 1984; May 1994 to current year.
REMARKS.--In May 1994, station was incorporated into the Walker Lake Basin study. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
NOV 14...	1110	31	186	7.8	-1.0	4.0	7.0	606	10.4	100	67	20	
MAR 29...	0820	49	220	8.1	2.5	4.5	1.8	604	10.4	102	62	18	
APR 25...	1420	290	242	8.1	23.0	9.5	1.6	604	9.0	100	70	20	
JUN 20...	1415	393	120	8.0	22.0	15.5	1.8	609	8.0	100	41	12	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	
NOV 14...	4.1	12	0.6	3.1	92	75	16	2.0	0.20	<0.010	22		
MAR 29...	4.2	21	1	3.7	98	80	21	4.8	0.30	<0.010	18		
APR 25...	4.8	23	1	3.9	104	85	21	5.1	0.30	<0.010	21		
JUN 20...	2.7	7.9	0.5	2.0	61	50	5.8	1.4	0.10	<0.010	16		
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)
NOV 14...	132	125	0.18	<0.010	<0.050	<0.015	0.50	0.070	0.030	0.020	50	<1	
MAR 29...	158	140	0.21	<0.010	<0.050	<0.015	0.60	0.040	0.030	0.030	40	<1	
APR 25...	164	151	0.22	<0.010	<0.050	<0.015	0.40	0.030	0.030	0.030	60	<1	
JUN 20...	88	78	0.12	<0.010	<0.050	0.020	0.40	0.060	0.040	0.030	40	<1	
DATE		ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	
NOV 14...	3	28	<1	50	<1.0	<1	<1	2	200	<1	20		
MAR 29...	10	27	<1	140	<1.0	1	<1	1	140	<1	40		
APR 25...	9	28	<1	140	<1.0	1	<1	1	160	<1	40		
JUN 20...	3	19	<1	60	<1.0	<1	<1	1	160	<1	10		

10293000 EAST WALKER RIVER NEAR BRIDGEPORT, CA--Continued

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NOV 14...	5	<0.1	5	<1	<1	<1.0	200	<1	-107.0	-13.9	2.0
MAR 29...	5	<0.1	5	1	<1	<1.0	180	<1	-116.0	-15.3	2.0
APR 25...	3	<0.1	4	1	<1	<1.0	180	2	-114.0	-14.9	2.0
JUN 20...	14	<0.1	2	2	<1	<1.0	110	<1	-111.0	-14.6	<1.0

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, 50 ft downstream from Little Walker River, 160 ft upstream from bridge on U.S. Highway 395, and 13 mi southeast of Coleville.

DRAINAGE AREA.--181 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 6,591.39 ft above sea level. Prior to October 1, 1939, at site, 125 ft downstream at datum 1.00 ft higher. October 1, 1939, to September 30, 1969, at present site and datum. October 1, 1969, to July 10, 1987, at site 100 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. 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 ft³/s, December 11, 1937, on basis of slope-area measurement of peak flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	34	e77	e48	89	112	186	1080	2000	2410	1090	275
2	33	36	79	e50	90	111	189	852	1900	2330	1060	285
3	31	33	78	51	87	112	193	738	1880	2300	991	341
4	41	38	75	59	85	101	211	746	2260	2260	972	382
5	51	61	76	41	84	105	237	667	2590	2200	1050	338
6	53	136	e73	50	84	100	252	560	1880	2530	1040	270
7	53	133	e72	53	83	97	279	485	1440	2850	928	237
8	58	101	e71	40	83	96	263	470	1140	2910	898	221
9	63	85	e70	61	79	344	240	533	1030	3260	756	206
10	67	71	e70	88	77	470	234	596	1280	2760	742	201
11	67	75	e68	71	79	344	254	709	1880	2240	699	196
12	63	75	66	72	75	267	292	699	2300	1830	618	190
13	58	59	e68	92	75	250	327	604	2450	1500	567	181
14	53	50	e69	109	71	285	286	521	2290	1430	542	180
15	50	e50	e70	94	69	286	266	459	1840	1520	514	178
16	44	e50	70	94	e68	266	250	395	1340	1710	542	176
17	42	e49	66	97	69	242	233	409	1120	1800	572	177
18	42	48	70	e95	67	272	224	512	1180	1620	538	166
19	40	e49	e72	e93	68	281	218	801	1350	1660	437	159
20	39	e51	e75	e91	73	334	217	1140	1380	1560	425	155
21	36	e55	e72	90	81	296	212	1360	1370	1580	478	155
22	36	e56	e65	106	88	247	208	1420	1540	1530	530	177
23	35	e58	e63	76	92	227	226	1200	1820	1320	525	157
24	35	e61	e55	72	98	231	265	1170	2180	1250	517	148
25	34	65	52	70	105	215	346	971	2580	1210	458	141
26	35	66	56	71	110	200	418	920	2680	1180	380	135
27	35	e64	54	66	108	191	487	1180	2670	1210	342	128
28	34	e70	49	67	110	183	483	1300	2830	1430	313	122
29	33	e72	49	65	---	177	626	1540	2670	1650	289	118
30	32	e75	47	66	---	173	797	1750	2420	1550	279	113
31	34	---	e47	79	---	176	---	1860	---	1190	275	---
TOTAL	1364	1926	2044	2277	2347	6791	8919	27647	57290	57780	19367	5908
MEAN	44.0	64.2	65.9	73.5	83.8	219	297	892	1910	1864	625	197
MAX	67	136	79	109	110	470	797	1860	2830	3260	1090	382
MIN	31	33	47	40	67	96	186	395	1030	1180	275	113
AC-FT	2710	3820	4050	4520	4660	13470	17690	54840	113600	114600	38410	11720

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	54.8	68.7	72.0	67.0	73.4	104	292	752	936	488	152	74.0
MAX	219	539	448	204	246	369	600	1655	2066	1864	663	246
(WY)	1983	1951	1951	1956	1963	1986	1938	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	12.3
(WY)	1978	1978	1991	1977	1991	1977	1975	1977	1976	1977	1977	1977

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1938 - 1995			
ANNUAL TOTAL	49870				193660							
ANNUAL MEAN	137				531				258			
HIGHEST ANNUAL MEAN									537			
LOWEST ANNUAL MEAN									65.3			
HIGHEST DAILY MEAN	1000				3260				3800			
LOWEST DAILY MEAN	19				31				9.7			
ANNUAL SEVEN-DAY MINIMUM	20				34				10			
INSTANTANEOUS PEAK FLOW					3860				6220			
INSTANTANEOUS PEAK STAGE					6.04				8.10			
ANNUAL RUNOFF (AC-FT)	98920				384100				187200			
10 PERCENT EXCEEDS	420				1650				795			
50 PERCENT EXCEEDS	61				189				88			
90 PERCENT EXCEEDS	28				50				34			

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1960 to May 1966; November 1968 to September 1971; April 1973 to September 1980; August 1987 to October 1989; May 1994 to current year.

REMARKS.--In May 1994, station was incorporated into the Walker Lake Basin study. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV 15...	0913	49	122	7.6	3.0	0.0	0.80	595	11.0	97	33	9.7
MAR 27...	1530	197	135	7.8	2.0	8.0	0.70	600	9.6	103	48	14
APR 24...	1515	258	116	8.1	16.5	12.0	0.70	601	8.7	103	42	12
JUN 19...	1633	1190	54	7.8	14.0	9.5	5.1	598	9.1	102	20	6.0
DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
NOV 15...	2.2	13	1	1.3	59	49	8.1	4.0	0.10	<0.010	12	81
MAR 27...	3.0	9.9	0.6	1.5	67	55	7.3	2.6	<0.10	<0.010	14	92
APR 24...	2.8	8.0	0.5	1.3	60	49	4.6	2.4	0.10	<0.010	15	78
JUN 19...	1.2	2.8	0.3	0.60	27	22	0.90	0.90	<0.10	<0.010	9.1	38
DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	
NOV 15...	80	0.11	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	<0.010	5	<1	
MAR 27...	86	0.13	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	0.010	10	<1	
APR 24...	76	0.11	<0.010	<0.050	<0.015	<0.20	0.010	<0.010	0.020	30	<1	
JUN 19...	35	0.05	<0.010	<0.050	<0.015	<0.20	0.050	0.010	0.010	30	<1	
DATE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	
NOV 15...	16	16	<1	130	<1.0	<1	<1	1	28	<1	20	
MAR 27...	9	24	<1	70	<1.0	<1	<1	<1	42	<1	10	
APR 24...	5	20	<1	50	<1.0	<1	<1	<1	52	<1	<10	
JUN 19...	1	14	<1	20	<1.0	<1	<1	<1	42	<1	<10	

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

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NOV 15...	5	<0.1	2	<1	<1	<1.0	130	2	-109.0	-14.9	<1.0
MAR 27...	9	<0.1	1	<1	<1	<1.0	200	<1	-112.0	-14.9	<1.0
APR 24...	5	<0.1	1	<1	<1	<1.0	140	<1	-113.0	-15.2	<1.0
JUN 19...	4	<0.1	<1	<1	<1	<1.0	80	<1	-111.0	-15.3	<1.0

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA

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

DRAINAGE AREA.--250 mi².

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

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

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above sea level, from topographic map. Prior to July 31, 1908, nonrecording gage at site 0.5 mi upstream at different datum. Mar. 1, 1909, to Aug. 31, 1910, nonrecording gage, and June 18, 1915, to Aug. 15, 1919, water-stage recorder near present site at different datums. Aug. 16, 1919, to Mar. 31, 1938, water-stage recorder at site 1,000 ft upstream at different datum. May 26, 1957, to Sep. 10, 1963, water-stage recorder at site 10 ft downstream at datum 0.38 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	46	76	66	91	128	199	1000	2260	2240	1200	290
2	40	47	78	59	94	127	202	848	2100	2170	1200	297
3	39	47	79	65	92	134	203	763	2040	2200	1140	361
4	44	40	79	52	91	113	226	719	2310	2220	1110	418
5	56	59	77	46	91	121	257	590	2690	2250	1170	374
6	59	114	75	57	92	113	277	520	1900	2770	1160	289
7	59	142	71	72	91	113	308	467	1450	2990	1040	249
8	60	106	72	56	91	113	307	449	1160	2970	1020	227
9	63	92	e72	71	90	302	268	511	1030	e3350	877	212
10	66	81	e73	100	88	507	255	555	1310	2730	855	203
11	68	87	75	78	88	427	275	675	1970	2220	810	197
12	66	83	71	78	88	359	319	691	2260	1920	719	191
13	64	78	68	90	85	308	372	618	2460	1660	665	193
14	61	83	69	111	86	354	320	558	2770	1590	632	195
15	60	77	e70	98	84	337	296	487	2120	1610	602	190
16	56	76	71	90	91	312	274	433	1560	1680	626	187
17	55	69	68	84	84	283	250	442	1310	1690	665	187
18	55	61	67	89	82	302	240	512	1370	1580	639	176
19	53	e60	62	95	84	320	231	739	1560	1580	540	168
20	52	e60	64	83	88	387	228	1150	1510	1520	525	163
21	52	e59	62	82	94	352	218	1240	1440	1500	571	162
22	50	e59	60	81	99	295	211	1330	1670	1480	634	185
23	50	e58	61	82	104	255	230	1130	1820	1330	621	167
24	49	e58	62	79	111	260	273	1120	2040	1280	609	156
25	49	e57	61	77	118	237	376	911	2450	1260	558	149
26	49	57	60	75	124	219	449	834	2620	1240	465	143
27	49	64	61	74	125	211	515	1100	2450	1230	407	136
28	48	e71	62	75	126	201	523	1200	2510	1310	371	130
29	46	e73	62	74	---	189	610	1470	2340	1520	337	125
30	45	76	58	75	---	184	724	1620	2410	1470	308	122
31	46	---	61	82	---	186	---	1860	---	1230	289	---
TOTAL	1652	2140	2107	2396	2672	7749	9436	26542	58890	57790	22365	6242
MEAN	53.3	71.3	68.0	77.3	95.4	250	315	856	1963	1864	721	208
MAX	68	142	79	111	126	507	724	1860	2770	3350	1200	418
MIN	39	40	58	46	82	113	199	433	1030	1230	289	122
AC-FT	3280	4240	4180	4750	5300	15370	18720	52650	116800	114600	44360	12380

e Estimated.

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.2	71.0	66.7	67.6	79.4	122	298	769	978	524	167	83.7
MAX	299	214	270	189	280	403	636	1756	2055	2492	721	269
(WY)	1905	1974	1965	1980	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1903 - 1995	
ANNUAL TOTAL	52202		199981			
ANNUAL MEAN	143		548		274	
HIGHEST ANNUAL MEAN					669	1907
LOWEST ANNUAL MEAN					74.5	1977
HIGHEST DAILY MEAN	1060	May 31	3350	Jul 9	4170	Jul 3 1907
LOWEST DAILY MEAN	25	Sep 9	39	Oct 3	14	Jul 24 1924
ANNUAL SEVEN-DAY MINIMUM	26	Sep 5	45	Oct 29	14	Aug 28 1924
INSTANTANEOUS PEAK FLOW			4490	Jul 9	6500	Dec 11 1937
INSTANTANEOUS PEAK STAGE			8.05	Jul 9	unknown	Dec 11 1937
ANNUAL RUNOFF (AC-FT)	103500		396700		198600	
10 PERCENT EXCEEDS	427		1640		830	
50 PERCENT EXCEEDS	64		199		96	
90 PERCENT EXCEEDS	32		59		37	

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1977 to August 1984; May 1994 to current year.

REMARKS.--In May 1994, station was incorporated into the Walker Lake Basin study. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
NOV 15...	1154	67	124	7.3	3.0	2.5	0.60	620	10.8	97	37	11	
MAR 27...	1050	189	136	8.1	--	2.0	0.70	629	11.3	99	45	13	
APR 24...	1105	265	120	8.2	20.0	6.5	0.90	625	10.0	99	42	12	
JUN 19...	1123	1430	52	8.0	23.5	6.0	8.0	625	10.2	100	20	6.0	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	
NOV 15...	2.3	12	0.9	1.3	57	47	8.0	5.3	0.20	<0.010	15		
MAR 27...	2.9	10	0.7	1.5	67	55	7.0	2.8	0.10	<0.010	15		
APR 24...	2.9	8.2	0.6	1.3	61	50	5.0	2.1	0.20	<0.010	16		
JUN 19...	1.2	2.7	0.3	0.60	28	23	0.90	0.70	<0.10	<0.010	9.9		
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)
NOV 15...	84	83	0.11	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	<0.010		7	<1
MAR 27...	94	86	0.13	0.020	0.090	<0.015	<0.20	<0.010	<0.010	0.010		10	<1
APR 24...	82	78	0.11	<0.010	<0.050	<0.015	<0.20	<0.010	<0.010	0.010		30	<1
JUN 19...	45	36	0.06	<0.010	<0.050	<0.015	<0.20	0.070	0.020	0.010		40	<1
DATE		ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	
NOV 15...	12	16	<1	120	<1.0	<1	<1	<1	2	24	<1	20	
MAR 27...	8	24	<1	70	<1.0	1	<1	<1	<1	39	<1	20	
APR 24...	5	21	<1	60	<1.0	<1	<1	<1	<1	49	<1	10	
JUN 19...	2	11	<1	90	<1.0	<1	<1	<1	<1	47	<1	<10	

10296500 WEST WALKER RIVER NEAR COLEVILLE, CA--Continued

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NOV 15...	2	<0.1	3	<1	<1	<1.0	140	5	-112.0	-15.0	4.0
MAR 27...	5	<0.1	2	<1	<1	<1.0	170	<1	-112.0	-15.0	2.0
APR 24...	4	<0.1	2	<1	<1	<1.0	150	<1	-113.0	-15.1	2.0
JUN 19...	3	<0.1	<1	<1	<1	<1.0	80	<1	-112.0	-15.2	<1.0

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 read once daily. Datum of gage is above sea level. Prior to October 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). Useable 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 60,680 acre-ft, July 10, elevation, 5,000.92 ft; minimum contents, 2,850 acre-ft, Oct. 3, elevation 4,969.53 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 (AC-FT) WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2930	3180	5630	8820	14450	19070	34650	31400	31620	54980	59670	52910
2	2870	3150	5770	8950	14610	19300	34730	31740	32870	55650	59900	52230
3	2900	3160	5900	9040	14770	19500	34750	31690	33960	56320	59670	51570
4	3010	3190	5980	9180	14940	19640	34750	31400	35190	56770	59440	50700
5	3020	3240	6120	9230	15100	19800	34800	31030	36790	57230	59440	50050
6	3070	3270	6200	9410	15280	19940	34890	30550	37590	57910	59210	49400
7	3130	3540	6250	9540	15450	20070	34980	29970	37690	58820	58980	48730
8	3180	3650	6370	9660	15610	20260	35110	29340	37360	59510	58750	48220
9	3210	3740	6440	9890	15740	20810	35370	28780	36750	60450	58750	47620
10	3260	3880	6550	10240	15910	22660	35610	28250	36350	60680	58980	47030
11	3260	3990	6640	10660	16110	24060	35820	27840	36670	60220	58980	46410
12	3300	4100	6740	10920	16030	24810	35800	27720	37510	59760	58980	45800
13	3300	4180	6860	11130	16370	25350	35710	27680	38540	59070	58980	45200
14	3330	4240	6940	11400	16500	26000	35480	27650	39810	58390	58980	44720
15	3290	4330	7070	11680	16640	26670	35240	27540	40420	58160	58520	44340
16	3260	4350	7160	11890	16800	27280	34980	27310	40260	58160	58070	43930
17	3260	4550	7260	12070	16930	27780	34670	27020	39790	58160	57840	43580
18	3260	4600	7370	12240	17100	28380	34290	26810	39350	58180	57610	43250
19	3270	4680	7500	12410	17250	29020	33870	26830	39390	58180	57390	42980
20	3260	4750	7580	12580	17380	29940	33420	27020	40080	58410	57160	42670
21	3240	4820	7670	12760	17550	30590	32960	27370	40810	58640	56930	42350
22	3220	4860	7780	12930	17710	31300	32500	28010	41610	58640	56930	42060
23	3210	4940	7850	13110	17880	31870	31990	28250	42980	58640	56710	41780
24	3190	4900	7970	13270	18060	32390	31510	28460	44880	58410	56480	41470
25	3180	5270	8130	13420	18250	32860	31120	28380	47300	58410	56260	41210
26	3130	5270	8230	13560	18450	33290	30820	28080	49250	58640	56030	40950
27	3130	5320	8390	13730	18650	33650	30620	28100	50330	58890	55810	40610
28	3120	5400	8400	13860	18870	33910	30450	28270	51630	59350	55360	40280
29	3070	5440	8550	13970	---	34110	30450	28730	52950	59810	54690	39970
30	3050	5590	8670	14130	---	34290	30780	29360	53860	59810	54240	39610
31	3070	---	8740	14270	---	34470	---	30180	---	59440	53570	---
MAX	3330	5590	8740	14270	18870	34470	35820	31740	53860	60680	59900	52910
MIN	2870	3150	5630	8820	14450	19070	30450	26810	31620	54980	53570	39610
a	4969.67	4971.28	4973.27	4976.69	4979.47	4988.46	4986.41	4986.07	4997.91	5000.38	4997.78	4991.15
b	+160	+2520	+3150	+5530	+4600	+15600	-3690	-600	+23680	+5580	-5870	-13960

JAL YR 1994 MAX 27590 MIN 2870 b -10780

JTR YR 1995 MAX 60680 MIN 2870 b +36700

e Estimated.

a Elevation, in feet above sea level, at end of month.

b Change in contents, in acre-feet.

HUMBOLDT-CARSON SINK BASIN

CARSON RIVER BASIN

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

LOCATION.--Lat 38°42'50", long 119°45'50", in SW 1/4 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, and 1.5 mi northeast of Markleeville.

DRAINAGE AREA.--276 mi².

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 October 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	41	e90	e70	e250	267	575	3480	3690	2770	840	206
2	35	45	e100	69	e270	260	570	2350	3820	2550	804	202
3	34	40	e95	77	275	327	564	1630	3330	2510	758	208
4	44	36	e90	81	262	252	621	1490	3690	2430	733	209
5	56	69	e90	100	259	241	676	1330	3730	2400	722	200
6	57	179	e85	92	256	223	737	1150	2540	2680	705	191
7	57	119	80	124	239	220	841	1020	1840	2790	665	181
8	55	84	e64	96	235	216	773	1010	1510	2710	629	192
9	52	72	e67	219	221	1890	641	1110	1460	2730	575	198
10	49	63	e70	602	211	3010	592	1180	1850	2420	544	195
11	47	59	e75	301	204	1590	612	1330	2660	2070	508	191
12	45	e60	80	208	202	996	698	1280	3050	1780	468	187
13	44	e55	79	317	194	813	864	1100	3020	1540	445	182
14	44	53	e70	626	191	843	709	1000	2980	1480	424	177
15	44	e57	e70	366	169	874	640	989	2340	1490	402	171
16	43	60	e70	247	175	788	595	942	1760	1530	395	165
17	44	e120	72	202	169	672	544	983	1610	1520	399	169
18	45	e140	71	185	167	807	517	1110	1820	1440	379	172
19	44	e140	71	163	177	836	490	1440	1930	1410	349	180
20	43	e120	72	159	198	1010	489	1830	1820	1340	340	171
21	43	e90	69	149	229	880	478	2180	1780	1310	359	169
22	42	e80	e68	145	247	689	453	2350	1970	1250	348	168
23	41	e70	e66	e137	255	641	475	2140	2280	1140	339	166
24	40	e70	e65	e137	269	571	566	2030	2720	1080	330	169
25	40	e65	e65	e141	283	526	781	1630	3180	1030	308	168
26	40	e65	e65	e139	278	451	942	1760	3310	972	278	165
27	40	e70	e63	e137	268	478	1080	2080	3170	951	261	162
28	39	e80	e66	e135	269	458	1120	2110	3260	1020	250	160
29	39	e80	e61	e135	---	441	1380	2370	3110	1090	238	160
30	38	e80	62	e135	---	461	1770	2710	2810	1020	226	162
31	38	---	60	e145	---	520	---	3080	---	898	213	---
TOTAL	1360	2362	2271	5839	6422	22251	21793	52194	78040	53351	14234	5396
MEAN	43.9	78.7	73.3	188	229	718	726	1684	2601	1721	459	180
MAX	57	179	100	626	283	3010	1770	3480	3820	2790	840	209
MIN	34	36	60	69	167	216	453	942	1460	898	213	160
AC-FT	2700	4690	4500	11580	12740	44130	43230	103500	154800	105800	28230	10700

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	80.6	113	135	165	202	279	534	1103	985	398	147	89.5
MAX	346	476	718	545	917	983	1121	2447	2996	1721	477	239
(WY)	1983	1984	1965	1980	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1960 - 1995			
ANNUAL TOTAL	57839				265513							
ANNUAL MEAN	158				727				353			
HIGHEST ANNUAL MEAN									809			
LOWEST ANNUAL MEAN									83.7			
HIGHEST DAILY MEAN	932				3820				7360			
LOWEST DAILY MEAN	20				34				12			
ANNUAL SEVEN-DAY MINIMUM	23				39				12			
INSTANTANEOUS PEAK FLOW					5910				15100			
INSTANTANEOUS PEAK STAGE					7.27				10.21			
ANNUAL RUNOFF (AC-FT)	114700				526600				255700			
10 PERCENT EXCEEDS	469				2220				932			
50 PERCENT EXCEEDS	70				269				142			
90 PERCENT EXCEEDS	38				57				48			

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA

LOCATION (REVISED).--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, and 3.8 mi downstream from Willow Creek.

DRAINAGE AREA.--65.4 mi².

PERIOD OF RECORD.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to current year. 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. Monthly discharge only for some periods, published in WSP 1314.

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 October 1, 1938, nonrecording gage at about the same site at different datum. October 1, 1938, to November 11, 1958, water-stage recorder at same site at datum 1.02 ft lower. November 13, 1958, to January 30, 1963, water-stage recorder at site 150 ft downstream at datum 3.06 ft lower.

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 OUTSIDE PERIOD OF RECORD.--Flood of December 11, 1937, reached a stage of 8.0 ft, present datum, from floodmarks, discharge, 3,500 ft³/s, on basis of slope-area measurement of peak flow.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	23	23	60	74	156	1040	1100	674	228	70
2	15	19	24	25	65	73	158	1030	1060	636	222	68
3	15	16	24	22	63	69	166	790	961	637	210	59
4	17	16	23	23	62	66	183	727	1010	606	203	58
5	20	33	23	21	62	64	215	640	981	579	199	57
6	21	61	23	22	61	62	227	563	757	602	196	54
7	21	39	22	24	59	59	240	552	601	635	184	53
8	20	29	e22	22	58	57	254	606	509	631	179	51
9	19	26	e21	27	56	193	207	658	502	611	162	51
10	18	23	22	41	55	310	175	698	601	577	155	50
11	17	24	22	30	54	259	205	743	771	521	150	49
12	17	24	23	33	54	240	256	685	853	453	139	59
13	16	20	22	42	52	217	313	582	826	386	131	75
14	16	24	23	51	49	223	246	515	852	367	128	72
15	16	22	23	53	59	228	212	494	767	364	121	60
16	17	20	22	51	48	208	190	491	608	371	119	55
17	17	19	22	50	47	188	173	535	550	379	119	46
18	16	16	23	47	47	216	158	617	594	363	113	45
19	16	26	23	51	49	260	146	731	619	352	105	44
20	16	23	23	47	54	270	144	850	574	348	102	43
21	16	23	23	45	60	244	136	952	553	334	107	43
22	16	23	22	44	64	168	133	964	588	319	104	43
23	15	22	23	42	68	147	160	890	641	298	99	42
24	15	22	23	41	73	144	217	814	716	280	97	42
25	15	20	23	40	79	163	319	719	767	276	91	42
26	15	19	23	39	80	162	356	758	797	267	83	41
27	15	24	23	38	77	128	374	816	788	258	77	60
28	15	23	23	38	77	115	404	809	770	276	72	66
29	15	22	23	38	---	112	503	863	738	296	68	63
30	15	22	22	40	---	119	605	914	694	277	72	51
31	15	---	29	49	---	128	---	983	---	243	72	---
TOTAL	513	716	710	1159	1692	4966	7231	23029	22148	13216	4107	1612
MEAN	16.5	23.9	22.9	37.4	60.4	160	241	743	738	426	132	53.7
MAX	21	61	29	53	80	310	605	1040	1100	674	228	75
MIN	15	16	21	21	47	57	133	491	502	243	68	41
AC-FT	1020	1420	1410	2300	3360	9850	14340	45680	43930	26210	8150	3200

e Estimated.

10310000 WEST FORK CARSON RIVER AT WOODFORDS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.3	40.6	47.7	46.3	56.4	75.9	204	375	259	108	49.4	31.1
MAX	79.1	321	347	140	258	283	502	924	996	525	223	120
(WY)	1983	1951	1951	1970	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1901 - 1995	
ANNUAL TOTAL	14128.5		81099		110	
ANNUAL MEAN	38.7		222		290	
HIGHEST ANNUAL MEAN					26.1	
LOWEST ANNUAL MEAN					1907	
HIGHEST DAILY MEAN	197	Apr 19	1100	Jun 1	3000	Feb 1 1963
LOWEST DAILY MEAN	9.0	Sep 9	15	Oct 2	5.3	Sep 2 1977
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 6	15	Oct 23	5.4	Sep 5 1977
INSTANTANEOUS PEAK FLOW			1460	Jun 1	4890	Feb 1 1963
INSTANTANEOUS PEAK STAGE			4.81	Jun 1	9.00	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	28020		160900		79850	
10 PERCENT EXCEEDS	94		696		292	
50 PERCENT EXCEEDS	23		72		46	
90 PERCENT EXCEEDS	11		20		17	

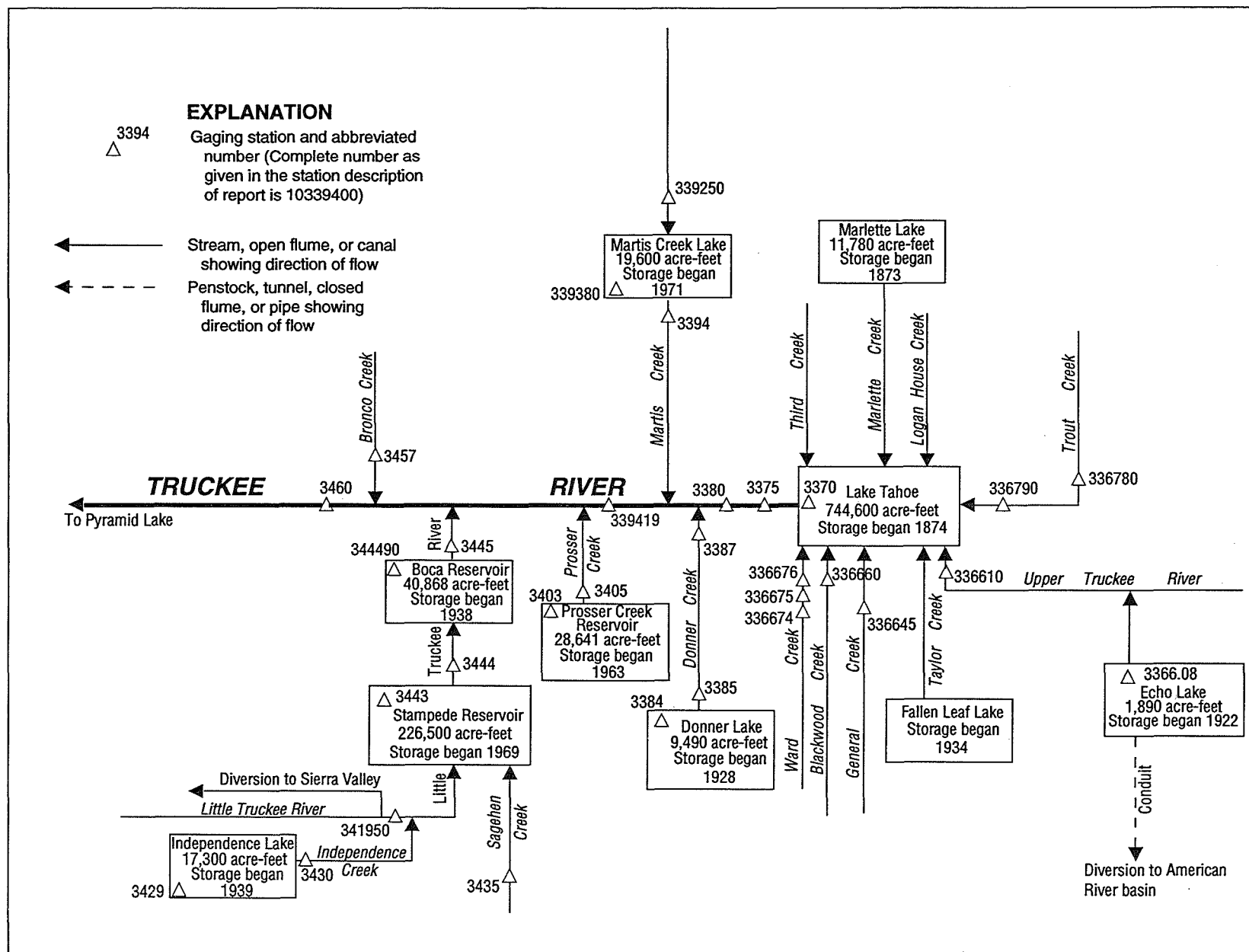


Figure 22. Diversions and storage in Truckee River basin.

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 mi².

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 South Fork American 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, 1,968 acre-ft, June 10, 1994, gage height, 6.24 ft; minimum, 0 acre-ft, Nov. 18-20, 1993, gage height, 0.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,900 acre-ft, July 28, gage height, 6.03 ft; minimum, 12 acre-ft, Nov. 3, gage height, 0.04 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1934)

0	0	4	1,255
1	310	5	1,570
2	625	6	1,890
3	940	6.7	2,118

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	343	30	185	75	72	69	87	563	557	1252	1854	1815
2	316	21	185	72	81	87	90	482	569	1258	1854	1809
3	304	12	202	66	81	105	90	372	545	1264	1883	1809
4	313	30	185	75	78	96	105	307	542	1264	1880	1815
5	307	90	170	120	78	81	120	277	560	1285	1877	1773
6	298	99	170	144	75	75	155	238	494	1338	1861	1733
7	283	105	170	144	66	69	188	209	408	1389	1841	1703
8	280	111	144	137	66	69	158	199	343	1570	1844	1677
9	259	111	130	144	63	226	137	192	322	1664	1861	1664
10	216	111	123	167	60	337	123	202	385	1693	1838	1654
11	216	127	114	130	57	298	120	223	479	1703	1841	1612
12	199	148	141	127	51	259	123	238	545	1680	1835	1580
13	185	158	141	170	63	235	164	241	548	1667	1835	1560
14	179	176	141	192	63	195	151	244	497	1690	1851	1518
15	155	173	130	161	57	182	144	213	494	1786	1867	1469
16	151	173	127	127	45	179	137	220	405	1867	1883	1442
17	144	256	120	99	39	167	123	220	340	1883	1883	1436
18	134	238	117	78	39	220	114	229	372	1851	1883	1421
19	120	232	108	63	39	223	114	268	392	1848	1883	1382
20	120	213	99	57	39	250	127	304	395	1848	1887	1353
21	108	206	90	45	42	232	111	372	392	1841	1887	1316
22	105	195	90	39	51	241	102	412	405	1838	1893	1273
23	102	185	90	39	57	226	93	412	461	1822	1883	1261
24	90	173	99	42	66	182	108	408	521	1822	1880	1246
25	90	220	93	48	69	155	123	382	575	1861	1877	1193
26	81	232	87	57	69	130	161	382	590	1874	1857	1151
27	45	226	87	69	72	117	192	405	723	1877	1835	1103
28	54	216	99	60	72	105	206	415	848	1900	1848	1029
29	60	202	90	54	---	96	292	433	1019	1890	1818	943
30	45	185	84	54	---	93	334	470	1197	1851	1825	859
31	30	---	81	57	---	87	---	503	---	1844	1831	---
MAX	343	256	202	192	81	337	334	563	1197	1900	1893	1815
MIN	30	12	81	39	39	69	87	192	322	1252	1818	859
a	.10	.60	.27	.19	.24	.29	1.08	1.61	3.82	5.86	5.82	2.74
b	-339	+155	-104	-24	+15	+15	+247	+169	+694	+647	-13	-972

WTR YR 1995 MAX 1900 MIN 12 b +490

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN

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 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 6,229.04 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 periods. 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, 2,740 ft³/s, Mar. 8, 1986, gage height, 9.08 ft; maximum gage height, 10.12 ft, present datum, Feb. 16, 1982; minimum daily, 0.94 ft³/s, Oct. 5, 1988.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 10	2215	1200	6.94	June 5	Unknown	e1210	Unknown
Apr. 7	2215	300	4.27	June 13	0730	988	6.36
May 1	2115	*1460	*7.38	June 26	0830	1070	6.56

Minimum daily, 3.2 ft³/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.2	e3.7	e22	e15	101	86	132	1180	950	789	165	e48
2	e3.2	e4.0	e25	e15	106	89	132	1010	1080	756	154	e47
3	e5.0	e4.0	e28	e15	88	123	137	587	999	762	146	e46
4	e8.0	e4.0	e31	e15	79	113	150	458	1000	759	141	e45
5	e6.0	e4.0	e28	e16	74	86	166	382	e1070	694	139	e44
6	e4.0	86	e26	e18	70	76	177	312	876	730	135	e42
7	e3.5	41	e24	e30	67	73	238	267	612	829	126	e42
8	e3.5	30	e23	e40	66	71	221	257	443	750	117	e41
9	e3.5	24	e22	e90	62	503	168	270	385	766	97	e41
10	e3.5	e23	e21	e150	61	901	148	277	494	704	102	e40
11	e3.4	23	e20	e110	59	635	150	319	678	608	97	e40
12	e3.4	20	e20	e150	58	283	167	312	844	513	89	e40
13	e3.4	18	e18	e180	56	253	213	278	889	390	84	e40
14	e3.4	e18	e18	e210	e54	293	179	271	896	351	77	e39
15	e3.4	e18	e17	e160	e52	284	155	262	813	313	68	e39
16	e3.4	e19	e17	e120	e51	233	142	255	611	338	67	e39
17	e3.4	20	e16	e120	49	198	129	259	455	360	69	e38
18	e3.4	e20	e16	e102	50	303	122	289	469	361	e69	e38
19	e3.4	e18	e16	e92	50	317	116	344	560	329	e67	e37
20	e3.4	e16	e15	e71	53	314	120	417	528	308	e65	e37
21	e3.4	e15	e15	e62	59	276	113	500	495	291	e63	e37
22	e3.4	e15	e15	e58	64	209	110	571	552	269	e62	e37
23	e3.4	e15	e15	e53	68	192	117	536	642	247	e61	e38
24	e3.4	e15	e15	e50	74	173	137	525	766	228	e60	e38
25	e3.4	e17	e15	50	81	153	178	445	904	210	e60	e38
26	e3.4	e20	e15	48	83	136	203	488	976	195	e58	e39
27	e3.4	e23	e15	49	81	125	258	589	941	193	e55	e39
28	e3.4	e20	e15	50	81	117	333	581	881	206	e52	35
29	e3.4	e20	e15	49	---	113	458	656	866	236	e51	49
30	e3.4	e20	e15	52	---	112	599	734	731	224	e50	53
31	e3.4	---	e15	75	---	118	---	818	---	188	e49	---
TOTAL	114.8	629.7	588	2315	1897	6958	5668	14449	22406	13897	2695	1226
MEAN	3.70	21.0	19.0	74.7	67.7	224	189	466	747	448	86.9	40.9
MAX	8.0	86	31	210	106	901	599	1180	1080	829	165	53
MIN	3.2	3.7	15	15	49	71	110	255	385	188	49	35
AC-FT	228	1250	1170	4590	3760	13800	11240	28660	44440	27560	5350	2430

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.7	42.8	48.5	50.4	65.9	106	159	291	250	90.2	21.5	13.4
MAX	72.1	225	218	165	307	305	300	567	795	448	102	55.3
(WY)	1983	1984	1982	1974	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1972 - 1995			
ANNUAL TOTAL	11482.00				72843.5							
ANNUAL MEAN	31.5				200				98.5			
HIGHEST ANNUAL MEAN									203			1983
LOWEST ANNUAL MEAN									29.2			1988
HIGHEST DAILY MEAN	196				1180				2010			Feb 16 1982
LOWEST DAILY MEAN	.70				3.2				.70			Aug 22 1994
ANNUAL SEVEN-DAY MINIMUM	.70				3.4				.70			Aug 22 1994
INSTANTANEOUS PEAK FLOW					1460				2740			Mar 8 1986
INSTANTANEOUS PEAK STAGE					7.38				10.12			Feb 16 1982
ANNUAL RUNOFF (AC-FT)	22770				144500				71350			
10 PERCENT EXCEEDS	83				621				269			
50 PERCENT EXCEEDS	15				79				37			
90 PERCENT EXCEEDS	1.7				15				6.7			

PYRAMID AND WINNEMUCCA LAKES BASIN

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.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1977 to June 1978, March 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. In May 1994, station was incorporated into the National Water-Quality Assessment Program (NAWQA) to monitor water-quality conditions in the Truckee River Basin. These data are reviewed and provided by the U.S. Geological Survey, Nevada District Office.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT									
19...	1010	3.4	116	--	7.0	4.5	--	--	--
NOV									
06...	1340	100	73	--	7.5	5.0	--	--	--
DEC									
22...	1415	15	80	--	3.0	0.5	--	--	--
JAN									
09...	1550	90	68	--	3.0	0.5	--	--	--
10...	1500	150	56	--	1.0	0.5	--	--	--
13...	2020	180	59	--	2.0	0.5	--	--	--
14...	1350	210	55	--	1.5	0.5	--	--	--
26...	1530	47	82	7.9	0.0	1.0	600	10.9	98
31...	1700	83	83	--	5.0	6.0	--	--	--
FEB									
01...	1300	97	74	--	4.0	10.0	--	--	--
27...	1120	80	75	--	9.0	3.0	--	--	--
MAR									
09...	1800	802	44	--	2.5	1.0	--	--	--
13...	1615	262	64	--	4.0	4.5	--	--	--
20...	1130	329	60	--	3.0	3.0	--	--	--
27...	1115	130	78	8.4	2.0	1.5	--	--	--
APR									
05...	1150	153	78	--	12.0	4.0	--	--	--
26...	1330	199	57	--	15.0	5.0	--	--	--
27...	1850	318	60	--	4.5	4.0	--	--	--
28...	1255	308	55	--	6.0	5.0	--	--	--
29...	1430	413	52	--	8.0	5.0	--	--	--
30...	1330	536	43	--	13.0	7.0	--	--	--
MAY									
02...	1320	916	36	--	8.5	5.0	--	--	--
04...	1230	457	45	--	9.5	5.5	--	--	--
09...	1340	268	51	7.3	11.0	5.5	605	10.2	102
18...	1610	274	52	--	15.5	10.0	--	--	--
23...	1310	528	36	--	13.0	7.0	--	--	--
31...	1320	848	28	--	16.0	9.5	--	--	--
JUN									
02...	1320	1110	25	--	18.0	9.0	--	--	--
14...	1330	902	24	7.2	12.5	8.5	600	9.7	105
28...	1100	973	22	--	20.0	10.0	--	--	--
JUL									
06...	1250	757	23	--	24.0	11.0	--	--	--
17...	1110	335	25	7.3	19.5	10.0	608	9.7	108
AUG									
02...	1050	135	31	--	20.5	13.0	--	--	--
29...	1210	37	54	7.3	21.5	13.0	607	8.3	100
SEP									
15...	1110	41	40	--	20.5	13.5	--	--	--

PYRAMID AND WINNEMUCCA LAKES BASIN

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

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO, REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT									
19...	0.005	<0.001	0.10	0.016	0.011	0.003	325	2	0.02
NOV									
06...	0.035	0.002	0.49	0.088	0.021	0.006	1080	44	12
DEC									
22...	0.010	<0.001	0.14	0.023	0.017	0.004	371	2	0.08
JAN									
09...	0.023	0.005	0.73	0.055	0.014	0.003	975	37	9.0
10...	0.028	0.003	0.51	0.090	0.023	0.004	1690	61	25
13...	0.037	<0.001	0.39	0.076	0.017	0.010	1710	68	33
14...	0.036	<0.001	0.39	0.121	0.019	0.010	1880	93	53
26...	0.030	0.001	0.15	0.021	0.014	0.006	550	9	1.1
31...	0.012	<0.001	0.55	0.056	0.015	0.007	999	35	7.9
FEB									
01...	0.021	<0.001	0.25	0.028	0.014	0.006	554	23	6.0
27...	0.013	0.004	0.16	0.031	0.009	0.003	442	4	0.86
MAR									
09...	0.026	0.001	1.2	0.211	0.027	0.017	4210	269	582
13...	0.026	0.005	0.26	0.052	0.014	0.009	717	31	22
20...	0.037	0.001	0.34	0.050	0.021	0.009	523	26	23
27...	0.046	0.004	0.12	0.028	0.016	0.005	348	10	3.5
APR									
05...	0.028	<0.001	0.18	0.028	0.017	0.006	542	12	5.0
26...	0.015	0.001	0.15	0.025	0.013	0.004	342	13	7.0
27...	0.010	<0.001	0.38	0.077	0.015	0.003	1340	59	51
28...	0.019	<0.001	0.18	0.025	0.014	0.003	315	34	28
29...	0.013	<0.001	0.26	0.045	0.017	0.005	624	28	31
30...	0.010	<0.001	0.27	0.050	0.018	0.005	1180	60	87
MAY									
02...	0.014	<0.001	0.25	0.046	0.014	0.004	913	28	69
04...	0.009	<0.001	0.14	0.032	0.012	0.002	673	20	25
09...	0.016	<0.001	0.14	0.024	0.011	0.004	275	10	7.2
18...	0.014	0.001	0.14	0.023	0.016	0.005	--	7	5.2
23...	0.004	<0.001	0.10	0.026	0.014	0.004	294	13	19
31...	0.003	<0.001	0.20	0.028	0.013	0.007	486	27	62
JUN									
02...	0.012	0.001	0.16	0.041	0.016	0.008	531	27	81
14...	0.005	<0.001	0.18	0.053	0.018	0.005	547	25	61
28...	0.003	<0.001	0.18	0.035	0.019	0.007	495	39	102
JUL									
06...	0.008	0.006	0.22	0.036	0.016	0.006	397	28	57
17...	0.006	<0.001	0.12	0.044	0.016	0.006	458	15	14
AUG									
02...	0.009	0.001	0.13	0.056	0.016	0.006	759	23	8.4
29...	0.002	0.001	0.11	0.021	0.025	0.005	203	3	0.30
SEP									
15...	0.009	0.001	0.08	0.021	0.014	0.004	200	3	0.33

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 mi².

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 and discharges less than 0.5 ft³/s, 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, 765 ft³/s, Dec. 20, 1981, gage height, 5.43 ft, from rating curve extended above 180 ft³/s on basis of computation of flow through culvert; minimum daily, 0.29 ft³/s, July 28, Aug. 15, 1994.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 10	2245	174	2.49	June 5	0015	265	2.95
Mar. 23	1000	105	2.09	June 11	2300	252	2.88
May 1	1815	*331	*3.29	June 26	2145	265	2.95

Minimum daily, 0.54 ft³/s, Oct. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	e.90	1.6	20	14	21	269	181	97	5.1	e1.6
2	.97	1.3	e.90	1.8	23	14	21	176	139	85	4.8	e1.6
3	.98	1.1	1.3	1.8	18	16	21	127	156	82	4.4	e1.6
4	1.4	1.1	1.8	2.0	16	15	23	94	175	71	4.1	e1.6
5	1.4	3.5	1.6	2.7	16	13	28	69	153	67	3.8	e1.5
6	1.1	2.9	1.4	2.9	15	12	33	56	90	64	3.6	e1.5
7	.87	1.2	1.2	5.5	14	11	38	51	59	58	3.3	e1.5
8	.83	.88	1.2	5.2	12	11	42	52	49	53	3.1	e1.5
9	.77	.76	e1.2	7.8	11	55	32	58	57	45	2.9	e1.5
10	.67	.79	e1.2	18	11	126	27	67	101	40	2.7	e1.5
11	.68	.67	e1.2	39	11	112	27	83	150	34	2.7	e1.4
12	.68	.61	1.2	14	11	71	32	68	158	29	2.6	e1.4
13	.54	.61	1.2	19	10	56	42	54	141	23	2.4	1.4
14	.56	.61	1.2	56	e9.5	51	38	47	149	21	2.3	1.4
15	.63	.61	1.2	46	e9.0	52	32	42	142	21	2.1	1.4
16	.61	.61	1.2	27	8.8	50	28	40	82	20	2.1	1.4
17	.56	e.61	e1.2	18	8.6	41	25	50	63	19	2.1	1.4
18	.58	e.61	e1.2	12	8.4	51	23	70	81	18	1.9	1.3
19	.61	.61	1.2	11	8.1	57	21	94	98	16	1.9	1.2
20	.64	.61	1.2	9.5	8.4	56	20	115	86	14	1.9	1.2
21	.69	.61	1.2	9.4	9.1	53	19	134	85	13	1.9	1.2
22	.69	.61	1.2	9.7	10	54	19	129	105	12	1.9	1.2
23	.68	.61	1.2	9.7	11	82	21	113	129	11	e1.8	1.2
24	.68	.55	1.3	8.8	12	67	29	102	155	9.4	e1.8	1.2
25	.76	e.60	e1.3	8.0	13	48	42	92	161	8.6	e1.8	1.2
26	.77	e.60	1.3	7.7	14	31	49	119	156	7.8	e1.7	1.2
27	.74	e.60	1.3	7.6	14	23	57	138	151	7.4	e1.7	1.2
28	.76	e.60	1.3	7.6	14	21	76	130	133	6.7	e1.7	1.3
29	.80	e.60	1.4	8.2	---	21	123	148	125	6.2	e1.7	1.3
30	.86	e.90	1.5	8.8	---	21	135	163	112	6.1	e1.7	1.2
31	.87	---	1.6	11	---	20	---	181	---	5.6	e1.7	---
TOTAL	24.48	26.97	39.30	397.3	345.9	1325	1144	3131	3622	970.8	79.2	41.1
MEAN	.79	.90	1.27	12.8	12.4	42.7	38.1	101	121	31.3	2.55	1.37
MAX	1.4	3.5	1.8	56	23	126	135	269	181	97	5.1	1.6
MIN	.54	.55	.90	1.6	8.1	11	19	40	49	5.6	1.7	1.2
AC-FT	49	53	78	788	686	2630	2270	6210	7180	1930	157	82

e Estimated.

10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.33	8.17	8.68	6.52	12.0	18.6	37.4	58.3	34.1	7.23	1.29	1.26
MAX	15.5	45.4	58.7	19.4	64.2	60.1	70.4	114	158	49.6	4.72	4.36
(WY)	1983	1982	1982	1984	1986	1986	1989	1993	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1980 - 1995	
ANNUAL TOTAL	2113.50		11147.05		16.3	
ANNUAL MEAN	5.79		30.5		34.7	
HIGHEST ANNUAL MEAN					4.96	
LOWEST ANNUAL MEAN					588	
HIGHEST DAILY MEAN	62	Apr 19	269	May 1	Dec 20	1981
LOWEST DAILY MEAN	.29	Jul 28	.54	Oct 13	Jul 28	1994
ANNUAL SEVEN-DAY MINIMUM	.31	Aug 15	.58	Oct 13	Aug 15	1994
INSTANTANEOUS PEAK FLOW			331	May 1	Dec 20	1981
INSTANTANEOUS PEAK STAGE			3.29	May 1	Dec 20	1981
ANNUAL RUNOFF (AC-FT)	4190		22110		11820	
10 PERCENT EXCEEDS	18		103		48	
50 PERCENT EXCEEDS	1.2		9.1		2.9	
90 PERCENT EXCEEDS	.39		.76		.72	

PYRAMID AND WINNEMUCCA LAKES BASIN

10336645 GENERAL CREEK NEAR MEEKS BAY, CA

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. These data were reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
28...	1405	0.78	64	10.0	5.5	0.004	0.001
NOV							
05...	1415	4.8	61	4.5	3.0	0.015	<0.001
05...	2050	4.5	58	3.0	3.0	0.015	0.002
06...	1220	2.7	58	8.0	4.5	0.015	0.002
30...	1135	0.90	58	2.5	0.5	0.009	0.001
DEC							
29...	1540	1.5	47	0.0	1.0	0.006	0.002
JAN							
10...	1330	22	33	1.5	0.0	0.024	0.002
11...	1340	52	30	0.0	0.0	0.024	0.001
13...	1240	18	31	4.0	0.0	0.017	0.001
14...	1640	59	24	-0.5	0.0	0.011	0.001
30...	1630	8.8	31	3.5	2.0	0.004	0.001
FEB							
28...	1455	14	27	6.0	3.0	0.004	0.002
MAR							
09...	1620	80	23	3.0	0.0	0.011	<0.001
09...	2055	102	22	2.0	0.0	0.009	0.000
10...	1310	117	20	2.0	0.0	0.007	0.004
10...	1855	162	20	0.0	0.0	0.006	<0.001
11...	1340	88	21	2.0	0.0	0.006	0.001
APR							
05...	1100	28	26	9.0	2.0	0.005	0.004
26...	1935	187	20	5.0	3.0	0.005	0.001
29...	1610	152	19	5.0	1.0	0.005	<0.001
29...	2055	199	19	2.5	0.0	0.007	0.001
30...	1545	113	18	7.5	2.0	0.005	0.002
MAY							
01...	1150	306	17	6.5	0.0	0.006	0.001
01...	1850	327	16	2.0	0.0	0.006	0.001
02...	1115	154	16	3.5	1.5	0.005	0.002
11...	1505	82	17	7.0	4.5	0.004	<0.001
20...	0745	117	15	2.5	1.0	0.004	<0.001
26...	1520	99	15	14.0	6.0	0.003	<0.001
JUN							
02...	2055	168	13	8.0	4.5	0.003	<0.001
05...	0840	160	12	6.0	2.0	0.003	<0.001
12...	2215	210	10	5.0	3.0	0.003	<0.001
24...	1235	98	11	22.0	5.0	0.005	0.001
27...	1425	97	10	22.0	7.5	0.005	0.001
27...	2220	237	8	11.5	5.5	0.004	0.001
28...	0740	113	9	9.0	3.0	0.005	0.001
JUL							
12...	2100	24	17	6.0	9.0	0.004	0.003
18...	1625	17	20	20.0	13.5	0.005	0.002
27...	1115	7.6	32	20.5	11.5	0.006	0.002
AUG							
08...	1035	3.2	46	14.5	10.5	0.005	0.005
SEP							
06...	1455	1.5	56	22.0	12.5	0.002	0.001
28...	1010	1.3	63	12.0	7.0	0.004	0.005

PYRAMID AND WINNEMUCCA LAKES BASIN

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10336645 GENERAL CREEK NEAR MEEKS BAY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO. REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT							
28...	0.10	0.023	0.024	0.017	145	1	<0.01
NOV							
05...	0.37	0.076	0.043	0.024	536	14	0.18
05...	0.41	0.053	0.036	0.020	309	4	0.05
06...	0.51	0.047	0.031	0.014	261	4	0.03
30...	0.09	0.021	0.019	0.013	148	2	<0.01
DEC							
29...	0.10	0.024	0.023	0.009	100	6	0.02
JAN							
10...	0.31	0.031	0.020	0.004	234	10	0.59
11...	0.43	0.041	0.015	0.003	307	7	0.98
13...	0.23	0.028	0.015	0.005	196	8	0.39
14...	0.33	0.032	0.016	0.005	320	16	2.5
30...	0.11	0.011	0.008	0.003	59	4	0.09
FEB							
28...	0.12	0.013	0.007	0.002	45	1	0.04
MAR							
09...	0.42	0.071	0.011	0.006	634	12	2.6
09...	0.51	0.065	0.013	0.005	586	20	5.5
10...	0.40	0.034	0.015	0.005	459	24	7.6
10...	0.32	0.050	0.015	0.006	502	48	21
11...	0.33	0.032	0.011	0.003	209	16	3.8
APR							
05...	0.09	0.011	0.008	0.002	41	2	0.15
26...	0.11	0.012	0.015	0.003	67	7	3.5
29...	0.38	0.043	0.018	0.005	734	44	18
29...	0.39	0.052	0.019	0.006	1410	67	36
30...	0.09	0.016	0.014	0.004	142	10	3.1
MAY							
01...	0.39	0.058	0.016	0.006	1210	148	122
01...	0.29	0.041	0.016	0.007	725	71	63
02...	0.16	0.019	0.011	0.004	221	18	7.5
11...	0.09	0.013	0.011	0.002	61	4	0.89
20...	0.14	0.014	0.010	0.003	--	8	2.5
26...	0.27	0.009	0.009	0.003	58	8	2.1
JUN							
02...	0.14	0.011	0.009	0.002	164	10	4.5
05...	0.10	0.009	0.008	0.001	96	10	4.3
12...	0.16	0.011	0.008	0.002	179	12	6.8
24...	0.10	0.010	0.009	0.002	77	4	1.1
27...	0.12	0.010	0.008	0.001	59	4	1.0
27...	0.08	0.014	0.009	0.001	120	12	7.7
28...	0.09	0.013	0.008	0.001	86	2	0.61
JUL							
12...	0.07	0.013	0.007	0.002	89	4	0.26
18...	0.07	0.023	0.010	0.003	54	2	0.09
27...	0.07	0.031	0.015	0.005	59	1	0.02
AUG							
08...	0.11	0.021	0.018	0.011	150	4	0.03
SEP							
06...	0.08	0.029	0.023	0.014	101	2	0.01
28...	0.07	0.032	0.022	0.015	94	2	0.01

PYRAMID AND WINNEMUCCA LAKES BASIN

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA

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

DRAINAGE AREA.--11.2 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder 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 good except for estimated daily discharges and June 27 to Aug. 7, 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, 2,100 ft³/s, Dec. 22 or 24, 1964, on basis of computation of flow through culvert; maximum gage height, 9.90 ft, site and datum then in use, Dec. 22, 1964; minimum discharge, 0.30 ft³/s, Sept. 19, 1968.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 14	0715	Unknown	*a3.87	June 4	2045	435	3.31
Mar. 9	1730	329	3.12	June 11	2215	349	3.03
May 1	0815	*636	3.85	June 26	2000	459	3.38

(a) Backwater from ice.

Minimum daily, .92 ft³/s, Oct. 11, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.8	3.5	e3.5	35	29	36	522	327	258	61	8.1
2	.93	3.4	3.6	e3.5	37	30	37	292	309	244	57	7.6
3	1.2	2.9	e4.5	e3.5	32	32	38	181	305	244	57	7.3
4	2.0	2.8	e5.0	e3.5	29	29	41	153	337	244	50	6.9
5	1.8	6.1	e4.3	e3.5	27	27	46	129	302	249	47	6.3
6	1.1	6.5	e3.8	e4.0	27	26	52	109	199	244	40	5.9
7	1.1	3.5	e3.6	e7.0	25	25	63	99	148	235	39	5.4
8	1.1	2.9	e3.5	e5.0	24	24	65	99	131	206	40	5.1
9	1.0	2.9	e3.5	e12	23	174	53	103	143	191	35	5.1
10	.99	3.0	e3.5	e35	23	218	48	116	189	179	35	4.8
11	.92	e2.4	e3.5	e27	22	142	48	130	254	148	31	4.7
12	.95	e2.3	e3.5	e20	22	88	57	115	276	130	28	4.6
13	.92	e2.2	e3.5	e60	22	75	74	95	260	116	25	4.5
14	.96	e2.1	e3.5	e130	27	87	62	82	252	119	24	4.4
15	1.1	e2.0	e3.5	e45	23	105	55	76	257	123	23	4.0
16	1.2	e2.0	e3.5	e40	19	95	49	74	189	126	22	3.9
17	1.2	e2.0	e3.5	32	19	77	45	87	153	135	21	3.9
18	1.2	e2.0	e3.5	26	18	97	43	113	171	126	19	3.8
19	1.2	e2.1	e3.5	23	18	105	41	148	178	112	17	3.6
20	1.3	e2.1	e3.5	21	18	99	40	190	172	105	16	3.6
21	1.3	e2.1	e3.5	19	20	85	38	215	174	113	17	3.6
22	1.4	e2.1	e3.5	18	21	74	37	217	202	93	16	3.7
23	1.4	e2.1	e3.5	17	24	70	39	207	245	86	15	3.8
24	1.5	e2.1	e3.5	17	27	57	48	188	302	82	15	3.5
25	1.6	e2.1	e3.5	16	30	49	67	164	340	78	14	3.2
26	1.9	e2.1	e3.5	15	31	46	78	194	359	72	12	3.3
27	2.2	e2.1	e3.5	15	31	43	90	225	337	70	11	3.5
28	2.1	e2.1	e3.5	14	30	41	110	232	273	79	11	3.4
29	2.1	e2.1	e3.5	14	---	38	202	252	281	80	9.9	3.6
30	2.2	e2.1	e3.5	15	---	37	216	277	258	74	9.2	3.6
31	2.2	---	e3.5	24	---	36	---	310	---	69	8.6	---
TOTAL	43.37	79.0	112.3	688.5	704	2160	1918	5394	7323	4430	825.7	138.7
MEAN	1.40	2.63	3.62	22.2	25.1	69.7	63.9	174	244	143	26.6	4.62
MAX	2.2	6.5	5.0	130	37	218	216	522	359	258	61	8.1
MIN	.92	2.0	3.5	3.5	18	24	36	74	131	69	8.6	3.2
AC-FT	86	157	223	1370	1400	4280	3800	10700	14530	8790	1640	275

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.19	13.4	19.7	21.8	20.5	30.2	59.4	127	100	29.0	5.91	2.93
MAX	28.1	94.8	157	166	116	122	124	312	320	149	36.1	10.3
(WY)	1963	1984	1965	1970	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1961 - 1995			
ANNUAL TOTAL	4858.27				23816.57							
ANNUAL MEAN	13.3				65.3				36.3			
HIGHEST ANNUAL MEAN									73.4			
LOWEST ANNUAL MEAN									8.71			
HIGHEST DAILY MEAN	107				522				1370			
LOWEST DAILY MEAN	.92				.92				.50			
ANNUAL SEVEN-DAY MINIMUM	.98				.98				.54			
INSTANTANEOUS PEAK FLOW					636				2100			
INSTANTANEOUS PEAK STAGE					3.87				9.90			
ANNUAL RUNOFF (AC-FT)	9640				47240				26270			
10 PERCENT EXCEEDS	43				210				105			
50 PERCENT EXCEEDS	3.6				26				9.8			
90 PERCENT EXCEEDS	1.3				2.1				2.1			

PYRAMID AND WINNEMUCCA LAKES BASIN

10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

WATER-QUALITY RECORDS

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

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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
04...	1750	2.5	78	4.0	8.0	0.006	0.001
28...	1315	2.1	88	11.5	6.5	0.004	0.001
NOV							
05...	1325	7.7	76	2.5	3.0	0.005	0.001
05...	2000	7.7	74	2.5	3.5	0.005	0.001
06...	1115	6.5	77	8.0	5.0	0.011	0.002
30...	1245	2.1	77	4.0	0.5	0.009	0.001
DEC							
29...	1640	3.5	71	-2.0	1.0	0.005	0.001
JAN							
10...	1200	35	52	0.5	0.0	0.042	0.001
11...	1215	27	58	-1.0	0.0	0.066	<0.001
13...	1135	60	50	3.0	0.0	0.035	0.001
13...	1630	60	44	2.5	0.0	0.038	0.001
13...	2145	60	43	3.0	0.0	0.044	0.001
14...	1535	130	42	0.0	0.0	0.053	0.003
30...	1520	15	61	3.0	4.0	0.016	<0.001
FEB							
28...	1410	29	56	8.0	5.0	0.008	0.001
MAR							
09...	1515	310	34	3.0	0.0	0.032	<0.001
09...	1945	299	36	1.0	0.0	0.035	0.001
10...	1215	206	41	1.0	0.5	0.035	<0.001
10...	1755	258	40	0.5	0.0	0.028	<0.001
11...	1250	131	47	3.0	3.0	0.052	0.001
APR							
04...	1730	41	57	8.0	7.5	0.016	0.002
26...	1850	79	48	7.0	6.0	0.018	0.001
29...	1515	219	41	5.0	3.5	0.024	0.001
29...	2005	271	39	2.0	2.0	0.027	<0.001
30...	1500	187	44	6.5	4.0	0.036	0.001
MAY							
01...	1040	611	34	2.0	0.0	0.040	0.002
01...	1805	607	27	2.5	1.0	0.038	0.002
02...	1015	288	41	4.5	3.0	0.051	0.002
11...	1415	110	45	7.5	6.0	0.024	<0.001
20...	0705	181	39	0.0	1.5	0.029	<0.001
26...	1435	189	39	14.5	7.5	0.012	<0.001
JUN							
02...	2005	346	32	9.5	3.5	0.019	<0.001
05...	0755	318	34	5.0	2.5	0.021	<0.001
12...	2035	326	30	--	4.0	0.014	<0.001
24...	1200	237	30	18.0	6.5	0.015	0.002
27...	1335	276	28	19.0	8.5	0.017	0.002
27...	2005	404	24	16.0	5.0	0.019	0.002
28...	0655	258	29	4.5	3.0	0.020	0.001
JUL							
12...	2005	142	31	7.0	8.0	0.007	0.003
18...	1535	126	30	19.0	9.5	0.005	0.002
27...	1235	57	33	20.5	10.0	0.006	0.002
AUG							
08...	1130	40	34	14.0	8.5	0.006	0.003
SEP							
06...	1405	6.5	55	22.0	14.5	0.007	0.003
28...	1110	3.4	66	12.0	8.0	0.004	0.002

PYRAMID AND WINNEMUCCA LAKES BASIN

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10336660 BLACKWOOD CREEK NEAR TAHOE CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO. REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT							
04...	0.10	0.027	0.017	0.008	619	2	0.01
28...	0.07	0.017	0.016	0.010	517	4	0.02
NOV							
05...	0.25	0.052	0.022	0.009	946	12	0.25
05...	0.21	0.038	0.023	0.011	624	8	0.17
06...	0.16	0.034	0.021	0.010	555	5	0.09
30...	0.05	0.014	0.010	0.005	253	4	0.02
DEC							
29...	0.04	0.029	0.017	0.005	245	2	0.02
JAN							
10...	0.18	0.038	0.019	0.003	465	14	1.3
11...	0.20	0.039	0.017	0.002	642	18	1.3
13...	0.29	0.024	0.017	0.002	1840	47	7.6
13...	0.51	0.087	0.018	0.004	2200	82	13
13...	0.70	0.102	0.018	0.003	2740	108	17
14...	0.24	0.057	0.019	0.006	785	50	18
30...	0.06	0.014	0.010	0.004	202	3	0.12
FEB							
28...	0.13	0.019	0.008	0.003	194	4	0.31
MAR							
09...	1.7	0.596	0.017	0.007	6980	516	432
09...	0.90	0.341	0.020	0.008	4310	358	289
10...	0.30	0.067	0.016	0.007	943	100	56
10...	0.33	0.090	0.018	0.007	1310	182	127
11...	0.28	0.044	0.014	0.006	567	31	11
APR							
04...	0.06	0.020	0.019	0.005	189	6	0.66
26...	0.07	0.019	0.024	0.005	222	10	2.1
29...	0.33	0.066	0.020	0.005	1430	124	73
29...	0.51	0.094	0.018	0.006	2360	180	132
30...	0.13	0.029	0.014	0.005	411	30	15
MAY							
01...	0.86	0.333	0.017	0.008	4900	440	726
01...	0.73	0.252	0.020	0.008	3460	316	518
02...	0.17	0.068	0.024	0.006	1180	92	72
11...	0.08	0.023	0.015	0.004	192	16	4.8
20...	0.10	0.032	0.016	0.003	--	28	14
26...	0.12	0.026	0.016	0.005	147	14	7.1
JUN							
02...	0.17	0.042	0.013	0.003	684	74	69
05...	0.15	0.034	0.013	0.004	487	62	53
12...	0.18	0.044	0.014	0.004	913	73	64
24...	0.13	0.025	0.011	0.003	419	62	40
27...	0.22	0.044	0.014	0.002	515	44	33
27...	0.24	0.080	0.015	0.004	1200	154	168
28...	0.16	0.037	0.015	0.002	486	46	32
JUL							
12...	0.05	0.024	0.014	0.003	212	16	6.1
18...	0.03	0.033	0.011	0.002	119	8	2.7
27...	0.04	0.030	0.012	0.002	131	33	5.1
AUG							
08...	0.10	0.035	0.010	0.005	115	3	0.32
SEP							
06...	0.06	0.020	0.018	0.007	137	4	0.07
28...	0.02	0.020	0.012	0.007	113	21	0.19

PYRAMID AND WINNEMUCCA LAKES BASIN

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 mi².

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 fair except for estimated daily discharges, which are poor. No storage or diversion upstream from station. See schematic diagram of Truckee River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 316 ft³/s, May 31, 1993, gage height, 6.66 ft; maximum gage height, 7.45 ft, Jan. 10, 1995, backwater from ice; no flow for some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	1100	Unknown	*a7.45	May 1	0630	*235	6.07
Jan. 14	0400	112	5.84	June 4	1845	162	5.97
Mar. 10	Unknown	Unknown	Unknown	June 26	1645	223	6.34
Mar. 18	1800	58	5.31				

(a) Backwater from ice.

Minimum daily, 0.02 ft³/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.17	e.50	e.90	16	10	10	190	113	151	35	3.8
2	.02	.18	e.50	e.95	16	e9.4	11	92	111	147	34	3.5
3	.04	.07	e1.0	e.95	12	e9.2	11	54	115	151	33	3.4
4	.25	.10	e.85	e.98	11	e9.0	13	46	127	144	32	3.3
5	.31	2.8	e.75	e1.0	9.9	e8.5	15	40	103	151	31	3.0
6	.21	4.5	e.66	e1.0	9.5	e8.0	17	33	72	147	29	2.8
7	.21	1.6	e.64	2.9	8.4	e7.5	18	30	53	143	27	2.7
8	.19	1.2	e.62	.96	8.0	e7.0	18	31	43	129	24	2.5
9	.18	1.0	e.62	5.7	7.3	e120	16	34	51	128	21	2.4
10	.16	e.90	e.62	e35	7.0	e160	14	38	74	118	20	2.3
11	.14	e.80	e.64	29	6.7	e60	15	44	103	107	18	2.2
12	.11	e.65	e.64	7.4	6.6	e20	18	36	112	90	16	2.1
13	.11	e.58	e.66	38	6.7	e15	25	31	107	78	15	2.0
14	.14	e.54	e.66	69	6.5	e22	21	26	108	75	14	1.9
15	.16	e.53	e.66	20	6.0	e27	18	24	109	80	13	1.8
16	.13	e.51	e.66	12	5.6	e23	16	23	81	85	13	1.7
17	.14	e.50	e.68	8.9	5.4	e25	15	29	67	88	13	1.7
18	.14	e.50	e.68	7.3	5.1	38	14	41	85	83	11	1.6
19	.13	e.50	e.70	6.4	5.2	39	13	56	85	74	10	1.6
20	.13	e.50	e.70	5.7	6.0	34	13	71	82	69	9.8	1.4
21	.13	e.50	e.70	5.2	7.1	30	12	84	84	64	10	1.4
22	.13	e.50	e.70	4.9	7.8	26	12	87	98	57	9.8	1.3
23	.13	e.50	e.70	4.7	9.0	22	13	86	119	51	9.4	1.2
24	.13	e.50	e.72	4.5	10	18	18	81	142	46	8.9	1.1
25	.13	e.50	e.72	4.1	12	16	27	75	149	44	8.0	1.0
26	.13	e.50	e.72	3.9	12	15	33	83	165	42	7.0	1.0
27	.12	e.50	e.72	3.8	11	13	38	91	167	41	6.1	.95
28	.13	e.50	e.72	3.6	11	12	47	95	158	45	5.5	.89
29	.13	e.50	e.72	3.9	---	11	84	101	153	45	4.8	.84
30	.12	e.50	e.80	4.6	---	10	84	110	157	40	4.5	.80
31	.12	---	e.85	11	---	9.9	---	110	---	37	4.1	---
TOTAL	4.34	23.13	21.51	308.24	244.8	834.5	679	1972	3193	2750	496.9	58.18
MEAN	.14	.77	.69	9.94	8.74	26.9	22.6	63.6	106	88.7	16.0	1.94
MAX	.31	4.5	1.0	69	16	160	84	190	167	151	35	3.8
MIN	.02	.07	.50	.90	5.1	7.0	10	23	43	37	4.1	.80
AC-FT	8.6	46	43	611	486	1660	1350	3910	6330	5450	986	115

e Estimated.

10336674 WARD CREEK BELOW CONFLUENCE NEAR TAHOE CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.52	.75	.89	3.66	3.59	13.7	24.7	51.7	50.4	29.5	5.04	.70
MAX	1.21	1.04	1.16	9.94	8.74	26.9	29.0	92.8	106	88.7	16.0	1.94
(WY)	1994	1992	1993	1995	1995	1995	1992	1993	1995	1995	1995	1995
MIN	.11	.58	.69	.82	.95	5.85	22.0	20.5	3.67	.81	.025	.008
(WY)	1993	1994	1995	1992	1994	1994	1994	1992	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1992 - 1995
ANNUAL TOTAL	2158.52	10585.60	
ANNUAL MEAN	5.91	29.0	15.5
HIGHEST ANNUAL MEAN			29.0
LOWEST ANNUAL MEAN			5.56
HIGHEST DAILY MEAN	57 May 11	190 May 1	190 May 1 1995
LOWEST DAILY MEAN	.00 Aug 27	.02 Oct 2	.00 Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 27	.13 Oct 25	.00 Sep 9 1992
INSTANTANEOUS PEAK FLOW		235 May 1	316 May 31 1993
INSTANTANEOUS PEAK STAGE		7.45 Jan 10	7.45 Jan 10 1995
ANNUAL RUNOFF (AC-FT)	4280	21000	11210
10 PERCENT EXCEEDS	21	96	47
50 PERCENT EXCEEDS	.90	9.9	1.8
90 PERCENT EXCEEDS	.02	.50	.05

PYRAMID AND WINNEMUCCA LAKES BASIN

10336674 WARD CREEK BELOW CONFLUENCE, NEAR TAHOE CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
28...	1020	0.14	50	10.0	4.0	0.002	0.002
NOV							
05...	1010	2.0	43	1.0	0.0	0.004	0.003
05...	1615	6.7	44	1.5	0.0	0.031	0.001
29...	1435	0.19	48	1.5	1.0	0.017	0.003
DEC							
29...	1115	0.25	49	-0.5	2.0	0.021	0.002
JAN							
30...	1125	4.2	47	5.5	2.5	0.012	0.001
FEB							
28...	0940	11	44	4.5	2.0	0.015	0.002
MAR							
09...	1100	120	30	2.5	0.0	0.034	<0.001
APR							
04...	1330	12	42	12.5	3.5	0.012	0.004
26...	1525	30	38	11.0	2.5	0.022	0.003
29...	1055	81	34	6.5	2.0	0.016	0.002
MAY							
01...	1405	199	31	2.5	0.5	0.039	0.002
02...	1325	80	35	4.5	2.0	0.039	0.002
11...	1035	46	36	4.5	2.0	0.022	0.001
20...	0910	65	33	6.0	2.0	0.010	0.001
26...	1045	75	33	11.0	2.5	0.006	<0.001
JUN							
02...	1630	112	29	13.0	2.0	0.020	0.001
05...	1040	99	31	4.0	2.0	0.019	<0.001
12...	1700	134	27	16.0	2.5	0.013	<0.001
23...	0930	93	29	15.5	2.0	0.017	0.002
27...	1015	140	26	18.5	3.0	0.020	0.003
27...	1700	196	22	--	3.0	0.020	0.001
JUL							
18...	1050	76	26	17.5	5.5	0.008	0.004
AUG							
08...	1505	23	26	19.5	10.5	0.004	0.003
SEP							
06...	1030	3.1	35	17.0	6.0	0.003	0.007

PYRAMID AND WINNEMUCCA LAKES BASIN

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10336674 WARD CREEK BELOW CONFLUENCE, NEAR TAHOE CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO. REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT							
28...	0.07	0.013	0.010	0.005	24	<1	<0.01
NOV							
05...	0.11	0.023	0.019	0.012	32	2	0.01
05...	0.24	0.035	0.021	0.008	124	11	0.20
29...	0.06	0.012	0.011	0.005	14	2	0.00
DEC							
29...	0.04	0.024	0.020	0.005	11	<1	<0.01
JAN							
30...	0.05	0.010	0.009	0.003	17	4	0.05
FEB							
28...	0.10	0.023	0.008	0.002	15	2	0.06
MAR							
09...	0.47	0.177	0.016	0.008	1120	127	41
APR							
04...	0.07	0.013	0.009	0.003	12	<1	<0.04
26...	0.06	0.011	0.012	0.004	58	2	0.16
29...	0.28	0.021	0.011	0.004	144	17	3.7
MAY							
01...	0.25	0.084	0.012	0.007	946	126	68
02...	0.10	0.017	0.013	0.005	55	10	2.2
11...	0.05	0.015	0.012	0.003	91	3	0.37
20...	0.09	0.019	0.013	0.004	--	3	0.53
26...	0.08	0.015	0.012	0.004	66	2	0.41
JUN							
02...	0.03	0.027	0.009	0.005	216	30	9.1
05...	0.08	0.022	0.010	0.005	149	22	5.9
12...	0.10	0.035	0.012	0.005	453	48	17
23...	0.07	0.014	0.017	0.004	72	10	2.5
27...	0.14	0.035	0.020	0.005	335	55	21
27...	0.47	0.095	0.020	0.005	1200	162	86
JUL							
18...	0.03	0.030	0.013	0.004	57	5	1.0
AUG							
08...	0.11	0.015	0.012	0.005	26	2	0.12
SEP							
06...	0.09	0.013	0.013	0.005	91	<1	<0.01

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 mi².

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 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, 415 ft³/s, May 31, 1993, gage height, 5.87 ft; maximum gage height, 8.23 ft, Jan. 10, 1995, backwater from ice; minimum daily, 0.34 ft³/s, Sept. 13, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	2245	Unknown	*a8.23	June 4	1900	294	5.63
Mar. 9	1800	340	5.73	June 26	1815	331	5.71
May 1	0700	*371	5.79				

(a) Backwater from ice.

Minimum daily, 0.50 ft³/s, Oct. 2.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.89	e1.4	e1.6	23	20	28	276	205	194	42	5.9
2	.50	.89	e1.4	e1.6	25	20	28	180	203	187	40	5.5
3	.53	.67	e1.7	e1.7	21	19	28	129	210	187	39	5.3
4	.99	.65	e1.6	e1.8	19	18	31	108	227	178	38	5.0
5	1.1	5.7	e1.5	2.0	19	17	34	92	202	180	36	4.7
6	.93	11	e1.5	2.1	18	16	36	79	156	175	34	4.5
7	.84	3.9	e1.4	e4.0	18	16	39	73	125	164	32	4.3
8	.80	e2.2	e1.4	e3.5	17	15	41	72	107	153	29	4.0
9	.78	e1.7	e1.4	e20	16	167	36	73	117	149	27	3.9
10	.73	e1.4	e1.4	e40	16	181	33	80	147	141	25	3.7
11	.70	e1.2	e1.4	e30	16	106	34	92	185	129	23	3.5
12	.67	e1.1	e1.4	e20	16	65	39	76	197	110	21	3.3
13	.66	e.98	e1.4	e45	16	58	49	64	186	95	20	3.2
14	.72	e.95	e1.4	e80	17	63	42	56	193	92	19	3.0
15	.81	e.92	e1.4	e60	17	76	38	53	199	97	18	2.9
16	.78	e.92	e1.4	34	14	64	34	53	155	104	17	2.9
17	.77	e.91	e1.4	26	13	55	31	64	129	107	16	2.9
18	.80	e.90	e1.4	18	13	77	29	85	154	102	15	2.8
19	.78	e.90	e1.4	16	13	76	28	111	148	89	14	2.7
20	.75	e.90	e1.5	15	14	68	28	134	141	83	13	2.6
21	.75	e.90	e1.5	14	15	59	26	154	140	73	13	2.5
22	.74	e.92	e1.5	14	16	50	26	156	158	64	13	2.5
23	.70	e1.0	e1.5	13	17	52	29	157	184	59	12	2.4
24	.67	e1.1	e1.5	13	18	41	35	146	213	54	11	2.3
25	.66	e1.2	e1.5	12	19	37	46	135	233	52	10	2.3
26	.66	e1.2	e1.5	12	20	34	51	152	251	49	9.4	2.5
27	.64	e1.3	e1.5	12	19	32	57	167	247	48	8.3	2.4
28	.65	e1.3	e1.6	11	20	30	70	172	232	50	7.9	2.4
29	.73	e1.4	e1.6	12	---	28	124	180	210	52	7.2	2.4
30	.69	e1.4	e1.6	13	---	27	125	194	207	47	6.7	2.4
31	.74	---	e1.6	18	---	27	---	207	---	44	6.2	---
TOTAL	22.78	50.40	45.7	566.3	485	1614	1275	3770	5461	3308	622.7	100.7
MEAN	.73	1.68	1.47	18.3	17.3	52.1	42.5	122	182	107	20.1	3.36
MAX	1.1	11	1.7	80	25	181	125	276	251	194	42	5.9
MIN	.50	.65	1.4	1.6	13	15	26	53	107	44	6.2	2.3
AC-FT	45	100	91	1120	962	3200	2530	7480	10830	6560	1240	200

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

85

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.47	1.97	2.16	7.19	7.40	24.9	39.9	82.6	76.2	35.1	6.52	1.45
MAX	2.52	2.64	2.60	18.3	17.3	52.1	49.4	153	182	107	20.1	3.36
(WY)	1994	1992	1992	1995	1995	1995	1993	1993	1995	1995	1995	1995
MIN	.73	1.62	1.47	2.26	2.19	9.10	26.2	22.7	4.60	1.41	.44	.36
(WY)	1995	1994	1995	1992	1994	1994	1994	1992	1992	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR					FOR 1995 WATER YEAR				WATER YEARS 1992 - 1995		
ANNUAL TOTAL	2735.85					17321.58						
ANNUAL MEAN	7.50					47.5				24.0		
HIGHEST ANNUAL MEAN										47.5		
LOWEST ANNUAL MEAN										7.69		
HIGHEST DAILY MEAN	64					276				276		
LOWEST DAILY MEAN	.30					.50				.30		
ANNUAL SEVEN-DAY MINIMUM	.31					.67				.31		
INSTANTANEOUS PEAK FLOW						371				415		
INSTANTANEOUS PEAK STAGE						8.23				8.23		
ANNUAL RUNOFF (AC-FT)	5430					34360				17360		
10 PERCENT EXCEEDS	24					156				75		
50 PERCENT EXCEEDS	2.0					18				3.4		
90 PERCENT EXCEEDS	.42					.91				.66		

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
28...	1110	0.63	82	11.5	5.0	0.004	0.002
NOV							
05...	1115	5.8	66	2.0	2.0	0.004	0.001
05...	1725	11	54	2.0	1.5	0.021	0.000
29...	1625	1.7	68	-2.5	0.5	0.012	0.003
DEC							
29...	1250	2.0	65	-1.0	1.0	0.003	<0.001
JAN							
13...	1445	45	44	2.5	0.0	0.012	0.001
14...	1250	80	43	0.5	0.0	0.040	0.001
30...	1305	12	55	7.0	2.0	0.005	<0.001
FEB							
28...	1115	23	51	7.0	3.0	0.005	0.002
MAR							
09...	1330	225	33	0.0	0.0	0.024	<0.001
10...	1535	184	36	2.0	0.0	0.015	0.001
APR							
04...	1535	33	49	12.5	6.5	0.005	0.002
26...	1655	51	44	11.0	4.5	0.008	0.003
29...	1230	149	40	4.5	2.0	0.011	<0.001
29...	1830	163	38	3.0	1.0	0.014	<0.001
MAY							
01...	1535	298	35	3.5	1.0	0.026	0.002
02...	1445	166	40	8.0	3.5	0.022	0.002
11...	1200	86	42	6.0	4.0	0.009	0.001
20...	1025	121	39	12.0	3.5	0.012	0.001
26...	1210	131	38	13.5	5.0	0.003	<0.001
JUN							
02...	1755	225	34	13.5	3.5	0.011	<0.001
05...	1200	194	36	4.0	4.5	0.012	<0.001
12...	1810	236	31	15.0	4.0	0.009	<0.001
23...	1045	152	33	21.0	5.5	0.011	0.003
27...	1135	214	31	21.0	6.0	0.015	0.003
27...	1810	307	27	20.5	4.5	0.016	0.002
JUL							
18...	1340	98	30	21.5	8.5	0.005	0.003
AUG							
08...	1620	28	34	20.5	13.0	0.004	0.002
SEP							
06...	1150	4.9	50	20.0	11.5	0.004	0.004

10336675 WARD CREEK AT STANFORD ROCK TRAIL CROSSING, NEAR TAHOE CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO. REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT							
28...	0.07	0.024	0.016	0.011	440	<1	<0.01
NOV							
05...	0.41	0.134	0.027	0.015	3500	42	0.66
05...	0.35	0.071	0.032	0.015	1920	24	0.71
29...	0.06	0.019	0.016	0.009	257	0	0.0
DEC							
29...	0.05	0.027	0.021	0.008	233	2	0.01
JAN							
13...	0.32	0.095	0.019	0.006	1510	64	7.8
14...	0.22	0.075	0.019	0.009	752	54	12
30...	0.05	0.014	0.011	0.006	106	4	0.13
FEB							
28...	0.05	0.024	0.010	0.005	78	2	0.12
MAR							
09...	0.84	0.304	0.019	0.008	2940	254	154
10...	0.32	0.093	0.020	0.008	946	74	37
APR							
04...	0.10	0.021	0.014	0.005	69	2	0.18
26...	0.09	0.018	0.018	0.005	61	6	0.83
29...	0.16	0.031	0.021	0.006	371	26	10
29...	0.25	0.049	0.021	0.006	721	46	20
MAY							
01...	0.33	0.105	0.023	0.009	1340	108	87
02...	0.16	0.034	0.026	0.007	251	22	9.9
11...	0.06	0.018	0.012	0.004	52	3	0.70
20...	0.10	0.019	0.016	0.003	--	4	1.3
26...	0.10	0.020	0.017	0.004	83	6	2.1
JUN							
02...	0.09	0.036	0.012	0.005	297	32	19
05...	0.12	0.022	0.015	0.006	232	18	9.4
12...	0.16	0.035	0.016	0.006	443	64	41
23...	0.13	0.017	0.020	0.005	111	10	4.1
27...	0.15	0.034	0.020	0.007	421	42	24
27...	0.43	0.105	0.018	0.007	1030	132	109
JUL							
18...	0.01	0.041	0.017	0.005	71	4	1.1
AUG							
08...	0.07	0.018	0.014	0.007	47	1	0.08
SEP							
06...	0.04	0.018	0.018	0.010	93	1	0.01

PYRAMID AND WINNEMUCCA LAKES BASIN

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

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

DRAINAGE AREA.--9.70 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 6,230 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges and discharges less than 1 ft³/s, 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, 1,800 ft³/s, Dec. 19, 1981, gage height, 8.05 ft, from rating curve extended above 800 ft³/s; maximum gage height, 8.57 ft, Jan. 14, 1995, backwater from ice; no flow for many days during 1977-78, 1981, 1988, 1994.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 14	0500	Unknown	*a8.57	June 4	2045	308	6.28
Mar. 9	1530	*513	6.59	June 11	1945	246	6.05
Mar. 18	1745	116	5.36	June 26	1745	345	6.33
May 1	1800	369	6.44				

(a) Backwater from ice.

Minimum daily, 0.30 ft³/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.30	.80	e1.8	e2.0	24	20	25	294	219	204	41	6.9
2	e.30	1.6	e2.0	e2.0	27	20	25	187	211	190	40	6.6
3	e.40	.90	e2.5	e2.0	22	20	26	130	220	194	39	6.3
4	.41	.50	e2.3	e2.0	20	21	28	113	240	179	36	6.1
5	1.1	.50	e2.0	e2.0	19	17	31	99	211	190	34	5.6
6	.95	11	e1.8	2.3	18	16	33	87	147	184	32	5.3
7	.70	3.3	e1.7	3.0	17	16	37	80	118	166	30	5.1
8	.63	2.0	e1.7	7.0	17	15	39	80	101	148	27	4.8
9	.59	e1.8	e1.7	e30	16	233	36	82	108	144	25	4.4
10	.52	e1.7	e1.7	e50	16	194	30	89	138	136	24	4.2
11	.46	e1.5	e1.7	e40	15	114	32	99	181	122	22	3.9
12	.47	1.3	e1.7	e30	15	68	37	85	196	104	20	3.8
13	.45	e1.2	e1.7	e55	14	59	48	71	184	93	18	3.6
14	.49	e1.2	e1.7	e90	23	65	41	63	192	91	17	3.6
15	.68	e1.1	e1.7	e70	25	80	35	59	201	95	16	3.4
16	.66	e1.0	e1.7	e45	15	68	32	57	145	100	16	3.2
17	.61	.92	e1.7	e30	12	57	29	70	121	101	15	3.1
18	.65	e.94	e1.7	e25	12	81	27	91	144	98	14	3.0
19	.66	e.98	e1.7	21	12	83	26	114	140	90	13	2.9
20	.66	e1.0	e1.7	14	12	74	26	132	130	85	13	2.7
21	.66	e1.1	e1.8	13	13	62	26	148	131	79	13	2.6
22	.62	e1.2	e1.8	12	14	47	24	148	152	70	13	2.6
23	.66	e1.3	e1.8	11	16	46	26	146	183	64	12	2.4
24	.66	e1.4	e1.8	11	18	42	32	138	218	59	12	2.3
25	.66	1.5	e1.8	10	20	46	44	129	250	55	11	2.3
26	.66	e1.5	e1.9	9.7	21	32	52	145	268	51	9.9	2.3
27	.66	e1.6	e1.9	9.4	20	29	61	164	256	49	9.1	2.2
28	.73	e1.6	e1.9	9.0	20	27	76	172	241	53	8.5	2.2
29	.71	e1.7	e1.9	8.9	---	26	125	182	222	56	8.0	2.2
30	.82	e1.7	e1.9	10	---	25	127	197	217	48	7.5	2.1
31	.85	---	e2.0	16	---	25	---	217	---	43	7.3	---
TOTAL	19.38	49.84	56.7	642.3	493	1728	1236	3868	5485	3341	603.3	111.7
MEAN	.63	1.66	1.83	20.7	17.6	55.7	41.2	125	183	108	19.5	3.72
MAX	1.1	11	2.5	90	27	233	127	294	268	204	41	6.9
MIN	.30	.50	1.7	2.0	12	15	24	57	101	43	7.3	2.1
AC-FT	38	99	112	1270	978	3430	2450	7670	10880	6630	1200	222

e Estimated.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.45	11.9	11.7	13.3	14.1	21.1	40.4	86.3	73.3	23.4	4.19	1.83
MAX	22.4	73.9	92.5	74.0	77.7	80.3	89.2	156	265	123	26.9	7.93
(WY)	1983	1982	1982	1980	1982	1986	1989	1993	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1973 - 1995			
ANNUAL TOTAL	3036.85				17634.22							
ANNUAL MEAN	8.32				48.3				25.4			
HIGHEST ANNUAL MEAN									59.0			
LOWEST ANNUAL MEAN									5.29			
HIGHEST DAILY MEAN	66 May 11				294 May 1				784 Jan 13 1980			
LOWEST DAILY MEAN	.00 Aug 16				.30 Oct 1				.00 Aug 4 1977			
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 16				.52 Oct 8				.00 Aug 4 1977			
INSTANTANEOUS PEAK FLOW					513 Mar 9				1800 Dec 19 1981			
INSTANTANEOUS PEAK STAGE					8.57 Jan 14				8.57 Jan 14 1995			
ANNUAL RUNOFF (AC-FT)	6020				34980				18420			
10 PERCENT EXCEEDS	27				148				73			
50 PERCENT EXCEEDS	2.1				19				6.4			
90 PERCENT EXCEEDS	.00				.97				.80			

PYRAMID AND WINNEMUCCA LAKES BASIN

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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT							
04...	1815	1.2	86	4.5	6.0	0.005	0.001
28...	1155	0.71	86	11.0	6.0	0.002	0.002
NOV							
05...	1215	1.4	66	2.5	0.5	0.004	<0.001
05...	1820	1.2	62	3.0	2.0	0.018	<0.001
06...	1040	1.3	56	5.0	3.5	0.040	0.001
29...	1750	2.4	71	-1.0	0.0	0.005	0.001
DEC							
29...	1350	2.2	70	-0.5	0.5	0.006	0.001
JAN							
10...	0835	50	52	1.5	0.5	0.021	0.003
11...	1050	40	50	0.5	0.5	0.023	0.001
13...	1025	55	50	2.0	0.0	0.011	0.001
13...	1900	55	45	4.5	--	0.017	<0.001
14...	1405	90	41	0.0	0.0	0.031	<0.001
30...	1355	10	56	5.0	2.0	0.005	0.002
FEB							
28...	1235	20	54	6.0	3.0	0.004	0.001
MAR							
09...	1405	415	35	0.5	0.0	0.035	0.004
09...	1835	389	35	2.0	0.0	0.029	<0.001
10...	1120	169	39	1.0	0.0	0.027	0.001
10...	1635	205	38	2.0	0.0	0.012	<0.001
11...	1150	110	43	1.0	1.0	0.016	0.001
APR							
04...	1630	29	51	8.0	6.5	0.004	0.001
26...	1745	52	47	9.5	5.0	0.006	0.001
29...	1300	125	41	5.5	2.5	0.010	<0.001
29...	1905	156	39	3.0	1.0	0.014	0.002
30...	1410	116	44	6.0	3.5	0.014	0.002
MAY							
01...	0935	334	36	2.5	1.0	0.025	0.003
01...	1710	365	36	4.0	1.0	0.023	<0.001
02...	0920	195	41	8.0	2.0	0.021	0.002
11...	1250	95	44	--	5.0	0.012	<0.001
20...	0605	127	40	1.0	1.5	0.021	0.001
26...	1305	127	39	16.0	6.5	0.002	<0.001
JUN							
02...	1850	246	33	--	4.0	0.011	<0.001
05...	0700	221	35	5.5	2.0	0.012	<0.001
12...	1910	235	31	11.0	4.0	0.007	<0.001
23...	1150	145	34	21.0	7.5	0.009	0.001
27...	1230	216	31	22.5	7.0	0.014	0.005
27...	1900	301	27	--	4.5	0.016	0.002
28...	0600	224	30	8.0	3.0	0.015	0.001
JUL							
12...	1845	103	31	15.5	6.5	0.005	0.004
18...	1440	98	31	20.5	9.5	0.003	0.002
27...	1350	45	35	24.0	12.0	0.003	0.003
AUG							
08...	1225	27	36	18.0	10.0	0.004	0.002
SEP							
06...	1235	5.7	50	--	12.0	0.002	0.002
28...	1155	2.5	67	13.0	9.0	0.002	0.002

PYRAMID AND WINNEMUCCA LAKES BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (006625)	PHOS- PHORUS TOTAL (MG/L AS P) (006655)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (006666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO. REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT							
04...	0.11	0.028	0.018	0.009	172	1	<0.01
28...	0.07	0.018	0.014	0.009	89	4	0.01
NOV							
05...	0.60	0.120	0.041	0.027	1240	36	0.14
05...	0.41	0.082	0.035	0.021	1080	24	0.08
06...	0.37	0.046	0.027	0.015	370	10	0.03
29...	0.07	0.016	0.013	0.007	94	<1	<0.01
DEC							
29...	0.05	0.030	0.015	0.007	85	2	0.01
JAN							
10...	0.35	0.039	0.026	0.010	168	8	1.1
11...	0.27	0.043	0.028	0.014	122	4	0.43
13...	0.11	0.031	0.021	0.007	104	8	1.2
13...	0.17	0.041	0.025	0.012	207	6	0.89
14...	0.21	0.047	0.023	0.009	319	13	3.2
30...	0.06	0.017	0.010	0.006	130	2	0.05
FEB							
28...	0.08	0.036	0.012	0.005	85	2	0.11
MAR							
09...	0.82	0.290	0.018	0.009	3250	222	249
09...	0.82	0.344	0.019	0.010	3310	300	315
10...	--	0.077	0.017	0.009	902	72	33
10...	0.48	0.160	0.014	0.009	1530	138	76
11...	0.23	0.048	0.015	0.007	455	32	9.5
APR							
04...	0.08	0.019	0.013	0.005	69	4	0.31
26...	0.10	0.014	0.014	0.005	105	6	0.84
29...	0.20	0.045	0.016	0.006	649	41	14
29...	0.31	0.080	0.015	0.007	1220	82	35
30...	0.11	0.023	0.017	0.006	157	11	3.4
MAY							
01...	0.73	0.297	0.020	0.009	3470	267	241
01...	0.42	0.214	0.020	0.009	2720	269	265
02...	0.13	0.044	0.016	0.008	437	35	18
11...	0.07	0.022	0.017	0.005	67	4	1.0
20...	0.08	0.022	0.018	0.003	--	9	3.1
26...	0.04	0.022	0.019	0.003	82	20	6.9
JUN							
02...	0.15	0.047	0.011	0.006	458	44	29
05...	0.11	0.036	0.013	0.006	320	32	19
12...	0.16	0.042	0.014	0.006	532	44	28
23...	0.15	0.017	0.016	0.005	91	4	1.6
27...	0.20	0.040	0.019	0.007	436	41	24
27...	0.41	0.113	0.022	0.007	1470	131	106
28...	0.13	0.043	0.022	0.006	380	37	22
JUL							
12...	0.06	0.025	0.013	0.005	122	10	2.8
18...	0.05	0.038	0.012	0.005	65	4	1.1
27...	0.06	0.037	0.015	0.002	58	2	0.24
AUG							
08...	0.05	0.018	0.011	0.007	49	1	0.07
SEP							
06...	0.05	0.018	0.018	0.008	50	<1	<0.02
28...	0.02	0.021	0.015	0.010	41	10	0.07

10336780 TROUT CREEK NEAR TAHOE VALLEY, CA

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

DRAINAGE AREA.--36.7 mi².

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 and sharp-crested weir in culvert at bridge. Datum of gage is 6,241.57 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Minor diversions for local water supply upstream from station. See schematic diagram of Truckee River basin.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 10	2000	184	8.73	June 14	0300	225	9.20
May 1	2400	199	8.91	June 26	Unknown	*319	*a10.14

(a) From flood marks.

Minimum daily, 8.0 ft³/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	10	12	11	20	20	40	173	182	e245	103	46
2	8.0	11	13	11	20	21	41	148	e240	e245	100	45
3	8.6	9.6	15	11	19	24	42	112	e230	e250	96	45
4	11	9.7	15	e11	18	27	45	103	e230	e250	93	46
5	12	21	15	e11	17	21	49	95	e250	e255	91	45
6	12	27	15	e12	17	20	52	87	e200	255	88	43
7	11	16	e15	e13	16	20	61	81	173	261	86	42
8	9.9	14	e14	14	16	19	60	79	154	265	84	41
9	9.8	13	e13	16	16	94	49	82	150	261	81	41
10	8.8	11	12	28	16	144	45	84	161	251	79	40
11	9.2	13	13	22	16	117	48	86	182	237	76	39
12	9.6	13	12	19	16	68	53	81	196	221	74	38
13	9.6	e13	12	27	15	59	62	79	203	204	73	37
14	9.8	e13	12	38	e15	66	52	77	217	193	71	36
15	10	e13	11	27	e15	64	47	78	217	185	69	36
16	10	e13	12	22	e15	56	45	75	191	181	68	35
17	10	13	13	e20	e16	50	42	79	178	179	67	34
18	10	e13	13	18	16	66	42	85	180	173	65	34
19	10	e12	e12	e18	16	69	42	92	186	166	63	33
20	9.9	12	e12	e18	16	73	41	102	181	159	61	33
21	10	12	e12	17	16	63	41	107	175	153	63	32
22	9.8	12	e12	15	17	49	40	119	185	146	60	32
23	9.8	11	e12	15	18	46	41	126	e200	140	59	31
24	9.8	11	12	16	18	48	46	122	e220	134	57	31
25	9.5	12	12	15	19	49	56	111	e250	129	55	31
26	9.6	e12	e12	15	19	44	61	113	e280	124	54	31
27	9.4	e12	12	15	19	41	69	125	e270	119	51	30
28	9.5	e12	12	15	19	39	85	130	e260	116	50	30
29	9.5	12	e12	15	---	39	99	138	e250	114	49	30
30	9.8	12	e12	16	---	38	120	148	e245	111	48	30
31	10	---	e11	18	---	38	---	164	---	107	47	---
TOTAL	304.3	388.3	392	539	476	1592	1616	3281	6236	5829	2181	1097
MEAN	9.82	12.9	12.6	17.4	17.0	51.4	53.9	106	208	188	70.4	36.6
MAX	12	27	15	38	20	144	120	173	280	265	103	46
MIN	8.0	9.6	11	11	15	19	40	75	150	107	47	30
AC-FT	604	770	778	1070	944	3160	3210	6510	12370	11560	4330	2180

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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10336780 TROUT CREEK NEAR TAHOE VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.6	19.2	20.4	22.3	24.0	28.8	41.9	75.3	90.0	48.2	23.4	16.8
MAX	37.6	61.1	64.0	60.3	68.7	85.0	81.9	184	286	188	88.7	49.6
(WY)	1983	1984	1984	1970	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1961 - 1995			
ANNUAL TOTAL	5667.6				23931.6							
ANNUAL MEAN	15.5				65.6				35.6			
HIGHEST ANNUAL MEAN									85.3			
LOWEST ANNUAL MEAN									10.2			
HIGHEST DAILY MEAN	38				280				352			
LOWEST DAILY MEAN	6.4				8.0				2.5			
ANNUAL SEVEN-DAY MINIMUM	6.7				9.5				3.0			
INSTANTANEOUS PEAK FLOW					319				535			
INSTANTANEOUS PEAK STAGE					10.14				11.14			
ANNUAL RUNOFF (AC-FT)	11240				47470				25790			
10 PERCENT EXCEEDS	26				182				80			
50 PERCENT EXCEEDS	14				39				22			
90 PERCENT EXCEEDS	7.5				11				8.5			

PYRAMID AND WINNEMUCCA LAKES BASIN

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA

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, near center of bridge span on downstream side of U.S. Highway 50 bridge, 1.2 mi upstream from Lake Tahoe, and 1.9 mi northeast of South Lake Tahoe Post Office.

PERIOD OF RECORD.--Water years 1972-74, 1989 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1971 to June 1974, October 1988 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to June 1974, October 1988 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. These data are reviewed and provided by the Nevada District Office, U.S. Geological Survey.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT									
19...	0915	9.9	56	--	4.0	2.0	--	--	--
NOV									
06...	1255	34	49	--	7.5	4.5	--	--	--
DEC									
22...	1315	12	55	--	5.0	1.0	--	--	--
JAN									
09...	1450	20	60	--	3.0	0.5	--	--	--
10...	1350	39	53	--	2.5	0.5	--	--	--
13...	1900	46	52	--	2.0	1.0	--	--	--
26...	1430	16	58	7.5	0.0	1.5	600	11.1	101
FEB									
01...	1210	21	56	--	10.0	4.0	--	--	--
27...	1030	17	61	--	8.0	3.0	--	--	--
MAR									
09...	1710	160	39	--	3.0	1.0	--	--	--
13...	1500	63	56	--	4.5	4.5	--	--	--
20...	1030	80	52	--	3.5	3.0	--	--	--
27...	1020	49	55	8.1	0.0	0.5	608	11.4	99
APR									
05...	1100	50	53	--	10.0	3.5	--	--	--
26...	1230	64	48	--	13.5	5.0	--	--	--
27...	1800	77	48	--	5.0	4.5	--	--	--
28...	1200	86	45	--	8.5	4.5	--	--	--
29...	1330	95	45	--	8.0	4.0	--	--	--
30...	1145	117	41	--	14.0	6.5	--	--	--
MAY									
02...	1130	150	39	--	7.5	5.0	--	--	--
04...	1130	110	42	--	11.5	4.5	--	--	--
09...	1230	85	44	7.4	11.0	6.0	605	10.2	103
18...	1450	86	46	--	15.0	10.5	--	--	--
23...	1200	130	38	--	10.5	7.0	--	--	--
31...	1200	160	31	--	15.0	9.0	--	--	--
JUN									
02...	1230	245	29	--	16.5	9.5	--	--	--
14...	1200	225	26	7.3	12.5	8.5	601	10.1	110
28...	1000	265	22	7.1	18.5	8.0	--	--	--
28...	1630	270	22	--	22.0	5.0	--	--	--
JUL									
06...	1045	260	22	--	23.0	10.0	--	--	--
17...	0950	188	26	7.2	19.5	9.0	608	8.6	93
AUG									
02...	0940	105	30	--	19.0	9.0	--	--	--
29...	1130	50	37	7.3	20.5	9.0	607	9.0	98
SEP									
15...	1005	38	41	--	18.0	9.0	--	--	--

10336790 TROUT CREEK AT SOUTH LAKE TAHOE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, BIO. REACT- IVE TOTAL (UG/L AS FE) (46568)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT									
19...	0.003	<0.001	0.09	0.027	0.016	0.008	433	7	0.19
NOV									
06...	0.008	<0.001	0.68	0.136	0.029	0.011	2190	62	5.7
DEC									
22...	0.011	<0.001	0.17	0.038	0.028	0.008	612	9	0.29
JAN									
09...	0.014	0.002	0.33	0.063	0.032	0.010	1180	24	1.3
10...	0.029	0.008	0.95	0.107	0.036	0.013	3100	74	7.8
13...	0.034	<0.001	0.50	0.135	0.020	0.011	1390	77	9.6
26...	0.006	<0.001	0.12	0.030	0.018	0.008	605	5	0.22
FEB									
01...	0.016	0.001	0.24	0.035	0.021	0.011	677	11	0.62
27...	0.013	0.004	0.17	0.039	0.017	0.007	611	10	0.46
MAR									
09...	0.025	<0.001	2.1	0.393	0.020	0.011	8750	335	145
13...	0.015	<0.001	0.55	0.077	0.027	0.013	1340	44	7.5
20...	0.017	0.001	0.32	0.068	0.029	0.013	827	33	7.1
27...	0.014	0.001	0.16	0.064	0.019	0.007	892	32	4.2
APR									
05...	0.014	<0.001	0.26	0.056	0.021	0.010	847	20	2.7
26...	0.011	0.001	--	0.040	0.020	0.009	676	23	4.0
27...	0.014	<0.001	0.35	0.046	0.019	0.009	844	24	5.0
28...	0.013	<0.001	0.27	0.051	0.019	0.008	1020	35	8.1
29...	0.011	0.001	0.30	0.066	0.023	0.009	1060	22	5.6
30...	0.014	<0.001	0.36	0.070	0.023	0.009	1370	88	28
MAY									
02...	0.011	0.001	0.38	0.065	0.026	0.010	1440	40	16
04...	0.006	<0.001	0.24	0.050	0.023	0.007	899	42	12
09...	0.004	<0.001	0.14	0.032	0.023	0.007	385	22	5.0
18...	0.009	0.002	0.21	0.031	0.023	0.009	--	14	3.3
23...	0.008	<0.001	0.18	0.046	0.026	0.010	881	24	8.4
31...	0.007	<0.001	0.23	0.045	0.020	0.010	301	38	16
JUN									
02...	0.011	<0.001	0.29	0.050	0.022	0.012	721	20	13
14...	0.007	<0.001	0.16	0.041	0.023	0.011	511	14	8.5
28...	0.005	<0.001	0.16	0.047	0.028	0.012	529	30	21
28...	0.004	<0.001	0.21	0.092	0.025	0.009	828	221	161
JUL									
06...	0.004	0.001	0.22	0.035	0.023	0.010	339	8	5.6
17...	0.005	<0.001	0.11	0.065	0.023	0.011	627	21	11
AUG									
02...	0.009	0.001	0.16	0.043	0.019	0.010	865	71	20
29...	0.003	0.001	0.11	0.027	0.021	0.011	327	6	0.81
SEP									
15...	0.013	0.004	0.12	0.042	0.027	0.011	678	27	2.8

PYRAMID AND WINNEMUCCA LAKES BASIN

10337000 LAKE TAHOE AT TAHOE CITY, CA

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

DRAINAGE AREA.--506 mi², at lake outlet.

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

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, 6,226.99 ft, July 29; minimum, 6,221.01 ft, Oct. 31.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.41	e1.04	e1.20	e1.26	2.12	2.27	3.56	4.15	5.30	6.43	6.95	6.71
2	1.40	e1.05	e1.21	e1.26	2.13	2.35	3.56	4.31	5.37	6.47	6.96	6.70
3	e1.40	e1.08	e1.22	e1.26	2.13	2.38	3.58	4.34	5.39	6.49	6.96	6.72
4	e1.40	e1.14	e1.23	e1.26	2.16	2.37	3.59	4.36	5.43	6.54	6.98	6.68
5	e1.40	e1.16	e1.25	e1.26	2.16	2.37	3.59	4.38	5.47	6.55	6.97	6.67
6	e1.39	e1.17	e1.26	e1.26	2.16	2.37	3.60	4.41	5.47	6.58	6.96	6.67
7	e1.38	e1.17	e1.27	1.26	2.14	2.36	3.65	4.44	5.54	6.64	6.97	6.65
8	e1.37	e1.18	e1.28	1.26	2.14	2.39	3.67	4.45	5.56	6.67	6.93	6.64
9	e1.35	e1.18	e1.27	1.30	2.14	2.56	3.68	4.46	5.60	6.69	6.95	6.64
10	e1.33	e1.19	e1.27	1.48	2.14	2.86	3.68	4.48	5.58	6.71	6.92	6.62
11	e1.31	e1.19	e1.29	1.66	2.16	2.95	3.69	4.50	5.61	6.73	6.88	6.64
12	e1.30	e1.19	e1.31	1.63	2.16	2.97	3.70	4.57	5.67	6.79	6.92	6.63
13	e1.26	e1.19	e1.31	1.77	2.16	2.97	3.77	4.63	5.71	6.77	6.89	6.61
14	e1.24	e1.19	e1.31	1.90	2.16	2.99	3.78	4.64	5.71	6.78	6.90	6.61
15	e1.22	e1.19	e1.29	1.92	2.15	3.01	3.79	4.73	5.80	6.81	6.88	6.60
16	e1.20	e1.19	e1.30	1.94	2.14	3.04	3.80	4.73	5.88	6.83	6.87	6.58
17	e1.18	e1.19	e1.30	1.95	2.17	3.06	3.81	4.73	5.91	6.85	6.85	6.56
18	e1.16	e1.19	e1.30	1.95	2.15	3.12	3.82	4.77	5.91	6.89	6.82	6.58
19	e1.15	e1.20	e1.30	1.95	2.16	3.15	3.81	4.79	5.96	6.89	6.84	6.56
20	e1.14	e1.20	e1.29	1.95	2.16	3.27	3.85	4.80	5.98	6.90	6.83	6.56
21	e1.14	e1.20	e1.28	1.98	2.20	3.33	3.85	4.85	6.01	6.90	6.83	6.53
22	e1.13	e1.20	e1.28	2.00	2.17	3.42	3.85	4.92	6.02	6.91	6.85	6.51
23	e1.12	e1.20	e1.28	2.00	2.18	3.50	3.87	4.95	6.07	6.94	6.80	6.47
24	e1.11	e1.20	e1.27	2.01	2.18	3.52	3.87	4.97	6.11	6.95	6.83	6.46
25	e1.10	e1.20	e1.29	2.02	2.19	3.54	3.87	4.99	6.15	6.93	6.79	6.45
26	e1.09	e1.20	e1.27	2.05	2.20	3.55	3.88	5.03	6.22	6.94	6.80	6.43
27	e1.07	e1.20	e1.27	2.08	2.20	3.55	3.89	5.09	6.24	6.96	6.77	6.42
28	e1.06	e1.21	e1.27	2.08	2.27	3.56	3.95	5.14	6.31	6.96	6.75	6.37
29	e1.04	e1.21	e1.27	2.08	---	3.55	3.99	5.15	6.35	6.99	6.75	6.37
30	e1.04	e1.21	e1.27	2.10	---	3.55	4.08	5.20	6.37	6.96	6.73	6.37
31	e1.01	---	e1.28	2.11	---	3.55	---	5.26	---	6.96	6.75	---
MEAN	1.22	1.18	1.27	1.74	2.16	3.01	3.77	4.72	5.82	6.79	6.87	6.57
MAX	1.41	1.21	1.31	2.11	2.27	3.56	4.08	5.26	6.37	6.99	6.98	6.72
MIN	1.01	1.04	1.20	1.26	2.12	2.27	3.56	4.15	5.30	6.43	6.73	6.37
a	0	0	0	0	0	66,800	131,000	275,000	410,000	482,000	456,000	410,000
b	0	0	0	0	0	+66,800	+64,200	+144,000	+135,000	+72,000	-26,000	-46,000
CAL YR 1994	MEAN 2.05	MAX 2.79	MIN 1.01	b	0							
WTR YR 1995	MEAN 3.77	MAX 6.99	MIN 1.01	b	+410,000							

e Estimated.

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

b Change in contents, in acre-feet.

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

PYRAMID AND WINNEMUCCA LAKES BASIN

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10337500 TRUCKEE RIVER AT TAHOE CITY, CA

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

DRAINAGE AREA.--507 mi².

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

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 fair except estimated daily discharges, which are poor. Stage-discharge relation affected by beaver dams and ice. 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, 2,630 ft³/s, June 19, 1969, gage height, 9.32 ft; no flow for parts of many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 165 ft³/s, June 14, gage height, 3.68 ft, maximum gage height, 3.94 ft, Sept. 30 (backwater from beaver dam); no flow for many days in October to January.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e.00	e.00	e.00	e.20	e1.2	e1.0	54	80	78	63	25
2	e.00	e.00	e.00	e.00	e.20	e1.1	e1.0	35	79	75	71	22
3	e.00	e.00	e.10	e.00	e.20	e1.0	e1.0	44	79	75	68	18
4	e.00	e.00	e.00	e.00	e.20	e1.0	e1.0	58	80	75	66	20
5	e.00	e1.00	e.00	e.00	e.20	e1.0	e20	63	78	72	67	36
6	e.00	e.60	e.00	e1.0	e.20	e1.0	42	64	68	67	64	67
7	e.00	e.15	e.00	e1.5	e.20	e1.0	65	68	70	67	61	60
8	e.00	e.00	e.00	e2.0	e.20	e1.1	47	70	71	68	57	59
9	e.00	e.00	e.00	e2.0	e.20	e5.5	42	71	71	66	53	59
10	e.00	e.00	e.00	e2.0	e.20	e5.0	52	73	74	66	50	58
11	e.00	e.00	e.00	e1.5	e.20	e4.5	65	75	74	67	49	59
12	e.00	e.00	e.00	e1.0	e.20	e4.0	65	75	73	65	52	61
13	e.00	e.00	e.00	e2.0	e.20	e4.0	65	75	71	65	50	68
14	e.00	e.00	e.00	e1.5	e.20	e4.5	59	75	83	66	46	69
15	e.00	e.00	e.00	e1.0	e.20	e5.0	56	76	78	67	44	69
16	e.00	e.00	e.00	e1.0	e.20	e3.0	51	76	75	66	44	69
17	e.00	e.00	e.00	e1.0	e.20	e1.2	50	76	74	66	44	69
18	e.00	e.00	e.00	e1.0	e.20	e4.5	53	80	74	67	41	70
19	e.00	e.00	e.00	e.50	e.20	e4.0	53	83	73	65	41	71
20	e.00	e.00	e.00	e.30	e.20	e3.5	52	84	74	63	42	70
21	e.00	e.00	e.00	e.20	e.30	e2.5	53	84	70	63	38	70
22	e.00	e.00	e.00	e.20	e.40	e2.0	57	79	71	63	34	71
23	e.00	e.00	e.00	e.20	e.60	e1.5	57	79	75	64	35	70
24	e.00	e.00	e.00	e.20	e.80	e1.0	57	79	76	64	30	68
25	e.00	e.00	e.00	e.20	e1.0	e1.0	59	78	76	64	29	61
26	e.00	e.00	e.00	e.20	e1.1	e1.0	58	68	76	65	30	61
27	e.00	e.00	e.00	e.20	e1.1	e1.0	55	68	77	66	28	67
28	e.00	e.00	e.00	e.20	e1.1	e1.0	46	83	77	66	27	69
29	e.00	e.00	e.00	e.20	---	e1.0	52	80	77	59	27	69
30	e.00	e.00	e.00	e.20	---	e1.0	51	80	80	56	28	68
31	e.00	---	e.00	e.20	---	e1.0	---	80	---	60	25	---
TOTAL	0.00	1.75	0.10	21.50	10.40	71.1	1386.0	2233	2254	2056	1404	1773
MEAN	.000	.058	.003	.69	.37	2.29	46.2	72.0	75.1	66.3	45.3	59.1
MAX	.00	1.0	.10	2.0	1.1	5.5	65	84	83	78	71	71
MIN	.00	.00	.00	.00	.20	1.0	1.0	35	68	56	25	18
AC-FT	.00	3.5	.2	43	21	141	2750	4430	4470	4080	2780	3520

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

10337500 TRUCKEE RIVER AT TAHOE CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	183	198	221	218	267	240	164	147	215	273	313	266
MAX	413	1575	2209	2088	1767	2235	1806	1746	1673	1071	638	687
(WY)	1910	1983	1984	1984	1983	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1909 - 1995			
ANNUAL TOTAL	31.08				11210.85							
ANNUAL MEAN	.085				30.7				223			
HIGHEST ANNUAL MEAN									1150			
LOWEST ANNUAL MEAN									.15			
HIGHEST DAILY MEAN	1.0 Nov 5				84 May 20				2620			
LOWEST DAILY MEAN	.00 Jun 2				.00 Oct 1				.00			
ANNUAL SEVEN-DAY MINIMUM	.00 Jun 2				.00 Oct 1				.00			
INSTANTANEOUS PEAK FLOW					165 Jun 14				2630			
INSTANTANEOUS PEAK STAGE					3.94 Sep 30				9.32			
ANNUAL RUNOFF (AC-FT)	62				22240				161600			
10 PERCENT EXCEEDS	.20				75				465			
50 PERCENT EXCEEDS	.00				4.5				131			
90 PERCENT EXCEEDS	.00				.00				.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 mi².

PERIOD OF RECORD.--December 1944 to September 1961, June 1977 to September 1982, October 1992 to September 1995 (discontinued). Monthly discharge only for some periods, published in WSP 1314.

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 except for estimated daily discharges, which are fair. Flow regulated by Lake Tahoe (station 10337000), operating capacity, 744,600 acre-feet. See schematic diagram of Truckee River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,760 ft³/s, Dec. 23, 1955; gage height, 7.92 ft, from rating curve extended above 3,100 ft³/s on basis of slope-area measurements at gage heights 7.62 ft and 7.92 ft; minimum daily, 3.4 ft³/s several days in Aug. 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft³/s, May 1, gage height, 4.05 ft; minimum daily, 5.4 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	e9.0	12	17	151	118	144	1410	831	553	171	53
2	5.7	e8.0	15	15	161	124	152	929	784	525	173	52
3	5.4	e11	19	14	134	143	161	686	789	534	168	49
4	7.7	e9.2	25	15	120	120	185	609	825	506	160	48
5	9.5	e10	26	15	116	110	213	552	752	515	158	46
6	8.1	e25	23	16	114	99	266	484	595	508	151	82
7	7.3	e60	19	27	105	94	330	449	505	492	146	80
8	6.9	e36	18	31	103	92	324	453	441	465	134	79
9	6.5	e25	17	80	95	874	268	457	443	454	122	79
10	6.5	e16	17	357	93	962	246	469	521	435	115	78
11	6.3	e16	17	194	90	649	267	502	610	393	110	78
12	6.0	e17	17	130	90	409	299	461	632	336	107	78
13	6.1	e14	16	339	89	332	377	416	610	302	104	83
14	6.3	e13	16	554	83	348	312	400	620	297	100	85
15	7.0	e12	16	259	76	434	281	380	660	312	94	83
16	6.7	e13	15	165	70	372	252	362	539	322	94	83
17	6.6	e14	16	131	68	319	232	409	471	324	94	83
18	6.5	e14	16	105	66	397	219	502	513	316	88	83
19	6.5	e12	16	90	68	388	209	584	511	290	82	83
20	6.5	e21	16	78	74	406	206	655	481	273	81	82
21	e6.7	e18	16	70	87	346	198	697	477	259	83	83
22	e6.9	e15	16	68	99	292	195	711	515	239	75	82
23	e7.1	e14	16	65	109	253	214	712	573	222	75	82
24	e7.6	e15	17	62	119	218	252	678	637	210	74	79
25	e7.7	e16	17	59	129	190	319	630	689	204	65	76
26	e8.0	e13	17	56	132	172	356	672	708	198	64	73
27	e9.0	e10	17	54	126	157	399	700	672	197	62	74
28	e9.6	e17	17	52	119	147	440	708	629	214	60	80
29	e9.7	e15	15	52	---	137	665	728	590	220	59	80
30	e9.7	e16	15	56	---	134	687	775	586	183	59	80
31	e9.7	---	15	93	---	136	---	820	---	177	56	---
TOTAL	225.5	504.2	530	3319	2886	8972	8668	19000	18209	10475	3184	2256
MEAN	7.27	16.8	17.1	107	103	289	289	613	607	338	103	75.2
MAX	9.7	60	26	554	161	962	687	1410	831	553	173	85
MIN	5.4	8.0	12	14	66	92	144	362	441	177	56	46
AC-FT	447	1000	1050	6580	5720	17800	17190	37690	36120	20780	6320	4470

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

10338000 TRUCKEE RIVER NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200	205	244	241	259	265	380	553	431	291	278	253
MAX	387	551	1019	1140	1560	1421	1734	2403	1381	535	492	453
(WY)	1948	1951	1951	1951	1952	1952	1958	1958	1952	1953	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1945 - 1995			
ANNUAL TOTAL	11892.5				78228.7							
ANNUAL MEAN	32.6				214				305			
HIGHEST ANNUAL MEAN									821			
LOWEST ANNUAL MEAN									32.4			
HIGHEST DAILY MEAN	235				May 11				5280			
LOWEST DAILY MEAN	3.4				Aug 18				3.4			
ANNUAL SEVEN-DAY MINIMUM	3.4				Aug 22				3.4			
INSTANTANEOUS PEAK FLOW					1620				7760			
INSTANTANEOUS PEAK STAGE					4.05				7.92			
ANNUAL RUNOFF (AC-FT)	23590				155200				220900			
10 PERCENT EXCEEDS	89				601				484			
50 PERCENT EXCEEDS	12				105				224			
90 PERCENT EXCEEDS	3.8				11				42			

PYRAMID AND WINNEMUCCA LAKES BASIN

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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 mi².

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, 9,740 acre-ft, June 29, 1993, elevation, 5,936.08 ft; minimum, 2,510 acre-ft, Jan. 24, 28-31, 1991, elevation, 5,927.23 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,620 acre-ft, June 26, elevation, 5,935.95 ft; minimum, 2,800 acre-ft, Nov. 4, elevation, 5,927.61 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	5,932	6,310
5,926.0	1,600	5,934	7,970
5,928.0	3,120	5,936	9,670
5,930.0	4,690		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3750	2840	2970	2980	3920	3700	3970	6090	8640	9360	9390	8230
2	3670	2820	2960	2970	3990	3770	3960	6150	8700	9400	9400	8150
3	3610	2810	3090	2970	3990	3870	3910	6050	8770	9460	9400	8040
4	3610	2800	3160	2970	3970	3830	3930	6020	8830	9520	9400	7950
5	3550	2970	3180	3020	3950	3830	3960	5950	8850	9540	9420	7860
6	3490	3090	3200	3090	3940	3780	3990	5810	8670	9580	9420	7760
7	3440	3080	3160	3160	3890	3750	4170	5690	8440	9590	9400	7630
8	3410	3000	3150	3300	3870	3750	4220	5610	8260	9540	9430	7520
9	3370	3080	3130	3530	3830	4880	4190	5600	8250	9430	9420	7410
10	3320	3060	3110	4000	3810	5690	4150	5610	8330	9350	9400	7290
11	3280	3030	3090	4060	3750	5710	4120	5680	8520	9270	9400	7180
12	3230	3010	3120	4060	3750	5470	4160	5770	8650	9200	9400	7080
13	3200	2980	3100	4550	3810	5330	4330	5790	8740	9210	9400	6970
14	3170	2970	3120	5040	3770	5220	4330	5790	8880	9250	9390	6870
15	3100	2990	3090	5030	3720	5260	4280	5770	9110	9300	9380	6750
16	3090	2940	3090	4900	3680	5130	4220	5730	9220	9390	9360	6620
17	3080	3010	3070	4770	3650	4970	4160	5810	9270	9480	9350	6540
18	3030	3050	3070	4630	3590	5080	4090	6000	9450	9540	9340	6440
19	3030	2980	3070	4500	3580	5000	4000	6230	9530	9560	9340	6340
20	3000	2970	3040	4380	3580	5120	4030	6480	9580	9550	9330	6240
21	2980	2970	3030	4260	3580	5040	3970	6700	9500	9500	9330	6150
22	2960	2910	3030	4230	3590	5050	3930	6890	9470	9460	9310	6050
23	2950	2920	3030	4170	3610	4930	3910	7060	9470	9440	9190	5950
24	2930	2900	3030	4110	3630	4760	3930	7170	9510	9430	9070	5860
25	2910	3000	3020	4000	3650	4600	4030	7250	9570	9360	8950	5760
26	2900	2980	3020	3940	3660	4450	4120	7450	9620	9350	8850	5660
27	2850	2980	3020	3890	3690	4320	4270	7630	9590	9330	8740	5590
28	2850	2930	3010	3810	3700	4210	4420	7800	9470	9300	8620	5580
29	2830	2930	3000	3760	---	4130	4830	8010	9330	9330	8530	5580
30	2810	2920	2980	3720	---	4050	5060	8250	9270	9350	8430	5580
31	2800	---	2990	3810	---	4020	---	8470	---	9390	8320	---
MAX	3750	3090	3200	5040	3990	5710	5060	8470	9620	9590	9430	8230
MIN	2800	2800	2960	2970	3580	3700	3910	5600	8250	9200	8320	5580
a	5927.62	5927.77	5927.85	5928.89	5928.76	5929.16	5930.48	5934.61	5935.55	5935.68	5934.43	5931.11
b	-1010	+120	+70	+820	-110	+320	+1040	+3410	+800	+120	-1070	-2740

CAL YR 1994 MAX 8910 MIN 2800 b +100
WTR YR 1995 MAX 9620 MIN 2800 b +1770

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

PYRAMID AND WINNEMUCCA LAKES BASIN

10338500 DONNER CREEK AT DONNER LAKE, NEAR TRUCKEE, CA

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

DRAINAGE AREA.--14.3 mi².

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

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

GAGE.--Water-stage recorder and concrete control, completed Oct. 3, 1988. 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 including estimated days. 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, 707 ft³/s, Feb. 19, 1986; gage height, 4.83 ft; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 341 ft³/s, May 2, gage height, 4.74 ft; minimum daily, 0.91 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	4.7	8.7	8.9	65	54	78	e238	209	84	4.4	47
2	31	5.1	8.4	8.4	71	55	76	e321	249	84	3.4	46
3	29	4.5	10	8.4	72	65	74	281	250	84	2.7	45
4	28	4.0	12	8.3	72	65	74	226	252	85	2.8	45
5	27	6.6	12	9.2	71	64	76	223	255	86	2.8	44
6	25	11	12	9.9	70	61	80	212	250	86	3.1	50
7	24	11	12	14	68	58	91	200	242	101	3.0	58
8	22	11	12	16	65	56	102	184	190	112	2.8	57
9	21	11	12	27	63	102	102	171	142	112	2.9	56
10	19	12	12	50	61	195	97	171	142	112	2.9	55
11	18	12	12	63	57	217	93	143	142	110	3.0	55
12	16	11	12	65	57	218	94	117	144	72	2.8	55
13	14	11	12	77	58	218	109	119	145	38	2.8	54
14	13	10	12	122	60	208	113	119	147	21	2.8	54
15	11	9.6	12	143	57	208	108	119	115	4.6	3.0	52
16	11	9.6	12	138	54	203	103	119	89	4.2	2.9	52
17	11	10	12	126	51	188	97	119	90	5.5	2.8	51
18	10	10	11	115	49	186	91	125	90	16	2.7	50
19	9.7	9.6	11	104	47	188	84	135	90	29	3.1	50
20	9.6	9.0	10	95	46	190	80	145	134	52	3.1	50
21	9.6	9.0	10	86	45	191	76	154	167	52	3.0	49
22	9.6	8.6	10	80	45	185	72	162	167	43	23	47
23	9.3	8.0	10	77	47	182	70	168	166	32	56	47
24	9.0	7.5	9.7	80	48	167	70	173	166	32	56	45
25	8.6	9.8	9.6	80	50	148	76	173	167	32	54	44
26	7.9	11	9.6	73	52	131	84	165	184	32	52	43
27	7.1	11	9.4	68	52	117	94	157	218	33	51	25
28	6.8	11	9.6	63	53	104	108	161	216	18	51	1.9
29	6.5	10	9.5	58	---	95	137	165	213	4.5	50	1.1
30	5.4	9.6	9.0	55	---	87	171	168	139	2.7	49	.91
31	4.5	---	9.0	57	---	82	---	174	---	3.6	48	---
TOTAL	465.6	278.2	332.5	1985.1	1606	4288	2780	5307	5170	1583.1	552.8	1329.91
MEAN	15.0	9.27	10.7	64.0	57.4	138	92.7	171	172	51.1	17.8	44.3
MAX	32	12	12	143	72	218	171	321	255	112	56	58
MIN	4.5	4.0	8.4	8.3	45	54	70	117	89	2.7	2.7	.91
AC-FT	924	552	660	3940	3190	8510	5510	10530	10250	3140	1100	2640

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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10338500 DONNER CREEK AT DONNER LAKE, NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.5	27.7	30.3	29.8	30.8	35.6	50.7	85.4	46.4	12.6	8.21	24.2
MAX	85.7	195	214	174	197	182	144	243	244	67.2	52.7	99.1
(WY)	1973	1951	1951	1970	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1929 - 1995	
ANNUAL TOTAL	4188.90		25678.21			
ANNUAL MEAN	11.5		70.4		35.2	
HIGHEST ANNUAL MEAN					83.3	
LOWEST ANNUAL MEAN					7.71	
HIGHEST DAILY MEAN	60	Sep 8	321	May 2	700	Nov 21 1950
LOWEST DAILY MEAN	.39	Jul 24	.91	Sep 30	.00	Jan 1 1929
ANNUAL SEVEN-DAY MINIMUM	.81	Jul 21	2.8	Aug 12	.00	Jan 1 1929
INSTANTANEOUS PEAK FLOW			341	May 2	707	Feb 19 1986
INSTANTANEOUS PEAK STAGE			4.74	May 2	4.83	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	8310		50930		25480	
10 PERCENT EXCEEDS	34		173		97	
50 PERCENT EXCEEDS	6.9		53		12	
90 PERCENT EXCEEDS	1.9		6.1		.00	

PYRAMID AND WINNEMUCCA LAKES BASIN

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 mi².

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 fair including estimated periods. 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, 1,060 ft³/s, May 1, 1995, gage height, 8.20 ft; minimum daily, 2.3 ft³/s, Aug. 21, 22, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s, May 1, gage height, 8.20 ft; minimum daily, 4.5 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	6.8	12	11	125	78	126	896	540	289	e61	48
2	29	7.2	11	11	138	85	123	727	571	272	e55	e47
3	27	5.9	18	11	124	97	124	570	579	280	e51	e46
4	27	5.5	23	11	118	91	134	484	603	258	e48	e46
5	26	18	24	12	114	88	144	430	563	266	e42	e45
6	24	22	24	13	110	83	154	373	470	261	e37	e51
7	22	18	21	21	107	78	182	329	404	e271	e33	e59
8	22	17	20	26	102	76	195	302	308	e277	e28	58
9	20	17	19	55	96	400	182	286	252	e273	27	58
10	19	18	18	148	92	694	173	293	300	e268	26	57
11	19	17	18	124	88	564	170	278	352	e262	e25	57
12	18	17	18	104	86	415	176	230	370	e219	e24	56
13	17	15	17	184	87	360	213	216	352	e181	e23	55
14	16	14	17	357	86	352	200	207	361	e159	e22	55
15	15	14	16	240	79	403	188	201	353	e139	e21	54
16	14	14	16	200	73	335	174	192	235	e133	e20	53
17	13	15	15	179	68	279	163	208	203	e130	e19	52
18	12	15	15	159	66	360	151	247	228	e136	e18	51
19	12	14	14	141	63	332	139	283	223	e145	e17	51
20	12	13	14	125	61	346	133	328	260	e163	e16	50
21	12	13	13	112	61	315	124	380	304	e158	e15	49
22	12	12	13	105	62	286	118	408	335	e145	e34	48
23	11	11	13	100	65	275	118	427	381	e129	e66	47
24	10	11	13	101	68	241	130	411	442	e125	e65	46
25	9.6	17	13	100	73	212	158	379	482	e120	e62	45
26	9.0	29	13	91	76	191	178	406	517	e116	e59	44
27	8.4	14	12	87	77	174	197	408	537	e112	e56	30
28	7.3	13	13	81	76	159	223	414	506	e93	e56	e5.9
29	6.5	13	12	77	---	145	375	450	494	e74	e54	e5.1
30	5.9	12	12	76	---	135	454	484	401	e69	e52	4.5
31	5.2	---	12	95	---	129	---	509	---	e65	e50	---
TOTAL	489.9	428.4	489	3157	2441	7778	5319	11756	11926	5588	1180	1373.5
MEAN	15.8	14.3	15.8	102	87.2	251	177	379	398	180	38.1	45.8
MAX	29	29	24	357	138	694	454	896	603	289	66	59
MIN	5.2	5.5	11	11	61	76	118	192	203	65	15	4.5
AC-FT	972	850	970	6260	4840	15430	10550	23320	23660	11080	2340	2720

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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10338700 DONNER CREEK AT HIGHWAY 89, NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.6	11.3	13.1	55.6	49.4	141	146	272	211	89.2	17.5	49.0
MAX	43.3	14.3	15.8	102	87.2	251	220	379	398	180	38.1	60.2
(WY)	1994	1995	1995	1995	1995	1995	1993	1995	1995	1995	1995	1993
MIN	15.8	8.35	10.4	9.27	11.6	30.9	39.8	64.8	19.8	26.8	3.24	40.9
(WY)	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1993 - 1995	
ANNUAL TOTAL	8933.0		51925.8			
ANNUAL MEAN	24.5		142		84.1	
HIGHEST ANNUAL MEAN					142	
LOWEST ANNUAL MEAN					25.9	
HIGHEST DAILY MEAN	115	May 11	896	May 1	896	May 1 1995
LOWEST DAILY MEAN	2.3	Aug 21	4.5	Sep 30	2.3	Aug 21 1994
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 19	6.1	Oct 29	2.5	Aug 19 1994
INSTANTANEOUS PEAK FLOW			1060	May 1	1060	May 1 1995
INSTANTANEOUS PEAK STAGE			8.20	May 1	8.20	May 1 1995
ANNUAL RUNOFF (AC-FT)	17720		103000		60900	
10 PERCENT EXCEEDS	53		379		301	
50 PERCENT EXCEEDS	17		78		45	
90 PERCENT EXCEEDS	4.3		13		6.6	

PYRAMID AND WINNEMUCCA LAKES BASIN

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

WATER-QUALITY RECORDS

LOCATION.--Lat 39°18'08", long 120°07'13", in SW 1/4 SW 1/4 sec.20, T.17 N., R.17 E., Placer County, Hydrologic Unit 16050102, 4.0 mi southeast of Truckee. Water-quality samples are collected 300 ft upstream from State Highway 267.

DRAINAGE AREA.--25.8 mi².

PERIOD OF RECORD.--Water years 1975 to September 1995 (discontinued).

CHEMICAL DATA: Water years 1975 to September 1995 (discontinued).

WATER TEMPERATURE: Water years 1975 to September 1988.

SEDIMENT DATA: Water years 1975, 1977 to September 1995 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October to November 1974, August 1975 to September 1988.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3
OCT 26...	0940	2.3	130	8.2	2.0	0.80	620	11.0	98	89
APR 25...	1045	30	48	8.0	5.0	1.7	615	10.4	101	32
JUN 26...	0925	17	74	7.8	11.0	1.9	619	9.1	102	52
AUG 14...	0945	5.4	118	8.1	9.5	0.80	616	9.7	105	70

DATE	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 26...	0	73	<0.050	<0.015	<0.20	0.020	0.010	<1	<1
APR 25...	0	27	<0.050	<0.015	<0.20	0.030	0.010	<1	<1
JUN 26...	0	42	<0.050	<0.015	<0.20	0.020	0.020	<1	<1
AUG 14...	0	57	<0.050	0.020	<0.20	0.020	0.010	<1	<1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	230	180	<1	<1	<4	20	11	<10	<3
APR 25...	120	69	<1	<1	6	10	7	<10	6
JUN 26...	240	160	<1	<1	<4	20	16	<10	<3
AUG 14...	220	170	<1	<1	<4	20	19	<10	7

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 26...	0940	2.3	2.0	2	0.01
APR 25...	1045	30	5.0	4	0.32
JUN 26...	0925	17	11.0	6	0.27
AUG 14...	0945	5.4	9.5	1	0.01

10339380 MARTIS CREEK LAKE NEAR TRUCKEE, CA

WATER-QUALITY RECORDS

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

DRAINAGE AREA.--39.6 mi².

PERIOD OF RECORD.--

WATER-CONTENT DATA: Water years 1972-90.

CHEMICAL DATA: Water years 1975 to September 1995 (discontinued).

SEDIMENT DATA: Water years 1975-76, 1978 to September 1995 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3
OCT 26...	1235	157	8.8	10.0	3.3	620	9.5	104	98	0
APR 25...	1320	69	7.4	10.5	5.3	615	8.8	98	41	0
JUN 26...	1200	74	8.7	24.0	27	618	8.5	125	29	8
AUG 14...	1110	98	7.8	21.5	3.0	617	10.1	142	50	0

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)
OCT 26...	80	<0.050	0.020	4.4	4.4	0.360	0.020	<1	<1
APR 25...	33	<0.050	<0.015	0.30	0.30	0.040	0.020	3	<1
JUN 26...	37	<0.050	<0.015	0.90	0.90	0.140	0.020	5	<1
AUG 14...	41	<0.050	0.290	1.2	1.2	0.070	0.030	2	<1

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	210	110	11	2	<4	30	6	<10	9
APR 25...	340	130	2	<1	5	20	4	<10	5
JUN 26...	--	180	15	2	<4	110	22	<10	<3
AUG 14...	440	430	35	13	<4	160	160	<10	4

SUSPENDED-SEDIMENT CONCENTRATION, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)
OCT 26...	1235	10.0	3
APR 25...	1320	10.5	8
JUN 26...	1200	24.0	7
AUG 14...	1110	21.5	4

PYRAMID AND WINNEMUCCA LAKES BASIN

10339400 MARTIS CREEK NEAR TRUCKEE, CA

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

DRAINAGE AREA.--39.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to 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 except for estimated daily discharges, which are fair. Low and medium flow may be regulated and high flow completely regulated by Martis Creek Lake (station 10339380) since Oct. 7, 1971. See schematic diagram of Truckee River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,880 ft³/s, Feb. 1, 1963, gage height, 6.16 ft, site and datum then in use; minimum, 1.1 ft³/s, July 19, 20, 1961. Maximum discharge since construction of Martis Creek Lake Dam in 1971, 663 ft³/s, Feb. 28, 1986, gage height, 5.66 ft; maximum gage height, 6.01 ft, Apr. 2, 1974; minimum daily, 0.20 ft³/s, Nov. 9-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 590 ft³/s, June 6, gage height, 5.41 ft; minimum daily discharge, 1.9 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

[illegible]

PYRAMID AND WINNEMUCCA LAKES BASIN

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10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.5	7.0	e5.3	20	9.2	25	32	e300	27	21	137
2	3.3	4.0	6.9	e5.3	19	9.7	25	32	e300	27	21	110
3	1.9	4.1	7.6	e5.3	19	10	26	32	301	27	21	109
4	2.4	3.8	13	5.3	19	10	26	33	300	27	21	106
5	7.2	6.6	14	5.8	20	11	26	33	300	27	21	104
6	5.3	15	11	5.8	13	11	27	33	263	27	21	102
7	4.4	11	8.7	9.4	7.6	11	27	33	138	27	21	99
8	3.8	7.9	7.9	12	7.6	11	27	33	133	27	21	67
9	3.4	6.6	7.9	50	7.6	14	27	34	85	28	20	27
10	3.4	6.3	7.9	249	6.5	15	27	34	28	29	20	22
11	3.2	6.0	7.9	167	4.8	15	27	34	28	78	19	20
12	3.2	6.1	7.5	81	4.9	16	27	33	28	165	19	20
13	3.2	5.8	6.9	52	5.2	16	28	33	29	205	18	19
14	3.2	5.3	6.9	7.1	5.6	17	28	33	29	145	18	19
15	3.1	5.3	6.9	5.0	5.8	17	29	33	29	26	18	19
16	3.0	5.5	6.8	4.3	6.2	18	29	132	30	26	17	18
17	3.1	5.8	6.4	4.0	6.6	18	29	307	30	108	17	18
18	3.2	6.0	6.1	3.9	7.1	18	30	274	31	25	17	18
19	3.2	6.0	e5.8	3.9	7.5	19	30	240	152	25	16	17
20	3.2	5.8	e5.8	4.0	8.0	20	29	e240	251	25	16	16
21	3.2	5.5	e5.8	4.3	8.1	21	28	e271	249	25	16	16
22	3.1	5.5	e5.8	4.5	7.6	21	28	e298	247	24	147	16
23	3.1	5.5	e5.6	11	7.6	21	28	e358	246	24	222	15
24	3.1	5.5	e5.6	18	7.8	22	29	e397	245	152	215	14
25	3.2	6.6	e5.6	18	8.1	22	29	e392	244	232	211	14
26	3.3	7.2	e5.4	19	8.2	22	29	e392	109	96	208	14
27	3.5	7.1	e5.4	19	8.5	23	29	e392	26	22	204	13
28	3.5	7.0	e5.4	19	8.8	23	30	e397	26	22	198	12
29	3.3	7.1	e5.3	19	---	23	30	e395	26	21	191	12
30	3.3	7.0	e5.3	20	---	24	30	e336	26	21	185	12
31	3.3	---	e5.3	20	---	24	---	e300	---	21	177	---
TOTAL	106.0	190.4	219.4	857.2	265.7	531.9	839	5616	4229	1761	2357	1205
MEAN	3.42	6.35	7.08	27.7	9.49	17.2	28.0	181	141	56.8	76.0	40.2
MAX	7.2	15	14	249	20	24	30	397	301	232	222	137
MIN	1.9	3.5	5.3	3.9	4.8	9.2	25	32	26	21	16	12
AC-FT	210	378	435	1700	527	1060	1660	11140	8390	3490	4680	2390

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.80	17.6	20.9	23.6	33.5	44.7	47.3	54.9	36.8	14.6	10.4	9.07
MAX	20.8	80.0	95.5	77.7	149	181	139	219	169	75.0	76.0	40.2
(WY)	1983	1984	1982	1980	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1972 - 1995

ANNUAL TOTAL	2463.3	18177.6	
ANNUAL MEAN	6.75	49.8	26.9
HIGHEST ANNUAL MEAN			74.5
LOWEST ANNUAL MEAN			6.90
HIGHEST DAILY MEAN	30	Mar 6	626
LOWEST DAILY MEAN	1.9	Aug 9	.20
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 13	.21
INSTANTANEOUS PEAK FLOW			590
INSTANTANEOUS PEAK STAGE			5.41
ANNUAL RUNOFF (AC-FT)	4890	36060	19470
10 PERCENT EXCEEDS	13	194	63
50 PERCENT EXCEEDS	5.6	19	11
90 PERCENT EXCEEDS	2.1	4.2	4.2

PYRAMID AND WINNEMUCCA LAKES BASIN

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10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1975 to September 1995 (discontinued).

WATER TEMPERATURE: Water years 1975 to current year.

SEDIMENT DATA: Water years 1975 to September 1995 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1974 to current year.

INSTRUMENTATION.--Digital water-temperature recorder since October 1974.

REMARKS.--Water temperature is affected by regulation from Martis Creek Lake Dam (station 10339380). Unpublished chemical-quality, 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.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 19.0°C, Aug. 24, 27; minimum recorded, 0.0°C, Jan. 11-13, 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	BICAR-BONATE DIS-IT FIELD MG/L AS HCO3
OCT 26...	1430	4.0	154	9.1	10.5	1.0	620	11.6	128	99
APR 25...	1515	28	79	7.5	7.5	2.0	617	9.2	95	45
JUN 26...	1330	26	84	7.2	11.5	1.6	620	7.4	84	49
AUG 14...	1430	18	97	7.5	16.0	0.40	620	7.1	89	49
DATE	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)
OCT 26...	0	81	<0.050	<0.015	0.50	0.50	0.030	0.020	<1	<1
APR 25...	0	37	0.170	<0.015	0.20	0.37	0.030	0.020	<1	<1
JUN 26...	0	41	0.090	0.020	<0.20	--	0.020	0.020	<1	<1
AUG 14...	0	41	0.090	0.020	<0.20	--	0.030	0.030	<1	<1
DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	
OCT 26...	160	110	<1	<1	<4	40	17	<10	8	
APR 25...	90	34	<1	<1	4	<10	5	<10	4	
JUN 26...	60	17	<1	<1	<4	20	6	<10	<3	
AUG 14...	<10	11	<1	<1	<4	<10	7	<10	<3	

PYRAMID AND WINNEMUCCA LAKES BASIN

10339400 MARTIS CREEK NEAR TRUCKEE, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 26...	1430	4.0	10.5	6	0.06
APR 25...	1515	28	7.5	2	0.15
JUN 26...	1330	26	11.5	3	0.21
AUG 14...	1430	18	16.0	1	0.05

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

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WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

PYRAMID AND WINNEMUCCA LAKES BASIN

10339419 TRUCKEE RIVER ABOVE PROSSER CREEK, NEAR TRUCKEE, CA

LOCATION.--Lat 39°22'07", long 120°06'50", in SE 1/4 NW 1/4 sec.32, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on right bank 0.2 mi upstream from Prosser Creek, and 4.5 mi northeast of Truckee.

DRAINAGE AREA.--644 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,560 ft above sea level, from topographic map

REMARKS.--Records fair. Flow regulated by Lake Tahoe, Donner Lake, and Martis Creek Reservoir (station numbers 10337000, 10338400, and 10339380). See schematic diagram of Truckee River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft³/s, May 1, 1995, gage height, 8.96 ft; minimum daily, 11 ft³/s, July 28, Aug. 11, 15, 19, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft³/s, May 1, gage height, 8.96 ft; minimum daily, 26 ft³/s, Oct. 31, Nov. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	26	49	47	336	287	395	2480	1820	881	273	254
2	50	31	57	44	364	299	404	2040	1750	834	270	227
3	47	29	73	44	327	360	415	1430	1740	847	263	220
4	47	28	98	44	310	322	444	1220	1800	815	251	216
5	56	43	102	49	302	308	477	1100	1700	805	246	211
6	48	143	88	49	294	282	536	975	1330	802	237	236
7	44	90	69	79	273	267	622	895	1010	789	227	250
8	42	62	66	97	270	262	650	882	884	768	216	226
9	40	52	63	201	252	1350	567	874	807	747	195	185
10	37	52	62	701	245	1910	527	879	862	728	183	178
11	35	51	62	492	234	1430	543	912	984	708	179	174
12	34	47	66	352	232	962	581	832	1020	710	172	170
13	31	42	55	521	228	803	713	774	989	657	166	174
14	31	40	57	963	223	813	630	740	999	609	161	175
15	30	41	53	565	209	915	581	720	1060	524	153	172
16	28	42	55	415	197	823	542	751	852	537	153	169
17	27	44	53	346	188	714	505	966	743	608	153	167
18	e27	41	50	296	185	833	482	1080	788	538	147	165
19	e27	55	48	265	185	834	460	1180	877	502	140	163
20	e27	47	48	246	192	850	452	1310	943	493	138	162
21	27	42	48	222	207	780	441	1440	961	472	139	161
22	29	40	48	212	224	678	432	1530	1020	442	226	160
23	28	39	47	211	241	613	449	1630	1130	405	342	157
24	28	43	48	211	258	560	490	1660	1250	461	339	155
25	28	44	46	211	275	501	581	1540	1350	508	327	153
26	28	53	45	194	284	460	644	1610	1290	405	322	149
27	28	51	47	191	285	430	705	1680	1200	332	316	140
28	28	44	47	185	283	409	787	1660	1120	338	309	116
29	27	47	46	179	---	391	1110	1700	1050	342	301	115
30	27	43	42	182	---	382	1260	1740	990	297	299	115
31	26	---	42	230	---	381	---	1790	---	282	288	---
TOTAL	1064	1452	1780	8044	7103	20209	17425	40020	34319	18186	7131	5315
MEAN	34.3	48.4	57.4	259	254	652	581	1291	1144	587	230	177
MAX	56	143	102	963	364	1910	1260	2480	1820	881	342	254
MIN	26	26	42	44	185	262	395	720	743	282	138	115
AC-FT	2110	2880	3530	15960	14090	40080	34560	79380	68070	36070	14140	10540

e Estimated.

10339419 TRUCKEE RIVER ABOVE PROSSER CREEK, NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.7	47.5	54.1	156	155	394	381	757	608	314	121	116
MAX	91.1	48.4	57.4	259	254	652	581	1291	1144	587	230	177
(WY)	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	34.3	46.6	50.7	52.5	55.9	137	180	224	72.6	41.2	12.1	54.1
(WY)	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1994 - 1995		
ANNUAL TOTAL	29518			162048					
ANNUAL MEAN	80.9			444			264		
HIGHEST ANNUAL MEAN							444		
LOWEST ANNUAL MEAN							85.0		
HIGHEST DAILY MEAN	392			May 12			2480		
LOWEST DAILY MEAN	11			Jul 28			11		
ANNUAL SEVEN-DAY MINIMUM	12			Aug 9			12		
INSTANTANEOUS PEAK FLOW							3340		
INSTANTANEOUS PEAK STAGE							8.96		
ANNUAL RUNOFF (AC-FT)	58550			321400			191600		
10 PERCENT EXCEEDS	171			1070			805		
50 PERCENT EXCEEDS	54			270			110		
90 PERCENT EXCEEDS	13			42			29		

10339419 TRUCKEE RIVER ABOVE PROSSER CREEK, NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: October 1994 to September 1995.

WATER TEMPERATURE: March 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1994 to September 1995.

WATER TEMPERATURE: March 1993 to current year.

INSTRUMENTATION.--Water-temperature recorder since March 1993. Specific conductance recorder since October 1994.

REMARKS.--Water temperature and specific conductance are affected by regulation from Lake Tahoe and Donner Lake. Interruptions in record due to equipment malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 333 micromhos, Nov. 1, 1994; minimum recorded, 47 micromhos, June 26, 27, 1995.

WATER TEMPERATURE: Maximum recorded, 25.0°C, July 13, 15, 20, 1994; minimum recorded, 0.0°C, many days most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 333 micromhos, Nov. 1; minimum recorded 47 micromhos, June 26, 27.

WATER TEMPERATURE: Maximum recorded, 20.5°C, several days in August and September; minimum recorded, 0.0°C, many days.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	333	309	260	246	253	247	135	118	127	126
2	---	---	321	277	249	241	260	253	119	114	128	125
3	---	---	308	294	249	219	262	254	124	118	126	117
4	---	---	314	304	256	207	277	249	126	124	133	125
5	---	---	328	209	239	216	261	249	127	124	140	130
6	---	---	216	157	225	212	261	259	127	124	137	134
7	---	---	208	157	235	217	261	253	130	127	140	135
8	---	---	234	208	252	221	259	228	134	129	139	137
9	---	---	237	232	250	224	228	160	142	134	137	57
10	---	---	236	228	249	227	160	111	139	136	72	63
11	---	---	245	232	245	228	126	114	141	137	90	66
12	---	---	248	241	233	225	144	126	140	137	104	89
13	---	---	280	246	233	224	139	94	140	134	110	104
14	---	---	287	250	249	223	96	83	142	134	116	106
15	---	---	273	245	239	227	115	96	150	137	108	100
16	---	---	268	241	246	232	126	115	148	142	105	98
17	---	---	249	241	245	239	131	126	152	147	109	100
18	---	---	255	241	244	236	135	131	152	149	109	93
19	306	288	288	233	263	236	139	135	152	149	99	91
20	310	291	257	236	257	236	141	138	151	146	104	90
21	312	284	260	248	250	237	144	141	148	142	97	91
22	304	285	292	251	264	235	145	142	142	137	95	94
23	306	288	298	244	265	235	149	143	138	132	103	94
24	310	291	281	246	245	236	150	144	133	129	108	101
25	313	294	273	250	247	242	149	142	129	126	109	103
26	316	296	275	236	249	246	147	143	126	124	112	105
27	319	298	253	230	250	240	148	143	126	124	116	111
28	322	303	250	233	247	236	150	148	128	125	121	115
29	325	305	267	241	252	241	152	148	---	---	123	117
30	327	308	256	244	277	243	153	149	---	---	126	120
31	326	313	---	---	280	244	152	135	---	---	124	120
MONTH	---	---	333	157	280	207	277	83	152	114	140	57

10339419 TRUCKEE RIVER ABOVE PROSSER CREEK, NEAR TRUCKEE, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	123	121	74	53	63	57	60	48	---	---	125	120
2	122	119	71	59	65	59	61	51	---	---	127	124
3	123	119	78	71	64	58	60	49	---	---	128	124
4	123	117	80	76	63	55	61	49	---	---	129	125
5	121	107	81	78	64	55	60	50	---	---	129	125
6	108	104	86	81	69	64	60	48	---	---	129	123
7	104	94	88	86	73	69	61	48	---	---	124	121
8	105	93	88	85	76	72	61	51	---	---	127	123
9	118	100	86	83	76	70	63	52	---	---	129	125
10	109	105	86	81	71	60	64	52	106	99	130	127
11	108	104	82	79	66	55	68	55	108	100	131	128
12	104	101	83	79	64	54	73	61	112	106	133	129
13	108	93	89	83	64	55	76	68	114	108	132	128
14	109	97	90	87	64	57	78	68	117	111	131	127
15	104	102	91	88	61	57	70	62	121	114	132	127
16	110	104	93	84	69	60	69	58	121	114	131	128
17	109	107	84	79	71	69	74	56	120	115	131	127
18	111	108	79	74	70	62	67	58	122	118	132	128
19	113	111	77	70	78	62	70	61	127	122	138	129
20	120	110	73	68	79	68	72	64	129	125	132	129
21	117	114	71	66	81	66	---	---	131	125	132	129
22	116	86	70	65	77	63	---	---	129	111	133	129
23	114	111	70	66	71	60	---	---	112	110	132	129
24	111	103	70	65	69	53	---	---	113	111	133	130
25	103	94	72	68	60	51	---	---	114	112	133	125
26	95	91	70	64	56	47	---	---	114	112	136	128
27	96	87	68	63	59	47	---	---	115	113	144	128
28	89	86	69	63	60	49	---	---	116	114	151	140
29	86	68	68	62	61	52	---	---	119	115	151	142
30	76	66	65	59	61	48	---	---	121	118	153	142
31	---	---	64	57	---	---	---	---	122	119	---	---
MONTH	123	66	93	53	81	47	---	---	---	---	153	120

PYRAMID AND WINNEMUCCA LAKES BASIN

10339419 TRUCKEE RIVER ABOVE PROSSER CREEK, NEAR TRUCKEE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	11.0	7.5	5.5	3.5	.0	3.0	.0	5.5	3.0	7.0	4.5
2	15.0	11.0	8.5	4.5	5.0	1.0	2.5	.5	4.5	2.0	6.0	4.5
3	14.0	10.0	6.5	2.0	4.0	2.5	3.0	.5	4.5	1.5	4.5	1.5
4	12.0	10.0	5.5	1.5	3.5	2.0	1.5	.0	5.0	2.0	5.5	.5
5	12.0	9.0	5.5	4.0	4.0	2.0	2.0	.5	5.5	2.0	6.0	3.5
6	13.0	9.0	6.0	5.0	4.0	1.5	3.0	.5	4.5	2.0	6.5	2.0
7	13.0	8.0	7.0	5.5	2.5	.0	3.0	1.0	6.0	2.5	6.0	2.0
8	13.0	8.5	8.5	4.5	.5	.0	2.5	1.0	5.5	3.0	7.0	3.5
9	12.5	8.5	6.0	3.5	.5	.0	3.0	2.0	6.5	3.0	6.0	1.5
10	12.5	9.5	6.0	2.0	.5	.0	2.0	.0	5.5	2.0	2.5	1.0
11	12.5	9.0	7.0	3.0	2.0	.0	2.5	.0	5.5	1.5	4.5	1.0
12	11.5	9.5	5.5	2.0	2.5	.5	3.0	1.0	5.5	2.0	5.5	2.5
13	11.0	7.5	4.5	.0	2.0	.0	2.5	.5	4.0	.0	5.5	3.5
14	10.0	7.5	4.5	.0	2.0	.0	1.5	.5	3.5	.0	6.0	3.5
15	10.0	7.5	2.5	.5	2.5	.0	2.5	.5	4.0	.0	7.0	3.5
16	9.0	5.5	3.0	.0	4.0	.5	2.5	.5	4.5	.0	7.5	3.5
17	9.5	5.5	1.5	.0	5.5	2.5	3.0	1.5	6.0	1.0	7.0	3.0
18	12.0	6.5	2.0	.0	5.0	2.0	4.0	2.0	7.0	3.0	5.5	3.5
19	12.0	5.0	.5	.0	3.0	.0	3.5	.5	7.0	2.5	6.0	2.5
20	11.5	5.5	3.5	.0	3.5	.0	2.5	.5	7.0	2.5	5.0	1.0
21	11.5	5.0	4.5	.0	4.0	.5	4.0	2.0	7.5	3.0	3.5	1.5
22	12.0	5.0	3.0	.0	3.5	.0	3.0	1.5	7.0	2.5	1.5	.0
23	11.5	5.0	3.5	.0	2.5	.0	4.5	1.5	7.0	2.5	3.5	.0
24	12.0	6.0	4.0	.0	3.5	.5	4.5	2.5	7.5	3.0	5.0	.5
25	11.5	5.5	2.0	.0	4.0	1.5	4.5	2.5	7.0	3.0	5.5	1.0
26	11.0	6.0	.5	.0	5.0	2.0	4.5	2.0	6.5	3.0	6.0	1.0
27	11.5	6.5	2.0	.0	4.0	2.0	3.5	1.5	6.5	3.5	6.5	1.5
28	12.0	6.0	2.5	.0	4.5	2.5	4.5	3.0	6.5	4.0	7.0	2.0
29	10.5	5.0	1.5	.0	4.5	1.5	6.0	3.0	---	---	7.5	2.0
30	9.0	3.5	3.5	.0	3.5	.0	6.5	3.5	---	---	8.0	2.0
31	10.0	3.5	---	---	1.5	.0	7.0	4.0	---	---	8.0	3.0
MONTH	15.0	3.5	8.5	.0	5.5	.0	7.0	.0	7.5	.0	8.0	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	4.5	5.5	3.5	9.5	6.5	14.0	7.0	---	---	20.5	14.5
2	9.0	4.0	8.0	3.5	11.5	6.5	14.5	7.0	---	---	20.0	14.5
3	9.0	3.5	8.0	4.0	11.5	6.5	14.5	7.0	---	---	20.5	14.5
4	9.0	4.0	8.0	4.5	12.0	7.0	15.0	7.0	---	---	19.0	14.0
5	9.5	4.0	7.0	4.5	10.0	6.5	15.5	8.0	---	---	19.0	13.0
6	8.0	4.5	6.5	4.5	9.0	6.5	15.0	7.5	---	---	18.5	13.0
7	8.0	4.0	8.5	4.5	8.0	6.0	14.5	7.5	---	---	18.5	13.0
8	6.0	3.0	9.5	5.0	10.5	6.0	12.5	8.0	---	---	19.0	13.0
9	7.0	1.5	8.0	5.0	12.5	6.0	15.0	8.0	---	---	19.0	12.5
10	9.0	2.5	9.5	5.0	13.0	6.5	14.5	8.0	18.5	13.0	19.0	12.5
11	10.0	4.0	8.0	5.5	12.5	6.0	15.0	8.0	18.5	11.5	20.0	13.0
12	8.0	4.5	6.5	4.0	12.5	5.5	14.5	9.0	19.0	12.0	20.5	13.5
13	6.5	3.0	6.5	4.0	12.0	5.5	15.5	8.5	18.5	12.0	20.0	13.0
14	7.0	2.0	7.5	4.5	9.5	5.5	16.5	10.0	20.5	12.0	19.0	13.5
15	5.5	3.0	8.0	4.5	7.5	5.5	16.5	8.5	20.0	12.5	19.5	13.0
16	6.0	3.0	9.5	5.0	9.0	4.0	16.5	8.5	18.0	13.0	19.0	13.5
17	6.0	3.0	10.5	6.5	10.5	6.5	15.0	9.5	18.0	12.5	18.5	12.0
18	5.5	3.5	11.5	6.0	11.5	6.5	15.0	9.5	18.5	10.5	19.0	12.0
19	9.0	3.0	11.5	5.5	12.0	5.0	15.5	9.5	19.5	11.0	19.0	12.5
20	7.0	3.0	11.0	5.5	11.5	6.5	17.5	10.0	20.5	13.0	19.0	13.0
21	9.0	2.5	10.0	5.5	12.5	7.0	18.0	10.0	20.5	15.5	18.0	13.0
22	11.0	3.5	8.0	6.0	13.5	8.0	---	---	18.5	14.0	17.5	12.5
23	11.5	4.0	10.0	5.5	14.0	8.0	---	---	20.5	15.5	18.0	12.0
24	11.5	5.0	8.5	6.0	14.0	8.0	---	---	20.5	16.0	17.0	12.0
25	11.0	4.5	10.0	6.0	13.0	8.0	---	---	20.0	15.5	17.5	12.5
26	10.0	4.0	11.0	6.0	12.5	8.0	---	---	20.0	14.5	16.5	11.5
27	7.0	4.5	9.5	6.0	14.0	7.0	---	---	19.0	14.5	16.0	10.5
28	7.0	4.5	11.0	6.0	14.0	7.5	---	---	19.0	14.0	15.0	9.5
29	5.5	4.0	11.5	6.0	13.0	8.0	---	---	19.0	14.0	14.5	8.5
30	7.5	3.5	11.5	6.5	13.5	8.0	---	---	19.5	14.0	14.5	8.0
31	---	---	11.5	6.0	---	---	---	---	19.5	14.0	---	---
MONTH	11.5	1.5	11.5	3.5	14.0	4.0	---	---	---	---	20.5	8.0

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 mi².

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.--Nonrecording gage read five times weekly. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--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.

COOPERATION.--Gage readings and capacity table were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 32,269 acre-ft, June 1, 1973, elevation, 5,744.33 ft; minimum since reservoir first filled, 66 acre-ft, Oct. 10-12, 1983, elevation, 5,635.75 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents observed, 31,430 acre-ft, July 11, elevation, 5,743.27 ft; minimum observed, 9,461 acre-ft, Mar. 23, elevation, 5,702.59 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9559	9706	---	10008	9872	---	13649	13081	27597	30152	23721
2	---	9578	9716	---	10115	9868	---	13676	13203	28214	30137	23432
3	9639	9592	---	9716	10098	9942	9546	12913	13823	28673	30122	23123
4	9646	9592	---	---	10026	9872	9565	13047	14448	29261	30092	22820
5	9665	---	9868	9713	9938	9730	9662	13140	15130	29714	30076	22511
6	9679	---	9855	9727	9828	9542	9828	13085	15553	30258	30031	22202
7	9679	9782	9811	---	9794	9500	10054	12942	16062	30655	29986	21898
8	---	9821	9761	---	9787	9513	10164	12756	16478	31010	29933	21594
9	---	9845	9713	9888	9771	9646	10105	12587	16846	31210	29872	21284
10	9652	9868	---	10004	9747	11498	9964	12425	17281	31352	29812	20975
11	9639	---	---	10115	9753	13129	9784	12304	17872	31430	29736	20682
12	9626	---	9720	9977	9760	12769	9665	12168	18585	31414	29535	20367
13	9619	---	9727	9794	9774	11494	10192	11994	19007	31336	29327	20103
14	9605	9713	---	10055	9771	10374	10822	11751	19311	31258	29083	19851
15	---	9662	---	---	9767	10085	11293	11498	19626	31195	28855	19615
16	---	9622	---	---	9754	9841	11678	11218	19978	31172	28622	19367
17	9575	9578	9730	10761	9740	9622	12033	10957	20058	31180	28360	19122
18	9565	9578	---	10559	9727	9672	12328	10983	20080	31210	28064	18892
19	9565	---	---	10292	9706	10060	12595	11181	20252	31265	27771	18639
20	9559	---	---	10012	9699	10247	12855	11467	20612	31236	27478	18402
21	9552	9605	9733	9938	9699	10154	12880	11817	21022	31164	27190	18153
22	---	9612	9727	9866	9716	9632	12888	12192	21463	30785	26908	17920
23	---	9619	---	9807	9754	9461	12892	12570	21977	30486	26630	17676
24	9539	---	---	9798	9814	9598	12942	12653	22597	30107	26341	17437
25	9539	---	---	9787	9842	9672	13110	12612	23325	30077	26051	17188
26	9539	9672	---	9767	9862	9679	13170	12554	24132	30092	25741	16948
27	9542	---	9733	9780	9888	9646	13170	12603	25000	30092	25444	16709
28	9546	---	---	---	9882	9582	13276	12670	25780	30107	25041	16463
29	---	9689	---	---	---	9539	13301	12715	26437	30152	24682	16219
30	---	---	9727	9807	---	9569	13546	12794	27035	30182	24342	15984
31	9555	---	---	9834	---	9632	---	12917	---	30175	24016	---
MAX	---	---	---	---	10115	13129	---	13676	27035	31430	30152	23721
MIN	---	---	---	---	9699	9461	---	10957	13081	27597	24016	15984
a	5702.88			5703.71	5703.85	5703.11	5713.37	5711.89	5737.33	5741.64	5732.85	5718.67
b	-71				+48	-250	+3914	-629	+14118	+3140	-6159	-8032

WTR YR 1995 b +6358

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN

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

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

DRAINAGE AREA.--52.9 mi².

WATER-DISCHARGE RECORDS

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.

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.--No estimated daily discharges. 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 ft³/s, Dec. 23, 1955, gage height, 10.13 ft, present datum, from rating curve extended above 910 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 11.0 ft from floodmarks, present datum, Nov. 20, 1950; minimum discharge, 0.4 ft³/s, July 18, 1961, result of work on dam upstream. Maximum discharge since construction of Prosser Creek Dam in 1963, 1,790 ft³/s, Feb. 20-22, 1986, gage height, 6.66 ft, from rating curve extended above 880 ft³/s on basis of valve setting at Prosser Creek Dam; minimum daily, 0.02 ft³/s, Jan. 2, 1975, result of temporary closing of Prosser Creek Dam for spillway maintenance.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,580 ft³/s, May 1, gage height, 6.30; minimum daily, 2.1 ft³/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	4.3	9.7	18	76	114	168	1050	513	69	107	169
2	2.1	4.2	9.7	18	133	115	169	1290	328	69	105	169
3	2.2	4.2	11	18	132	153	169	658	249	69	97	168
4	2.4	5.0	11	18	132	184	171	439	251	69	106	169
5	2.4	6.5	24	18	132	184	172	440	252	74	105	170
6	5.6	6.0	36	18	116	144	173	441	155	99	103	170
7	12	5.3	36	18	86	86	257	439	87	117	101	169
8	12	5.2	36	18	85	86	307	439	88	148	98	169
9	12	5.2	28	39	86	111	305	439	88	195	96	168
10	12	16	17	106	78	213	303	439	88	212	94	169
11	12	32	17	161	68	514	303	439	88	220	131	170
12	12	32	17	182	68	997	175	416	156	217	158	159
13	12	32	17	153	68	974	48	402	242	205	158	146
14	12	32	17	123	68	691	47	401	242	195	158	136
15	12	32	17	122	68	528	46	401	243	188	158	135
16	12	32	17	117	69	464	46	399	243	187	169	136
17	11	24	17	159	67	334	46	358	242	186	179	136
18	8.8	7.5	17	191	65	260	45	333	242	193	180	136
19	8.8	7.3	17	193	65	259	45	335	158	196	179	136
20	8.8	7.3	17	136	65	373	109	339	80	190	179	136
21	8.8	7.3	17	82	66	555	149	342	65	283	178	135
22	8.8	7.3	17	82	66	413	148	345	66	310	178	137
23	8.8	9.1	18	65	66	171	147	431	66	276	179	136
24	8.8	10	17	55	80	172	147	481	66	171	179	136
25	6.2	11	17	58	98	172	215	480	67	103	186	134
26	4.1	9.9	17	52	98	173	284	480	67	104	192	132
27	4.1	9.7	17	43	106	174	298	481	67	104	192	131
28	4.1	9.7	17	41	114	163	335	481	68	105	192	132
29	4.1	9.7	17	41	---	127	412	481	68	108	193	132
30	4.1	9.7	17	39	---	105	569	500	69	109	179	132
31	4.1	---	18	40	---	144	---	513	---	108	169	---
TOTAL	240.2	393.4	577.4	2424	2421	9153	5808	14912	4704	4879	4678	4453
MEAN	7.75	13.1	18.6	78.2	86.5	295	194	481	157	157	151	148
MAX	12	32	36	193	133	997	569	1290	513	310	193	170
MIN	2.1	4.2	9.7	18	65	86	45	333	65	69	94	131
AC-FT	476	780	1150	4810	4800	18150	11520	29580	9330	9680	9280	8830

PYRAMID AND WINNEMUCCA LAKES BASIN

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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
LOWEST ANNUAL MEAN	38.1
HIGHEST DAILY MEAN	3490
LOWEST DAILY MEAN	2.7
ANNUAL SEVEN-DAY MINIMUM	3.1
INSTANTANEOUS PEAK FLOW	4560
INSTANTANEOUS PEAK STAGE	11.00
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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	94.4	41.6	56.2	67.1	71.9	113	126	210	108	52.5	42.1	111
MAX	282	214	361	321	397	371	372	545	494	167	151	477
(WY)	1983	1982	1965	1970	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1964 - 1995

ANNUAL TOTAL	10881.21	54643.0	
ANNUAL MEAN	29.8	150	91.1
HIGHEST ANNUAL MEAN			214
LOWEST ANNUAL MEAN			24.4
HIGHEST DAILY MEAN	167	Apr 20	1290
LOWEST DAILY MEAN	.37	Aug 16	2.1
ANNUAL SEVEN-DAY MINIMUM	.56	Aug 11	4.1
INSTANTANEOUS PEAK FLOW			1580
INSTANTANEOUS PEAK STAGE			6.30
ANNUAL RUNOFF (AC-FT)	21580	108400	66010
10 PERCENT EXCEEDS	79	383	219
50 PERCENT EXCEEDS	17	108	43
90 PERCENT EXCEEDS	2.2	9.7	8.9

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: June 1993 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1993 to current year.

INSTRUMENTATION.--Water-temperature recorder since June 1993.

REMARKS.--Water temperature is affected by regulation from Prosser Creek Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.0°C, Aug. 13-15, 1994; minimum recorded, 0.5°C, Nov. 25, 1994.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 21.5°C, Oct. 2; minimum recorded, 0.5°C, Nov. 25.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	8.0	11.5	6.0	6.5	1.5	5.0	2.5	5.5	3.5	3.5	3.0
2	21.5	7.5	12.5	4.5	6.5	2.0	4.5	3.0	4.5	3.5	3.5	3.0
3	19.0	7.5	11.5	4.0	4.0	2.5	4.5	2.5	4.5	3.5	3.0	2.5
4	13.0	8.5	10.0	3.5	4.5	2.5	4.0	2.5	4.5	3.5	3.5	2.5
5	16.5	8.5	8.0	6.5	6.0	3.0	4.0	3.0	4.5	3.0	3.5	3.0
6	19.5	8.0	9.5	7.0	4.0	2.5	5.5	2.0	4.0	3.0	4.0	2.5
7	18.5	10.5	9.0	6.0	4.5	2.0	5.5	2.5	4.5	3.0	4.5	2.5
8	19.0	9.5	11.5	6.0	4.0	2.0	4.0	3.0	4.5	3.0	4.0	3.0
9	18.0	10.0	8.0	4.0	5.0	1.5	4.5	3.5	4.5	3.0	3.5	3.0
10	17.5	10.5	11.0	4.0	5.5	1.5	4.0	3.0	4.5	3.0	3.0	1.0
11	17.5	10.0	9.0	6.5	5.0	2.0	4.0	3.5	4.5	3.0	6.5	1.0
12	14.5	10.0	8.0	6.0	4.5	2.0	4.0	3.5	4.5	3.0	2.5	2.5
13	17.0	9.5	8.5	6.0	4.5	2.0	4.0	3.5	3.5	2.5	2.5	2.5
14	15.0	9.5	8.5	5.5	5.5	1.5	4.0	3.5	4.5	2.5	3.0	2.0
15	15.5	9.0	6.5	5.5	5.0	2.0	4.5	3.5	4.0	2.5	3.0	2.5
16	15.5	8.5	7.5	5.0	6.0	2.5	4.0	3.5	4.0	2.5	3.5	2.5
17	15.5	8.5	5.5	3.5	6.5	3.0	4.0	3.5	4.5	2.5	3.5	2.5
18	16.5	8.0	8.0	1.0	6.0	2.0	4.0	3.5	4.5	2.5	3.5	3.0
19	16.0	7.5	8.0	1.0	5.0	2.0	4.0	3.5	4.5	2.5	4.0	3.0
20	16.0	8.0	7.5	2.5	6.0	2.0	4.0	3.5	4.5	2.5	3.0	3.0
21	16.5	7.0	8.0	2.0	6.0	2.0	4.5	3.5	4.5	2.5	3.5	3.0
22	16.0	7.0	8.0	1.5	6.0	2.0	4.0	3.5	4.5	2.0	3.0	2.5
23	16.0	6.5	7.5	2.0	6.0	2.0	5.0	3.5	4.5	2.0	3.5	2.5
24	16.0	7.5	8.0	2.0	4.5	3.0	4.5	3.5	4.5	2.5	3.5	3.0
25	17.0	7.0	3.5	.5	6.0	2.5	5.0	3.5	4.0	2.5	4.0	2.5
26	15.5	6.0	6.5	1.0	6.0	3.0	4.5	3.0	4.0	2.5	4.0	2.5
27	15.0	6.5	7.5	1.0	5.0	3.0	4.5	3.5	4.0	2.5	4.0	2.5
28	16.5	6.0	6.5	1.5	5.5	3.0	4.5	3.5	4.0	2.5	4.0	2.5
29	15.5	6.0	6.5	1.0	6.0	2.0	5.5	3.5	---	---	4.0	2.5
30	14.5	4.0	7.0	2.0	5.5	2.0	5.5	3.5	---	---	4.5	2.5
31	15.5	4.5	---	---	5.0	2.0	6.5	3.5	---	---	4.0	2.5
MONTH	21.5	4.0	12.5	.5	6.5	1.5	6.5	2.0	5.5	2.0	6.5	1.0

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

10341950 LITTLE TRUCKEE RIVER BELOW DIVERSION DAM, NEAR SIERRAVILLE, CA

LOCATION.--Lat 39°29'29", long 120°17'39", in SE 1/4 SE 1/4 sec.15, T.19 N., R.15 E., Sierra County, Hydrologic Unit 16050102, Tahoe National Forest, on left bank 50 ft upstream from Independence Lake Road Bridge, 0.7 mi downstream from diversion dam, and 7.8 mi southeast of Sierraville.

DRAINAGE AREA.--36.1 mi².

PERIOD OF RECORD.--June 1993 to current year.

WATER TEMPERATURE: October 1993 to September 1994.

GAGE.--Water-stage recorder. Elevation of gage is 6,380 ft above sea level, from topographic map.

REMARKS.--Records fair. Some water diverted to Sierra Valley about 0.7 mi upstream for irrigation in the summer months. See schematic diagram of Truckee River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s, June 27, 1995, gage height, 8.14 ft; minimum daily, 1.5 ft³/s, Aug. 17-19, 29, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,630 ft³/s, June 27, gage height, 8.14 ft; minimum daily, 2.2 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	e3.0	e5.5	5.5	64	59	112	1040	1290	713	101	3.7
2	2.3	e4.0	e6.0	5.5	73	64	112	894	1130	624	95	3.7
3	2.2	e4.0	e7.2	5.4	62	72	116	532	1230	617	108	3.6
4	3.3	e6.0	e6.0	5.4	55	89	129	429	1220	616	101	3.5
5	3.8	e7.0	e5.5	5.3	54	59	149	366	1200	594	80	3.2
6	3.2	e8.0	e5.0	5.8	55	57	167	305	624	593	72	3.2
7	2.9	e6.0	e5.0	9.8	56	52	199	276	466	554	69	3.7
8	2.7	e5.0	e5.0	5.5	58	49	181	271	367	520	63	6.3
9	2.5	e5.0	e5.0	11	57	281	e149	275	378	477	55	6.0
10	2.4	e4.0	e5.0	49	63	449	e130	296	506	496	42	5.6
11	2.4	e4.0	e5.0	53	60	354	134	341	741	438	32	5.1
12	2.4	e4.0	e5.2	38	56	319	160	302	919	356	26	4.6
13	e2.4	e4.0	e5.2	53	43	269	221	253	896	283	22	4.2
14	e2.4	e4.0	e5.2	108	e43	262	185	233	888	272	17	3.8
15	e2.4	e4.0	e5.2	99	e44	300	174	226	980	286	11	3.3
16	e2.4	e4.2	e5.5	73	e45	272	162	228	635	300	11	2.9
17	e2.4	e4.2	e5.5	64	45	246	e145	280	456	301	9.2	2.8
18	e2.4	e4.2	e5.5	47	46	274	134	391	453	322	6.5	3.3
19	e2.4	e4.4	e5.5	44	49	252	e130	500	632	279	5.4	3.9
20	e2.4	e4.4	e5.5	41	49	257	128	608	583	259	5.9	3.4
21	e2.4	e4.4	e5.5	37	47	222	e115	707	506	239	7.5	2.9
22	e2.4	e4.4	e5.5	31	46	193	108	721	566	214	6.5	2.9
23	e2.4	e4.4	e5.5	30	47	171	125	672	683	190	6.1	3.3
24	e2.4	e4.4	e5.5	31	49	144	155	707	925	175	6.0	3.7
25	e2.4	e4.4	e5.5	28	53	128	191	625	1130	163	5.1	3.9
26	e2.4	e4.4	e5.5	27	55	119	222	720	1220	143	4.3	4.3
27	e2.4	e4.4	e5.5	24	55	119	250	813	1280	127	3.7	6.0
28	e2.4	e4.4	e6.0	26	57	115	261	756	1040	150	4.4	4.7
29	e2.4	e4.4	e6.1	25	---	e112	330	850	923	157	4.7	5.9
30	e2.4	e4.4	e6.0	26	---	111	374	994	767	126	4.2	8.1
31	e2.4	---	e5.5	40	---	110	---	1190	---	114	3.7	---
TOTAL	78.1	137.4	170.6	1053.2	1486	5560	5148	16801	24634	10698	988.2	125.5
MEAN	2.52	4.58	5.50	34.0	59.1	179	172	542	821	345	31.9	4.18
MAX	3.8	8.0	7.2	108	73	449	374	1190	1290	713	108	8.1
MIN	2.2	3.0	5.0	5.3	43	49	108	226	367	114	3.7	2.8
AC-FT	155	273	338	2090	2950	11030	10210	33320	48860	21220	1960	249

e Estimated.

10341950 LITTLE TRUCKEE RIVER BELOW DIVERSION DAM, NEAR SIERRAVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.01	5.21	6.49	21.1	31.0	103	131	321	419	138	14.0	4.24
MAX	7.50	5.85	7.47	34.0	53.1	179	172	542	821	345	31.9	6.48
(WY)	1994	1994	1994	1995	1995	1995	1995	1995	1995	1995	1995	1993
MIN	2.52	4.58	5.50	8.14	8.94	26.9	90.1	100	16.5	4.63	2.22	2.04
(WY)	1995	1995	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1993 - 1995			
ANNUAL TOTAL	8306.3				66880.0				103			
ANNUAL MEAN	22.8				183				183			
HIGHEST ANNUAL MEAN									23.5			
LOWEST ANNUAL MEAN									1995			
HIGHEST DAILY MEAN	239				1290				23.5			
LOWEST DAILY MEAN	1.5				2.2				1994			
ANNUAL SEVEN-DAY MINIMUM	1.6				2.4				1.5			
INSTANTANEOUS PEAK FLOW					1630				1.6			
INSTANTANEOUS PEAK STAGE					8.14				Aug 15			
ANNUAL RUNOFF (AC-FT)	16480				132700				1630			
10 PERCENT EXCEEDS	65				620				8.14			
50 PERCENT EXCEEDS	7.0				52				74870			
90 PERCENT EXCEEDS	2.0				3.3				275			

PYRAMID AND WINNEMUCCA LAKES BASIN

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 mi².

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, 17,700 acre-ft, Aug. 4, elevation, 6,949.51 ft; minimum, 10,300 acre-ft, Jan. 4, elevation, 6,938.50 ft.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12600	11600	10900	10300	11800	12500	15400	14200	15100	16700	17500	17400
2	12600	11600	10900	10300	11800	12600	15400	14300	15200	16900	17600	17400
3	12500	11500	11000	10300	11900	12700	15500	14300	15200	16900	17600	17400
4	12500	11500	11000	10300	11900	12700	15500	14300	15300	17000	17700	17400
5	12500	11500	11000	10400	11900	12800	15600	14200	15300	17000	17600	17400
6	12500	11600	11000	10400	12000	12800	15600	14200	15200	17100	17600	17400
7	12500	11500	11000	10500	12000	12800	15700	14100	15100	17200	17600	17300
8	12400	11500	10900	10600	12000	12800	15800	14100	15000	17300	17600	17300
9	12400	11400	10900	10700	12000	13300	15800	14000	14800	17300	17600	17300
10	12300	11400	10900	10900	12000	13700	15700	13900	14800	17300	17500	17300
11	12300	11400	10900	10900	12100	13900	15600	13900	14800	17300	17600	17300
12	12200	11300	10900	11000	12000	13900	15500	13900	14800	17200	17600	17300
13	12200	11300	10800	11100	12200	14000	15500	13800	14800	17200	17600	17300
14	12200	11300	10800	11300	12200	14100	15400	13800	14700	17100	17600	17300
15	12100	11200	10800	11300	12200	14200	15300	13700	14700	17100	17600	17200
16	12100	11200	10700	11300	12200	14200	15200	13600	14700	17100	17600	17200
17	12100	11200	10700	11400	12200	14300	15000	13600	14500	17200	17500	17100
18	12000	11200	10700	11400	12300	14400	14900	13600	14500	17300	17600	17100
19	12000	11200	10700	11400	12300	14500	14800	13600	14400	17300	17600	17100
20	12000	11100	10700	11400	12300	14700	14700	13700	14300	17200	17600	17000
21	11900	11100	10600	11400	12300	14800	14600	13800	14300	17200	17600	17000
22	11900	11100	10600	11500	12300	15000	14500	13900	14300	17200	17600	17000
23	11900	11000	10600	11600	12400	15100	14400	14000	14400	17200	17600	16900
24	11900	11000	10500	11600	12400	15200	14200	14000	14700	17200	17500	16900
25	11800	11100	10500	11600	12400	15200	14100	14100	15000	17200	17500	16800
26	11800	11100	10500	11600	12400	15200	14100	14200	15400	17200	17500	16800
27	11800	11000	10500	11700	12500	15300	14000	14300	15700	17200	17500	16800
28	11700	11000	10500	11700	12500	15300	14000	14400	16000	17300	17500	16700
29	11700	11000	10400	11700	---	15300	14000	14500	16300	17300	17500	16700
30	11600	11000	10400	11700	---	15400	14000	14700	16600	17400	17500	16600
31	11600	---	10400	11800	---	15400	---	14900	---	17500	17500	---
MAX	12600	11600	11000	11800	12500	15400	15800	14900	16600	17500	17700	17400
MIN	11600	11000	10400	10300	11800	12500	14000	13600	14300	16700	17500	16600
a	6940.59	6939.55	6938.61	6940.78	6941.90	6946.24	6944.16	6945.51	6947.97	6949.26	6949.28	6948.06
b	-1100	-600	-600	+1400	+700	+2900	-1400	+900	+1700	+900	0	-900

CAL YR 1994 MAX 16600 MIN 10400 b -4500

WTR YR 1995 MAX 17700 MIN 10300 b +3900

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

PYRAMID AND WINNEMUCCA LAKES BASIN

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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 mi².

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

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

GAGE.--Water-stage recorder. 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.--No estimated daily discharges. 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, 291 ft³/s, Dec. 20, 1981, gage height, 6.12 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 285 ft³/s, Apr. 10, gage height, 5.92 ft; minimum daily, 1.4 ft³/s, Jan. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	18	17	1.6	2.3	3.9	82	87	63	6.4	10
2	16	14	18	17	1.6	2.5	3.9	82	122	90	4.9	10
3	16	19	18	10	1.6	2.6	3.9	81	162	103	11	9.9
4	16	29	18	4.3	1.7	2.5	4.0	81	162	103	28	9.7
5	16	29	18	4.3	1.9	2.5	4.1	80	160	103	32	8.9
6	16	29	18	4.4	2.0	2.5	4.3	79	159	102	36	8.7
7	16	29	18	4.4	2.0	2.7	4.3	78	158	101	32	8.9
8	16	24	18	6.7	1.9	2.8	4.3	78	157	101	30	8.9
9	15	18	18	3.6	1.9	5.2	4.3	79	156	106	25	8.9
10	15	18	18	6.6	1.9	7.0	58	79	156	109	23	8.9
11	15	18	18	3.5	2.0	5.8	81	79	156	109	17	8.9
12	15	18	18	2.8	2.2	5.2	81	78	155	108	14	8.9
13	15	18	18	2.8	2.4	5.2	83	77	155	108	14	15
14	16	18	18	2.9	2.3	5.3	83	76	156	104	14	20
15	16	18	18	2.6	1.9	5.9	82	76	156	93	14	19
16	16	18	18	2.5	1.9	6.1	82	76	155	67	13	19
17	16	18	18	2.3	1.9	5.8	82	78	153	57	13	19
18	16	18	18	2.2	1.9	6.0	81	79	152	66	13	19
19	15	18	18	2.2	1.9	5.7	81	80	151	75	13	19
20	16	18	18	2.2	1.9	5.4	81	80	142	77	13	18
21	16	18	18	2.2	1.9	5.2	80	81	134	73	13	18
22	15	18	18	2.2	1.9	32	79	81	126	64	13	18
23	15	18	17	2.2	1.9	32	78	82	64	50	12	18
24	15	18	17	2.2	1.9	7.4	78	81	21	46	12	18
25	15	18	18	2.2	2.0	4.3	78	82	21	46	12	18
26	15	18	17	2.2	2.2	4.2	78	83	21	45	12	18
27	14	18	17	2.2	2.2	3.9	78	83	20	30	12	18
28	14	18	17	2.2	2.2	3.9	78	84	20	14	11	18
29	14	18	17	1.8	---	3.9	79	85	23	12	10	18
30	14	18	17	1.4	---	3.9	79	86	41	9.5	10	18
31	14	---	17	1.5	---	3.9	---	86	---	8.3	10	---
TOTAL	475	583	550	126.6	54.6	193.6	1697.0	2492	3501	2242.8	493.3	438.6
MEAN	15.3	19.4	17.7	4.08	1.95	6.25	56.6	80.4	117	72.3	15.9	14.6
MAX	16	29	18	17	2.4	32	83	86	162	109	36	20
MIN	14	14	17	1.4	1.6	2.3	3.9	76	20	8.3	4.9	8.7
AC-FT	942	1160	1090	251	108	384	3370	4940	6940	4450	978	870

PYRAMID AND WINNEMUCCA LAKES BASIN

10343000 INDEPENDENCE CREEK NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.4	22.4	11.1	7.74	10.2	12.2	18.4	40.9	56.3	27.5	20.8	21.5
MAX	45.8	97.6	58.2	25.1	58.0	79.2	72.9	112	188	89.2	114	133
(WY)	1976	1984	1982	1982	1986	1986	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1968 - 1995	
ANNUAL TOTAL	5241.9		12847.5			
ANNUAL MEAN	14.4		35.2		22.0	
HIGHEST ANNUAL MEAN					46.7	1983
LOWEST ANNUAL MEAN					7.63	1989
HIGHEST DAILY MEAN	43	May 14	162	Jun 3	269	Dec 20 1981
LOWEST DAILY MEAN	1.0	Jul 11	1.4	Jan 30	.02	Sep 26 1973
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 6	1.6	Jan 29	.02	Sep 26 1973
INSTANTANEOUS PEAK FLOW			285	Apr 10	291	Dec 20 1981
INSTANTANEOUS PEAK STAGE			5.92	Apr 10	8.16	Apr 16 1993
ANNUAL RUNOFF (AC-FT)	10400		25480		15960	
10 PERCENT EXCEEDS	23		86		62	
50 PERCENT EXCEEDS	16		18		9.6	
90 PERCENT EXCEEDS	5.2		2.2		1.9	

PYRAMID AND WINNEMUCCA LAKES BASIN

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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 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and concrete control. 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.--No estimated daily discharge. Records excellent. No storage or diversion upstream from station. See schematic diagram of Truckee River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 765 ft³/s, Feb. 1, 1963, gage height, 4.64 ft, from floodmarks, from rating curve extended above 160 ft³/s on basis of slope-area measurement at gage height 4.28 ft; minimum, 0.6 ft³/s, Aug. 8, 1960, Aug. 7, 1961, result of temporary regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 14	0915	52	2.67	May 1	1700	*207	*3.70
Mar. 9	1730	126	3.23	May 31	1930	152	3.46

Minimum daily, 1.3 ft³/s, Oct. 1-3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.0	2.0	2.1	8.7	7.7	14	175	125	54	9.1	3.1
2	1.3	1.8	2.1	2.1	8.4	8.3	14	119	122	51	8.7	3.0
3	1.3	1.6	2.9	2.1	7.1	8.8	15	95	121	50	8.4	3.0
4	1.6	1.6	3.3	2.1	6.7	7.7	17	89	123	46	8.0	2.9
5	1.7	4.9	2.9	2.1	6.6	7.2	20	76	111	44	7.6	2.9
6	1.6	7.3	2.6	2.2	6.5	6.8	23	66	94	43	7.3	2.8
7	1.5	3.1	2.3	4.1	6.3	6.6	27	63	82	41	7.1	2.8
8	1.4	2.4	2.5	3.4	6.1	6.5	27	64	73	40	6.8	2.8
9	1.4	2.3	2.2	8.8	5.9	73	22	64	73	38	6.5	2.8
10	1.4	2.2	2.2	21	5.8	92	21	69	77	36	6.1	2.8
11	1.4	2.1	2.2	12	5.7	58	25	70	81	33	5.9	2.7
12	1.4	2.1	2.2	7.2	5.6	36	30	62	81	31	5.7	2.6
13	1.4	1.9	2.1	21	5.4	32	36	55	79	28	5.5	2.5
14	1.4	1.9	2.1	44	5.3	35	29	52	83	25	5.3	2.5
15	1.5	1.9	2.1	18	5.0	38	26	51	89	24	5.1	2.5
16	1.5	1.9	2.1	11	4.7	34	23	51	74	23	5.0	2.4
17	1.5	1.9	2.1	8.2	4.7	31	21	63	65	23	4.8	2.5
18	1.5	1.9	2.2	6.9	4.7	46	19	77	68	26	4.7	2.6
19	1.5	2.0	2.1	6.1	4.8	39	18	88	62	24	4.5	2.7
20	1.4	1.9	2.1	5.6	5.0	40	17	97	57	21	4.4	2.6
21	1.4	1.9	2.1	5.2	5.3	34	16	100	55	19	4.3	2.6
22	1.5	1.9	2.1	4.8	5.7	26	16	108	54	16	4.3	2.7
23	1.5	1.9	2.1	4.6	6.1	24	19	112	54	15	4.1	2.6
24	1.5	1.9	2.1	4.3	6.6	21	26	103	57	14	3.9	2.6
25	1.5	2.0	2.1	4.2	7.2	19	33	99	60	13	3.7	2.7
26	1.5	2.0	2.1	4.0	7.4	18	36	106	63	12	3.6	2.7
27	1.5	2.0	2.1	3.8	7.3	16	41	111	63	12	3.5	2.7
28	1.4	2.0	2.1	3.8	7.4	15	43	108	61	11	3.4	2.7
29	1.5	2.0	2.1	3.8	---	14	70	112	59	11	3.3	2.7
30	1.5	2.0	2.1	4.1	---	14	75	119	56	10	3.2	2.7
31	1.5	---	2.1	6.2	---	14	---	125	---	9.7	3.1	---
TOTAL	45.3	68.3	69.4	238.8	172.0	828.6	819	2749	2322	843.7	166.9	81.2
MEAN	1.46	2.28	2.24	7.70	6.14	26.7	27.3	88.7	77.4	27.2	5.38	2.71
MAX	1.7	7.3	3.3	44	8.7	92	75	175	125	54	9.1	3.1
MIN	1.3	1.6	2.0	2.1	4.7	6.5	14	51	54	9.7	3.1	2.4
AC-FT	90	135	138	474	341	1640	1620	5450	4610	1670	331	161

PYRAMID AND WINNEMUCCA LAKES BASIN

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.46	5.12	7.11	7.11	8.10	10.5	23.8	42.6	25.3	7.31	3.11	2.68
MAX	11.9	27.7	44.0	33.8	51.0	50.1	51.6	117	142	37.4	11.8	7.56
(WY)	1963	1984	1965	1970	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1954 - 1995	
ANNUAL TOTAL	1158.2		8404.2			
ANNUAL MEAN	3.17		23.0		12.2	
HIGHEST ANNUAL MEAN					30.0	
LOWEST ANNUAL MEAN					2.65	
HIGHEST DAILY MEAN	16	Apr 19	175	May 1	398	Dec 23 1955
LOWEST DAILY MEAN	1.2	Jul 31	1.3	Oct 1	1.0	Sep 13 1960
ANNUAL SEVEN-DAY MINIMUM	1.2	Jul 31	1.4	Oct 8	1.1	Sep 9 1960
INSTANTANEOUS PEAK FLOW			207	May 1	765	Feb 1 1963
INSTANTANEOUS PEAK STAGE			3.70	May 1	4.64	Feb 1 1963
ANNUAL RUNOFF (AC-FT)	2300		16670		8840	
10 PERCENT EXCEEDS	7.3		73		32	
50 PERCENT EXCEEDS	2.1		6.5		4.4	
90 PERCENT EXCEEDS	1.2		1.9		1.9	

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--December 1990 to current year.

INSTRUMENTATION.--Recording--weighing gage since Dec. 1, 1990.

REMARKS.--Jan. 4-6, 1995, precipitation data provided by Sagehen Creek Research Station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded daily precipitation, 3.36 in., Mar. 4, 1991; no precipitation for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum recorded daily precipitation, 2.67 in., Mar. 9; no precipitation for many days.

PRECIPITATION, TOTAL (INCHES), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.21	.00	.00	.14	.00	.00	1.02	.00	.00	.00	.00
2	.00	.13	.00	.00	.00	.45	.00	.11	.00	.00	.00	.00
3	.00	.03	1.03	.00	.03	1.13	.00	.00	.00	.00	.00	.00
4	.36	.00	.81	.21	.00	.03	.00	.07	.00	.00	.00	.00
5	.07	1.3	.18	.47	.00	.00	.00	.09	.04	.00	.00	.03
6	.00	.61	.20	.24	.00	.14	.00	.09	.06	.00	.00	.00
7	.03	.05	.10	.65	.00	.04	.30	.03	.00	.00	.00	.00
8	.04	.18	.04	.86	.00	.00	.37	.00	.07	.00	.00	.00
9	.00	.22	.00	1.18	.00	2.67	.07	.07	.00	.00	.00	.00
10	.00	.19	.00	1.83	.00	2.43	.00	.10	.00	.00	.00	.00
11	.00	.00	.00	.51	.00	.40	.00	.00	.00	.00	.00	.00
12	.00	.30	.33	.13	.04	.07	.00	.15	.00	.00	.00	.00
13	.03	.07	.13	1.87	1.03	.27	.87	.10	.00	.06	.00	.00
14	.00	.00	.03	1.01	.18	.28	.03	.07	.14	.00	.00	.00
15	.10	.13	.03	.23	.03	.28	.03	.33	.50	.00	.00	.00
16	.06	.07	.00	.10	.00	.04	.04	.04	.18	.00	.00	.00
17	.00	.26	.00	.04	.03	.03	.06	.00	.00	.00	.00	.00
18	.00	.21	.07	.00	.03	.57	.00	.00	.07	.27	.06	.00
19	.00	.07	.03	.00	.07	.06	.07	.03	.10	.07	.00	.00
20	.00	.00	.00	.00	.00	1.35	.44	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.69	.03	.00	.00	.03	.00	.00
22	.00	.00	.00	.52	.00	2.02	.00	.31	.00	.03	.00	.00
23	.00	.00	.00	.17	.00	.51	.00	.04	.00	.04	.00	.00
24	.00	.00	.03	.29	.00	.12	.00	.03	.00	.00	.00	.00
25	.00	1.14	.07	.15	.00	.10	.00	.07	.00	.00	.00	.00
26	.00	.44	.00	.35	.00	.03	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.22	.00	.00	.36	.03	.00	.00	.00	.00
28	.00	.04	.21	.00	.00	.00	.26	.10	.00	.00	.00	.00
29	.00	.00	.03	.00	---	.00	.50	.00	.00	.00	.00	.04
30	.04	.00	.04	.00	---	.00	.20	.00	.00	.00	.00	.00
31	.00	---	.00	.07	---	.00	---	.00	---	.00	.00	---
TOTAL	0.73	5.65	3.36	11.10	1.58	13.71	3.63	2.88	1.16	0.50	0.06	0.07

CAL YR 1994 TOTAL 19.10

WTR YR 1995 TOTAL 44.43

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-75, 1981 to current year.

CHEMICAL DATA: Water years 1968-72, October 1985 to current year.

WATER TEMPERATURE: Water years 1970-74.

SEDIMENT DATA: Water years 1968-75, 1981 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1969 to September 1974.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 1994 08...	1135	2.3	119	7.9	4.0	15	605	10.2	98	K3
FEB 1995 16...	1120	4.7	90	7.6	1.0	1.0	605	11.1	99	K0
MAY 31...	1055	107	38	7.6	5.5	1.0	605	10.9	109	K1
AUG 16...	1010	5.4	81	8.1	9.5	0.50	602	9.0	100	K14
DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3
NOV 1994 08...	49	47	0	12	4.2	5.9	20	0.4	2.1	75
FEB 1995 16...	K0	36	0	9.1	3.3	4.1	19	0.3	1.4	56
MAY 31...	K3	16	0	4.0	1.5	1.9	20	0.2	0.50	32
AUG 16...	105	38	0	10	3.2	4.0	18	0.3	1.1	57
DATE	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
NOV 1994 08...	0	62	0.10	1.0	<0.10	32	109	96	0.15	0.007
FEB 1995 16...	0	47	<0.10	0.30	<0.10	26	76	--	--	<0.001
MAY 31...	0	26	<0.10	0.20	<0.10	18	37	--	--	0.001
AUG 16...	0	47	<0.10	0.20	<0.10	28	79	--	--	0.001
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 1994 08...	0.012	0.016	0.20	0.038	0.033	0.015	<10	28	<3	--
FEB 1995 16...	0.007	0.003	<0.20	0.012	0.010	0.008	100	18	<3	69
MAY 31...	<0.005	<0.002	<0.20	0.006	0.006	0.001	120	10	<3	37
AUG 16...	0.007	<0.002	<0.20	0.008	0.007	0.005	20	18	<3	64

10343500 SAGEHEN CREEK NEAR TRUCKEE, CA--Continued

WATER-QUALITY DATA, OCTOBER 1994 TO SEPTEMBER 1995

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
NOV 1994 08...	<4	4	<10	<1	<1	<1.0	130	<6	--	--
FEB 1995 16...	<4	<1	<10	<1	<1	<1.0	100	<6	--	--
MAY 31...	<4	<1	<10	<1	<1	<1.0	51	<6	<0.02	0.03
AUG 16...	<4	5	<10	<1	<1	<1.0	110	<6	0.03	0.17

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)
MAY 31...*	1038	1.15	2.00	37	7.8	5.5	605	10.8	108
31...*	1039	1.40	6.00	36	7.7	5.5	605	10.9	109
31...*	1040	2.00	10.0	36	7.5	5.5	605	11.0	110
31...*	1041	2.25	14.0	36	7.5	5.5	605	11.0	110
31...*	1042	1.80	18.0	37	7.5	5.5	605	10.9	109

* Instantaneous discharge at the time of cross-sectional measurement: 107 ft³/s

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
NOV 1994 08...	1135	2.3	4.0	12	0.07
FEB 1995 16...	1120	4.7	1.0	3	0.04
MAY 31...	1055	107	5.5	4	1.2
AUG 16...	1010	5.4	9.5	2	0.03

PYRAMID AND WINNEMUCCA LAKES BASIN

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 mi².

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.--Nonrecording gage read five times weekly. Datum of gage is sea level (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by rolled-earth and rockfill dam. Storage began Aug. 1, 1969. Total capacity, 226,500 acre-ft at elevation 5,948.7 ft, spillway crest. Inactive 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.

COOPERATION.--Records and capacity table were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) 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) FOR CURRENT YEAR.--Maximum contents observed, 236,199 acre-ft, July 19, elevation, 5,951.48 ft; minimum observed, 66,843 acre-ft, Oct. 31, Nov. 4, elevation, 5,884.42 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	67677	---	---	81099	---	148203	201911	---	226429	204403
2	---	66890	---	---	74659	81404	---	152613	203981	---	225121	---
3	67265	---	67772	68774	75152	81946	114435	155614	206031	232507	223749	---
4	---	66843	---	---	---	82254	115160	158094	208191	232682	222519	---
5	67265	---	---	---	---	82544	116025	160374	210331	233278	---	204046
6	---	---	68168	68790	75888	82708	117055	162391	212219	233699	---	203981
7	67220	67282	---	---	---	82890	118206	164112	213616	234050	219155	203916
8	---	---	68216	---	76349	83109	119667	165729	214717	---	218041	203819
9	---	67204	---	69271	---	83603	120741	167069	215620	---	217030	---
10	---	---	68232	---	76780	86797	121610	168157	216661	235070	215956	---
11	67172	---	---	70144	---	90244	122766	169308	217940	235599	214750	203657
12	67157	---	---	---	---	92246	124002	170493	219460	235881	---	203592
13	---	---	68359	70583	77439	93841	125629	171597	220850	235952	---	203559
14	67125	---	---	---	---	95300	127100	172500	221599	235987	211323	203527
15	---	---	68375	---	77875	96846	128314	173319	222382	---	210199	203495
16	---	67393	---	---	---	98429	129438	174112	223476	---	209324	---
17	67031	---	68423	---	78172	99700	130420	174906	223852	236057	208552	---
18	---	67472	---	72875	---	100921	131308	175851	224023	236128	207699	203333
19	67031	---	---	---	---	102508	132125	177126	224126	236199	---	203300
20	---	---	68437	---	---	103900	132896	178617	224537	236057	---	203365
21	66984	67472	68519	---	78752	105562	133695	180296	224743	235987	205509	203300
22	---	---	---	---	78928	106744	134296	182107	225912	---	205183	203236
23	---	67440	---	73646	---	107871	135024	183960	226153	---	205086	---
24	66952	---	---	---	---	108830	136033	185672	226429	235211	205053	---
25	---	---	---	---	79493	109531	137224	187271	226877	234894	204988	203106
26	66937	---	---	73965	---	110125	138575	188817	227499	234226	---	203009
27	---	---	68646	74100	80400	110700	140012	190528	228260	233032	---	202944
28	66890	---	---	---	---	111253	141703	192217	229404	231773	204695	202847
29	---	67677	---	---	---	111765	143319	193947	230273	---	204598	202750
30	---	---	68678	---	---	112255	145604	195751	230935	---	204500	---
31	66843	---	---	74303	---	112747	---	197681	---	227706	204435	---
MAX	---	---	---	---	---	112747	---	197681	230935	---	---	---
MIN	---	---	---	---	---	81099	---	148203	201911	---	---	---
a	5884.42	---	---	5889.00	---	5908.62	5922.09	5940.01	5949.98	5949.05	5942.11	---
b	-487	---	---	---	---	---	+32857	+52077	+33254	-3229	-23271	---

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 mi².

PERIOD OF RECORD.--June 1903 to October 1910, September 1939 to current year. Monthly discharge only for some periods, published in WSP 1314 and 1734. Published as "at Pine Station," June 1903 to December 1907, as "at Starr," January 1908 to October 1910, and as "near Boca," September 1939 to September 1976.

REVISED RECORDS.--WSP 1564: 1903-4, 1906-7, 1910, drainage area at site used in 1903-7.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,618.67 ft above sea level (U.S. Bureau of Reclamation Benchmark). June 1903 to October 1910, nonrecording gages at different sites and datums.

REMARKS.--Records excellent except for estimated daily discharges, which are good. 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 ft³/s, Feb. 1, 1963, gage height, 9.00 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft³/s, Sept. 16-21, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 853 ft³/s, July 28, gage height, 2.47 ft; minimum daily, 27 ft³/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	28	27	44	42	56	89	259	531	758	35
2	29	29	28	27	44	58	60	82	255	543	756	34
3	29	28	31	27	40	94	63	70	256	554	758	34
4	30	28	32	27	38	92	66	63	254	564	757	34
5	30	32	30	27	37	92	67	59	253	546	679	34
6	29	32	30	28	37	90	68	57	250	534	606	33
7	29	51	30	29	36	88	70	54	250	513	605	33
8	28	49	e30	27	36	88	66	88	250	480	605	33
9	27	29	e30	33	36	170	59	194	248	493	605	33
10	27	30	e29	50	36	212	56	281	246	438	605	33
11	27	30	29	39	35	151	55	281	246	406	605	33
12	27	30	29	36	34	134	56	281	287	415	604	33
13	27	29	28	44	34	125	63	281	521	419	606	32
14	28	29	e28	60	33	123	57	283	684	419	609	29
15	28	29	28	45	e33	122	54	288	689	420	505	28
16	27	29	28	37	e32	117	52	285	693	419	383	28
17	27	30	28	33	31	113	49	285	693	420	382	28
18	27	29	27	32	32	118	48	284	692	410	382	28
19	27	30	e27	31	33	113	45	281	688	427	382	28
20	27	29	27	30	34	110	46	280	681	425	381	30
21	27	29	27	29	36	69	45	281	683	419	269	32
22	27	29	e27	29	38	60	44	279	683	413	115	32
23	27	29	e27	29	42	62	45	275	683	403	43	33
24	27	27	27	31	41	51	47	276	682	392	37	33
25	27	30	27	29	42	49	49	272	684	461	36	33
26	27	29	27	29	41	47	50	267	689	688	36	33
27	27	28	27	28	41	46	53	267	543	803	36	33
28	27	28	27	28	41	45	53	267	456	819	35	33
29	27	e28	27	28	---	45	56	263	489	825	35	32
30	27	28	e27	29	---	48	57	264	518	797	35	32
31	27	---	e27	33	---	50	---	264	---	773	35	---
TOTAL	856	915	874	1011	1037	2824	1655	6841	14505	16169	12285	959
MEAN	27.6	30.5	28.2	32.6	37.0	91.1	55.2	221	483	522	396	32.0
MAX	30	51	32	60	44	212	70	288	693	825	758	35
MIN	27	27	27	27	31	42	44	54	246	392	35	28
AC-FT	1700	1810	1730	2010	2060	5600	3280	13570	28770	32070	24370	1900

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
LOWEST ANNUAL MEAN	58.9
HIGHEST DAILY MEAN	8810
LOWEST DAILY MEAN	3.0
ANNUAL SEVEN-DAY MINIMUM	4.0
INSTANTANEOUS PEAK FLOW	13300
INSTANTANEOUS PEAK STAGE	9.00
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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	80.7	43.4	69.6	75.0	63.8	122	297	554	336	163	119	56.1
MAX	503	132	711	349	149	368	923	1371	1733	1301	573	359
(WY)	1974	1975	1984	1984	1975	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1969 - 1995

ANNUAL TOTAL	67865	59931	
ANNUAL MEAN	186	164	166
HIGHEST ANNUAL MEAN			427
LOWEST ANNUAL MEAN			53.4
HIGHEST DAILY MEAN	1210	May 19	2460
LOWEST DAILY MEAN	27	Sep 13	.30
ANNUAL SEVEN-DAY MINIMUM	27	Oct 16	.31
INSTANTANEOUS PEAK FLOW			853
INSTANTANEOUS PEAK STAGE			2.47
ANNUAL RUNOFF (AC-FT)	134600	118900	119900
10 PERCENT EXCEEDS	794	544	463
50 PERCENT EXCEEDS	31	43	44
90 PERCENT EXCEEDS	27	27	27

PYRAMID AND WINNEMUCCA LAKES BASIN

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10344490 BOCA RESERVOIR NEAR TRUCKEE, CA

LOCATION.--Lat 39°23'20", long 120°05'43", in NE 1/4 NW 1/4 sec.28, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, in control house at Boca Dam on Little Truckee River, 1,800 ft upstream from mouth, and 6.3 mi northeast of Truckee.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--December 1938 to current year. Prior to October 1976 published as "at Boca." Monthend contents only for December 1938 to September 1957, published in WSP 1734.

REVISED RECORDS.--WSP 1634: Drainage area.

GAGE.--Pressure gage with mercury column read 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) 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) FOR CURRENT YEAR.--Maximum contents observed, 39,176 acre-ft, July 10, 11, elevation, 5,603.25 ft; minimum, 5,775 acre-ft, Oct. 1, elevation, 5,552.40 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5775	---	7797	9157	13213	16854	31307	34898	34224	38462	36913	37146
2	5828	7250	7859	9202	---	17074	31656	35169	34224	38367	37006	36821
3	5881	---	7880	9248	13600	17422	31936	35169	34313	38320	37193	36404
4	---	7330	7921	---	13740	17742	---	35124	34403	38414	37379	36128
5	6005	7370	7963	9293	13880	18066	32675	34988	34492	38509	37613	35853
6	---	7410	---	9429	14021	18392	33026	35079	34717	38604	37520	35579
7	6131	7450	7817	9497	---	18689	33423	35169	34943	38652	37473	35351
8	6185	7551	---	9611	14306	18921	33511	35169	35124	38842	37426	35169
9	6240	7612	7735	9726	---	19390	33556	35306	35351	38985	37426	34853
10	6295	7653	7817	---	14565	20730	---	35670	35579	39176	37435	34492
11	---	7653	7900	10266	14681	22298	33511	35579	35807	39176	37295	34224
12	6406	7653	7984	---	14798	23216	33467	35442	35990	38985	37426	34000
13	---	7653	---	10626	14915	23814	33733	35442	35579	38937	37567	33778
14	6499	7673	8068	10921	---	24496	34000	35442	35397	38890	37801	33556
15	6536	---	---	11219	15180	25111	34179	35397	35442	38320	38131	33335
16	6574	7694	8194	11471	---	25655	34313	35397	35488	37707	38178	33114
17	6611	---	8258	11675	15328	26166	34448	35397	35351	37193	38131	32894
18	---	7714	8322	11829	15387	26683	34582	35351	35079	36821	38131	32675
19	6687	7714	8387	---	15447	27205	34672	35306	34943	36682	38131	32414
20	---	7714	---	12011	15537	27732	34762	35215	34943	36450	38084	32196
21	6763	7735	8494	12115	15627	28346	34762	35124	35124	36266	38131	31936
22	6802	---	---	12220	15747	28760	34800	35079	35488	36312	37895	31699
23	6840	7735	8625	12325	---	29135	34800	35034	36036	36358	37660	31438
24	6878	7735	8668	---	16020	29386	34800	34943	36589	36404	37613	31177
25	---	7756	8734	12511	16203	29639	---	34853	37146	36404	37520	30918
26	6959	7756	8800	---	16357	29892	34853	34762	37801	36404	37426	30660
27	---	7756	8844	12671	16542	30147	34762	34672	38367	36312	37379	30360
28	7034	7776	8911	12751	---	30403	34762	34537	38557	36358	37333	29977
29	7073	---	---	12832	---	30574	34762	34403	38509	36450	37239	29639
30	7112	7797	9045	12940	---	30789	34762	34224	38557	36682	37239	29302
31	7151	---	9112	---	---	31004	---	34224	---	36821	37193	---
MAX	---	---	---	---	---	31004	---	35670	38557	39176	38178	37146
MIN	---	---	---	---	---	16854	---	34224	34224	36266	36913	29302
a	5556.10	5557.70	5560.75	---	---	5594.20	5598.50	5597.90	5602.60	5600.74	5601.15	5592.20
b	+1428	+646	+1315	---	---	---	+3758	-538	+4333	-1736	+372	-7891

WTR YR 1995 b +23579

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to October 1890 (monthly discharge only), January 1911 to September 1915, January 1939 to current year. Prior to October 1976 published as "at Boca." Monthly discharge only for January 1939 to September 1957, published in WSP 1734.

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

GAGE.--Water-stage recorder. 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 except estimated periods, which are fair. 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 ft³/s, Dec. 24, 1955, from records of Washoe County Water Conservation District; no flow for many days in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, June 17, gage height, unknown; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	22	.00	.00	.00	.42	177	e291	e600	709	151
2	.00	.00	23	.00	.00	.00	.45	197	e238	e600	677	207
3	.00	.00	24	.00	.00	.00	.50	197	e200	e553	654	206
4	.00	.00	25	.00	.00	.00	.48	198	e200	e530	651	190
5	.00	.00	59	.00	.00	.00	.48	140	e166	e516	641	178
6	.00	.00	87	.00	.00	.00	.47	104	e145	497	624	165
7	.00	9.6	87	.00	.00	.00	98	104	e145	442	622	125
8	.00	.00	55	.00	.00	.00	174	104	e145	400	601	153
9	.00	.00	.00	.00	.00	.11	174	105	e145	400	588	219
10	.00	13	.00	.03	.00	.39	174	256	e145	401	644	190
11	.00	22	.00	.00	.00	.58	174	336	e145	481	568	155
12	.00	22	.00	.00	.00	.41	108	334	e345	465	521	141
13	.00	22	.00	.00	.00	.23	50	335	e756	469	491	140
14	.00	22	.00	.00	.00	.13	50	339	e732	571	449	140
15	.00	22	.00	.00	.00	.03	50	339	e725	765	414	140
16	.00	22	.00	.00	.00	.00	50	339	e725	745	401	140
17	.00	22	.00	.00	7.0	.00	50	339	e847	644	390	144
18	.00	22	.00	.00	11	.08	50	339	e819	562	384	156
19	.00	22	.00	.00	11	.13	50	339	e746	531	384	156
20	.00	22	.00	.00	11	.27	78	339	e667	530	372	156
21	.00	22	.00	.00	4.9	.24	95	339	e550	443	347	155
22	.00	22	.00	.00	.00	.26	95	339	e433	376	274	163
23	.00	22	.00	.00	.00	.22	95	339	e400	376	114	168
24	.00	22	.00	.00	.00	.14	95	339	e400	375	76	168
25	.00	22	.00	.00	.00	.07	95	339	e400	448	68	168
26	.00	22	.00	.00	.00	.02	126	339	e400	691	68	176
27	.00	22	.00	.00	.00	.08	147	339	e400	804	68	193
28	.00	22	.00	.00	.00	.13	147	339	e467	784	62	211
29	.00	22	.00	.00	---	.14	147	339	e500	740	43	206
30	.00	22	.00	.00	---	.20	148	308	e538	708	34	206
31	.00	---	.00	.00	---	.31	---	291	---	709	49	---
TOTAL	0.00	462.60	382.00	0.03	44.90	4.17	2522.80	8610	12815	17156	11988	5066
MEAN	.000	15.4	12.3	.001	1.60	.13	84.1	278	427	553	387	169
MAX	.00	22	87	.03	11	.58	174	339	847	804	709	219
MIN	.00	.00	.00	.00	.00	.00	.42	104	145	375	34	125
AC-FT	.00	918	758	.06	89	8.3	5000	17080	25420	34030	23780	10050

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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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
LOWEST ANNUAL MEAN	94.7
HIGHEST DAILY MEAN	2360
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
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
LOWEST ANNUAL MEAN	65.8
HIGHEST DAILY MEAN	5520
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
INSTANTANEOUS PEAK FLOW	8800
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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	105	72.2	95.4	82.2	67.2	110	259	476	309	200	157	107
MAX	441	327	568	410	256	470	975	1148	1788	1131	585	418
(WY)	1972	1984	1984	1984	1975	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1970 - 1995

ANNUAL TOTAL	73051.80	59051.50	
ANNUAL MEAN	200	162	171
HIGHEST ANNUAL MEAN			470
LOWEST ANNUAL MEAN			55.6
HIGHEST DAILY MEAN	1210	May 19	2240
LOWEST DAILY MEAN	.00	Sep 13	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 13	.00
INSTANTANEOUS PEAK FLOW		Unknown	2520
INSTANTANEOUS PEAK STAGE		Unknown	6.11
ANNUAL RUNOFF (AC-FT)	144900	117100	123600
10 PERCENT EXCEEDS	918	530	437
50 PERCENT EXCEEDS	52	24	74
90 PERCENT EXCEEDS	.00	.00	.53

10344500 LITTLE TRUCKEE RIVER BELOW BOCA DAM NEAR TRUCKEE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURE: April 1993 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April 1993 to current year.

INSTRUMENTATION.--Water-temperature recorder since April 1993.

REMARKS.--Records good. Water temperature is affected by regulation from Boca Dam. There was no flow at the station Oct. 1 to Nov. 10, Dec. 8 to Feb. 17, Feb. 21 to Mar. 9, and Mar. 15-19. Missing record June 1 to July 5 was due to a power failure to the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 19.5°C, July 20, 24, 1994; minimum recorded, 2.0°C, Nov. 26, 1994, Mar. 22, 23, 1995.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 14.0°C, several days; minimum recorded, 2.0°C, Nov. 26, Mar. 22, 23.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

PYRAMID AND WINNEMUCCA LAKES BASIN

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10344500 LITTLE TRUCKEE RIVER BELOW BOCA DAM NEAR TRUCKEE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

PYRAMID AND WINNEMUCCA LAKES BASIN

10345700 BRONCO CREEK AT FLORISTON, CA

LOCATION.--Lat 39°23'02", long 120°01'11", in SE 1/4 NW 1/4 sec.31, T.18 N., R.18 E., Nevada County, Hydrologic Unit 16050102, on right bank 80 ft upstream from railroad bridge, 200 ft upstream from mouth, and 0.7 mi north of Floriston.

DRAINAGE AREA.--15.4 mi².

PERIOD OF RECORD.--April 1993 to current year.

WATER TEMPERATURE: April 1993 to September 1994.

GAGE.--Water-stage recorder. Elevation of gage is 5,350 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, 222 ft³/s, July 5, 1995, gage height, 4.28 ft; minimum daily, 2.8 ft³/s, several days in 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 1	1815	93	3.88	July 5	2215	*222	*4.28
June 7	1445	81	3.83				

Minimum daily, 3.5 ft³/s, Oct. 3, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	5.7	4.9	4.2	8.8	6.5	10	26	44	89	37	14
2	3.6	5.6	4.9	4.2	8.1	6.3	11	26	35	92	38	13
3	3.5	4.4	5.1	4.2	6.7	7.0	11	24	36	90	34	14
4	4.0	5.4	5.2	4.2	6.4	6.3	12	24	48	103	32	14
5	4.1	7.0	5.0	4.2	6.3	6.1	12	23	43	152	31	14
6	4.0	7.1	4.9	4.1	6.1	5.7	13	22	32	126	31	13
7	3.9	6.3	e5.0	4.8	5.9	5.9	13	21	28	132	31	12
8	3.7	6.0	e5.0	4.2	5.9	5.7	12	21	15	95	31	12
9	3.6	6.2	e5.0	4.9	5.7	14	12	21	13	101	30	13
10	3.6	6.7	e5.0	7.0	5.6	20	12	22	22	78	29	12
11	3.6	6.8	5.1	5.5	5.6	19	12	25	34	81	28	12
12	3.5	6.6	4.9	5.0	5.5	14	13	25	63	79	26	12
13	3.6	e6.4	4.9	5.9	5.5	12	14	24	69	83	24	12
14	3.7	e6.2	e4.8	7.4	5.5	11	13	24	58	73	23	13
15	3.7	e5.9	4.6	6.0	e5.4	12	13	24	86	66	23	13
16	3.8	e5.6	4.7	5.3	e5.2	12	13	25	66	69	22	14
17	4.1	e5.3	4.7	e8.0	5.1	11	12	27	56	62	22	15
18	4.1	e5.0	4.6	4.7	5.1	12	12	32	53	72	21	15
19	4.1	e4.7	4.4	e4.6	5.4	11	11	39	49	63	18	15
20	4.1	e4.4	4.5	e4.5	5.7	11	11	41	46	59	18	15
21	4.2	e4.1	4.5	4.4	6.1	11	11	48	47	57	18	15
22	4.3	e4.0	4.4	4.4	6.4	11	11	50	60	52	18	14
23	4.2	e4.0	e4.4	4.4	6.5	11	12	52	68	51	18	14
24	4.4	e4.0	e4.3	4.4	6.8	10	14	54	88	54	15	14
25	4.3	e4.2	4.3	4.4	6.9	9.6	17	51	121	51	15	14
26	4.4	e4.2	4.3	4.3	6.9	10	18	52	137	49	14	14
27	4.5	e4.4	4.3	4.5	6.6	9.3	19	48	115	48	14	14
28	4.8	4.6	4.3	4.9	6.4	9.2	18	47	99	48	14	14
29	4.8	4.7	4.2	5.0	---	9.2	18	40	129	40	13	14
30	5.0	4.8	4.2	5.2	---	9.3	19	39	105	36	13	13
31	5.5	---	e4.2	6.7	---	9.8	---	e42	---	35	13	---
TOTAL	126.6	160.3	144.6	155.5	172.1	317.9	399	1039	1865	2286	714	407
MEAN	4.08	5.34	4.66	5.02	6.15	10.3	13.3	33.5	62.2	73.7	23.0	13.6
MAX	5.5	7.1	5.2	8.0	8.8	20	19	54	137	152	38	15
MIN	3.5	4.0	4.2	4.1	5.1	5.7	10	21	13	35	13	12
AC-FT	251	318	287	308	341	631	791	2060	3700	4530	1420	807

e Estimated.

PYRAMID AND WINNEMUCCA LAKES BASIN

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10345700 BRONCO CREEK AT FLORISTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.79	5.66	5.15	4.91	5.73	8.06	11.0	26.9	35.8	33.9	12.0	7.95
MAX	7.49	5.97	5.64	5.02	6.15	10.3	13.3	35.5	62.2	73.7	23.0	13.6
(WY)	1994	1994	1994	1995	1995	1995	1995	1993	1995	1995	1995	1995
MIN	4.08	5.34	4.66	4.81	5.31	5.87	8.63	11.7	6.81	4.05	3.25	3.13
(WY)	1995	1995	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1993 - 1995
ANNUAL TOTAL	2056.6	7787.0	
ANNUAL MEAN	5.63	21.3	13.7
HIGHEST ANNUAL MEAN			21.3 1995
LOWEST ANNUAL MEAN			6.06 1994
HIGHEST DAILY MEAN	19 May 11	152 Jul 5	152 Jul 5 1995
LOWEST DAILY MEAN	2.8 Aug 30	3.5 Oct 3	2.8 Aug 30 1994
ANNUAL SEVEN-DAY MINIMUM	2.9 Aug 27	3.6 Oct 8	2.9 Aug 27 1994
INSTANTANEOUS PEAK FLOW		222 Jul 5	222 Jul 5 1995
INSTANTANEOUS PEAK STAGE		4.28 Jul 5	4.28 Jul 5 1995
ANNUAL RUNOFF (AC-FT)	4080	15450	9920
10 PERCENT EXCEEDS	9.0	55	39
50 PERCENT EXCEEDS	4.9	12	7.0
90 PERCENT EXCEEDS	3.1	4.2	4.0

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA

LOCATION.--Lat 39°25'41", long 120°01'59", in SE 1/4 NE 1/4 sec.12, T.18 N., R.17 E., Nevada County, Hydrologic Unit 16050102, on left bank 0.5 mi upstream from Mystic Canyon, 0.7 mi downstream from Farad Powerplant, 2.5 mi north of Floriston, and 3.5 mi upstream from California-Nevada State line.

DRAINAGE AREA.--932 mi².

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.

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.--No estimated daily discharges. 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 ft³/s, Nov. 21, 1950, gage height, 14.5 ft, present datum, from floodmarks, from slope-area measurement of peak flow; minimum, 28 ft³/s, Dec. 18, 1930.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft³/s, May 1, gage height, 7.74 ft; minimum daily, 43 ft³/s, Oct. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	48	100	92	461	458	625	3880	2970	1970	1200	595
2	68	54	105	86	586	468	642	3840	2690	1880	1160	632
3	66	50	122	86	542	588	654	2600	2550	1860	1120	628
4	71	49	157	83	515	574	695	2120	2620	1780	1120	609
5	86	62	194	88	503	550	734	1960	2530	1770	1100	587
6	75	156	249	92	488	506	801	1750	2030	1780	1060	597
7	70	139	229	127	424	411	1040	1630	1570	1740	1040	582
8	69	86	205	147	415	396	1280	1590	1400	1690	1010	578
9	68	73	125	250	396	1640	1150	1580	1270	1690	968	604
10	66	84	122	974	383	2840	1090	1760	1350	1680	999	571
11	70	136	116	898	358	2420	1100	1950	1560	1700	955	532
12	66	131	101	661	355	2230	1000	1810	1830	1650	929	507
13	64	121	97	784	356	1940	940	1690	2410	1530	889	495
14	64	120	95	1460	351	1720	846	1640	2350	1550	840	484
15	63	124	94	932	333	1660	776	1610	2390	1630	787	481
16	62	124	94	676	324	1500	727	1580	2140	1650	775	480
17	62	129	94	598	319	1240	678	1800	2070	1630	774	478
18	60	100	94	578	319	1230	647	1910	2080	1510	759	490
19	59	106	87	535	319	1280	620	2030	2060	1420	748	488
20	58	117	89	464	329	1370	686	2200	1980	1380	732	484
21	58	98	93	372	341	1490	737	2330	1890	1350	706	481
22	58	91	88	355	349	1270	724	2480	1850	1270	712	487
23	56	99	90	339	365	924	744	2620	1950	1180	690	491
24	56	97	96	323	391	841	792	2650	2120	1140	647	488
25	54	99	92	323	438	767	973	2510	2280	1180	625	484
26	50	101	91	305	451	711	1180	2580	2280	1310	623	485
27	48	124	87	283	450	674	1310	2700	2180	1350	617	495
28	44	105	93	271	455	641	1440	2710	2150	1340	604	489
29	44	106	90	264	---	586	1850	2770	2120	1320	581	481
30	44	103	81	265	---	549	2250	2790	2050	1240	557	480
31	43	---	84	304	---	576	---	2880	---	1210	541	---
TOTAL	1893	3032	3554	13015	11316	34050	28731	69950	62720	47380	25868	15763
MEAN	61.1	101	115	420	404	1098	958	2256	2091	1528	834	525
MAX	86	156	249	1460	586	2840	2250	3880	2970	1970	1200	632
MIN	43	48	81	83	319	396	620	1580	1270	1140	541	478
AC-FT	3750	6010	7050	25820	22450	67540	56990	138700	124400	93980	51310	31270

PYRAMID AND WINNEMUCCA LAKES BASIN

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10346000 TRUCKEE RIVER AT FARAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	381	423	522	545	620	769	1261	1706	1250	648	507	460
MAX	982	2469	3596	3053	2394	4073	3887	5674	5214	2921	1084	1482
(WY)	1972	1984	1984	1984	1986	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1909 - 1995	
ANNUAL TOTAL	118598		317272			
ANNUAL MEAN	325		869		750	
HIGHEST ANNUAL MEAN					2443	1983
LOWEST ANNUAL MEAN					184	1931
HIGHEST DAILY MEAN	1560	May 12	3880	May 1	13400	Dec 23 1955
LOWEST DAILY MEAN	43	Oct 31	43	Oct 31	37	Sep 15 1933
ANNUAL SEVEN-DAY MINIMUM	46	Oct 26	46	Oct 26	40	Sep 9 1933
INSTANTANEOUS PEAK FLOW			5060	May 1	17500	Nov 21 1950
INSTANTANEOUS PEAK STAGE			7.74	May 1	14.50	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	235200		629300		543400	
10 PERCENT EXCEEDS	1140		2070		1650	
50 PERCENT EXCEEDS	124		597		503	
90 PERCENT EXCEEDS	73		79		190	

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

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, July 1993 to current year.

WATER TEMPERATURE: Water years 1964-81, July 1993 to current year.

SUSPENDED SEDIMENT: Water years 1974, 1978.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1964 to September 1980, July 1993 to current year.

WATER TEMPERATURE: January 1964 to September 1981, July 1993 to current year.

INSTRUMENTATION.--Water-quality monitor since July 1993.

REMARKS.--Water temperature and specific conductance are affected by upstream reservoirs and several powerplants. Interruption of record due to equipment malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily recorded, 377 micromhos, Dec. 27, 1979; minimum daily recorded, 39 micromhos, Dec. 23, 1964.

WATER TEMPERATURE: Maximum recorded, 23.0°C, Aug. 5, 1994; minimum recorded, -0.5°C, Nov. 25, 1993.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 263 microsiemens, Jan. 7; minimum recorded, 55 microsiemens, June 27.

WATER TEMPERATURE: Maximum recorded, 18.0°C, Aug. 23, 24; minimum recorded, 0.0°C, many days.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	222	214	225	217	165	144	202	186	149	123	125	122
2	---	---	228	218	169	159	192	189	126	119	128	124
3	---	---	233	220	169	165	196	187	127	123	128	123
4	---	---	228	215	185	168	197	192	128	127	127	123
5	---	---	215	205	182	141	207	189	129	128	134	127
6	---	---	210	164	141	126	237	187	131	128	143	132
7	---	---	164	150	126	120	263	189	135	131	147	143
8	---	---	190	143	131	114	214	186	136	134	150	147
9	---	---	198	186	173	122	186	156	136	134	150	84
10	---	---	215	192	185	157	156	116	139	135	94	83
11	---	---	195	150	193	178	130	119	140	138	89	84
12	---	---	155	147	182	178	140	129	210	140	88	84
13	---	---	159	147	181	178	141	115	171	151	91	87
14	---	---	163	145	185	166	115	94	178	150	93	88
15	---	---	161	140	189	179	158	102	180	153	91	89
16	---	---	151	140	184	179	131	123	173	158	91	88
17	---	---	153	139	186	181	133	127	178	140	94	90
18	---	---	162	112	188	183	129	127	143	140	94	90
19	---	---	170	117	187	185	130	128	143	141	94	90
20	224	219	182	119	195	185	143	130	142	140	95	90
21	227	221	170	163	191	182	144	142	142	140	93	90
22	228	220	171	165	191	184	145	143	141	137	96	91
23	225	219	179	141	194	176	149	143	138	134	100	96
24	224	218	182	156	197	181	151	148	135	127	103	99
25	223	218	160	138	187	183	151	147	127	124	104	102
26	224	217	155	113	189	185	150	148	125	123	105	103
27	229	223	159	118	192	185	152	148	125	122	107	104
28	231	224	164	113	192	182	155	151	124	122	109	106
29	233	224	162	86	189	183	153	152	---	---	112	108
30	233	223	166	150	192	185	154	152	---	---	115	111
31	228	222	---	---	204	173	154	149	---	---	116	112
MONTH	---	---	233	86	204	114	263	94	210	119	150	83

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	115	112	75	58	64	60	63	57	71	69	95	86
2	115	112	70	58	68	62	64	58	71	70	87	85
3	116	113	79	69	68	63	64	58	74	70	87	86
4	115	113	80	76	66	62	65	57	72	70	88	86
5	115	107	81	77	67	60	64	59	72	71	88	87
6	108	105	83	80	74	67	63	57	72	71	91	87
7	106	89	84	83	77	74	61	56	72	71	92	90
8	97	88	84	83	80	77	62	56	72	71	92	87
9	101	91	83	81	80	77	63	58	74	72	88	84
10	99	93	82	79	77	71	62	56	74	71	86	84
11	93	92	79	77	71	65	64	58	75	71	88	85
12	109	91	79	76	68	61	67	61	73	71	90	87
13	111	98	83	79	65	60	68	65	74	72	90	89
14	109	103	85	81	66	62	68	66	75	72	91	90
15	110	108	84	81	64	62	66	63	76	73	92	90
16	116	110	84	81	68	63	65	61	76	73	92	91
17	114	113	83	80	68	67	69	61	75	73	92	91
18	116	114	80	77	68	65	83	61	75	73	92	90
19	117	116	78	74	69	63	68	65	75	73	92	91
20	124	104	75	72	71	67	69	67	76	74	92	91
21	109	105	73	70	73	69	69	65	77	75	92	91
22	107	106	72	69	71	68	67	64	87	75	92	91
23	108	105	72	69	69	65	68	65	90	86	91	90
24	107	103	70	68	66	61	77	66	91	89	92	90
25	103	92	72	70	64	59	77	75	91	89	94	91
26	92	87	71	68	65	58	76	71	91	89	92	90
27	90	86	69	65	63	55	72	70	91	89	92	89
28	88	84	69	66	64	57	71	69	92	90	90	87
29	85	74	68	64	64	58	70	67	93	90	90	89
30	76	71	66	63	64	58	70	68	95	92	90	89
31	---	---	65	61	---	---	70	69	96	94	---	---
MONTH	124	71	85	58	80	55	83	56	96	69	95	84

PYRAMID AND WINNEMUCCA LAKES BASIN

10346000 TRUCKEE RIVER AT FARAD, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	15.5	9.5	7.5	5.0	3.0	.0	1.5	.0	6.5	4.5	6.5	5.0
2	---	---	8.5	4.5	5.0	2.0	2.0	.5	4.5	3.0	6.0	5.0
3	---	---	6.5	2.0	6.0	3.5	2.0	.5	4.5	2.5	5.0	2.5
4	---	---	4.0	1.0	4.5	3.5	1.0	.5	4.5	2.5	4.5	1.0
5	---	---	5.5	3.5	4.5	3.0	2.0	.5	4.5	2.5	6.0	3.5
6	---	---	7.0	5.5	3.5	2.5	3.0	1.0	4.5	2.5	5.5	2.5
7	---	---	6.5	5.5	3.0	.5	3.5	2.0	5.5	3.0	5.5	2.5
8	---	---	7.5	5.0	1.0	.0	3.5	2.5	5.0	3.5	6.5	4.0
9	---	---	6.5	4.0	.5	.0	5.0	3.0	5.5	3.5	6.5	2.0
10	---	---	6.0	3.0	.0	.0	4.0	1.0	4.5	2.5	3.0	2.0
11	---	---	6.0	3.5	.5	.0	3.0	1.0	4.5	2.0	5.0	1.5
12	---	---	5.5	2.5	2.0	.5	3.5	2.0	5.0	3.0	5.0	2.5
13	---	---	4.0	.5	2.0	.0	3.5	2.5	4.0	1.0	5.0	3.5
14	---	---	4.0	.5	.5	.0	2.5	1.0	2.5	.0	5.5	3.5
15	---	---	3.0	2.0	2.0	.0	2.5	1.0	2.5	.0	6.5	3.5
16	---	---	2.5	1.0	4.5	1.0	2.0	1.0	3.5	.5	6.5	3.5
17	---	---	2.0	.5	5.0	2.0	3.0	1.0	5.0	2.0	6.5	3.0
18	---	---	1.0	.0	5.5	2.0	4.0	2.5	6.0	3.0	6.0	4.0
19	---	---	.5	.0	3.0	.5	3.0	1.5	6.0	3.0	6.0	3.0
20	11.0	5.0	2.5	.0	2.5	.0	3.0	1.5	6.0	3.0	5.5	2.0
21	11.0	4.5	4.0	1.5	3.0	.5	4.0	2.0	6.5	3.5	4.0	2.0
22	11.0	5.0	3.0	.0	2.0	.0	3.0	2.0	6.0	3.0	2.5	.0
23	10.5	4.5	1.5	.0	1.5	.0	4.0	2.5	6.5	3.5	4.0	.0
24	11.0	6.0	4.0	.0	2.0	.5	4.5	3.0	6.5	3.5	4.5	1.0
25	11.0	5.5	2.5	.0	4.0	1.0	4.5	3.0	6.0	3.5	5.5	1.0
26	10.5	6.0	1.0	.0	4.0	1.5	4.5	3.0	6.0	3.0	5.5	1.0
27	10.5	6.5	1.0	.0	4.0	1.5	3.5	2.5	6.0	3.5	6.0	2.0
28	12.0	6.0	1.0	.0	4.5	3.0	5.0	3.0	6.5	4.5	6.5	2.5
29	10.0	5.0	1.0	.0	4.0	2.5	6.0	3.5	---	---	6.5	2.5
30	9.0	3.0	2.0	.0	3.0	.5	6.0	4.5	---	---	7.0	2.5
31	9.0	3.0	---	---	1.5	.0	7.0	5.0	---	---	7.5	3.5
MONTH	---	---	14.0	.0	6.0	.0	7.0	.0	6.5	.0	7.5	.0
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	8.5	5.0	7.0	4.5	10.0	7.5	11.5	8.0	16.0	12.0	17.0	12.5
2	8.0	4.5	7.5	4.5	11.0	7.0	12.0	8.5	15.5	12.5	17.0	12.5
3	8.5	4.0	8.0	5.0	11.0	7.0	12.5	8.5	16.5	12.5	17.5	12.5
4	8.5	4.5	7.5	5.5	11.5	7.5	12.5	8.0	16.5	12.5	16.5	12.0
5	8.5	4.5	7.5	5.5	9.5	7.0	13.0	9.0	16.5	12.5	16.5	11.0
6	7.5	5.0	7.0	5.0	9.0	7.0	13.0	9.0	16.5	12.0	16.5	11.5
7	7.5	5.0	8.0	5.5	9.0	6.0	13.0	9.0	16.0	12.5	16.5	11.5
8	6.0	3.5	9.0	6.0	9.5	6.0	12.0	9.5	15.5	11.5	16.5	11.5
9	6.5	2.5	8.0	6.0	12.0	7.0	13.5	9.5	16.0	11.5	16.5	12.0
10	7.5	3.5	9.0	6.0	12.0	7.5	13.5	9.5	15.5	12.0	16.5	11.5
11	8.0	5.0	8.5	6.5	11.5	6.5	13.5	9.5	15.5	11.5	17.0	12.0
12	8.5	5.0	7.0	5.5	11.5	6.0	13.5	10.0	16.0	11.5	17.5	12.5
13	7.0	4.0	7.5	5.5	10.5	7.0	14.5	9.5	15.5	11.0	17.5	12.5
14	6.5	3.0	8.5	6.0	10.0	7.5	15.0	10.5	16.0	11.0	16.5	12.5
15	6.0	3.5	8.0	6.0	8.5	7.0	14.5	11.0	16.0	11.5	17.0	12.0
16	6.0	3.5	9.5	6.5	9.5	6.5	14.5	11.0	16.0	11.5	17.0	13.0
17	6.0	4.0	9.5	7.5	10.0	8.0	14.0	11.5	15.5	11.5	16.5	11.5
18	5.5	4.5	10.5	7.0	11.0	8.0	14.5	11.5	15.5	10.0	16.5	12.0
19	8.5	4.0	10.5	6.5	11.0	7.0	15.0	11.5	16.0	10.5	17.0	12.5
20	7.5	4.0	10.5	6.0	11.0	7.5	15.5	11.5	16.5	11.5	17.0	12.5
21	8.5	3.5	9.5	6.5	12.0	8.0	15.5	11.5	16.5	12.5	16.0	13.0
22	9.5	4.5	8.5	7.0	12.5	8.5	15.0	11.0	16.0	12.5	16.0	12.5
23	10.0	5.0	9.5	6.5	12.5	8.5	15.0	10.5	18.0	13.5	16.5	12.5
24	10.5	5.5	9.0	7.0	12.5	8.5	15.5	10.5	18.0	13.0	16.0	12.0
25	10.0	6.0	10.0	6.5	12.5	8.5	16.0	11.5	17.5	12.5	16.0	12.0
26	9.0	5.0	10.5	7.0	11.5	8.5	15.5	11.5	17.5	12.0	16.0	12.0
27	8.0	5.5	9.5	7.0	12.0	8.0	16.0	12.0	17.0	12.0	15.5	11.5
28	7.0	5.5	10.5	7.0	12.0	8.0	16.5	13.0	17.0	11.5	15.0	11.0
29	7.5	5.5	10.5	6.5	12.0	8.5	15.5	13.5	17.0	11.5	14.5	11.0
30	7.5	5.0	10.5	7.0	11.5	8.5	15.5	12.0	17.5	11.5	14.5	10.5
31	---	---	11.0	7.0	---	---	16.0	12.0	17.5	12.0	---	---
MONTH	10.5	2.5	11.0	4.5	12.5	6.0	16.5	8.0	18.0	10.0	17.5	10.5

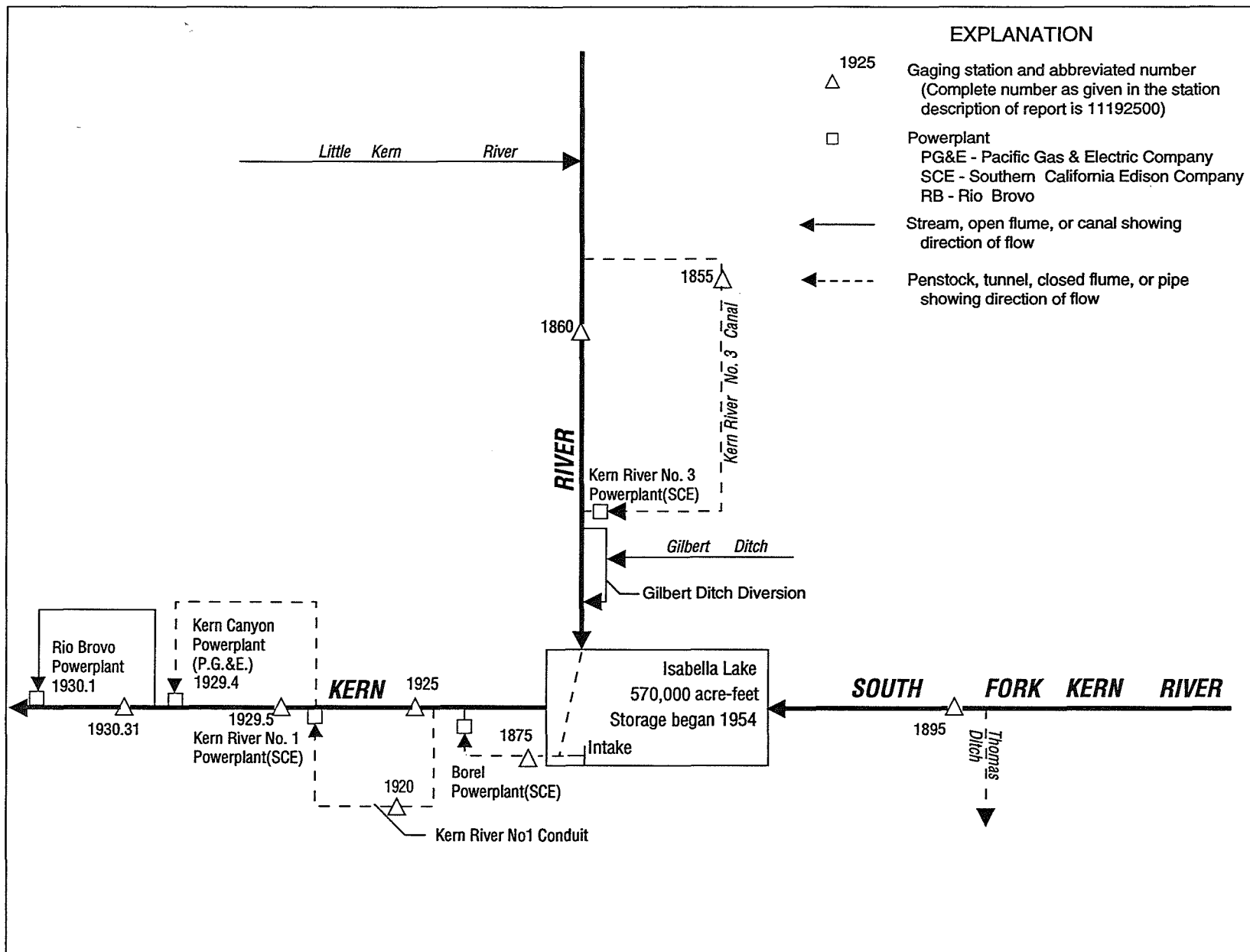


Figure 23. Diversions and storage in Kern River basin.

PACIFIC SLOPE BASINS IN CALIFORNIA

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CA

LOCATION.--Lat 35°56'43", long 118°28'36", unsurveyed, Tulare County, Hydrologic Unit 18030001, on left bank at Packsaddle Canyon Creek, 100 ft downstream from diversion dam, and 13.4 mi north of Kernville.
DRAINAGE AREA.--846 mi².

PERIOD OF RECORD.--January 1912 to current year. Records for water year 1912 incomplete; yearly estimates published in WSP 1315-A. March 1921 to October 1953, records for river and canal published separately; combined flow only, October 1953 to September 1960.

REVISED RECORDS.--WSP 1445: 1912, 1916(M). WSP 1930: 1914(M), 1918(M).

GAGE.--Water-stage recorder on river; water-stage recorder and rectangular concrete-lined flume for canal diversion. 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 ft³/s 100 ft upstream from station, from left bank of Kern River for power development; water is returned to river 15 mi downstream from station. See schematic diagram of Kern River basin. For records of combined discharge of river and canal, see station 11186001.

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 ft³/s, Dec. 6, 1966, gage height, 22.77 ft, site and datum then in use, from floodmarks, from rating curve extended above 6,000 ft³/s on basis of computed flow over dam at gage height 17.55 ft (basic data for computation 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 ft³/s, Dec. 6, 1966; minimum daily, 76 ft³/s, Dec. 22, 1990.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 9,130 ft³/s, June 29, gage height, 10.08 ft; minimum daily, 44 ft³/s, for several days.

Combined river and diversion: Maximum daily discharge, 5,090 ft³/s, June 13; minimum daily, 148 ft³/s, Jan. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	53	45	46	50	83	508	3110	3650	4260	1580	89
2	63	46	48	44	50	85	549	2850	3460	4030	1370	82
3	62	48	44	45	49	71	569	2480	3490	4000	1360	234
4	57	49	44	46	49	90	650	2340	3800	4090	1350	207
5	59	47	44	57	50	523	775	2250	4380	4140	e1330	135
6	56	46	45	83	50	496	851	1940	4100	4230	e1240	73
7	60	46	45	77	81	239	900	1720	3540	4060	1020	65
8	57	48	46	78	78	153	974	1680	e2990	3980	986	61
9	56	48	47	66	44	192	929	1730	e2760	4280	1150	62
10	57	45	46	108	46	3390	861	1910	2770	4190	800	65
11	56	45	48	239	46	2830	890	2080	3430	3450	731	65
12	57	45	47	69	44	e1770	986	2310	4100	2680	627	65
13	59	46	47	54	44	e1190	e1130	2230	4510	2340	533	65
14	58	46	49	82	45	1120	e985	1920	e3950	2260	498	65
15	56	45	48	269	45	969	e836	1760	e3000	2340	497	64
16	55	47	47	47	44	e943	e786	1590	e2650	2560	e479	66
17	55	49	48	47	45	807	e736	1480	e2400	2980	455	66
18	56	49	47	46	46	736	e686	1610	e2260	3410	402	66
19	58	50	47	45	46	842	e636	1940	e2270	2610	362	67
20	57	49	45	44	46	910	584	2220	e2280	2260	355	68
21	57	48	45	44	45	1260	519	2620	e2450	2150	355	69
22	57	48	44	44	46	962	500	2800	2730	2150	404	69
23	56	48	44	45	45	905	556	2900	3180	1900	563	69
24	55	47	44	47	45	767	704	2830	3740	1780	485	68
25	54	45	44	48	45	704	912	2500	4310	1710	344	68
26	55	45	44	45	45	586	1100	2330	4490	1580	243	68
27	54	46	47	44	44	533	1170	2540	4270	1530	180	69
28	57	45	45	44	52	511	1340	2620	4330	e1710	138	69
29	55	48	44	44	---	459	1620	2710	4460	e1850	99	69
30	54	47	45	50	---	442	3330	3030	4330	e1890	93	70
31	55	---	44	50	---	488	---	3390	---	e1710	94	---
TOTAL	1768	1414	1417	2097	1365	25056	27572	71420	104080	88110	20123	2418
MEAN	57.0	47.1	45.7	67.6	48.7	808	919	2304	3469	2842	649	80.6
MAX	65	53	49	269	81	3390	3330	3390	4510	4280	1580	234
MIN	54	45	44	44	44	71	500	1480	2260	1530	93	61
AC-FT	3510	2800	2810	4160	2710	49700	54690	141700	206400	174800	39910	4800

e Estimated.

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	55.4	47.1	128	125	143	258	582	1458	1635	750	219	107
MAX	197	194	2488	1370	967	1480	2631	5874	6819	3482	1583	538
(WY)	1983	1984	1967	1969	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1961 - 1995			
ANNUAL TOTAL	50806				346840							
ANNUAL MEAN	139				950				460			
HIGHEST ANNUAL MEAN									1727			
LOWEST ANNUAL MEAN									3.65			
HIGHEST DAILY MEAN	1220				May 15				33600			
LOWEST DAILY MEAN	40				Jan 25				.20			
ANNUAL SEVEN-DAY MINIMUM	40				Jan 29				.26			
INSTANTANEOUS PEAK FLOW					9130				60000			
INSTANTANEOUS PEAK STAGE					10.08				22.77			
ANNUAL RUNOFF (AC-FT)	100800				688000				333100			
10 PERCENT EXCEEDS	335				3010				1470			
50 PERCENT EXCEEDS	81				108				77			
90 PERCENT EXCEEDS	44				45				27			

PACIFIC SLOPE BASINS IN CALIFORNIA

BUENA VISTA LAKE BASIN

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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	273	157	189	185	410	564	1090	3690	4230	4840	2160	604
2	221	158	195	179	440	545	1130	3430	4040	4610	1950	637
3	193	165	191	188	433	584	1150	3060	4070	4580	1940	815
4	183	165	202	197	423	659	1230	2920	4380	4670	1930	793
5	272	160	199	155	420	1110	1360	2830	4960	4720	1920	722
6	283	177	193	148	423	1070	1430	2520	4680	4810	1830	655
7	271	183	187	232	422	818	1480	2300	4120	4640	1600	598
8	271	180	172	267	439	738	1560	2260	3570	4560	1570	562
9	259	178	162	332	415	778	1510	2310	3340	4860	1730	537
10	246	176	171	586	395	3950	1440	2490	3350	4770	1380	513
11	233	173	179	811	387	3370	1470	2660	4010	4030	1320	497
12	222	154	179	561	383	2350	1570	2890	4680	3260	1210	480
13	212	164	190	523	376	1770	1710	2810	5090	2920	1120	468
14	204	163	174	564	603	1610	1570	2500	4530	2840	1080	459
15	197	159	177	806	588	1550	1420	2340	3580	2920	1080	451
16	196	166	178	379	492	1530	1370	2170	3230	3080	1060	445
17	194	167	190	357	454	1390	1310	2060	2980	3560	1040	454
18	197	172	181	346	439	1320	1270	2190	2840	3990	988	433
19	194	153	179	330	446	1430	1220	2520	2850	3190	948	422
20	188	168	179	312	481	1500	1170	2800	2860	2840	941	411
21	184	196	177	304	518	1840	1100	3200	3030	2730	941	409
22	179	180	178	290	539	1540	1080	3380	3310	2730	991	404
23	175	168	183	321	559	1490	1140	3480	3760	2480	1150	400
24	171	171	190	349	575	1350	1290	3410	4320	2360	1070	395
25	169	181	212	392	583	1290	1490	3080	4890	2290	931	391
26	168	201	196	406	593	1170	1680	2910	5070	2160	830	387
27	166	177	189	367	583	1120	1760	3120	4850	2110	767	377
28	165	188	193	354	577	1090	1920	3200	4910	2290	725	371
29	163	196	188	344	---	1040	2200	3290	5040	2430	686	368
30	160	194	179	344	---	1020	3910	3610	4910	2470	642	361
31	159	---	169	358	---	1070	---	3970	---	2290	611	---
TOTAL	6368	5190	5721	11287	13396	42656	45030	89400	121480	106030	38141	14819
MEAN	205	173	185	364	478	1376	1501	2884	4049	3420	1230	494
MAX	283	201	212	811	603	3950	3910	3970	5090	4860	2160	815
MIN	159	153	162	148	376	545	1080	2060	2840	2110	611	361
AC-FT	12630	10290	11350	22390	26570	84610	89320	177300	241000	210300	75650	29390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	244	259	357	408	496	685	1105	2024	2182	1163	516	312
MEAN	244	259	357	408	496	685	1105	2024	2182	1163	516	312
MAX	634	715	2696	1668	1524	2075	3235	6475	7401	4059	2175	934
(WY)	1983	1984	1967	1969	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1961 - 1995	
ANNUAL TOTAL	139021		499518			
ANNUAL MEAN	381		1369		813	
HIGHEST ANNUAL MEAN					2264	
LOWEST ANNUAL MEAN					228	
HIGHEST DAILY MEAN	1780		5090		33600	
LOWEST DAILY MEAN	107		148		76	
ANNUAL SEVEN-DAY MINIMUM	109		161		84	
INSTANTANEOUS PEAK FLOW			9710		60000	
ANNUAL RUNOFF (AC-FT)	275700		990800		589200	
10 PERCENT EXCEEDS	899		3590		2050	
50 PERCENT EXCEEDS	219		686		379	
90 PERCENT EXCEEDS	126		177		155	

BUENA VISTA LAKE BASIN

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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. 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.--No estimated daily discharges. 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 ft³/s, Mar. 13, 14, 1952; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	220	211	220	264	561	566	573	534	559	550	528
2	215	215	219	220	264	563	568	556	534	558	557	527
3	214	194	219	220	263	564	568	549	531	556	556	528
4	218	180	219	221	263	563	569	546	533	555	552	531
5	220	170	220	223	264	564	570	544	538	555	551	531
6	220	159	220	224	263	565	569	545	536	557	550	526
7	220	181	235	225	263	571	570	545	539	557	548	522
8	220	194	248	223	265	571	572	545	544	554	548	525
9	220	193	240	221	367	570	570	548	545	557	551	524
10	220	203	240	221	366	571	568	547	545	554	552	524
11	220	220	249	226	363	568	571	542	544	555	551	524
12	220	190	257	228	364	567	572	544	541	553	548	528
13	220	168	257	229	365	571	571	545	550	552	548	526
14	220	166	252	229	364	572	571	545	555	552	547	525
15	220	166	232	230	364	571	574	547	559	554	549	527
16	220	165	220	229	352	570	575	549	559	555	554	525
17	219	167	219	233	341	569	574	546	560	554	550	529
18	219	168	213	248	343	567	572	544	559	555	539	526
19	219	169	197	263	343	564	571	548	563	550	536	530
20	220	170	200	271	343	564	568	544	560	548	539	527
21	221	187	217	262	345	565	569	544	558	547	538	521
22	221	205	220	260	341	567	570	545	562	547	535	530
23	221	216	220	264	340	568	570	544	568	548	536	529
24	220	220	220	261	343	571	571	540	567	548	536	528
25	220	220	220	261	343	570	571	535	565	549	536	524
26	221	220	220	263	341	568	568	534	564	551	536	522
27	224	205	220	266	342	569	571	534	565	553	534	525
28	223	194	220	264	400	571	574	533	560	553	535	526
29	223	195	220	263	---	571	571	536	558	551	536	526
30	223	196	220	264	---	570	570	535	560	551	530	527
31	221	---	220	264	---	567	---	532	---	550	531	---
TOTAL	6796	5716	6984	7496	9179	17603	17114	16864	16556	17138	16859	15791
MEAN	219	191	225	242	328	568	570	544	552	553	544	526
MAX	224	220	257	271	400	572	575	573	568	559	557	531
MIN	194	159	197	220	263	561	566	532	531	547	530	521
AC-FT	13480	11340	13850	14870	18210	34920	33950	33450	32840	33990	33440	31320

BUENA VISTA LAKE BASIN

11187500 BOREL CANAL BELOW ISABELLA DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	238	235	264	304	384	460	505	518	535	483	388	290
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1910 - 1995

ANNUAL TOTAL	150880	154096	
ANNUAL MEAN	413	422	383
HIGHEST ANNUAL MEAN			585
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	596	Aug 19	575
LOWEST DAILY MEAN	13	Jun 1	159
ANNUAL SEVEN-DAY MINIMUM	167	Nov 13	167
ANNUAL RUNOFF (AC-FT)	299300		305600
10 PERCENT EXCEEDS	591		568
50 PERCENT EXCEEDS	453		531
90 PERCENT EXCEEDS	203		219
			277100
			587
			430
			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 mi².

PERIOD OF RECORD.--September 1911 to August 1914, January 1919 to September 1942, October 1947 to June 1994, July 1995 to September 1995. 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.--No estimated daily discharges. Records good. Lowgill and Thomas Ditches divert upstream from station for irrigation downstream of station, combined capacity, 7 ft³/s. See schematic diagram of Kern River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,700 ft³/s, Dec. 6, 1966, gage height, 18.9 ft, from floodmarks, present datum, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow; no flow for several days in 1929, 1934, 1960-61.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 26	1445	*90	*3.93				
Minimum daily, 24 ft ³ /s, Sept. 18-23.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	74	38
2	---	---	---	---	---	---	---	---	---	---	72	40
3	---	---	---	---	---	---	---	---	---	---	71	44
4	---	---	---	---	---	---	---	---	---	---	71	43
5	---	---	---	---	---	---	---	---	---	---	68	40
6	---	---	---	---	---	---	---	---	---	---	65	37
7	---	---	---	---	---	---	---	---	---	---	62	34
8	---	---	---	---	---	---	---	---	---	---	60	31
9	---	---	---	---	---	---	---	---	---	---	58	31
10	---	---	---	---	---	---	---	---	---	---	55	30
11	---	---	---	---	---	---	---	---	---	---	53	30
12	---	---	---	---	---	---	---	---	---	---	52	29
13	---	---	---	---	---	---	---	---	---	---	45	28
14	---	---	---	---	---	---	---	---	---	---	39	26
15	---	---	---	---	---	---	---	---	---	---	40	25
16	---	---	---	---	---	---	---	---	---	---	40	25
17	---	---	---	---	---	---	---	---	---	---	41	25
18	---	---	---	---	---	---	---	---	---	---	40	24
19	---	---	---	---	---	---	---	---	---	---	39	24
20	---	---	---	---	---	---	---	---	---	---	42	24
21	---	---	---	---	---	---	---	---	---	---	47	24
22	---	---	---	---	---	---	---	---	---	---	48	24
23	---	---	---	---	---	---	---	---	---	---	51	24
24	---	---	---	---	---	---	---	---	---	---	43	28
25	---	---	---	---	---	---	---	---	---	---	39	31
26	---	---	---	---	---	---	---	---	---	---	37	32
27	---	---	---	---	---	---	---	---	---	---	87	32
28	---	---	---	---	---	---	---	---	---	---	83	32
29	---	---	---	---	---	---	---	---	---	---	78	32
30	---	---	---	---	---	---	---	---	---	---	75	32
31	---	---	---	---	---	---	---	---	---	---	75	38
TOTAL	---	---	---	---	---	---	---	---	---	---	1542	919
MEAN	---	---	---	---	---	---	---	---	---	---	49.7	30.6
MAX	---	---	---	---	---	---	---	---	---	---	74	44
MIN	---	---	---	---	---	---	---	---	---	---	35	24
AC-FT	---	---	---	---	---	---	---	---	---	---	3060	1820

BUENA VISTA LAKE BASIN

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.2	35.8	57.8	61.0	92.6	157	348	432	171	48.6	23.9	19.0
MAX	98.9	143	942	426	448	686	1583	2896	1311	349	184	90.2
(WY)	1984	1984	1967	1969	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

WATER YEARS 1912 - 1995

ANNUAL MEAN	123	
HIGHEST ANNUAL MEAN	605	1969
LOWEST ANNUAL MEAN	11.5	1961
HIGHEST DAILY MEAN	14000	Dec 6 1966
LOWEST DAILY MEAN	.00	Sep 1 1934
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 23 1961
INSTANTANEOUS PEAK FLOW	28700	Dec 6 1966
INSTANTANEOUS PEAK STAGE	18.90	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	89330	
10 PERCENT EXCEEDS	282	
50 PERCENT EXCEEDS	40	
90 PERCENT EXCEEDS	7.0	

BUENA VISTA LAKE BASIN

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11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA

LOCATION.--Lat 35°31'15", long 118°40'34", in NE 1/4 SE 1/4 sec.6, T.28 S., R.31 E., Kern County, Hydrologic Unit 18030003, on left bank 1.0 mi southwest of Democrat Springs and 2.1 mi upstream from Cow Creek.

DRAINAGE AREA.--2,258 mi².

PERIOD OF RECORD.--July 1950 to current year. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder for conduit diversion. Datum of gage is 1,837.7 ft above sea level.

REMARKS.--Kern River No. 1 Conduit (station 11192000) diverts up to about 420 ft³/s from left bank of Kern River 0.4 mi upstream from station in sec.13, T.28 S., R.30 E., for power development; water is returned to river 10 mi downstream from station. Flow regulated by Isabella Lake 22 mi upstream beginning in 1954. Many diversions upstream from station for irrigation. See schematic diagram of Kern River basin. For records of combined discharge of river and conduit, see station 11192501.

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 ft³/s, Nov. 19, 1950, gage height, 30.7 ft, from rating curve extended above 8,700 ft³/s on basis of computation of peak flow over dam (basic data for computation provided by Southern California Edison Co.); minimum daily, 0.7 ft³/s, Nov. 17-19, 1951. Since regulation by Isabella Lake: Maximum discharge, 10,100 ft³/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 ft³/s, Nov. 19, 1950; minimum daily, 123 ft³/s, Sept. 22, 1951. Since regulation by Isabella Lake: Maximum discharge, 10,100 ft³/s, Dec. 6, 1966; minimum daily, 10 ft³/s, Dec. 17, 1968.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 3,820 ft³/s, June 29, gage height, 13.74 ft; minimum daily, 21 ft³/s, Feb. 15-20. Combined flow: Maximum daily discharge, 3,920 ft³/s, June 29; minimum daily, 168 ft³/s, Nov. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	24	24	24	22	e254	918	1940	2440	3000	e3100	1980
2	24	24	25	24	22	e265	941	1900	2540	2840	e3200	1800
3	24	24	25	23	22	e263	993	1820	2410	2750	e3300	1650
4	24	24	25	23	22	e260	1050	1820	2300	2510	e3270	1620
5	24	24	25	24	22	e260	1120	1780	2390	2530	e3400	1650
6	24	24	25	23	22	e258	1320	1720	2180	2590	e3450	1650
7	24	24	25	23	23	e263	1370	1660	2120	2650	e3430	1600
8	24	24	25	23	23	e266	1380	1730	2160	2740	e3380	1540
9	24	24	25	23	24	e265	1370	1750	2120	2740	e3330	1460
10	24	24	25	23	24	e265	1380	1900	2080	2780	e3300	1460
11	24	24	25	24	25	e271	1450	1920	2100	2760	e3200	1560
12	24	25	25	25	25	e283	1550	1970	2470	2690	e3250	1540
13	24	24	25	25	26	e270	1660	1960	2730	2670	e3100	1530
14	24	24	25	25	27	e266	1650	1930	2860	2680	e3100	1550
15	23	24	25	25	21	e418	1440	1890	2850	2750	e3250	1480
16	23	24	25	24	21	e238	1360	1360	2650	2830	e3400	1430
17	23	24	25	24	21	e236	1460	1170	2640	2950	e3270	1430
18	23	25	24	24	21	e239	1470	1300	2540	2910	e3170	1510
19	23	25	24	23	21	e237	1400	1430	2600	2870	e3070	1480
20	23	25	24	23	21	e237	1320	1580	2600	3000	e2970	1460
21	23	25	24	23	22	e234	1240	1580	2790	3050	e2880	1180
22	23	25	24	23	22	e311	1380	1650	3120	2570	e2820	907
23	23	24	23	22	22	e500	1420	1650	3120	2530	2770	957
24	23	24	24	22	22	e540	1540	1670	3160	2700	2670	954
25	23	25	24	22	22	e645	1580	1750	3300	2800	2430	1050
26	24	25	24	23	22	e739	1810	1730	3460	2900	2350	1160
27	24	25	24	23	22	e834	2000	1680	3430	2950	2230	1160
28	24	25	24	23	23	944	1990	1700	3440	2750	2350	1150
29	24	24	24	23	---	928	1910	1870	3540	2800	2340	1100
30	24	24	24	23	---	929	1910	2070	3290	2900	2250	964
31	24	---	24	22	---	918	---	2270	---	3000	2080	---
TOTAL	748	730	759	724	632	12836	43382	54150	81430	86190	92110	41962
MEAN	24.1	24.3	24.5	23.4	22.6	414	1446	1747	2714	2780	2971	1399
MAX	39	25	25	25	27	944	2000	2270	3540	3050	3450	1980
MIN	23	24	23	22	21	234	918	1170	2080	2510	2080	907
AC-FT	1480	1450	1510	1440	1250	25460	86050	107400	161500	171000	182700	83230

e Estimated.

BUENA VISTA LAKE BASIN

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	304	210	129	173	249	493	775	976	1492	1470	1046	452
MAX	1455	1298	1052	1967	1394	3289	5306	5512	6446	5712	3435	2115
(WY)	1984	1983	1984	1967	1969	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 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1961 - 1995		
ANNUAL TOTAL	97329			415653					
ANNUAL MEAN	267			1139			649		
HIGHEST ANNUAL MEAN							2837		
LOWEST ANNUAL MEAN							23.7		
HIGHEST DAILY MEAN	965			Jul 9			6640		
LOWEST DAILY MEAN	23			Jan 7			.00		
ANNUAL SEVEN-DAY MINIMUM	23			Oct 15			.01		
INSTANTANEOUS PEAK FLOW				3820			10100		
INSTANTANEOUS PEAK STAGE				13.74			18.55		
ANNUAL RUNOFF (AC-FT)	193100			824400			470500		
10 PERCENT EXCEEDS	793			2900			1860		
50 PERCENT EXCEEDS	128			929			223		
90 PERCENT EXCEEDS	24			23			1.9		

BUENA VISTA LAKE BASIN

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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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	226	209	228	302	617	1310	2330	2820	3390	3480	2360
2	222	226	230	228	305	620	1330	2290	2930	3230	3580	2180
3	223	211	230	228	300	620	1380	2210	2800	3140	3680	2030
4	224	189	230	243	296	620	1440	2220	2690	2900	3650	1990
5	228	188	230	321	295	621	1510	2180	2780	2920	3780	2020
6	224	168	230	267	293	620	1710	2120	2570	2980	3830	2020
7	225	173	231	264	291	628	1760	2060	2510	3040	3810	1970
8	225	204	257	255	297	629	1770	2130	2550	3130	3760	1910
9	225	204	253	242	345	628	1760	2150	2510	3130	3710	1830
10	225	206	248	298	382	630	1770	2290	2470	3170	3680	1830
11	226	228	250	368	374	628	1840	2310	2490	3150	3580	1930
12	225	225	269	357	374	626	1940	2370	2860	3080	3630	1910
13	226	177	267	329	376	629	2050	2360	3120	3060	3480	1900
14	227	177	263	287	388	629	2040	2330	3250	3070	3480	1920
15	226	176	254	352	382	629	1830	2290	3240	3140	3630	1850
16	226	178	227	327	383	628	1750	1760	3040	3220	3780	1800
17	225	177	226	289	382	628	1850	1570	3030	3340	3650	1800
18	225	187	223	286	371	632	1860	1700	2930	3300	3550	1880
19	224	182	212	292	368	629	1790	1820	2990	3260	3450	1850
20	227	181	197	301	366	630	1710	1970	2990	3390	3350	1830
21	226	185	219	311	368	629	1630	1970	3180	3440	3260	1550
22	227	209	226	287	366	707	1770	2040	3510	2960	3200	1270
23	226	220	225	300	361	894	1810	2040	3510	2920	3150	1330
24	226	228	227	307	362	931	1930	2060	3550	3090	3050	1330
25	225	231	233	307	362	1040	1970	2140	3690	3180	2810	1420
26	227	242	231	367	360	1130	2200	2120	3850	3280	2730	1530
27	229	231	229	340	358	1220	2390	2070	3820	3330	2610	1530
28	228	205	231	324	361	1340	2380	2090	3830	3130	2730	1520
29	228	206	230	312	---	1320	2300	2260	3920	3180	2720	1470
30	228	206	229	307	---	1320	2300	2450	3680	3270	2630	1340
31	228	---	229	304	---	1310	---	2650	---	3370	2460	---
TOTAL	6964	6046	7245	9228	9768	24362	55080	66350	93110	98190	103890	53100
MEAN	225	202	234	298	349	786	1836	2140	3104	3167	3351	1770
MAX	229	242	269	368	388	1340	2390	2650	3920	3440	3830	2360
MIN	188	168	197	228	291	617	1310	1570	2470	2900	2460	1270
AC-FT	13810	11990	14370	18300	19370	48320	109300	131600	184700	194800	206100	105300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	536	435	381	457	573	812	1085	1318	1856	1785	1346	704
MAX	1835	1689	1432	2338	1785	3644	5695	5922	6850	6110	3824	2501
(WY)	1984	1983	1984	1967	1969	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1955 - 1995
ANNUAL TOTAL	211618	533333	
ANNUAL MEAN	580	1461	943
HIGHEST ANNUAL MEAN			3173
LOWEST ANNUAL MEAN			246
HIGHEST DAILY MEAN	1330	3920	7030
LOWEST DAILY MEAN	160	168	10
ANNUAL SEVEN-DAY MINIMUM	179	179	12
ANNUAL RUNOFF (AC-FT)	419700	1058000	682900
10 PERCENT EXCEEDS	1180	3290	2090
50 PERCENT EXCEEDS	491	1320	585
90 PERCENT EXCEEDS	223	225	197

11192950 KERN RIVER FISHWATER RELEASE AT 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 (destroyed by high water). 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. No records were computed above 35 ft³/s.

GAGE.--Water-stage recorder. Elevation of gage is 975 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. 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 daily discharge, 84 ft³/s, June 2, 1995; minimum daily, 6.0 ft³/s, Dec. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 84 ft³/s, June 2; minimum daily, 16 ft³/s, Oct. 1-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	21	21	21	29	31	36	77	---	---	---
2	16	18	21	21	21	29	31	39	84	---	---	---
3	16	19	21	21	21	29	31	34	74	---	---	---
4	16	20	21	21	21	29	31	36	66	---	---	---
5	16	20	21	21	21	30	33	31	---	---	---	---
6	16	20	21	21	21	31	33	31	---	---	---	---
7	16	20	21	21	21	30	31	32	---	---	---	---
8	16	20	21	21	21	29	31	32	---	---	---	---
9	16	20	21	21	21	29	34	32	---	---	---	---
10	16	20	20	21	21	30	32	32	---	---	---	---
11	17	20	21	21	21	62	38	32	---	---	---	---
12	17	20	21	21	21	31	52	33	---	---	---	---
13	17	21	21	21	21	30	32	32	---	---	---	---
14	19	21	21	21	21	30	39	32	---	---	---	---
15	19	21	20	21	21	31	31	32	---	---	---	---
16	19	20	21	21	21	30	31	31	---	---	---	---
17	19	21	21	21	21	29	31	31	---	---	---	---
18	31	21	21	21	21	29	31	32	---	---	---	---
19	38	21	21	21	21	29	31	32	---	---	---	---
20	32	21	21	21	21	30	31	32	---	---	---	---
21	18	21	21	21	23	30	31	32	---	---	---	---
22	18	21	22	21	26	29	32	32	---	---	---	---
23	18	22	22	21	29	33	32	32	---	---	---	---
24	17	22	22	21	30	31	32	32	---	---	---	---
25	18	22	21	21	30	31	31	31	---	---	---	---
26	18	21	22	21	30	31	34	30	---	---	---	---
27	18	22	21	21	29	31	38	31	---	---	---	---
28	18	21	21	21	29	31	37	31	---	---	---	---
29	18	21	21	21	---	31	35	32	---	---	---	---
30	18	21	21	21	---	31	36	32	---	---	---	---
31	18	---	21	21	---	31	---	60	---	---	---	---
TOTAL	585	616	653	651	646	966	1003	1029	---	---	---	---
MEAN	18.9	20.5	21.1	21.0	23.1	31.2	33.4	33.2	---	---	---	---
MAX	38	22	22	21	30	62	52	60	---	---	---	---
MIN	16	18	20	21	21	29	31	30	---	---	---	---
AC-FT	1160	1220	1300	1290	1280	1920	1990	2040	---	---	---	---

11192950 KERN RIVER FISHWATER RELEASE AT KERN CANYON POWERHOUSE DIVERSION DAM, NEAR BAKERSFIELD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.9	26.2	27.6	26.4	26.0	30.1	31.2	25.5	15.6	15.8	15.0	16.1
MAX	32.9	31.9	34.2	31.7	29.0	31.2	33.4	33.2	15.6	15.8	15.0	16.1
(WY)	1994	1994	1994	1994	1994	1995	1995	1995	1994	1994	1994	1994
MIN	18.9	20.5	21.1	21.0	23.1	29.0	28.9	17.7	15.6	15.8	15.0	16.1
(WY)	1995	1995	1995	1995	1995	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

WATER YEARS 1994 - 1995

ANNUAL TOTAL	7873											
ANNUAL MEAN	21.6								24.8			
HIGHEST ANNUAL MEAN									24.8			1994
LOWEST ANNUAL MEAN									24.8			1994
HIGHEST DAILY MEAN	38					Oct 19			84		Jun 2	1995
LOWEST DAILY MEAN	14					Jul 15			14		Jul 15	1994
ANNUAL SEVEN-DAY MINIMUM	15					Jul 9			15		Jul 9	1994
ANNUAL RUNOFF (AC-FT)	15620								17970			
10 PERCENT EXCEEDS	30								34			
50 PERCENT EXCEEDS	20								28			
90 PERCENT EXCEEDS	15								15			

BUENA VISTA LAKE BASIN

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 and Parshall flume. Datum of gage is 678.17 ft above sea level.

REMARKS.--No estimated daily discharges. Flow regulated by Isabella Lake, capacity 570,000 acre-ft. Flow at this station has two components which are combined for publication: flow over a broad-crested weir (station 11193020) and flow through a Parshall flume (station 11193030). Water is diverted upstream from weir through a channel to Rio Bravo Powerplant (station 11193010), returning to Kern River about one mile 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, 3,930 ft³/s, Aug. 17, 1995; minimum daily, 47 ft³/s, June 14-17, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,930 ft³/s, Aug. 17; minimum daily, 62 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	171	157	252	397	594	1450	2540	2130	2700	1370	2060
2	172	172	175	250	399	664	1470	2480	2270	2480	1470	1910
3	167	159	173	250	395	674	1520	2390	2150	2420	1750	1750
4	166	140	172	261	390	683	1570	2380	1980	2140	1940	1460
5	174	141	172	363	389	775	1620	2330	2060	2120	1840	774
6	168	130	173	298	386	938	1880	1780	1830	2170	1800	269
7	167	129	169	290	381	797	1940	1390	1760	2230	2020	550
8	167	155	195	274	392	759	1930	1470	1740	2340	2020	174
9	167	151	193	261	447	733	1930	1390	1770	2360	1930	113
10	165	156	189	332	487	837	1930	1530	1660	2200	2350	81
11	172	171	191	415	478	1690	2010	1580	1670	1510	3550	140
12	173	174	208	394	480	1310	2130	1610	1920	1320	3840	151
13	170	137	211	374	479	1030	2250	1620	2070	1240	3620	167
14	160	134	205	312	571	933	2260	1620	1890	1370	3730	202
15	169	132	199	392	602	887	2020	1640	1910	1260	3570	159
16	170	136	175	367	541	855	1930	1010	1780	1330	3740	132
17	161	138	173	342	511	824	2030	727	1380	1430	3870	118
18	168	143	172	347	485	796	2050	869	1230	1400	3770	173
19	176	137	163	353	482	784	1980	1030	1170	1370	3530	173
20	173	138	149	360	480	774	1900	1190	1180	1910	3240	163
21	171	138	168	370	480	796	1780	1210	1370	2610	3190	72
22	172	157	172	343	477	794	1940	1260	1690	2110	2720	65
23	174	168	173	357	471	1160	1980	1290	1960	2040	2780	81
24	172	174	172	365	470	1230	2130	1300	1960	1590	2710	63
25	172	171	257	373	471	1260	2160	1400	1860	1170	2450	64
26	173	188	256	456	467	1360	2400	1370	2010	1310	2380	195
27	172	177	256	418	465	1380	2600	1330	2010	1450	2240	413
28	174	155	256	413	468	1470	2600	1340	2150	1400	2370	350
29	174	156	257	410	---	1450	2520	1490	3160	1270	2370	63
30	174	156	255	403	---	1450	2510	1700	2970	1200	2300	62
31	173	---	253	399	---	1450	---	1940	---	1230	2150	---
TOTAL	5256	4584	6089	10794	12941	31137	60420	48206	56690	54680	82610	12147
MEAN	170	153	196	348	462	1004	2014	1555	1890	1764	2665	405
MAX	176	188	257	456	602	1690	2600	2540	3160	2700	3870	2060
MIN	150	129	149	250	381	594	1450	727	1170	1170	1370	62
AC-FT	10430	9090	12080	21410	25670	61760	119800	95620	112400	108500	163900	24090
a	00	00	00	00	00	00	00	44720	76940	86040	35690	67840

a Diversion, in acre-feet, through Rio Bravo Powerplant, provided by Rio Bravo Hydro Project.

11193031 KERN RIVER AT RIO BRAVO POWERPLANT, NEAR BAKERSFIELD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	152	184	201	212	198	282	384	357	444	357	534	201
MAX	258	261	248	348	462	1004	2014	1555	1890	1764	2665	405
(WY)	1990	1990	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	60.5	122	116	129	59.2	59.8	49.5	51.5	51.6	52.1	63.1	61.0
(WY)	1994	1991	1991	1991	1994	1994	1991	1991	1991	1991	1994	1993

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1990 - 1995			
ANNUAL TOTAL	38956				385554							
ANNUAL MEAN	107				1056				305			
HIGHEST ANNUAL MEAN									1056			
LOWEST ANNUAL MEAN									106			
HIGHEST DAILY MEAN	297				3870				3870			
LOWEST DAILY MEAN	51				62				47			
ANNUAL SEVEN-DAY MINIMUM	54				97				47			
INSTANTANEOUS PEAK FLOW					3930				3930			
ANNUAL RUNOFF (AC-FT)	77270				764700				221200			
10 PERCENT EXCEEDS	204				2330				480			
50 PERCENT EXCEEDS	61				759				120			
90 PERCENT EXCEEDS	58				158				54			

TULARE LAKE BASIN

11199500 WHITE RIVER NEAR DUCOR, CA

LOCATION.--Lat 35°48'36", long 118°55'03", in NW 1/4 SE 1/4 sec.26, T.24 S., R.28 E., Tulare County, Hydrologic Unit 18030012, on left bank 0.6 mi upstream from Tyler Gulch and 9.0 mi southeast of Ducor.

DRAINAGE AREA.--90.6 mi².

PERIOD OF RECORD.--October 1942 to September 1953, February 1971 to current year. Monthly discharge only for October 1942 to September 1944, published in WSP 1315-A.

GAGE.--Water-stage recorder. 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.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s, estimated by U.S. Bureau of Reclamation, Mar. 9, 1943; no flow for several months in most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	2200	41	1.59	Mar. 23	1045	291	2.90
Jan. 11	1545	73	1.81	Apr. 14	0015	62	1.59
Jan. 15	2345	71	1.80	Apr. 19	0615	37	1.38
Jan. 26	1130	140	2.20	Apr. 30	0830	58	1.56
Feb. 14	1115	140	2.34	May 6	0545	65	1.61
Mar. 6	0145	89	1.78	May 13	1045	291	2.90
Mar. 11	0845	*662	*4.40	June 2	0730	30	1.31

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	1.4	12	9.7	36	35	24	7.1	.88	.00
2	.00	.00	.00	1.4	11	9.7	34	40	25	6.9	.70	.00
3	.00	.00	.00	1.3	9.8	9.2	31	32	24	6.7	.53	.00
4	.00	.00	.00	1.7	9.2	11	29	29	23	6.4	.40	.00
5	.00	.00	.00	15	8.5	27	29	50	22	6.2	.25	.00
6	.00	.00	.00	21	8.2	61	27	58	21	5.6	.22	.00
7	.00	.00	.00	7.9	8.0	32	26	49	20	5.3	.21	.00
8	.00	.00	.00	7.1	12	24	25	44	19	5.3	.18	.00
9	.00	.00	.00	5.7	10	21	24	40	17	4.8	.20	.00
10	.00	.00	.00	6.5	8.4	60	23	38	17	5.0	.09	.00
11	.00	.00	.00	30	8.0	298	21	37	16	5.0	.01	.00
12	.00	.00	.00	30	8.0	134	20	35	16	4.8	.03	.00
13	.00	.00	.00	26	8.0	86	23	51	15	5.0	.02	.00
14	.00	.00	.00	13	61	64	37	53	14	4.7	.00	.00
15	.00	.00	.00	44	42	53	24	43	15	4.1	.00	.00
16	.00	.00	.00	49	26	46	26	39	23	3.7	.00	.00
17	.00	.00	.00	29	20	39	25	35	18	3.9	.00	.00
18	.00	.00	.00	16	17	33	27	33	16	3.5	.00	.00
19	.00	.00	.00	12	16	31	34	33	15	3.0	.00	.00
20	.00	.00	.00	9.5	15	30	27	32	14	2.6	.00	.00
21	.00	.00	.00	9.0	14	63	25	31	13	2.5	.00	.00
22	.00	.00	.00	8.7	12	54	22	31	12	2.6	.00	.00
23	.00	.00	.00	8.6	12	145	22	31	11	2.6	.00	.00
24	.00	.00	.00	9.1	11	112	21	30	10	2.5	.00	.00
25	.00	.00	.00	9.7	11	88	20	28	9.7	2.3	.00	.00
26	.00	.00	.61	81	10	68	20	27	9.1	2.1	.00	.00
27	.00	.00	.95	46	9.3	59	20	27	8.6	1.8	.00	.00
28	.00	.00	1.6	28	9.3	52	19	26	8.1	1.4	.00	.00
29	.00	.00	2.2	21	---	46	21	25	7.8	1.2	.00	.00
30	.00	.00	2.3	17	---	41	42	25	7.4	1.3	.00	.00
31	.00	---	1.6	14	---	37	---	24	---	1.1	.00	---
TOTAL	0.00	0.00	9.26	579.6	406.7	1843.6	780	1111	470.7	121.0	3.72	0.00
MEAN	.000	.000	.30	18.7	14.5	59.5	26.0	35.8	15.7	3.90	.12	.000
MAX	.00	.00	2.3	81	61	298	42	58	25	7.1	.88	.00
MIN	.00	.00	.00	1.3	8.0	9.2	19	24	7.4	1.1	.00	.00
AC-FT	.00	.00	18	1150	807	3660	1550	2200	934	240	7.4	.00

TULARE LAKE BASIN

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11199500 WHITE RIVER NEAR DUCOR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.42	2.24	5.50	11.8	16.8	33.9	21.0	11.4	4.20	.89	.25	.21
MAX	8.05	20.6	36.5	52.0	103	260	131	55.3	31.2	12.6	8.30	5.35
(WY)	1984	1984	1984	1983	1983	1943	1943	1983	1983	1983	1983	1983
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1943 - 1995	
ANNUAL TOTAL	547.63		5325.58			
ANNUAL MEAN	1.50		14.6		9.15	
HIGHEST ANNUAL MEAN					44.5	
LOWEST ANNUAL MEAN					.58	
HIGHEST DAILY MEAN	11	Feb 20	298	Mar 11	1320	Mar 9 1943
LOWEST DAILY MEAN	.00	Jun 18	.00	Oct 1	.00	Oct 1 1942
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 18	.00	Oct 1	.00	Oct 1 1942
INSTANTANEOUS PEAK FLOW			662	Mar 11	2300	Mar 9 1943
INSTANTANEOUS PEAK STAGE			4.40	Mar 11		
ANNUAL RUNOFF (AC-FT)	1090		10560		6630	
10 PERCENT EXCEEDS	4.1		38		20	
50 PERCENT EXCEEDS	.00		5.6		1.9	
90 PERCENT EXCEEDS	.00		.00		.00	

TULARE LAKE BASIN

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CA

LOCATION.--Lat 35°56'30", long 118°49'19", in SE 1/4 NE 1/4 sec.10, T.23 S., R.29 E., Tulare County, Hydrologic Unit 18030005, on left bank 1.0 mi upstream from Pothole Creek, 6.3 mi northeast of Fountain Springs, and 12 mi east of Terra Bella.

DRAINAGE AREA.--83.3 mi².

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. 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, 3,340 ft³/s, Feb. 24, 1969, gage height, 9.85 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurements at gage heights 8.83 ft in gage well, 9.18 ft from floodmarks, and 12.54 ft from floodmarks; no flow 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 ft³/s.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0830	264	4.67	Mar. 11	0845	*1,270	*7.03
Jan. 15	0515	237	4.56	Mar. 23	0815	501	5.44
Jan. 26	unknown	unknown	unknown	Apr. 30	0530	203	4.40
Feb. 14	0945	432	5.25	May 5	0830	253	4.62
Mar. 5	2315	210	4.43	May 13	1215	276	4.72

Minimum daily, 0.97 ft³/s, Oct. 01.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	3.9	8.8	10	e59	30	92	98	79	33	13	5.6
2	1.3	4.4	9.3	8.9	e53	29	89	98	81	32	13	4.2
3	1.2	5.2	9.3	9.8	43	29	84	89	78	31	12	3.8
4	1.4	5.4	8.2	11	40	37	81	85	74	30	11	5.4
5	6.6	5.1	9.2	114	34	94	78	194	75	31	10	6.1
6	7.1	5.0	9.5	47	31	120	74	172	74	28	9.8	5.6
7	4.4	5.3	9.4	39	31	66	70	142	70	28	11	5.2
8	3.4	7.0	9.1	33	39	53	68	133	68	27	11	4.5
9	2.7	7.5	8.2	32	34	49	66	126	64	24	11	4.4
10	2.3	8.9	7.8	53	31	132	62	125	63	26	9.5	3.4
11	2.1	8.8	8.7	102	29	605	59	120	60	25	9.7	3.8
12	2.3	6.2	6.7	89	27	258	57	114	60	25	8.4	4.7
13	3.2	5.8	10	68	26	162	66	180	58	27	7.2	4.9
14	3.8	5.7	9.4	49	164	131	73	157	55	24	8.2	5.1
15	3.6	5.6	8.5	177	75	113	60	141	61	22	8.6	4.9
16	3.9	7.2	8.2	93	52	101	63	130	81	18	8.5	3.9
17	3.6	8.4	8.5	59	46	88	62	122	62	23	8.4	2.3
18	3.7	11	8.2	47	42	80	73	116	57	21	8.9	3.5
19	3.4	8.8	7.6	42	40	76	82	114	55	20	6.5	4.5
20	3.4	6.3	8.3	38	37	72	69	109	53	19	5.1	3.9
21	3.4	7.5	8.2	38	36	138	65	105	50	19	6.9	3.6
22	3.8	7.0	8.6	33	35	111	60	104	47	17	7.6	3.7
23	3.6	6.8	9.3	35	33	266	64	102	45	18	7.7	3.4
24	3.3	6.6	11	38	32	189	65	98	43	20	7.3	2.3
25	3.3	6.6	19	e60	32	155	64	93	41	18	6.2	3.1
26	3.5	14	13	e221	29	133	61	89	39	17	6.3	4.9
27	3.7	12	11	e155	29	124	59	87	39	16	5.3	5.3
28	3.5	9.2	13	e120	29	115	58	84	38	14	5.9	5.2
29	3.9	9.1	16	e95	---	105	61	82	36	13	6.8	5.9
30	3.9	8.3	12	e81	---	96	136	81	36	13	6.7	5.7
31	3.4	---	11	e67	---	92	---	80	---	14	6.3	---
TOTAL	103.67	218.6	305.0	2064.7	1188	3849	2121	3570	1742	693	263.8	132.8
MEAN	3.34	7.29	9.84	66.6	42.4	124	70.7	115	58.1	22.4	8.51	4.43
MAX	7.1	14	19	221	164	605	136	194	81	33	13	6.1
MIN	.97	3.9	6.7	8.9	26	29	57	80	36	13	5.1	2.3
AC-FT	206	434	605	4100	2360	7630	4210	7080	3460	1370	523	263

e Estimated.

TULARE LAKE BASIN

167

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.83	12.4	20.5	44.6	64.0	80.9	63.8	40.5	21.0	8.45	3.76	3.26
MAX	23.5	62.8	120	229	353	443	254	182	120	53.5	32.1	19.6
(WY)	1984	1984	1984	1969	1969	1983	1983	1983	1983	1983	1983	1983
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1968 - 1995	
ANNUAL TOTAL	3384.59		16251.57			
ANNUAL MEAN	9.27		44.5		30.6	
HIGHEST ANNUAL MEAN					143	
LOWEST ANNUAL MEAN					4.29	
HIGHEST DAILY MEAN	43	Feb 20	605	Mar 11	1610	Feb 25 1969
LOWEST DAILY MEAN	.00	Jul 18	.97	Oct 1	.00	Jun 24 1972
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 18	2.8	Oct 8	.00	Jun 30 1972
INSTANTANEOUS PEAK FLOW			1270	Mar 11	3340	Feb 24 1969
INSTANTANEOUS PEAK STAGE			7.03	Mar 11	9.85	Feb 24 1969
ANNUAL RUNOFF (AC-FT)	6710		32230		22150	
10 PERCENT EXCEEDS	22		112		68	
50 PERCENT EXCEEDS	8.5		27		11	
90 PERCENT EXCEEDS	.00		3.9		.68	

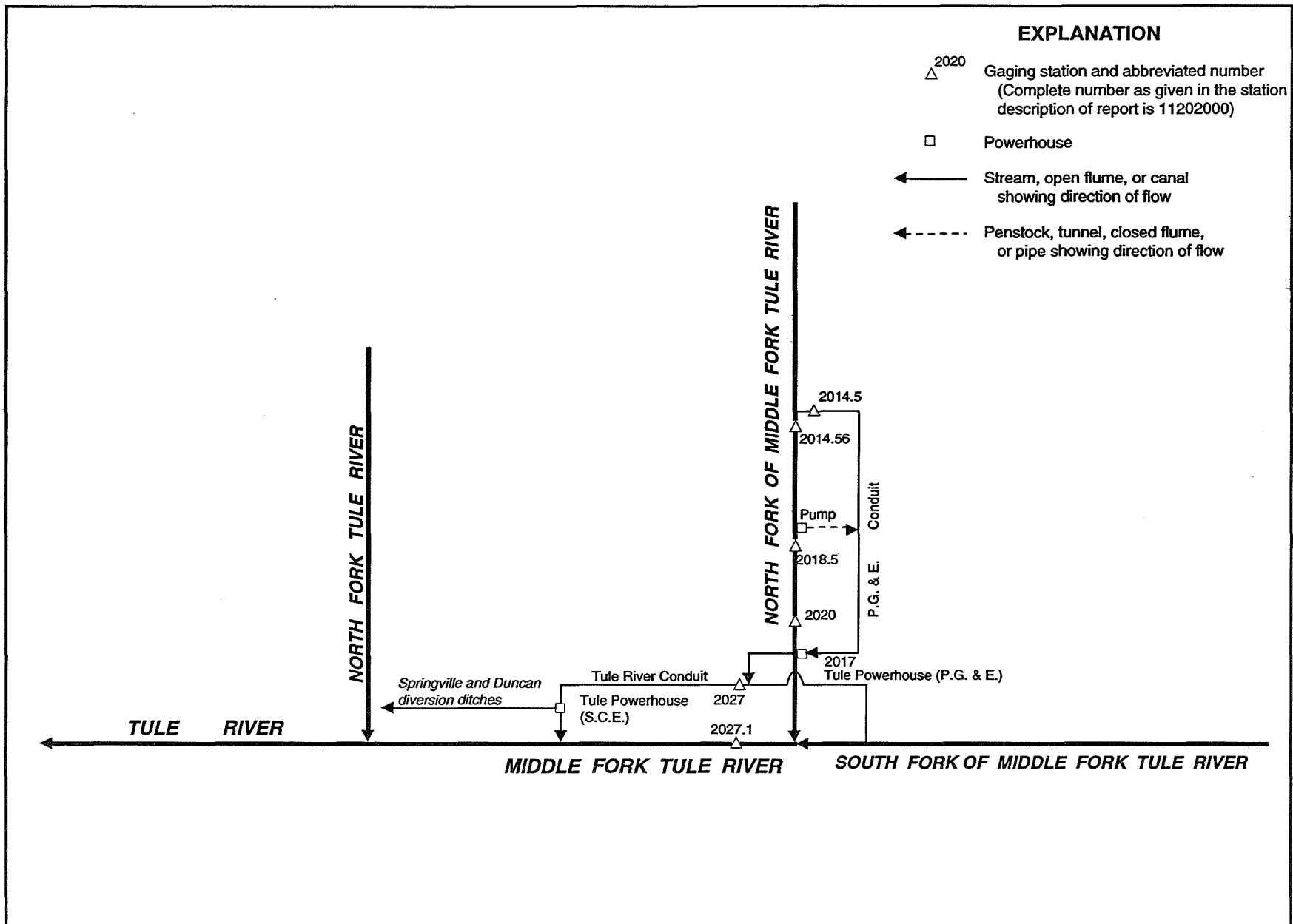


Figure 24. Diversions and storage in Tule River basin.

TULARE LAKE BASIN

169

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 September 1995.

GAGE.--Water-stage recorder. Elevation of gage is 4,040 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. 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 ft³/s, many days in 1995, minimum daily, 1.8 ft³/s, Oct. 3 and Nov. 1, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.8	8.7	5.0	35	41	61	63	63	62	43	20
2	1.9	3.3	8.5	4.6	41	39	62	63	63	62	41	21
3	1.8	2.7	8.4	4.9	42	43	62	62	63	62	40	22
4	2.8	2.5	8.8	7.0	41	44	62	62	63	62	39	20
5	16	2.6	8.0	10	41	60	63	62	63	62	38	20
6	7.4	2.6	7.9	8.8	42	61	63	62	63	63	36	18
7	5.8	2.4	7.8	18	40	58	63	62	63	62	35	18
8	4.8	3.2	6.7	13	40	55	63	62	62	62	34	18
9	3.9	2.6	6.1	30	35	56	63	62	63	62	32	18
10	3.4	4.4	5.8	49	33	52	62	62	63	62	32	17
11	3.2	3.7	5.5	53	32	62	62	62	63	62	31	17
12	3.2	3.4	5.9	48	31	62	63	62	63	63	30	17
13	3.2	3.0	6.7	46	30	62	63	62	63	62	29	16
14	3.2	2.8	5.8	46	58	62	63	62	63	63	29	16
15	3.2	2.7	5.9	59	48	62	62	62	63	62	28	15
16	3.0	3.5	4.9	43	39	62	62	62	63	62	28	15
17	2.9	3.8	4.8	33	35	61	62	62	63	62	27	15
18	2.7	4.1	4.6	29	34	61	61	62	63	62	27	15
19	2.6	4.1	4.6	27	36	61	61	62	63	62	26	15
20	2.5	4.4	4.9	25	40	61	60	62	62	62	26	15
21	2.5	4.8	5.1	24	43	62	59	63	62	61	26	15
22	2.4	4.5	5.4	21	45	61	59	63	63	61	26	14
23	2.3	4.4	5.9	24	48	61	61	63	62	59	25	14
24	2.3	4.5	7.2	26	50	60	62	63	62	59	24	14
25	2.3	6.4	7.8	28	49	60	63	63	63	57	23	15
26	2.3	6.0	6.9	27	49	60	63	63	63	55	23	15
27	2.3	5.6	6.6	25	45	60	63	63	63	53	22	15
28	2.0	6.4	7.1	24	43	60	63	63	63	51	22	15
29	1.9	7.4	6.7	24	---	59	61	63	63	49	21	16
30	1.9	7.9	5.9	25	---	59	11	63	62	45	21	15
31	1.9	---	5.3	28	---	60	---	63	---	44	20	---
TOTAL	103.8	121.5	200.2	835.3	1145	1787	1808	1935	1884	1837	904	496
MEAN	3.35	4.05	6.46	26.9	40.9	57.6	60.3	62.4	62.8	59.3	29.2	16.5
MAX	16	7.9	8.8	59	58	62	63	63	63	63	43	22
MIN	1.8	1.8	4.6	4.6	30	39	11	62	62	44	20	14
AC-FT	206	241	397	1660	2270	3540	3590	3840	3740	3640	1790	984

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1995, BY WATER YEAR (WY)

	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
MEAN	3.35	4.05	6.46	26.9	40.9	57.6	60.3	62.4	62.8	59.3	29.2	16.5
MAX	3.35	4.05	6.46	26.9	40.9	57.6	60.3	62.4	62.8	59.3	29.2	16.5
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	3.35	4.05	6.46	26.9	40.9	57.6	60.3	62.4	62.8	59.3	29.2	16.5
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995

SUMMARY STATISTICS

FOR 1995 WATER YEAR

ANNUAL TOTAL	13056.8
ANNUAL MEAN	35.8
HIGHEST DAILY MEAN	63 Apr 5
LOWEST DAILY MEAN	1.8 Oct 3
ANNUAL SEVEN-DAY MINIMUM	2.0 Oct 26
ANNUAL RUNOFF (AC-FT)	25900
10 PERCENT EXCEEDS	63
50 PERCENT EXCEEDS	38
90 PERCENT EXCEEDS	3.3

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 mi².

PERIOD OF RECORD.--October 1994 to September 1995 (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 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	6.1	e9.2	e6.3	8.1	6.0	23	---	---	---	4.4	3.2
2	5.8	6.3	e8.9	e6.2	8.0	6.4	26	---	---	---	4.2	3.2
3	5.8	6.2	e8.9	e6.3	7.3	7.5	30	---	---	---	4.3	3.2
4	6.2	6.1	e9.0	e6.9	7.2	7.6	38	---	---	---	4.4	3.1
5	7.4	6.2	e8.9	e9.9	7.2	29	46	---	---	---	4.4	3.1
6	6.4	6.2	e8.7	e8.6	7.1	34	48	---	---	---	4.2	3.3
7	6.2	6.4	e8.6	e8.5	6.7	18	44	---	---	---	4.1	3.4
8	6.1	6.9	e8.5	e8.1	6.7	9.6	42	---	---	---	3.9	3.4
9	5.9	6.3	e8.5	e10	6.5	23	38	---	---	---	3.8	3.4
10	5.8	6.8	e8.6	e25	6.6	---	33	---	---	77	3.7	3.4
11	5.5	6.6	e8.5	e23	6.6	---	34	---	---	65	3.6	3.5
12	5.3	6.5	e8.6	e9.7	6.5	---	39	---	---	57	3.6	3.4
13	5.6	6.5	e8.8	e8.7	6.4	80	42	---	---	50	3.5	3.4
14	5.8	6.5	e8.7	e25	27	71	35	---	---	44	3.5	3.4
15	5.8	e5.8	e8.7	e40	7.9	67	29	75	---	41	3.5	3.4
16	5.7	e6.9	e7.3	e11	6.8	62	25	68	---	40	3.5	3.4
17	5.7	e7.2	e6.7	e7.0	6.6	54	21	64	---	38	3.5	3.4
18	5.8	e7.1	e6.8	e6.1	6.7	50	20	68	---	33	3.5	3.4
19	5.8	e5.5	e6.6	e7.5	6.8	52	15	---	---	28	3.4	3.4
20	5.8	e5.7	e6.5	e9.2	7.3	54	13	---	---	24	3.5	3.4
21	5.6	e5.9	e6.4	e9.0	7.7	---	10	---	---	21	3.5	3.4
22	5.6	e5.5	e6.5	e7.7	7.9	59	11	---	---	18	3.5	3.5
23	5.7	e5.5	e6.6	e7.1	7.3	53	17	---	---	15	3.5	3.5
24	5.6	e5.5	e7.0	7.2	6.3	41	27	---	---	10	3.5	3.5
25	5.7	e5.9	e7.3	7.4	6.2	33	39	---	---	6.9	3.4	3.5
26	5.7	e7.5	e7.1	7.4	6.2	28	50	---	---	5.3	3.4	3.5
27	5.5	e8.3	e6.7	7.2	6.0	24	54	---	---	4.6	3.4	3.5
28	6.0	e8.5	e6.6	7.0	6.1	19	54	---	---	4.3	3.3	3.5
29	6.5	e9.2	e6.6	7.1	---	15	---	---	---	3.8	3.3	3.5
30	6.5	e9.3	e6.4	7.1	---	15	---	---	---	5.4	3.2	3.7
31	6.2	---	e6.3	7.4	---	19	---	---	---	4.8	3.2	---
TOTAL	182.9	198.9	238.5	324.6	213.7	---	---	---	---	---	113.7	101.9
MEAN	5.90	6.63	7.69	10.5	7.63	---	---	---	---	---	3.67	3.40
MAX	7.4	9.3	9.2	40	27	---	---	---	---	---	4.4	3.7
MIN	5.3	5.5	6.3	6.1	6.0	---	---	---	---	---	3.2	3.1
AC-FT	363	395	473	644	424	---	---	---	---	---	226	202

e Estimated.

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[illegible]

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 mi².

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-A. January 1909 to December 1912 at site 2 mi upstream, records not equivalent. Prior to October 1954, records for river and 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.--No estimated daily discharges. 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. See schematic diagram of Tule River basin. For records of combined discharge of river and powerplant, see station 11202001.

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 ft³/s, Dec. 6, 1966, gage height, 13.83 ft, from floodmarks, from rating curve extended above 1,820 ft³/s on basis of critical-depth determinations at gage heights 9.67 and 12.47 ft; no flow Sept. 10, 11, 1955.

Combined flow: Maximum discharge, 16,900 ft³/s, Dec. 6, 1966; minimum daily, 6.4 ft³/s, Sept. 5-8, 1993.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 737 ft³/s, Apr. 30, gage height, 5.59 ft; minimum daily, 5.0 ft³/s, Sept. 14-24.

Combined flow: Maximum daily discharge, 540 ft³/s, Apr. 30; minimum daily, 8.0 ft³/s, Oct. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	5.4	8.3	6.2	9.1	7.5	37	357	257	184	7.4	5.2
2	8.3	6.7	8.3	6.2	9.2	7.6	40	325	251	172	7.1	5.5
3	8.3	5.3	8.3	6.3	8.3	9.3	45	253	260	170	6.8	5.5
4	8.6	5.4	8.3	7.8	8.0	11	56	230	278	163	7.1	5.5
5	12	5.4	8.3	37	7.9	35	66	223	300	161	6.8	5.5
6	9.4	5.2	8.2	14	7.8	45	66	187	260	151	6.8	5.5
7	9.1	5.2	8.0	16	7.4	24	61	159	210	133	6.8	5.5
8	8.9	6.6	8.0	11	7.7	15	59	146	169	126	6.5	5.5
9	8.7	5.4	7.7	13	7.2	24	52	144	148	121	6.5	5.2
10	8.6	7.0	7.7	36	7.4	394	45	146	161	104	6.5	5.2
11	8.3	6.3	7.7	45	7.2	413	46	145	199	87	6.2	5.2
12	8.3	6.2	7.9	20	7.1	217	53	180	233	74	6.2	5.2
13	8.3	5.5	8.6	16	7.1	138	59	158	248	64	6.2	5.2
14	8.3	5.6	8.1	30	54	110	47	132	233	55	5.9	5.0
15	8.6	5.4	8.0	69	17	101	39	122	219	50	5.9	5.0
16	8.7	6.2	7.0	19	12	91	36	106	199	46	5.9	5.0
17	8.7	7.1	6.2	13	10	77	32	98	158	43	5.9	5.0
18	8.5	7.3	6.2	10	9.4	69	33	93	150	39	5.9	5.0
19	8.3	5.6	6.2	10	8.9	72	31	127	148	33	5.7	5.0
20	8.3	5.7	5.9	12	8.9	75	27	158	148	29	5.9	5.0
21	8.3	5.9	5.9	12	9.1	149	21	179	145	26	6.2	5.0
22	8.3	5.7	5.9	10	9.1	97	20	174	163	23	5.7	5.0
23	8.2	5.6	5.9	9.8	8.7	95	25	185	187	21	e5.7	5.0
24	8.0	5.5	6.8	11	7.8	69	39	188	213	17	e5.7	5.0
25	7.0	5.8	7.7	11	7.6	54	54	169	234	12	e5.7	5.2
26	5.1	8.1	7.0	14	7.7	47	71	153	236	8.3	e5.7	5.2
27	5.6	7.6	6.5	12	7.5	42	77	171	232	8.0	e5.7	5.2
28	5.3	7.7	6.6	11	7.5	37	76	194	243	7.7	e5.7	5.5
29	6.1	8.0	6.9	9.8	---	33	196	210	228	7.7	e5.7	5.5
30	6.0	8.3	6.6	9.3	---	32	523	242	206	15	5.5	5.2
31	5.4	---	6.4	9.1	---	35	---	263	---	9.8	5.5	---
TOTAL	248.1	186.7	225.1	516.5	286.6	2625.4	2032	5617	6316	2160.5	190.8	156.5
MEAN	8.00	6.22	7.26	16.7	10.2	84.7	67.7	181	211	69.7	6.15	5.22
MAX	12	8.3	8.6	69	54	413	523	357	300	184	7.4	5.5
MIN	5.1	5.2	5.9	6.2	7.1	7.5	20	93	145	7.7	5.5	5.0
AC-FT	492	370	446	1020	568	5210	4030	11140	12530	4290	378	310

e Estimated.

TULARE LAKE BASIN

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11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.86	12.1	26.7	24.4	26.0	34.0	49.7	82.3	46.9	10.6	4.08	3.31
MAX	19.1	362	786	266	182	337	229	381	316	121	14.4	22.7
(WY)	1953	1951	1967	1980	1986	1943	1969	1969	1983	1983	1983	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1940 - 1995
ANNUAL TOTAL	2738.4	20561.2	
ANNUAL MEAN	7.50	56.3	26.6
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			1.25
HIGHEST DAILY MEAN	36 May 13	523 Apr 30	13300 Dec 6 1966
LOWEST DAILY MEAN	4.8 Jan 8	5.0 Sep 14	.06 Nov 2 1979
ANNUAL SEVEN-DAY MINIMUM	4.9 Jan 6	5.0 Sep 14	.20 Aug 24 1964
INSTANTANEOUS PEAK FLOW		737 Apr 30	16900 Dec 6 1966
INSTANTANEOUS PEAK STAGE		5.59 Apr 30	13.83 Dec 6 1966
ANNUAL RUNOFF (AC-FT)	5430	40780	19270
10 PERCENT EXCEEDS	9.5	187	75
50 PERCENT EXCEEDS	6.9	9.1	4.7
90 PERCENT EXCEEDS	5.5	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
COMBINED DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	10	17	16	50	56	105	424	324	251	58	27
2	8.3	16	17	16	59	57	104	393	318	231	57	27
3	8.3	11	16	15	63	57	113	321	327	237	56	31
4	8.6	11	18	16	59	67	123	298	345	230	55	28
5	20	12	15	50	58	104	133	291	367	228	55	26
6	17	11	16	22	60	113	134	255	327	218	55	26
7	16	11	16	33	56	91	128	227	277	200	47	25
8	13	13	15	29	58	81	127	214	235	193	45	25
9	8.7	12	14	50	49	88	120	212	215	188	45	25
10	8.6	14	15	91	45	444	113	214	228	171	38	25
11	8.3	13	14	113	45	471	113	213	266	154	38	24
12	8.3	12	14	70	45	282	120	248	300	141	38	23
13	8.3	12	17	74	40	200	126	226	316	131	38	23
14	8.3	13	14	86	121	177	114	200	301	122	35	23
15	8.6	12	15	136	75	168	106	190	287	117	37	23
16	8.7	13	15	74	62	159	103	173	267	113	37	23
17	8.7	13	15	53	55	144	100	165	225	110	37	22
18	8.5	14	17	43	47	137	84	161	218	106	37	22
19	8.3	14	15	38	50	140	76	195	215	100	35	22
20	8.3	14	15	37	50	143	67	226	216	96	34	23
21	8.3	15	16	35	68	217	85	247	213	92	35	22
22	8.3	16	16	33	65	168	87	242	230	89	34	23
23	8.2	15	16	36	69	152	91	252	254	87	34	23
24	8.0	13	17	42	68	134	106	255	280	82	34	23
25	10	14	18	44	67	122	122	236	301	77	32	23
26	10	16	18	46	67	114	138	220	304	73	31	23
27	11	18	19	41	61	110	144	239	299	73	30	23
28	11	19	21	37	63	104	144	261	311	66	30	24
29	12	16	20	36	---	101	264	277	295	64	29	25
30	12	16	20	39	---	100	540	310	273	69	29	25
31	10	---	17	40	---	102	---	331	---	61	27	---
TOTAL	310.2	409	508	1491	1675	4603	3930	7716	8334	4170	1222	727
MEAN	10.0	13.6	16.4	48.1	59.8	148	131	249	278	135	39.4	24.2
MAX	20	19	21	136	121	471	540	424	367	251	58	31
MIN	8.0	10	14	15	40	56	67	161	213	61	27	22
AC-FT	615	811	1010	2960	3320	9130	7800	15300	16530	8270	2420	1440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1995, BY WATER YEAR (WY)

MEAN	17.6	27.7	49.2	49.9	58.4	74.0	103	140	92.3	39.2	21.7	17.9
MAX	44.3	375	794	317	241	381	296	445	384	187	72.3	42.6
(WY)	1983	1951	1967	1980	1980	1943	1969	1969	1983	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1940 - 1995

ANNUAL TOTAL	9522.2	35095.2	
ANNUAL MEAN	26.1	96.2	57.6
HIGHEST ANNUAL MEAN			157
LOWEST ANNUAL MEAN			15.1
HIGHEST DAILY MEAN	102	May 13	13300
LOWEST DAILY MEAN	5.9	Jul 27	8.0
ANNUAL SEVEN-DAY MINIMUM	8.3	Oct 18	8.3
INSTANTANEOUS PEAK FLOW			5.2
ANNUAL RUNOFF (AC-FT)	18890	69610	16900
10 PERCENT EXCEEDS	59	254	131
50 PERCENT EXCEEDS	17	55	28
90 PERCENT EXCEEDS	10	12	13

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 mi².

PERIOD OF RECORD.--October 1988 to September 1990, October 1991 to current year.

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. See schematic diagram of Tule River basin. For records of combined discharge of river and conduit, see station 11202711.

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, 1,790 ft³/s, revised, Oct. 30, 1992, gage height, 5.47 ft; minimum daily, 4.9 ft³/s, Nov. 2, 1994.
Combined flow, maximum daily discharge, 1,100 ft³/s, Mar. 11 1995; minimum daily, 6.5 ft³/s, Dec. 12, 1991.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,710 ft³/s, Mar. 10, gage height, 5.42 ft; minimum daily, 4.9 ft³/s, Nov. 2.
Combined flow, maximum daily discharge, 1,100 ft³/s, Mar. 11; minimum daily, 17 ft³/s, Oct. 2-4.

REVISIONS.--The river only, maximum discharge for water year 1993 has been revised to 1,790 ft³/s, Oct. 30, 1992, gage height 5.47 ft. Revised figures of discharge for river only and combined flow for the water year 1993, superseding those published in the report for 1993 are given below.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	52	6.5	8.1	21	48	148	277	135	50	38	10
2	14	43	6.5	22	19	48	142	288	128	47	39	9.4
3	14	38	6.3	7.5	18	51	151	274	120	44	17	10
4	14	33	6.3	6.3	18	49	163	256	115	41	11	10
5	13	28	6.4	6.7	28	52	152	224	172	39	10	11
6	13	28	6.5	8.3	30	62	132	200	134	39	11	11
7	13	26	19	524	32	80	130	186	124	35	11	11
8	13	25	7.9	371	60	93	134	192	134	33	11	11
9	14	15	6.0	107	86	95	134	203	126	30	11	11
10	13	7.1	5.9	72	61	91	133	221	124	27	11	10
11	13	6.1	18	54	50	91	132	235	129	25	11	10
12	13	6.4	8.0	52	42	95	126	233	133	22	11	10
13	13	6.6	6.2	128	38	99	119	218	134	20	11	10
14	14	6.2	6.2	133	36	112	123	205	132	18	11	10
15	14	6.4	6.6	100	34	110	125	205	133	17	11	10
16	14	6.4	6.6	81	29	105	125	214	128	16	11	11
17	15	6.5	7.4	82	25	209	128	230	122	15	11	11
18	14	6.2	6.3	89	35	235	135	236	116	14	9.9	11
19	14	6.9	6.4	67	53	172	125	245	108	12	10	11
20	14	6.1	6.2	55	83	159	143	235	106	12	10	11
21	14	5.8	6.1	48	59	163	160	225	102	13	11	11
22	15	5.7	6.1	55	53	175	157	213	98	17	11	16
23	15	6.2	6.2	53	116	181	146	217	95	12	11	24
24	15	6.3	6.4	45	111	176	141	215	85	13	12	24
25	16	6.2	6.2	43	77	198	148	207	77	12	13	23
26	16	6.1	6.1	41	70	248	175	185	72	27	13	23
27	15	6.1	6.4	41	62	191	182	168	70	43	12	22
28	18	6.3	6.6	37	55	171	197	148	65	42	11	22
29	24	6.4	27	35	---	146	220	138	59	41	10	22
30	432	6.4	16	33	---	141	249	134	54	40	9.9	22
31	85	---	7.0	26	---	147	---	140	---	39	10	---
TOTAL	937	420.4	255.3	2430.9	1401	3993	4475	6567	3330	855	400.8	418.4
MEAN	30.2	14.0	8.24	78.4	50.0	129	149	212	111	27.6	12.9	13.9
MAX	432	52	27	524	116	248	249	288	172	50	39	24
MIN	13	5.7	5.9	6.3	18	48	119	134	54	12	9.9	9.4
AC-FT	1860	834	506	4820	2780	7920	8880	13030	6610	1700	795	830

CAL YR 1992 TOTAL 6536.8 MEAN 17.9 MAX 432 MIN 5.7 AC-FT 12970
WTR YR 1993 TOTAL 25483.8 MEAN 69.8 MAX 524 MIN 5.7 AC-FT 50550

TULARE LAKE BASIN

11202710 MIDDLE FORK TULE RIVER BELOW INTAKE, ABOVE SPRINGVILLE, CA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	e6.5	5.8	5.8	52	52	147	576	455	307	48	12
2	16	e4.9	5.8	5.8	62	49	148	528	449	287	45	13
3	16	e6.4	5.5	5.7	63	59	151	436	461	282	42	14
4	e16	6.5	5.4	12	58	69	160	404	481	271	42	13
5	e45	6.1	7.6	110	58	147	171	429	503	265	40	12
6	e31	5.6	5.8	20	59	165	173	370	451	252	37	12
7	e27	5.4	5.7	50	56	115	166	318	379	232	34	12
8	e23	5.2	5.5	24	60	95	161	298	322	222	32	12
9	e20	5.0	5.6	59	51	113	153	295	300	216	30	12
10	e19	e7.4	6.4	218	44	999	142	301	292	196	29	12
11	e19	5.7	5.8	277	41	1080	141	298	342	177	27	12
12	e18	6.0	5.7	174	39	547	149	288	391	162	25	12
13	e18	6.0	5.6	149	37	352	164	317	410	151	24	12
14	e19	5.8	5.4	151	237	262	148	272	390	139	23	12
15	e19	5.7	5.4	258	111	236	135	255	399	132	22	11
16	e20	5.9	5.4	120	78	213	129	236	376	127	21	11
17	e19	6.5	5.4	76	63	187	123	224	302	124	21	11
18	e19	6.5	5.4	53	57	172	124	235	282	119	20	11
19	e18	6.2	5.4	41	53	173	128	269	273	110	19	11
20	e18	6.1	5.4	36	56	178	119	307	267	104	18	11
21	18	6.0	5.4	31	60	330	112	338	265	99	20	11
22	18	5.6	5.4	25	62	232	109	332	281	97	21	11
23	18	5.8	5.5	35	66	261	117	345	308	92	20	11
24	18	5.7	6.6	45	66	215	131	349	345	84	18	11
25	19	6.0	6.6	51	64	186	151	318	377	79	17	11
26	18	8.2	5.8	68	63	169	169	302	382	72	16	11
27	18	6.4	5.8	52	58	160	179	332	372	66	16	11
28	18	6.3	5.8	45	56	154	177	372	388	62	15	11
29	18	6.1	5.9	42	---	146	303	386	370	58	14	11
30	18	5.6	5.8	40	---	141	822	432	340	55	13	11
31	e14	---	5.8	41	---	143	---	460	---	53	13	---
TOTAL	612	181.1	178.4	2320.3	1830	7400	5202	10622	10953	4692	782	348
MEAN	19.7	6.04	5.75	74.8	65.4	239	173	343	365	151	25.2	11.6
MAX	45	8.2	7.6	277	237	1080	822	576	503	307	48	14
MIN	14	4.9	5.4	5.7	37	49	109	224	265	53	13	11
AC-FT	1210	359	354	4600	3630	14680	10320	21070	21730	9310	1550	690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

MEAN	17.4	9.40	7.36	30.4	29.6	85.4	89.0	121	90.4	37.9	14.7	13.4
MAX	30.2	14.0	9.87	78.4	65.4	239	173	343	365	151	25.2	15.5
(WY)	1993	1993	1989	1993	1995	1995	1995	1995	1995	1995	1995	1994
MIN	6.78	6.04	5.75	6.41	8.21	15.5	32.9	22.6	12.1	11.2	11.0	11.6
(WY)	1989	1995	1995	1994	1990	1992	1990	1992	1992	1994	1994	1995

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1989 - 1995		
ANNUAL TOTAL	8264.8			45120.8					
ANNUAL MEAN	22.6			124			45.6		
HIGHEST ANNUAL MEAN							124		
LOWEST ANNUAL MEAN							15.6		
HIGHEST DAILY MEAN	110			May 13			1080		
LOWEST DAILY MEAN	4.9			Nov 2			4.9		
ANNUAL SEVEN-DAY MINIMUM	5.4			Dec 14			5.4		
INSTANTANEOUS PEAK FLOW				1710			1790		
INSTANTANEOUS PEAK STAGE				5.42			5.47		
ANNUAL RUNOFF (AC-FT)	16390			89500			33000		
10 PERCENT EXCEEDS	56			341			127		
50 PERCENT EXCEEDS	12			53			13		
90 PERCENT EXCEEDS	5.8			5.8			6.5		

e Estimated.

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
 COMBINED DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	52	19	39	57	82	182	316	172	88	38	26
2	14	43	19	58	55	82	177	327	165	85	39	25
3	14	38	20	40	54	86	186	313	157	82	36	26
4	14	33	21	36	53	84	198	295	152	79	39	24
5	13	28	21	35	62	87	187	263	209	77	38	23
6	13	28	22	37	64	97	167	239	171	77	38	24
7	13	26	45	557	66	115	165	225	160	73	37	24
8	13	25	34	402	95	128	169	231	170	71	38	23
9	14	22	28	140	121	130	169	242	162	68	36	23
10	13	23	30	105	96	126	168	260	160	65	35	23
11	13	23	49	86	85	125	167	275	165	63	35	22
12	13	21	40	84	76	128	161	272	169	60	35	23
13	13	22	30	161	72	133	154	257	170	58	36	23
14	14	21	28	167	69	146	159	244	167	55	36	23
15	14	21	27	135	67	144	161	244	168	55	36	23
16	14	21	26	116	62	139	162	252	163	54	36	24
17	15	21	29	116	58	243	165	268	158	52	35	25
18	14	21	31	124	67	268	172	275	152	51	34	25
19	14	22	26	103	85	206	163	284	144	49	33	24
20	14	21	25	92	115	193	181	274	142	49	32	23
21	14	21	25	84	91	198	198	264	137	49	32	23
22	15	21	25	91	85	210	196	252	132	48	30	23
23	15	21	25	89	149	216	185	255	125	47	27	24
24	15	20	26	80	143	211	180	253	120	47	26	24
25	16	20	26	78	109	232	187	245	114	46	27	23
26	16	20	26	76	102	281	214	223	110	45	27	23
27	15	20	25	77	95	224	221	206	108	43	26	22
28	18	19	26	73	89	204	236	185	103	42	26	22
29	24	19	60	71	---	179	259	175	97	41	26	22
30	432	19	50	69	---	174	288	171	92	40	26	22
31	85	---	39	62	---	174	---	177	---	39	26	---
TOTAL	937	732	923	3483	2342	5046	5577	7762	4414	1798	1021	704
MEAN	30.2	24.4	29.8	112	83.6	163	186	250	147	58.0	32.9	23.5
MAX	432	52	60	557	149	281	288	327	209	88	39	26
MIN	13	19	19	35	53	82	154	171	92	39	26	22
AC-FT	1860	1450	1830	6910	4650	10010	11060	15400	8760	3570	2030	1400

CAL YR 1992 TOTAL 12984 MEAN 35.5 MAX 432 MIN 13 AC-FT 25750
 WTR YR 1993 TOTAL 34739 MEAN 95.2 MAX 557 MIN 13 AC-FT 68900

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
COMBINED DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	e18	31	30	91	89	185	614	494	345	86	48
2	17	e23	31	29	101	86	186	567	488	325	83	50
3	17	e21	30	30	102	96	189	474	500	320	80	51
4	e17	20	31	43	97	106	199	442	520	309	80	49
5	e46	21	29	143	96	185	210	469	542	303	78	47
6	e32	21	30	58	97	203	212	410	489	290	75	46
7	e28	20	30	88	94	153	205	357	417	270	72	45
8	e24	24	27	62	98	134	200	337	352	259	70	44
9	e21	22	27	98	89	152	191	334	321	251	68	44
10	e20	e30	24	257	81	1030	180	340	330	231	68	43
11	e20	25	25	315	78	1100	179	337	380	211	65	43
12	e19	24	27	213	76	585	187	327	429	197	63	42
13	e19	23	31	188	74	390	202	356	448	186	62	42
14	e20	22	26	190	274	300	187	311	429	178	61	41
15	e20	22	26	297	147	274	174	294	438	171	59	40
16	e21	24	27	159	114	251	168	275	415	166	58	39
17	e20	26	28	115	99	225	162	262	340	163	59	39
18	e20	28	28	92	93	210	162	273	320	159	58	40
19	e19	25	27	80	89	211	166	308	311	150	56	38
20	e19	25	27	75	93	216	157	346	306	144	55	38
21	19	26	28	70	97	369	151	377	304	138	57	38
22	19	26	28	64	99	270	148	371	321	136	58	37
23	19	25	30	74	103	298	156	384	348	131	57	37
24	19	25	36	84	103	251	170	388	385	123	55	37
25	20	28	40	91	101	222	190	356	417	118	54	38
26	19	40	36	108	99	205	208	340	421	111	52	40
27	19	30	34	92	94	196	218	370	411	104	52	40
28	18	29	36	85	93	192	216	410	427	100	51	40
29	18	29	36	82	---	185	342	424	408	96	50	41
30	18	30	33	79	---	180	853	469	378	93	50	40
31	e20	---	31	80	---	181	---	499	---	91	50	---
TOTAL	645	752	930	3471	2872	8545	6353	11821	12089	5869	1942	1257
MEAN	20.8	25.1	30.0	112	103	276	212	381	403	189	62.6	41.9
MAX	46	40	40	315	274	1100	853	614	542	345	86	51
MIN	17	18	24	29	74	86	148	262	304	91	50	37
AC-FT	1280	1490	1840	6880	5700	16950	12600	23450	23980	11640	3850	2490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	MEAN	23.4	26.0	28.1	58.1	62.2	121	126	156	119	56.0	27.6	22.0
MAX	30.2	29.8	33.5	112	103	276	212	381	403	189	62.6	41.9	
(WY)	1993	1989	1989	1993	1995	1995	1995	1995	1995	1995	1995	1995	
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 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1989 - 1995

ANNUAL TOTAL	16128	56546		
ANNUAL MEAN	44.2	155		
HIGHEST ANNUAL MEAN			68.8	
LOWEST ANNUAL MEAN			155	1995
HIGHEST DAILY MEAN	145	May 13	1100	Mar 11 1995
LOWEST DAILY MEAN	15	Sep 8	17	Oct 2 1991
ANNUAL SEVEN-DAY MINIMUM	16	Sep 2	19	Oct 26 1992
ANNUAL RUNOFF (AC-FT)	31990		112200	49830
10 PERCENT EXCEEDS	92		379	163
50 PERCENT EXCEEDS	30		92	34
90 PERCENT EXCEEDS	17		23	17

e Estimated.

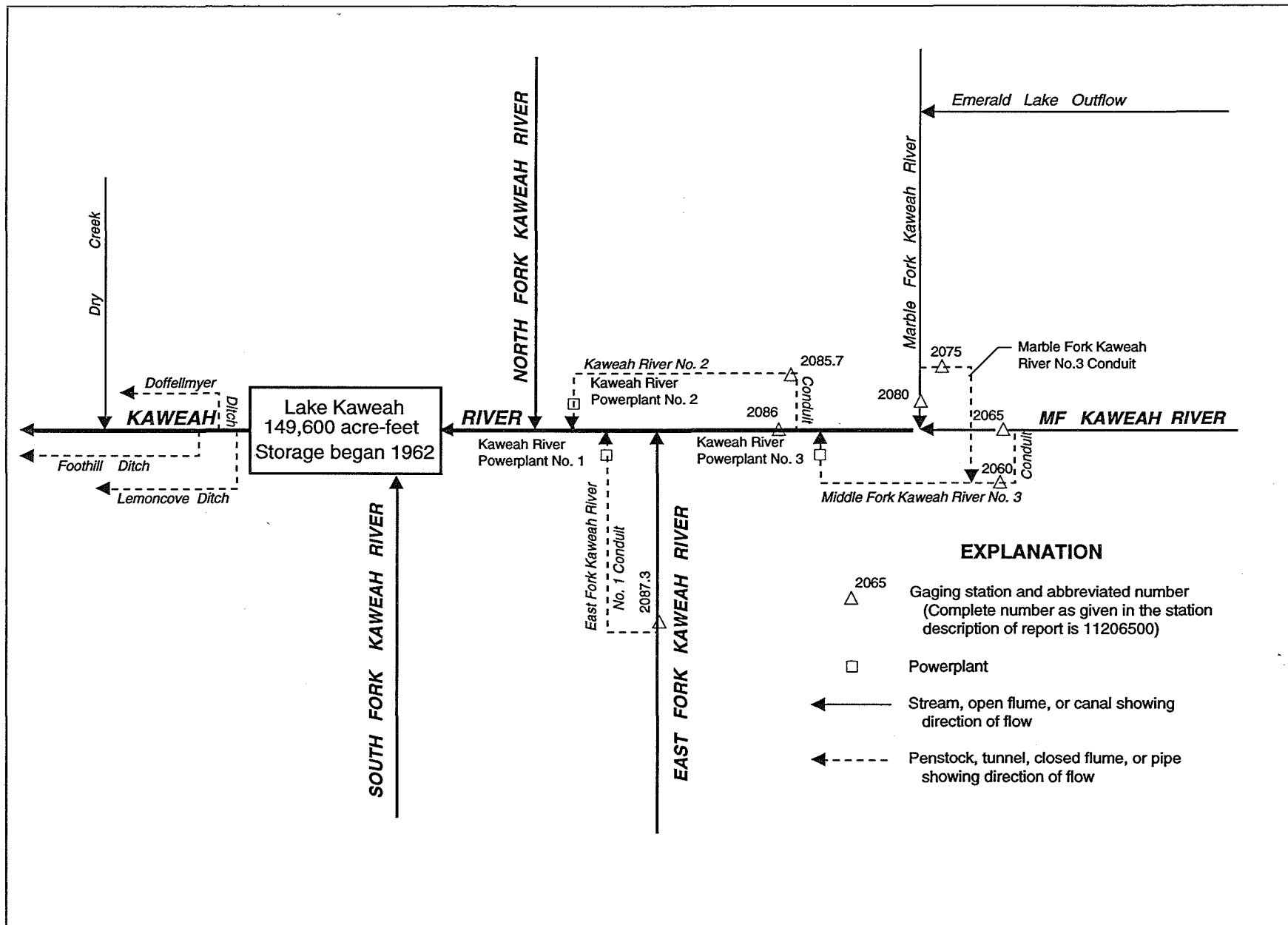


Figure 25. Diversions and storage in Kaweah River basin.

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA

LOCATION.--Lat 36°30'48", long 118°47'27", unsurveyed, T.16 S., R.29 E., Tulare County, Hydrologic Unit 18030007, Sequoia National Park, on right bank 0.5 mi southeast of Potwisha Camp and 0.7 mi upstream from confluence with Marble Fork Kaweah River.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--July 1949 to current year. Monthly discharge only for water years 1956-57, published in WSP 1735. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

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 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. See schematic diagram of Kaweah River basin. For records of combined discharge of river and diversion to Middle Fork Kaweah No. 3 Conduit, see station 11206501.

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 ft³/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 ft³/s, Nov. 12-15, 1949.

Combined flow, maximum discharge, 46,800 ft³/s, Dec. 23, 1955; minimum daily, 7.0 ft³/s, Sept. 16, 17, 1990.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,930 ft³/s, Apr. 30, gage height, 8.56 ft; minimum daily, 11 ft³/s, for many days.

Combined flow, maximum daily discharge, 1,390 ft³/s, Apr. 30, minimum daily, 20 ft³/s, Nov. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	55	44	80	99	234	1040	900	925	352	40
2	11	11	54	41	88	94	230	830	786	896	325	55
3	11	11	54	43	86	115	236	617	831	899	324	80
4	11	11	59	52	87	113	267	599	1010	973	310	65
5	45	11	54	104	93	181	292	625	1040	1120	296	54
6	19	11	52	65	93	153	297	528	855	1100	265	42
7	19	11	52	145	89	123	291	457	659	1010	233	36
8	24	11	45	91	93	109	274	430	518	1090	222	e30
9	21	11	44	153	78	223	249	427	473	1110	200	e25
10	13	12	42	261	66	1110	222	440	619	897	186	e20
11	11	12	40	190	60	990	230	460	908	736	166	e17
12	11	11	40	145	59	522	264	472	1110	624	144	e15
13	11	11	43	132	56	391	293	466	1160	577	132	e14
14	11	17	40	237	212	354	249	401	1030	568	132	13
15	11	22	41	261	97	331	221	379	859	613	131	12
16	11	12	41	137	81	297	201	342	727	647	127	12
17	11	12	44	93	73	263	187	336	585	799	121	12
18	11	12	45	74	74	253	189	386	547	653	108	12
19	11	11	44	63	82	263	181	477	581	552	96	11
20	11	12	45	55	94	341	173	559	636	513	98	12
21	11	12	46	48	102	469	162	640	676	496	127	12
22	11	11	46	46	106	325	163	597	775	467	129	12
23	11	11	46	74	112	354	190	560	918	436	123	12
24	11	11	51	66	112	293	231	562	1090	415	109	12
25	11	12	55	69	111	255	279	482	1230	407	88	12
26	11	12	50	79	113	233	329	452	1240	371	73	12
27	11	11	49	65	103	224	349	536	1190	409	66	12
28	11	11	53	59	103	215	337	557	1260	448	57	12
29	11	32	50	54	---	202	583	627	1210	432	49	12
30	11	51	47	54	---	203	1330	744	1080	403	43	12
31	11	---	45	63	---	219	---	862	---	371	40	---
TOTAL	416	417	1472	3063	2603	9317	8733	16890	26503	20957	4872	697
MEAN	13.4	13.9	47.5	98.8	93.0	301	291	545	883	676	157	23.2
MAX	45	51	59	261	212	1110	1330	1040	1260	1120	352	80
MIN	11	11	40	41	56	94	162	336	473	371	40	11
AC-FT	825	827	2920	6080	5160	18480	17320	33500	52570	41570	9660	1380

e Estimated.

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.9	25.4	56.4	82.2	97.5	133	231	427	394	175	49.1	23.2
MAX	125	145	732	528	489	504	630	1178	1271	786	354	157
(WY)	1983	1983	1967	1980	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1961 - 1995	
ANNUAL TOTAL	24447.4		95940			
ANNUAL MEAN	67.0		263		143	
HIGHEST ANNUAL MEAN					417	
LOWEST ANNUAL MEAN					25.2	
HIGHEST DAILY MEAN	466	May 14	1330	Apr 30	10500	Dec 6 1966
LOWEST DAILY MEAN	9.3	Sep 22	11	Oct 1	.30	Dec 27 1960
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 17	11	Oct 11	.30	Dec 27 1960
INSTANTANEOUS PEAK FLOW			1930	Apr 30	46800	Dec 23 1955
INSTANTANEOUS PEAK STAGE			8.56	Apr 30	29.00	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	48490		190300		103300	
10 PERCENT EXCEEDS	211		779		422	
50 PERCENT EXCEEDS	18		112		31	
90 PERCENT EXCEEDS	11		11		10	

TULARE LAKE BASIN

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,
 COMBINED DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	20	55	44	131	154	285	1090	957	988	411	101
2	27	25	54	41	140	149	281	885	842	958	384	116
3	25	27	54	44	139	170	287	666	887	961	383	142
4	26	23	59	52	140	168	319	654	1060	1030	369	127
5	95	25	54	105	146	236	344	679	1100	1180	355	115
6	66	38	52	65	147	208	350	582	911	1160	324	103
7	68	33	52	145	143	178	344	511	715	1070	291	96
8	74	39	45	91	147	163	327	484	574	1150	280	e90
9	71	36	44	173	132	278	302	481	529	1170	258	e85
10	61	47	42	300	119	1150	274	494	675	956	243	e79
11	51	41	40	235	113	1040	282	514	965	793	223	e75
12	45	39	40	192	112	573	317	527	1160	680	201	e72
13	40	35	43	178	110	441	346	521	1210	632	189	e70
14	36	35	40	284	267	403	302	456	1090	623	189	68
15	34	34	41	309	151	381	273	434	915	669	188	65
16	36	34	41	185	135	346	253	397	783	703	184	64
17	38	35	44	141	128	312	239	391	640	857	180	64
18	35	36	45	121	129	302	240	441	603	709	169	63
19	32	34	44	110	138	312	232	532	637	608	156	58
20	30	40	45	102	151	390	223	614	692	572	159	56
21	30	44	46	94	159	519	212	696	733	557	188	56
22	28	40	46	92	163	375	213	653	832	527	190	55
23	27	40	46	122	169	406	241	616	976	496	184	54
24	26	41	51	114	169	345	283	618	1150	475	170	53
25	25	45	55	117	168	306	332	538	1270	467	149	52
26	24	49	50	128	170	284	382	508	1270	431	133	52
27	24	43	49	114	159	275	403	592	1250	469	124	50
28	23	46	53	108	159	266	391	613	1320	508	114	49
29	22	49	50	103	---	253	638	683	1270	491	107	49
30	22	51	47	104	---	254	1390	800	1140	462	102	46
31	21	---	45	114	---	270	---	919	---	430	99	---
TOTAL	1193	1124	1472	4127	4134	10907	10305	18589	28156	22782	6696	2225
MEAN	38.5	37.5	47.5	133	148	352	343	600	939	735	216	74.2
MAX	95	51	59	309	267	1150	1390	1090	1320	1180	411	142
MIN	21	20	40	41	110	149	212	391	529	430	99	46
AC-FT	2370	2230	2920	8190	8200	21630	20440	36870	55850	45190	13280	4410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	32.8	49.1	97.1	115	137	178	280	475	442	206	71.7	40.0
MAX	177	201	743	565	540	556	683	1225	1318	826	395	201
(WY)	1983	1983	1956	1980	1986	1986	1982	1969	1983	1983	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1955 - 1995			
ANNUAL TOTAL	35123.4				111710							
ANNUAL MEAN	96.2				306							
HIGHEST ANNUAL MEAN									177			
LOWEST ANNUAL MEAN									468			
HIGHEST DAILY MEAN	522				May 14				53.5			
LOWEST DAILY MEAN	9.3				Sep 22				10500			
ANNUAL SEVEN-DAY MINIMUM	9.5				Sep 17				7.0			
INSTANTANEOUS PEAK FLOW									7.1			
ANNUAL RUNOFF (AC-FT)	69670				221600				46800			
10 PERCENT EXCEEDS	267				836				128200			
50 PERCENT EXCEEDS	47				169				471			
90 PERCENT EXCEEDS	13				38				84			
									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 mi².

PERIOD OF RECORD.--March 1950 to current year. Monthly discharge only for March 1950, published in WSP 1315-A. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

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 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.--No estimated daily discharges. 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. See schematic diagram of Kaweah River basin. For records of combined discharge of river and conduit, see station 11208001.

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 ft³/s, Dec. 23, 1955, gage height, 13.4 ft, from rating curve extended above 1,100 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.10 ft³/s at times in 1961-64.

Combined flow, maximum discharge, 12,500 ft³/s, Dec. 23, 1955; minimum daily, 0.82 ft³/s, Oct. 4, 5, 1977.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,410 ft³/s, July 8, gage height, 6.95 ft; minimum daily, 1.7 ft³/s, Oct. 30, 31, Nov. 1, several days in September.

Combined flow, maximum daily discharge, 924 ft³/s, June 28; minimum daily, 6.6 ft³/s, Nov. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.7	4.5	20	27	53	126	657	664	667	222	6.5
2	2.5	1.8	4.7	21	36	47	126	555	594	652	193	7.5
3	2.4	1.8	4.6	21	38	58	133	415	648	634	186	33
4	2.3	1.8	4.5	31	39	55	157	411	777	689	177	16
5	17	2.5	4.5	40	42	79	175	375	795	814	169	6.9
6	17	3.1	4.5	35	45	76	183	309	647	781	142	2.0
7	22	3.2	4.5	53	43	61	183	269	486	713	123	1.8
8	26	3.5	4.7	46	42	54	170	254	371	864	117	1.8
9	25	3.4	4.7	61	35	116	154	267	334	819	104	1.8
10	17	3.7	4.4	119	31	622	137	297	464	603	95	1.8
11	8.1	3.4	4.4	115	31	421	151	319	688	491	80	1.8
12	2.8	3.3	4.5	70	31	231	181	339	814	426	66	1.8
13	2.1	3.4	4.6	55	29	186	192	309	830	402	61	1.8
14	2.1	6.9	4.4	101	72	186	161	258	716	411	64	1.8
15	2.1	2.6	4.2	110	41	172	141	237	571	445	62	1.8
16	2.1	3.5	4.2	54	33	161	126	215	460	460	58	1.8
17	2.2	3.8	3.1	33	29	144	114	203	368	569	52	1.8
18	2.2	4.1	2.1	25	28	136	111	236	363	429	43	1.7
19	2.1	4.2	1.9	20	32	144	102	316	413	370	39	1.7
20	1.9	4.7	2.0	16	40	186	98	378	455	346	40	1.7
21	1.8	4.6	2.3	13	48	307	91	444	482	346	53	1.7
22	1.8	4.9	2.6	13	52	198	92	409	577	324	72	1.7
23	1.8	5.2	3.0	23	57	189	107	370	701	294	53	1.7
24	1.8	5.4	3.5	25	60	164	139	362	822	277	44	1.7
25	1.8	4.7	4.1	21	59	142	185	316	867	258	32	1.7
26	1.8	4.7	4.6	18	61	128	231	302	815	243	24	1.7
27	1.8	4.6	5.2	14	55	121	250	368	826	287	19	1.7
28	1.8	4.8	6.1	13	56	112	241	384	883	301	14	1.7
29	1.8	4.8	6.5	13	---	102	363	441	844	265	9.5	1.7
30	1.7	4.6	11	14	---	103	781	537	749	243	9.1	1.8
31	1.7	---	19	18	---	115	---	638	---	219	9.2	---
TOTAL	181.2	114.7	148.9	1231	1192	4869	5401	11190	19024	14642	2431.8	113.9
MEAN	5.85	3.82	4.80	39.7	42.6	157	180	361	634	472	78.4	3.80
MAX	26	6.9	19	119	72	622	781	657	883	864	222	33
MIN	1.7	1.7	1.9	13	27	47	91	203	334	219	9.1	1.7
AC-FT	359	228	295	2440	2360	9660	10710	22200	37730	29040	4820	226

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.32	9.60	30.9	36.5	42.8	61.5	135	280	250	94.2	19.7	9.54
MAX	60.5	72.5	385	262	259	278	396	812	784	472	135	103
(WY)	1983	1983	1956	1980	1986	1986	1982	1969	1983	1995	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1955 - 1995			
ANNUAL TOTAL	13146.6				60539.5							
ANNUAL MEAN	36.0				166				81.4			
HIGHEST ANNUAL MEAN									235			
LOWEST ANNUAL MEAN									10.9			
HIGHEST DAILY MEAN	322				883				5700			
LOWEST DAILY MEAN	1.7				1.7				.10			
ANNUAL SEVEN-DAY MINIMUM	1.8				1.7				.10			
INSTANTANEOUS PEAK FLOW					1410				12500			
INSTANTANEOUS PEAK STAGE					6.95				13.40			
ANNUAL RUNOFF (AC-FT)	26080				120100				58950			
10 PERCENT EXCEEDS	131				544				248			
50 PERCENT EXCEEDS	7.1				54				12			
90 PERCENT EXCEEDS	2.5				1.8				1.6			

11208001 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CA--Continued

MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER CONDUIT NO. 3 AT CAMP POTWISHA
COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.9	21	32	61	90	163	692	705	703	260	40
2	8.6	9.8	23	31	69	85	163	586	632	688	230	45
3	7.5	11	22	31	71	97	170	450	686	670	224	79
4	7.7	9.3	22	35	71	93	193	445	817	726	216	61
5	36	9.6	21	40	72	118	209	409	834	853	208	47
6	38	17	21	35	75	115	218	342	685	821	180	37
7	47	15	21	53	73	99	218	307	522	752	161	33
8	51	16	18	46	73	90	204	297	409	904	156	30
9	51	15	18	79	66	153	189	309	374	859	142	28
10	42	18	18	152	62	658	172	337	505	642	132	27
11	32	14	17	146	62	451	186	357	730	530	116	26
12	26	15	17	102	62	263	217	374	856	467	101	24
13	21	14	18	90	60	220	229	341	871	444	96	24
14	17	14	16	137	106	220	198	293	756	453	101	23
15	16	6.6	17	146	72	205	178	272	610	487	99	22
16	15	14	17	86	63	195	162	252	500	502	95	22
17	16	15	17	68	59	177	150	246	409	610	89	22
18	15	15	17	60	58	173	147	280	403	469	78	22
19	14	16	17	54	64	184	138	361	454	412	73	21
20	13	19	18	50	75	226	133	423	496	387	76	20
21	12	18	18	46	83	346	126	487	524	387	89	20
22	11	18	19	46	87	230	128	446	618	365	113	20
23	10	18	20	56	92	219	144	408	743	334	92	19
24	10	18	22	57	96	193	178	400	865	317	81	19
25	10	19	23	55	95	173	225	354	910	297	66	19
26	10	20	23	53	97	160	270	340	858	281	56	19
27	9.7	19	24	49	91	152	290	405	869	326	53	19
28	9.3	20	26	47	93	146	281	420	924	341	47	18
29	9.0	19	23	46	---	137	405	478	882	304	42	18
30	8.7	20	25	47	---	138	819	576	786	282	39	18
31	8.5	---	30	52	---	151	---	678	---	257	38	---
TOTAL	592.0	460.2	629	2027	2108	5957	6503	12365	20233	15870	3549	842
MEAN	19.1	15.3	20.3	65.4	75.3	192	217	399	674	512	114	28.1
MAX	51	20	30	152	106	658	819	692	924	904	260	79
MIN	7.5	6.6	16	31	58	85	126	246	374	257	38	18
AC-FT	1170	913	1250	4020	4180	11820	12900	24530	40130	31480	7040	1670

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.1	21.0	44.2	52.1	65.2	88.8	165	310	278	114	31.0	17.2
MAX	88.8	103	385	300	295	315	426	840	839	512	184	134
(WY)	1983	1983	1956	1980	1986	1986	1982	1969	1983	1995	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 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1955 - 1995

ANNUAL TOTAL	19215.3	71135.2	
ANNUAL MEAN	52.6	195	99.9
HIGHEST ANNUAL MEAN			257
LOWEST ANNUAL MEAN			24.7
HIGHEST DAILY MEAN	360	May 14	5700
LOWEST DAILY MEAN	2.8	Sep 1	.82
ANNUAL SEVEN-DAY MINIMUM	3.2	Sep 17	1.0
ANNUAL RUNOFF (AC-FT)	38110	141100	72370
10 PERCENT EXCEEDS	163	580	280
50 PERCENT EXCEEDS	19	90	33
90 PERCENT EXCEEDS	4.2	16	4.9

11208600 KAWEAH RIVER BELOW NO. 2 CONDUIT, 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 mi².

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder on river, acoustic-flow meter on minimum release discharge pipe; water-stage recorder for conduit diversion. Elevation of gage is 1,360 ft above sea level, from topographic map.

REMARKS.--River discharge is the combined flow of river gage and flow through pipe intake to Kaweah Powerplant No. 2. Kaweah River No. 2 conduit (station 11208570) diverts up to 130 ft³/s from right bank of river near diversion dam. Water is returned to Kaweah River 3.8 miles downstream of diversion and 1.9 miles 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, 3,000 ft³/s, Apr. 30, 1995; minimum daily, 5.5 ft³/s, for several days in December 1994.
Combined flow, maximum daily discharge, 2,170 ft³/s, Apr. 30, 1995; minimum daily 14 ft³/s, several days in September 1994.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 3,000 ft³/s, Apr. 30; minimum daily, 5.5 ft³/s, for several days in December.
Combined flow, maximum daily discharge, 2,170 ft³/s, Apr. 30; minimum daily, 27 ft³/s, Nov. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.8	5.6	5.7	10	127	173	412	1660	e1580	1580	602	46
2	e5.7	5.6	5.7	11	142	152	410	1430	e1410	1530	546	56
3	e5.9	5.6	5.7	11	143	188	415	1070	e1460	1510	537	132
4	6.1	5.6	8.2	12	142	191	464	1070	e1710	1560	517	95
5	58	5.7	5.7	93	145	283	511	1120	e1810	1790	491	71
6	38	5.8	5.7	20	150	269	533	951	e1530	1790	438	48
7	41	5.8	5.7	116	146	215	522	801	e1180	1640	373	37
8	49	5.7	5.7	58	153	187	483	764	e945	1830	370	28
9	46	5.7	5.7	172	129	289	449	768	e859	1830	326	22
10	25	5.8	5.7	406	108	1760	398	789	e1090	1460	304	18
11	9.4	5.8	5.7	386	105	1700	410	847	e1550	1210	266	13
12	5.9	5.7	5.7	244	102	890	481	885	e1880	1050	223	11
13	5.8	5.7	5.7	218	98	675	533	849	e1940	978	204	12
14	5.7	5.7	5.7	352	344	620	459	735	e1750	969	209	11
15	5.6	5.7	5.7	477	174	587	408	e673	e1440	1040	207	12
16	5.6	5.7	5.7	243	137	518	374	e616	e1230	1100	201	12
17	5.6	5.7	5.6	162	124	457	334	e591	e1000	1320	194	12
18	5.6	5.7	5.7	126	115	434	341	e664	e959	1090	168	12
19	5.6	5.7	5.7	100	126	446	319	e838	e1020	939	151	12
20	5.7	5.7	5.6	94	146	531	303	e969	1090	875	153	12
21	5.7	5.7	5.5	77	171	904	286	e1120	1140	862	173	11
22	5.7	5.7	5.5	70	176	605	284	e1040	1310	813	233	11
23	5.7	5.7	5.5	116	184	700	324	e978	1580	758	195	11
24	5.7	5.7	7.3	110	193	565	402	e976	1850	726	170	11
25	5.7	5.7	8.7	105	194	479	497	e854	2010	684	134	12
26	5.6	5.7	5.5	135	200	437	603	e801	1940	639	107	12
27	5.6	5.7	5.5	95	181	413	644	e945	1940	702	91	12
28	5.6	5.7	5.6	94	178	390	616	e990	2050	764	76	12
29	5.6	5.7	5.5	82	---	365	908	e1080	1970	722	59	12
30	5.6	5.7	5.5	86	---	352	2100	e1280	1780	672	50	12
31	5.6	---	7.3	97	---	382	---	e1480	---	617	44	---
TOTAL	403.1	171.0	183.7	4378	4333	16157	15223	29634	45003	35050	7812	788
MEAN	13.0	5.70	5.93	141	155	521	507	956	1500	1131	252	26.3
MAX	58	5.8	8.7	477	344	1760	2100	1660	2050	1830	602	132
MIN	5.6	5.6	5.5	10	98	152	284	591	859	617	44	11
AC-FT	800	339	364	8680	8590	32050	30190	58780	89260	69520	15500	1560

e Estimated.

11208600 KAWEAH RIVER BELOW NO. 2 CONDUIT, NEAR HAMMOND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.0	7.96	7.67	80.6	93.4	315	378	704	875	571	132	17.2
MAX	27.0	10.2	9.42	141	155	521	507	956	1500	1131	252	26.3
(WY)	1994	1994	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	13.0	5.70	5.93	20.1	32.1	108	249	451	250	11.7	11.2	8.05
(WY)	1995	1995	1995	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1994 - 1995			
ANNUAL TOTAL	35537.2				159135.8							
ANNUAL MEAN	97.4				436				268			
HIGHEST ANNUAL MEAN									436			
LOWEST ANNUAL MEAN									99.2			
HIGHEST DAILY MEAN	789				May 14				2100			
LOWEST DAILY MEAN	5.5				Dec 21				5.5			
ANNUAL SEVEN-DAY MINIMUM	5.6				Dec 17				5.6			
INSTANTANEOUS PEAK FLOW					3000				3000			
ANNUAL RUNOFF (AC-FT)	70490				315600				193900			
10 PERCENT EXCEEDS	352				1310				862			
50 PERCENT EXCEEDS	20				181				52			
90 PERCENT EXCEEDS	5.7				5.7				5.8			

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA

LOCATION.--Lat 36°27'04", long 118°47'21", in SW 1/4 NW 1/4 sec. 14, T.17 S., R.29 E., Tulare County, Hydrologic Unit 18030007, 1.9 miles downstream of Grunigen Creek confluence, and 8.2 miles east of Three Rivers.

DRAINAGE AREA.--85.8 mi².

PERIOD OF RECORD.--May 1952 to September 1955, October 1957 to September 1977, 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.

REMARKS.--No estimated daily discharges for river only. East Fork Kaweah River No. 1 Conduit (station 11208720) diverts up to 30 ft³/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. See schematic diagram of Kaweah River Basin. For records of combined discharges of river and conduit, see station 11208731.

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 ft³/s, Dec. 6, 1966, gage height, 21 ft, from floodmarks, from rating curve extended above 850 ft³/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 ft³/s, Dec. 6, 1966; minimum daily, 3.5 ft³/s, Sept. 28, 29, 1960.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,690 ft³/s, Mar. 10, gage height, 7.50 ft; minimum daily, 5.2 ft³/s, Oct. 1, 2.

Combined flow, maximum daily discharge, 1,360 ft³/s, June 28; minimum daily, 16 ft³/s, Oct. 29-31, Nov. 1, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.8	6.7	5.8	50	57	190	556	774	1100	311	43
2	5.2	5.7	6.0	5.7	54	56	194	491	694	1090	287	43
3	5.6	5.6	6.0	6.0	53	73	197	454	880	1110	285	52
4	5.8	5.6	7.0	12	50	71	214	437	1050	1110	272	63
5	32	5.7	6.0	68	50	120	229	487	1140	1190	263	46
6	14	5.7	6.0	16	50	105	234	405	983	1170	244	40
7	12	5.7	6.0	76	48	79	234	360	587	1100	227	36
8	12	5.7	6.0	26	48	71	227	345	499	1200	218	34
9	13	5.7	5.9	65	40	117	213	338	513	1150	195	33
10	12	5.6	6.0	141	36	1140	196	344	614	919	183	31
11	9.0	5.5	6.0	143	35	955	205	350	927	651	165	30
12	7.3	5.6	6.0	79	35	382	228	354	1160	546	146	28
13	6.3	5.6	6.0	70	35	324	250	363	1230	537	134	30
14	6.2	5.6	6.0	98	222	282	222	334	1160	516	132	30
15	5.5	5.6	6.0	178	77	248	203	320	995	513	128	28
16	5.5	5.9	6.0	80	59	228	187	298	739	512	124	28
17	5.6	5.9	6.0	48	51	214	176	283	581	573	124	27
18	5.6	5.9	6.0	37	47	205	180	297	549	510	110	25
19	5.6	5.9	6.0	33	49	210	170	351	549	466	102	22
20	5.6	5.9	5.9	31	54	237	159	389	604	438	102	21
21	5.5	5.9	5.7	27	58	343	149	456	671	424	96	24
22	5.5	5.9	5.7	26	59	274	147	448	847	404	109	23
23	5.5	6.1	5.7	45	59	308	158	452	1050	394	110	22
24	5.5	6.3	8.3	52	60	274	184	450	1200	383	100	22
25	5.5	7.3	8.3	52	60	247	222	396	1320	353	79	21
26	5.5	6.7	6.3	58	60	236	257	378	1260	340	69	21
27	5.6	6.7	6.0	44	58	215	277	430	1250	365	64	20
28	5.6	6.5	6.9	38	58	189	280	479	1340	374	57	20
29	5.3	6.5	6.2	35	---	175	346	494	1330	368	51	20
30	5.5	6.6	5.9	35	---	169	730	587	1200	346	47	19
31	5.8	---	6.2	39	---	176	---	768	---	329	44	---
TOTAL	239.8	178.7	192.7	1669.5	1615	7780	6858	12894	27696	20481	4578	902
MEAN	7.74	5.96	6.22	53.9	57.7	251	229	416	923	661	148	30.1
MAX	32	7.3	8.3	178	222	1140	730	768	1340	1200	311	63
MIN	5.2	5.5	5.7	5.7	35	56	147	283	499	329	44	19
HC-FT	476	354	382	3310	3200	15430	13600	25580	54940	40620	9080	1790

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.73	6.49	37.2	45.0	45.5	66.7	143	345	353	124	26.1	9.64
MAX	22.4	26.3	594	359	219	251	350	944	966	661	148	73.9
(WY)	1970	1966	1967	1969	1969	1995	1969	1969	1969	1995	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1952 - 1995	
ANNUAL TOTAL	15056.1		85084.7			
ANNUAL MEAN	41.2		233		99.4	
HIGHEST ANNUAL MEAN					300	1969
LOWEST ANNUAL MEAN					15.9	1977
HIGHEST DAILY MEAN	320	May 14	1340	Jun 28	8000	Dec 6 1966
LOWEST DAILY MEAN	5.0	Aug 17	5.2	Oct 1	.00	Jan 22 1962
ANNUAL SEVEN-DAY MINIMUM	5.2	Jan 15	5.5	Oct 23	.10	Sep 28 1953
INSTANTANEOUS PEAK FLOW			1690	Mar 10	13000	Dec 6 1966
INSTANTANEOUS PEAK STAGE			7.50	Mar 10	21.00	Dec 6 1966
ANNUAL RUNOFF (AC-FT)	29860		168800		71980	
10 PERCENT EXCEEDS	154		659		304	
50 PERCENT EXCEEDS	8.3		73		19	
90 PERCENT EXCEEDS	5.5		5.7		.60	

11208731 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CA--Continued

EAST KAWEAH RIVER AND EAST FORK KAWEAH RIVER NO. 1 CONDUIT NEAR THREE RIVERS, CA
COMBINED DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	16	26	24	72	80	214	579	798	1120	333	66
2	21	19	25	22	76	78	218	514	718	1110	309	66
3	20	18	25	24	76	96	221	477	904	1130	307	75
4	20	16	29	33	74	95	237	461	1070	1130	294	86
5	53	19	26	85	74	144	253	511	1160	1210	285	69
6	33	21	24	38	73	129	258	428	1010	1190	266	63
7	32	20	24	94	71	103	258	383	609	1120	249	59
8	32	22	19	49	71	95	251	368	522	1220	238	57
9	34	20	20	89	63	141	237	361	537	1170	215	56
10	33	24	22	157	59	1140	220	367	638	943	203	54
11	30	19	21	e164	58	957	228	373	952	675	186	53
12	27	20	21	101	58	383	252	377	1180	570	166	51
13	25	19	23	92	58	329	274	386	1250	563	154	53
14	24	18	21	120	e245	301	245	357	1180	540	152	53
15	22	19	21	200	100	271	225	343	1020	536	148	50
16	21	20	21	103	82	252	209	320	761	535	142	50
17	23	20	22	71	74	238	198	306	604	597	141	49
18	22	20	22	61	69	230	202	320	572	534	128	48
19	21	20	22	57	71	234	193	374	571	489	120	45
20	20	22	22	55	77	261	182	413	623	461	120	44
21	19	22	22	50	81	367	172	480	694	447	114	48
22	18	20	23	49	83	297	170	471	868	427	131	46
23	18	20	23	68	82	323	181	475	1070	418	134	45
24	17	20	27	76	83	284	207	473	1220	408	123	45
25	17	24	30	76	83	257	245	419	1340	364	102	44
26	17	25	25	82	83	246	280	401	1280	349	92	44
27	18	23	25	68	81	232	301	454	1270	385	87	43
28	17	24	28	62	81	213	304	503	1360	396	80	43
29	16	24	25	59	---	199	370	518	1350	391	75	43
30	16	25	23	58	---	193	750	611	1220	369	70	42
31	16	---	23	62	---	200	---	791	---	352	67	---
TOTAL	724	619	730	2349	2258	8368	7555	13614	28351	21149	5231	1590
MEAN	23.4	20.6	23.5	75.8	80.6	270	252	439	945	682	169	53.0
MAX	53	25	30	200	245	1140	750	791	1360	1220	333	86
MIN	16	16	19	22	58	78	170	306	522	349	67	42
AC-FT	1440	1230	1450	4660	4480	16600	14990	27000	56230	41950	10380	3150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.6	24.1	55.0	62.8	68.0	89.0	166	370	379	148	46.9	27.7
MAX	42.2	45.2	597	372	223	270	368	966	988	682	174	99.5
(WY)	1970	1966	1967	1969	1969	1995	1969	1969	1969	1995	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 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1952 - 1995

ANNUAL TOTAL	20990.4	92538	
ANNUAL MEAN	57.5	254	120
HIGHEST ANNUAL MEAN			317
LOWEST ANNUAL MEAN			34.0
HIGHEST DAILY MEAN	342	May 14	1360
LOWEST DAILY MEAN	7.5	Sep 23	16
ANNUAL SEVEN-DAY MINIMUM	7.9	Sep 17	17
ANNUAL RUNOFF (AC-FT)	41630	183500	87040
10 PERCENT EXCEEDS	177	683	328
50 PERCENT EXCEEDS	25	95	42
90 PERCENT EXCEEDS	9.8	21	14

e Estimated.

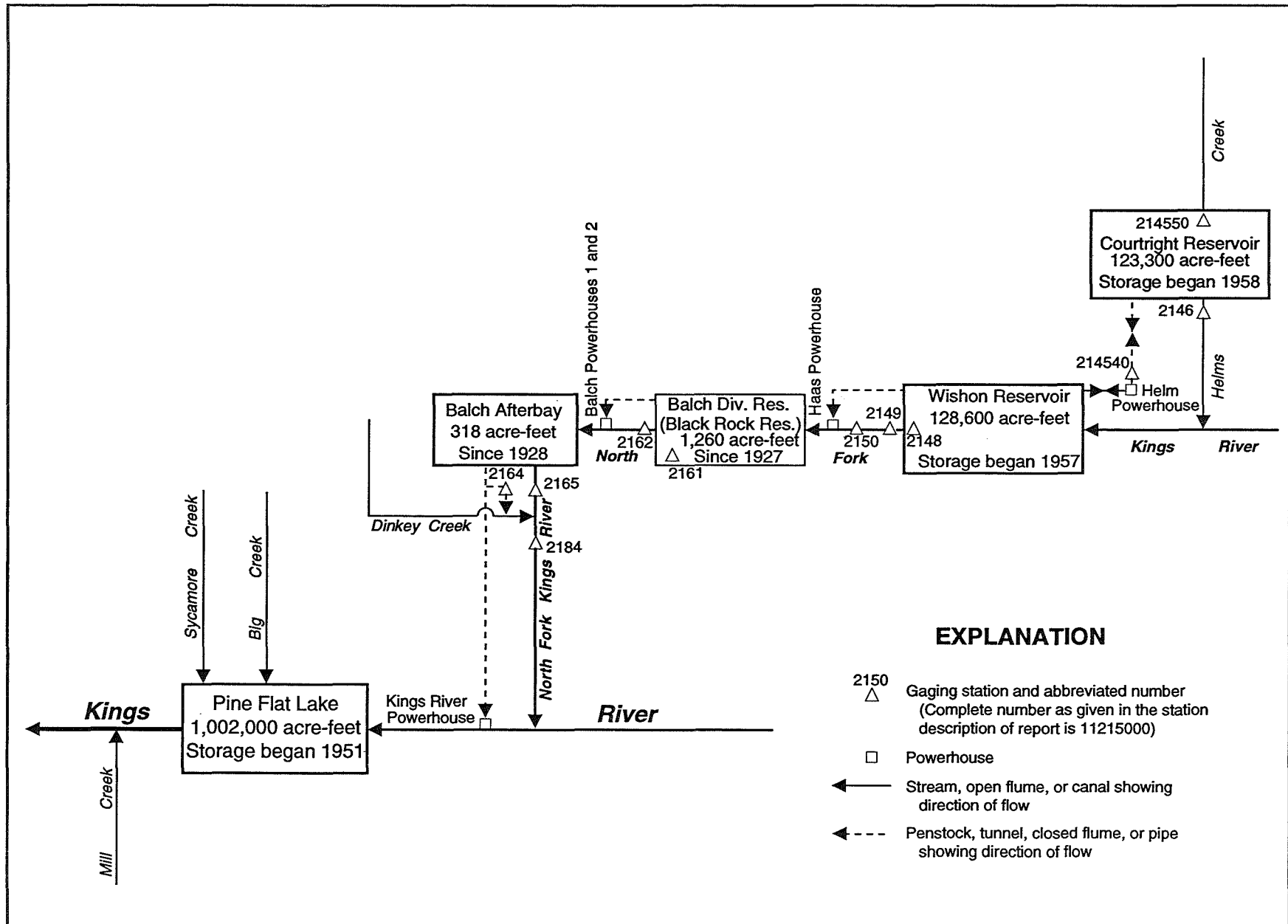


Figure 26. Diversions and storage in Kings River basin.

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.--No estimated daily discharges. 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 ft³/s and pump up to 7,200 ft³/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, 4,250 ft³/s, Nov. 1, 1991; maximum daily pumpage, 3,650 ft³/s, May 28, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	322	1100	-792	633	305	254	464	-723	463	1130	-72
2	.00	357	667	1130	30	108	-42	-662	-926	-480	-586	.00
3	483	731	156	-370	1720	47	741	-1320	-362	-856	124	-1410
4	.00	907	62	1790	446	257	582	-948	-1030	-1140	-1010	-1340
5	-338	-325	676	488	43	47	146	939	-1270	1150	-63	98
6	89	274	-278	437	482	1590	1900	107	-1320	2510	484	1640
7	1990	-94	-539	-679	2220	-288	957	-1620	966	1500	-110	1000
8	-341	-483	-61	-237	694	1290	-36	625	651	-786	267	.00
9	-883	-173	-593	-98	507	2420	-756	1900	389	-1390	343	-13
10	54	-113	-736	-458	671	1360	134	1510	-2610	-962	11	-668
11	-271	-329	-666	-97	-234	325	-189	535	-2750	-1230	312	-207
12	.00	-683	-536	-200	-752	-483	1370	423	237	-349	279	65
13	35	-1030	685	2080	2350	-1130	14	641	496	979	-551	1660
14	-342	15	2470	583	45	-499	170	-57	89	28	867	1100
15	.00	101	664	989	463	498	1990	590	-1420	1620	-800	502
16	.00	-509	54	1410	821	1440	-1790	105	-405	-979	309	.00
17	-229	-534	113	2260	-486	1760	2370	-155	-600	26	.00	.00
18	97	-37	.00	-67	-1310	-155	781	2540	-1240	999	145	910
19	-272	.00	1250	-121	-862	-667	27	1280	1250	41	912	1660
20	.00	-533	1360	-105	-141	1350	204	-508	771	-501	-225	179
21	.00	-47	686	-1220	-514	648	472	-2200	-225	-391	-6.0	503
22	.00	-253	347	-649	-747	284	-222	-662	2700	-497	652	.00
23	.00	499	482	449	212	879	422	421	3070	-491	1080	.00
24	364	.00	50	221	576	83	-278	-120	1460	-131	-458	.00
25	.00	-263	-758	551	-491	-348	365	-282	534	-158	.00	.00
26	334	-465	-431	-447	-166	-897	442	321	539	1780	.00	.00
27	.00	1010	-746	243	692	-323	245	-649	483	1620	56	.00
28	.00	326	-805	343	-656	-879	745	265	781	-547	-142	201
29	.00	130	-664	-602	---	709	354	654	-330	-1160	1460	331
30	56	239	398	724	---	530	-262	170	1450	-958	1880	597
31	520	---	180	32	---	1240	---	1710	---	840	2890	---
TOTAL	1346.00	-960.00	4587.00	7588	6246	11501	11110	6017	655	550	9250.00	6736.00
MEAN	43.4	-32.0	148	245	223	371	370	194	21.8	17.7	298	225
MAX	1990	1010	2470	2260	2350	2420	2370	2540	3070	2510	2890	1660
MIN	-883	-1030	-805	-1220	-1310	-1130	-1790	-2200	-2750	-1390	-1010	-1410
AC-FT	2670	-1900	9100	15050	12390	22810	22040	11930	1300	1090	18350	13360

TULARE LAKE BASIN

11214540 HELMS POWERPLANT NEAR WISHON RESERVOIR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	126	-79.3	70.3	27.7	147	68.2	28.6	-331	-13.7	254	280	351
MAX	409	247	220	245	433	371	370	194	242	627	418	894
(WY)	1994	1994	1989	1995	1989	1995	1995	1995	1992	1989	1994	1991
MIN	-110	-734	-65.7	-278	3.43	-315	-310	-722	-194	17.7	177	51.6
(WY)	1993	1992	1991	1989	1990	1989	1989	1992	1991	1995	1990	1990

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1989 - 1995			
ANNUAL TOTAL	26423.00				64626.00							
ANNUAL MEAN	72.4				177				77.0			
HIGHEST ANNUAL MEAN									177			
LOWEST ANNUAL MEAN									32.0			
HIGHEST DAILY MEAN	3210				3070				4250			
LOWEST DAILY MEAN	-2500				-2750				-4180			
ANNUAL SEVEN-DAY MINIMUM	-1330				-909				-1910			
ANNUAL RUNOFF (AC-FT)	52410				128200				55790			
10 PERCENT EXCEEDS	956				1360				1130			
50 PERCENT EXCEEDS	.00				47				.00			
90 PERCENT EXCEEDS	-734				-769				-900			

11214550 COURTRIGHT RESERVOIR NEAR NELSON MOUNTAIN, CA

LOCATION.--Lat 37°04'45", long 119°58'07", in NW 1/4 NW 1/4 sec.7, T.10 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, at left end of dam on Helms Creek, 2.5 mi upstream from mouth, 4.6 mi east of Nelson Mountain, and 9.7 mi west of Blackcap Mountain.

DRAINAGE AREA.--39.7 mi².

PERIOD OF RECORD.--October 1958 to September 1982 (monthend elevation and contents only), October 1982 to 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, 123,286 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, 121,565 acre-ft, Aug. 5, elevation, 8,182.94 ft; minimum, 6,082 acre-ft, Apr. 21, elevation, 8,033.96 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44495	42669	48305	46659	33759	28969	15832	8869	34342	90135	117932	102901
2	44483	41914	46910	44341	33943	29129	16376	11165	38635	92876	119267	102872
3	43528	40782	46593	45270	30599	28993	15119	15045	41330	96555	119204	105616
4	43657	38873	46626	42047	30171	28685	14358	18296	46094	100863	121339	108218
5	44430	39881	45459	41113	30228	28716	14651	17567	51205	100578	121565	108038
6	44374	39624	46210	40353	29534	25591	11222	17830	55775	97428	120694	104778
7	40629	40429	47499	42016	25084	26517	9700	21757	55381	95948	120984	102771
8	41314	41376	47389	42867	24153	23930	10042	21241	54673	99529	120485	102742
9	43289	42055	48792	43074	23459	19874	12130	18102	55232	104223	119875	102698
10	43233	42875	50404	44788	22312	19874	12316	15705	62552	107753	119907	103989
11	43914	43665	51648	45033	22668	20000	13533	15563	70838	111322	119331	104354
12	43949	45155	53096	45442	24682	16800	10968	15430	72651	113149	118790	104194
13	43962	47406	51934	41618	20003	21828	11348	14913	74310	112118	119891	100877
14	44658	47769	46785	40376	20137	21823	11777	15774	76320	112979	118138	98685
15	44666	47837	45953	38828	19333	21341	7901	15097	80799	110590	119715	97664
16	44666	49291	45780	35890	17883	18573	12412	15442	82911	113520	119124	97622
17	45259	50588	45623	30985	18996	15082	7909	16304	84962	114450	119204	97612
18	45090	50931	45631	31493	22105	15716	6398	11798	88694	113303	118790	95715
19	45738	50940	43082	32151	24247	17687	6983	9883	87902	113829	116937	92460
20	45738	52140	40391	32476	24972	15001	6736	12554	88122	115353	117395	92072
21	45738	52283	39127	34988	26193	14386	6082	19056	90227	116497	117395	91073
22	45738	52978	38627	36546	28101	13599	6857	22116	86781	117631	116403	91060
23	45730	52193	37889	35811	28016	12325	6660	22573	82539	119092	114263	91020
24	45123	52193	37867	35642	26944	12533	7448	24214	81629	119875	115150	90967
25	45132	52697	39571	34494	28313	13714	7467	25882	82911	120630	115119	90948
26	44536	53871	40583	35240	28870	16324	7173	26774	83882	117189	115088	90906
27	44528	52050	42267	34821	27800	17739	7212	29111	85671	114465	114917	90861
28	44528	51435	44180	34384	29522	19932	6474	30260	86948	116245	115166	90412
29	44517	51019	45714	36089	---	18868	6697	30682	89872	118917	112133	89741
30	44398	50491	44984	34779	---	18137	8299	32064	88968	121452	108473	88538
31	43320	---	44698	34675	---	15992	---	30708	---	120051	102785	---
MAX	45738	53871	53096	46659	33943	29129	16376	32064	90227	121452	121565	108218
MIN	40629	38873	37867	30985	17883	12325	6082	8869	34342	90135	102785	88538
a	8116.49	8125.06	8118.20	8104.90	8097.10	8070.64	8044.89	8098.97	8160.62	8182.00	8170.68	8160.29
b	-1175	+7171	-5793	-10023	-5153	-13530	-7693	+22409	+58260	+31083	-17266	-14247

CAL YR 1994 b +10473
WTR YR 1995 b +44043

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

TULARE LAKE BASIN

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CA

LOCATION.--Lat 37°04'35", long 118°58'04", in SW 1/4 NW 1/4 sec.7, T.10 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on left bank 500 ft downstream from Courtright Dam, 2.5 mi upstream from North Fork Kings River, and 17 mi southeast of town of Huntington Lake.

DRAINAGE AREA.--39.7 mi².

PERIOD OF RECORD.--October 1958 to February 12, 1986. May 8, 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 and by Helms Creek Project pump/generator facility since June 1984. 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 ft³/s, Aug. 29, 1969, gage height, 5.81 ft; maximum gage height, 7.70 ft, Aug. 23, 1978; no flow on several days in 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s, July 12-17, gage height, 4.19 ft; minimum daily, 2.7 ft³/s, Apr. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.3	5.8	4.9	5.2	13	3.3	8.1	10	18	15	13
2	5.4	5.3	5.7	5.0	5.2	12	3.4	7.7	11	18	15	13
3	5.3	5.3	5.7	4.9	5.4	e8.4	3.3	8.1	11	18	15	13
4	5.7	5.1	5.7	4.9	5.4	e9.0	3.3	8.4	12	19	15	13
5	6.3	5.1	5.7	4.7	5.3	e8.0	3.3	8.6	12	20	16	13
6	6.3	5.3	5.6	4.6	5.2	e7.6	3.2	8.2	12	19	16	12
7	6.1	5.2	5.7	5.4	5.2	e7.6	3.0	8.3	12	19	16	12
8	5.5	5.2	5.7	5.5	5.4	e7.6	2.7	8.7	12	19	16	12
9	5.5	5.3	5.7	5.6	5.3	e7.6	2.7	8.7	12	19	16	12
10	5.5	5.3	5.8	5.5	6.9	e7.6	2.8	8.6	13	20	15	12
11	5.5	5.3	5.9	5.5	13	e7.6	6.0	8.5	14	22	15	12
12	5.5	5.4	6.1	5.5	13	e7.6	7.6	8.2	15	23	15	12
13	5.5	5.6	6.1	5.6	13	e7.8	7.3	8.1	15	23	15	12
14	5.5	5.7	5.8	5.4	14	e7.6	7.3	8.0	15	23	15	12
15	5.5	5.7	5.6	5.4	15	e6.5	7.2	7.9	16	24	15	12
16	5.5	5.6	5.5	5.2	16	e4.4	6.9	7.8	16	24	15	12
17	5.5	5.7	5.5	5.1	16	e4.0	7.2	8.0	17	18	15	11
18	5.5	5.8	5.6	5.1	17	e3.5	6.7	8.3	18	14	15	11
19	5.5	5.7	5.5	5.0	15	e3.8	6.6	7.9	18	13	15	11
20	5.5	5.9	5.4	4.9	13	e3.9	6.6	8.0	19	13	14	11
21	5.5	5.9	5.2	5.0	13	e3.8	6.6	8.6	19	14	15	11
22	5.6	6.0	4.9	5.2	14	e3.8	6.5	9.1	19	14	15	11
23	5.6	6.0	4.6	5.4	14	e3.5	6.7	9.1	18	14	15	11
24	5.6	5.9	4.5	5.4	13	e3.5	7.0	9.1	18	14	15	11
25	5.6	6.0	4.6	5.4	14	e3.8	7.3	9.0	18	15	15	11
26	5.5	6.0	4.6	5.5	13	e3.4	7.3	9.4	18	15	15	11
27	5.5	6.0	4.7	5.4	13	3.4	7.2	9.4	18	14	15	11
28	5.5	5.9	4.9	5.4	13	3.5	7.2	9.8	18	14	15	11
29	5.5	5.9	4.9	5.4	---	3.4	8.1	10	18	15	15	11
30	5.5	5.8	4.9	5.3	---	3.4	8.9	10	18	15	14	10
31	5.4	---	4.9	5.2	---	3.3	---	10	---	16	14	---
TOTAL	172.8	168.2	166.8	162.3	306.5	183.9	173.2	267.6	462	546	467	350
MEAN	5.57	5.61	5.38	5.24	10.9	5.93	5.77	8.63	15.4	17.6	15.1	11.7
MAX	6.3	6.0	6.1	5.6	17	13	8.9	10	19	24	16	13
MIN	5.3	5.1	4.5	4.6	5.2	3.3	2.7	7.7	10	13	14	10
AC-FT	343	334	331	322	608	365	344	531	916	1080	926	694

e Estimated.

TULARE LAKE BASIN

197

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.0	5.94	4.63	4.76	5.05	5.14	5.72	8.09	12.5	13.0	10.5	7.78
MAX	58.3	8.88	6.43	7.46	10.9	7.65	8.27	11.7	17.5	21.6	18.0	11.9
(WY)	1985	1992	1993	1989	1995	1989	1989	1989	1991	1991	1991	1993
MIN	5.32	4.15	2.92	3.47	3.30	3.48	3.73	5.15	6.80	6.82	6.07	5.71
(WY)	1991	1986	1987	1987	1991	1991	1991	1990	1990	1990	1992	1990

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1985 - 1995

ANNUAL TOTAL	2659.8	3426.3	
ANNUAL MEAN	7.29	9.39	7.95
HIGHEST ANNUAL MEAN			9.98
LOWEST ANNUAL MEAN			5.65
HIGHEST DAILY MEAN	15	Jun 14	24
LOWEST DAILY MEAN	4.3	Feb 3	2.7
ANNUAL SEVEN-DAY MINIMUM	4.5	Jan 31	3.0
INSTANTANEOUS PEAK FLOW			24
INSTANTANEOUS PEAK STAGE			4.19
ANNUAL RUNOFF (AC-FT)	5280	6800	5760
10 PERCENT EXCEEDS	12	16	14
50 PERCENT EXCEEDS	5.9	7.6	6.2
90 PERCENT EXCEEDS	4.8	4.9	3.9

TULARE LAKE BASIN

11214800 WISHON RESERVOIR NEAR CLIFF CAMP, CA

LOCATION.--Lat 37°00'19", long 118°58'07", in NW 1/4 NW 1/4 sec.6, T.11 S., R.28 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right end of dam on North Fork Kings River, 1.2 mi north of Cliff Camp, and 20 mi southeast of Big Creek.

DRAINAGE AREA.--177 mi².

PERIOD OF RECORD.--December 1957 to September 1982 (monthend elevation and contents only), October 1982 to 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, 127,922 acre-ft, July 7, elevation, 6,549.33 ft; minimum, 36,248 acre-ft, Jan. 1, elevation, 6,434.43 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37787	45156	44050	36248	42426	37723	45694	48985	51597	101783	126783	117501
2	37769	46036	45144	38768	42257	37233	43793	48722	49042	104750	125600	116488
3	38355	47244	45434	37619	45094	37147	44062	46185	48908	106581	126034	112518
4	38821	49216	45508	40784	45032	37055	44473	43384	48206	107820	123491	108803
5	38885	48665	46222	41506	44626	36739	43860	44240	46892	114883	123042	107885
6	39401	49596	45069	41926	45694	39442	46961	44105	43909	124222	123501	110026
7	43817	49100	43470	40392	50549	38099	47812	40155	44915	127922	122883	110412
8	43707	48410	43226	39559	51281	40220	46829	40683	47036	126834	122614	108934
9	42282	47939	41285	39565	51584	46441	44123	44264	48174	125428	122434	107577
10	42517	47395	39624	38862	52171	46630	43141	47787	44706	123811	121709	104888
11	41794	46804	38332	38722	51281	46700	41488	49589	42330	121977	121540	103152
12	42053	45483	36574	37978	48742	50113	43677	51202	47566	121679	121183	101783
13	42263	43415	37129	41416	52910	46954	43153	52477	52244	122703	119188	103629
14	41764	43117	41578	42747	52257	45323	42161	51960	54175	121798	119976	104529
15	41944	43238	41788	44227	52463	45893	45069	52723	51986	124653	117287	104143
16	42083	41968	41800	46710	53487	48582	40582	52264	50146	121877	117053	102896
17	41596	40849	41656	51058	51775	52158	44203	51531	47724	122663	116032	101401
18	41560	40718	41506	50003	48168	51439	44546	56485	44626	123601	115056	101647
19	41004	40873	43531	48748	45725	49551	43014	59022	47250	122235	115955	103253
20	41111	39842	45688	47850	44577	52710	42149	58188	49164	120288	114527	102093
21	41219	39883	46316	44725	43014	53709	41596	54141	49435	120016	113473	101701
22	41315	39307	46254	42656	40766	54488	39848	52616	56478	119454	113769	100277
23	41404	40262	46316	42971	40540	55617	39184	51709	64923	118745	115201	98565
24	42119	40392	46160	42747	41315	55205	38105	49113	71092	118755	113406	97015
25	42203	40214	44638	43305	39677	53763	38244	46353	75190	118706	112404	95305
26	42892	39283	43488	42047	38815	50947	39143	45756	79238	122833	111529	93615
27	42977	41333	41362	41872	39571	49113	39718	44675	83004	126378	110564	91964
28	43044	41868	39659	41806	37538	46247	41022	45039	87152	125620	109272	90802
29	43111	41968	37827	39089	---	46410	42680	47250	89940	123952	111283	89784
30	43263	42245	38465	41267	---	46291	45700	48512	97193	122375	114028	89411
31	44448	---	38134	41668	---	47036	---	52670	---	124292	118647	---
MAX	44448	49596	46316	51058	53487	55617	47812	59022	97193	127922	126783	117501
MIN	37769	39283	36574	36248	37538	36739	38105	40155	42330	101783	109272	89411
a	6448.28	6444.66	6437.71	6443.70	6436.68	6452.45	4650.31	6461.16	6517.09	6545.74	6540.05	6508.25
b	+6702	-2203	-4111	+3534	-4130	+9498	-1336	+6970	+44523	+27099	-5645	-29236

CAL YR 1994 b -28297

WTR YR 1995 b +51665

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

TULARE LAKE BASIN

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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 mi².

PERIOD OF RECORD.--October 1986 to current year (since October 1990, no records computed above 25 ft³/s).

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 estimated daily discharges. 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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	14	13	16	15	---	25	---	24	---	---
2	13	14	15	13	16	15	---	22	---	25	---	---
3	13	14	15	14	16	17	---	---	---	---	---	---
4	15	15	15	14	16	15	---	---	---	---	---	---
5	17	15	15	14	16	16	---	---	---	---	---	---
6	14	15	15	14	16	15	---	15	---	---	---	---
7	14	15	14	15	16	15	21	15	---	---	---	---
8	14	15	14	14	17	15	21	15	17	---	---	---
9	14	15	14	19	17	---	20	15	17	---	---	---
10	14	15	14	---	17	---	20	16	17	---	---	---
11	14	15	13	18	17	20	20	16	16	---	---	25
12	14	15	13	17	16	18	21	16	16	---	---	25
13	14	14	13	17	16	17	20	17	---	---	---	25
14	14	14	13	23	17	18	19	17	---	---	---	25
15	14	14	14	17	16	18	19	17	---	---	---	25
16	14	14	14	16	16	18	19	17	---	---	---	25
17	14	14	14	16	16	18	18	16	---	---	---	25
18	14	14	14	16	16	18	19	---	---	---	---	25
19	14	14	14	16	16	18	19	---	---	---	---	25
20	13	14	14	16	16	---	18	---	---	---	---	25
21	13	14	15	15	16	22	18	---	---	---	---	25
22	13	14	15	15	16	17	19	---	---	---	---	24
23	14	14	15	15	16	17	19	---	---	---	---	24
24	14	14	15	15	16	17	20	---	---	---	---	24
25	14	14	15	15	16	17	20	---	---	---	---	24
26	14	14	15	15	15	16	20	---	---	---	---	24
27	14	14	14	15	15	---	20	---	---	---	---	24
28	14	14	14	14	15	---	21	---	---	---	---	23
29	14	14	14	14	---	---	---	---	---	---	---	23
30	14	14	14	14	---	---	---	---	23	---	---	23
31	14	---	14	16	---	---	---	---	---	---	---	---
TOTAL	432	429	441	---	450	---	---	---	---	---	---	---
MEAN	13.9	14.3	14.2	---	16.1	---	---	---	---	---	---	---
MAX	17	15	15	---	17	---	---	---	---	---	---	---
MIN	13	14	13	---	15	---	---	---	---	---	---	---
AC-FT	857	851	875	---	893	---	---	---	---	---	---	---

TULARE LAKE BASIN

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CA

LOCATION.--Lat 36°59'38", long 118°58'49", in NE 1/4 NW 1/4 sec.12, T.11 S., R.27 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank at Cliff Camp Bridge, 1 mi northwest of Cliff Camp, 1.2 mi downstream from Wishon Dam, and 2 mi downstream from Woodchuck Creek.

DRAINAGE AREA.--181 mi².

PERIOD OF RECORD.--August 1921 to current year (since October 1990, no records computed below 25 ft³/s). 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.--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. See schematic diagram of Kings River basin. 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.

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 ft³/s, Dec. 11, 1937, gage height, 18.0 ft, from floodmarks, from rating curve extended above 4,200 ft³/s on basis of velocity-area studies.

1957 to 1990.--Maximum discharge, 5,110 ft³/s, Sept. 5, 1978, gage height, 11.96 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	30	29	687	105	1600	31	28	26
2	---	---	---	---	31	32	682	74	1630	32	28	26
3	---	---	---	---	30	42	450	168	1590	32	28	26
4	---	---	---	---	29	32	230	551	1580	32	28	25
5	35	---	---	---	29	40	308	270	1580	32	28	25
6	---	---	---	---	29	35	167	38	1550	319	28	25
7	---	---	---	---	29	29	47	33	1070	2080	28	25
8	---	---	---	---	30	26	45	35	31	2390	28	25
9	---	---	---	44	26	134	40	40	31	2160	28	25
10	---	---	---	91	26	199	37	44	33	1630	27	25
11	---	---	---	55	26	75	43	45	34	828	27	25
12	---	---	---	42	25	46	48	41	34	571	27	25
13	---	---	---	43	---	44	46	41	353	1230	27	25
14	---	---	---	70	---	49	38	38	831	1330	27	25
15	---	---	---	50	---	50	33	41	884	1260	26	25
16	---	---	---	31	---	45	32	37	1030	1560	26	25
17	---	---	---	26	---	41	29	36	994	1170	26	25
18	---	---	---	25	---	40	30	161	885	1570	26	---
19	---	---	---	---	25	46	29	669	881	1520	26	---
20	---	---	---	---	28	99	28	676	891	1070	26	25
21	---	---	---	---	30	91	28	668	898	561	26	---
22	---	---	---	---	30	41	31	977	1060	472	26	---
23	---	---	---	---	31	40	37	1510	1260	173	26	---
24	---	---	---	---	31	32	45	1540	1300	66	26	---
25	---	---	---	---	32	29	51	1200	1340	30	26	---
26	---	---	---	---	32	28	54	721	1350	29	25	---
27	---	---	---	---	31	66	52	722	1300	29	25	---
28	---	---	---	---	30	223	58	716	1310	30	25	---
29	---	---	---	---	---	248	106	722	900	30	25	---
30	---	---	---	---	---	249	141	998	30	30	25	---
31	---	---	---	26	---	507	---	1360	---	29	25	---
TOTAL	---	---	---	---	---	2687	3652	14277	28260	22326	823	---
MEAN	---	---	---	---	---	86.7	122	461	942	720	26.5	---
MAX	---	---	---	---	---	507	687	1540	1630	2390	28	---
MIN	---	---	---	---	---	26	28	33	30	29	25	---
AC-FT	---	---	---	---	---	5330	7240	28320	56050	44280	1630	---
a	2300	1250	16360	18740	21710	26570	45480	53310	50870	55170	45450	47710

a Diversion, in acre-feet, to Haas Powerplant, provided by Pacific Gas and Electric Co.

TULARE LAKE BASIN

201

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)	260800	
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

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	
10 PERCENT EXCEEDS	29	
50 PERCENT EXCEEDS	17	
90 PERCENT EXCEEDS	8.6	

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, 5.6 mi east-northeast of Balch Camp.

DRAINAGE AREA.--233 mi².

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. See schematic diagram of Kings River basin. Records, including extremes, represent contents at 2400 hours.

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, 1,311 acre-ft, Apr. 29, 1995, elevation, 4,099.43 ft; minimum, 359 acre-ft, Nov. 3, 1986, elevation 4,064.51 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,311 acre-ft, Apr. 29, elevation, 4,099.43 ft; minimum, 494 acre-ft, Jan. 30, elevation, 4,071.33 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	859	721	994	970	784	1057	1282	1293	1296	1279	1226	1158
2	881	776	951	740	745	721	1282	1289	1289	1279	1212	1054
3	871	819	966	850	670	841	1253	1293	1293	1279	882	1115
4	960	748	841	762	776	819	1270	1293	1296	1279	1115	1138
5	1076	824	973	718	551	966	1272	1257	1296	1279	1168	1125
6	1161	877	997	740	521	737	1212	1275	1289	1289	1219	1016
7	1079	885	921	841	801	819	1275	1272	1279	1296	966	1115
8	1082	900	1000	754	968	702	1275	1272	1279	1299	1038	1057
9	1125	879	1050	654	1151	1289	1275	1275	1279	1296	1028	982
10	1079	839	918	836	1000	1296	1275	1277	1286	1261	1105	994
11	1223	779	997	697	1050	1266	1278	1279	1289	1293	1202	1082
12	1066	756	1073	748	1016	1165	1277	1279	1289	1286	1060	1000
13	1079	715	1108	673	960	1057	1279	1275	1282	1282	1202	1003
14	1122	660	979	830	1057	985	1275	1275	1275	1279	1066	1202
15	1165	614	1022	782	1057	844	1219	1275	1282	1296	954	1226
16	1161	619	957	675	827	707	1131	1271	1279	1282	1108	951
17	1047	675	793	647	991	665	1079	1275	1268	1282	1066	942
18	868	699	844	738	1019	678	1272	1289	1216	1289	1086	1006
19	909	773	1016	729	1073	751	1272	1289	1272	1275	1079	1089
20	930	844	1095	702	1047	1079	1272	1293	1275	1292	1013	1060
21	782	918	1082	707	1057	1266	1271	1293	1275	1286	1079	897
22	821	827	916	712	1073	1195	1272	1298	1286	1282	1145	963
23	865	824	1066	773	1019	976	1275	1300	1289	1279	954	1044
24	712	888	895	699	939	644	1279	1282	1292	1275	994	951
25	754	976	1003	707	970	681	1279	1289	1293	1275	1226	1038
26	702	970	1061	702	1073	634	1279	1293	1293	1275	1148	1095
27	742	1041	1028	743	963	618	1279	1293	1293	1275	1226	1095
28	725	1178	859	836	1047	694	1282	1296	1293	1253	1178	1003
29	718	1148	909	581	---	732	1311	1296	1289	1226	1188	1082
30	761	1047	945	494	---	768	1300	1286	1289	1205	1089	1006
31	799	---	1031	768	---	1236	---	1289	---	1226	1226	---
MAX	1223	1178	1108	970	1151	1296	1311	1300	1296	1299	1226	1226
MIN	702	614	793	494	521	618	1079	1257	1216	1205	882	897
a	4083.35	4091.63	4091.13	4082.25	4091.63	4097.33	4099.13	4098.83	4098.83	4097.03	4097.03	4090.33
b	-92	+248	-16	-263	+279	+189	+64	-11	0	-63	0	-220

CAL YR 1994 b -91
WTR YR 1995 b +115

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 mi².

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.--No estimated daily discharges. 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, 5,360 ft³/s, Mar. 4, 1991, gage height, 8.84 ft, from rating curve extended above 827 ft³/s on basis of computation of spill over Balch Diversion Dam; minimum daily, 0.89 ft³/s, Oct. 21, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,930 ft³/s, July 9, gage height, 7.36 ft; minimum daily, 5.4 ft³/s, Dec. 20, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	7.0	9.6	6.0	19	9.9	447	1210	2350	763	7.2	6.1
2	6.2	7.1	9.5	6.0	16	9.6	517	885	2400	697	7.0	6.1
3	6.2	6.8	8.8	5.6	13	16	388	752	2400	687	6.5	6.0
4	6.2	6.5	8.9	6.5	13	14	33	1210	2480	665	6.1	6.1
5	6.2	6.6	9.0	22	12	17	193	1060	2470	680	6.4	6.1
6	10	6.6	8.2	14	13	15	179	564	2310	701	6.4	6.1
7	14	6.7	8.7	18	15	13	298	458	1900	2430	6.1	6.2
8	7.6	6.9	8.7	16	18	13	335	429	562	2650	8.1	6.1
9	7.3	7.5	7.3	19	17	37	310	444	518	2620	12	6.0
10	7.0	7.1	5.8	30	17	1210	279	501	609	2240	11	5.9
11	7.0	9.0	5.7	67	16	609	304	535	727	1320	11	6.0
12	6.9	7.6	5.5	25	16	71	341	535	818	1030	9.5	6.0
13	6.7	6.2	6.4	33	17	40	369	526	1090	1460	8.7	5.9
14	7.1	5.9	7.0	20	27	33	319	440	1590	1720	7.7	6.2
15	6.8	6.2	6.4	29	13	28	281	424	1610	1510	7.1	6.3
16	6.9	6.0	6.4	22	12	25	20	410	1640	1910	7.2	6.0
17	7.1	6.2	5.9	17	11	23	17	397	1540	1490	7.4	5.8
18	7.1	6.8	6.0	15	11	21	115	476	1320	1830	7.4	5.8
19	7.0	7.5	5.5	14	11	20	228	1160	1320	1830	7.3	6.0
20	6.5	6.7	5.4	14	11	25	226	1220	1370	1420	7.2	6.0
21	6.3	6.9	5.7	14	10	276	206	1290	1440	892	7.2	5.7
22	6.4	7.4	5.8	14	10	45	229	1460	1590	780	7.3	5.7
23	6.2	7.4	5.6	27	10	50	249	1970	1880	502	6.8	5.8
24	6.0	6.9	5.4	34	9.7	32	296	2070	2040	332	6.3	5.8
25	6.1	7.0	10	25	9.6	28	356	1750	2130	244	6.4	5.9
26	6.0	10	7.4	26	9.5	26	371	1230	2170	217	6.5	6.1
27	5.7	11	6.7	20	9.5	26	405	1300	2070	204	6.5	6.2
28	5.8	9.3	6.2	18	9.5	25	426	1310	2130	181	6.3	6.2
29	5.7	9.0	8.0	16	---	24	810	1380	2000	12	6.4	6.1
30	5.8	9.3	6.3	15	---	23	1490	1650	1140	13	6.3	6.1
31	5.6	---	6.0	18	---	23	---	2090	---	12	6.1	---
TOTAL	211.7	221.1	217.8	626.1	375.8	2827.5	10037	31136	49614	33042	229.4	180.3
MEAN	6.83	7.37	7.03	20.2	13.4	91.2	335	1004	1654	1066	7.40	6.01
MAX	14	11	10	67	27	1210	1490	2090	2480	2650	12	6.3
MIN	5.6	5.9	5.4	5.6	9.5	9.6	17	397	518	12	6.1	5.7
AC-FT	420	439	432	1240	745	5610	19910	61760	98410	65540	455	358
a	4170	2900	17720	28090	26360	45400	50160	52170	48920	52120	45580	45730

a Diversion, in acre-feet, to Balch Powerplant, provided by Pacific Gas and Electric Co.

TULARE LAKE BASIN

11216200 NORTH FORK KINGS RIVER BELOW BALCH DIVERSION DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.68	7.88	5.91	8.59	23.4	61.9	97.0	183	263	111	5.90	5.65
MAX	7.54	26.4	18.8	26.1	193	441	541	1004	1654	1066	8.20	8.02
(WY)	1994	1984	1984	1993	1986	1986	1986	1995	1995	1995	1993	1993
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 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1984 - 1995

ANNUAL TOTAL	2161.9	128718.7	
ANNUAL MEAN	5.92	353	64.9
HIGHEST ANNUAL MEAN			353
LOWEST ANNUAL MEAN			3.97
HIGHEST DAILY MEAN	15	Feb 8	2650
LOWEST DAILY MEAN	3.0	Jan 7	5.4
ANNUAL SEVEN-DAY MINIMUM	3.2	Jan 13	5.6
INSTANTANEOUS PEAK FLOW			2930
INSTANTANEOUS PEAK STAGE			7.36
ANNUAL RUNOFF (AC-FT)	4290	255300	47000
TOTAL DIVERSION (AC-FT) a	204900	419300	
10 PERCENT EXCEEDS	7.6	1460	23
50 PERCENT EXCEEDS	6.3	14	5.8
90 PERCENT EXCEEDS	3.5	6.0	3.4

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.--Ultra sonic 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 ft³/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, 16 ft³/s, many days in August 1994; no flow many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.9
2	e8.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
3	e6.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
4	e2.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.5
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.5
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.5
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.5
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	5.6
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.6
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.6
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.6
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.6
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.6
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.5
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	5.6
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.1	5.6
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	5.6
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	5.6
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	5.6
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	11	5.6
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	11	5.6
31	.00	---	.00	.00	---	.00	---	.00	---	.00	11	---
TOTAL	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.32	169.8
MEAN	.85	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.30	5.66
MAX	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	7.9
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.5
AC-FT	52	.00	.00	.00	.00	.00	.00	.00	.00	.00	141	337

e Estimated.

TULARE LAKE BASIN

11216400 DINKEY CREEK SIPHON FISH RELEASE AT BALCH CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.76	1.27	.59	.21	.16	.000	.000	.000	2.70	6.01	8.68	9.42
MAX	14.4	7.09	3.20	1.71	1.41	.000	.000	.000	5.63	11.0	14.4	15.0
(WY)	1981	1991	1991	1990	1991	1987	1987	1987	1992	1990	1994	1992
MIN	.22	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.30	5.33
(WY)	1987	1987	1987	1987	1987	1987	1987	1987	1991	1993	1995	1987

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1987 - 1995
ANNUAL TOTAL	1102.10	267.52	
ANNUAL MEAN	3.02	.73	2.91
HIGHEST ANNUAL MEAN			4.76
LOWEST ANNUAL MEAN			.73
HIGHEST DAILY MEAN	16	11	16
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	2190	531	2110
10 PERCENT EXCEEDS	10	5.5	10
50 PERCENT EXCEEDS	.00	.00	.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 mi².

PERIOD OF RECORD.--October 1919 to September 1930 (published as "above Dinkey Creek"), March 1960 to current year. Records for water year 1920 incomplete; yearly estimate and monthly discharge only for some months, published in WSP 1315-A.

WATER TEMPERATURE: Water years 1968-79.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder and Cippoletti 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 ft³/s, June 4, 1922, gage height, 12.18 ft, site and datum then in use; minimum, 4.0 ft³/s, Aug. 29 to Sept. 1, 1924.

1960 to current year: Maximum discharge, 14,000 ft³/s, Feb. 1, 1963, gage height, 13.24 ft, site and datum then in use, backwater from Dinkey Creek, from rating curve extended above 890 ft³/s; minimum daily, 0.30 ft³/s, Nov. 3, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 ft³/s, June 1, gage height, 5.04 ft; minimum daily, 11 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	18	12	16	14	e321	e1560	2280	529	18	17
2	21	19	18	12	17	e13	e461	e927	2320	500	18	17
3	21	19	18	12	16	e16	e363	e744	2320	473	18	17
4	21	19	18	14	16	e15	e19	e631	2420	466	17	17
5	21	20	17	23	15	e16	e98	e982	2330	484	17	17
6	21	19	14	17	14	e14	e140	e877	1550	527	17	17
7	21	20	14	18	14	e15	e186	e487	606	2280	17	17
8	20	19	14	16	15	e13	e259	e388	340	2460	17	17
9	19	19	12	17	15	e820	e232	e357	333	2460	17	17
10	20	18	12	28	15	e2100	e198	e372	426	2000	17	17
11	20	18	12	23	14	e15	e218	e429	524	1000	16	17
12	20	18	12	20	13	e57	e261	e463	608	731	16	17
13	20	18	13	18	14	e27	e310	e469	849	1180	15	17
14	19	18	12	e19	19	e20	e245	e459	1330	1410	17	17
15	19	18	12	e26	16	e19	e199	e371	1350	1200	17	17
16	18	17	12	e22	15	e21	e33	e351	1370	1630	17	17
17	18	17	12	e19	15	e20	e16	e335	1240	1150	18	17
18	18	17	12	e18	15	e18	e17	e353	994	1580	18	17
19	18	17	12	17	15	e18	e146	e397	959	1530	18	17
20	18	17	12	17	14	e29	e162	e978	1040	1100	17	16
21	18	17	12	16	14	e136	e140	e1020	1110	601	17	17
22	21	17	12	16	14	e28	e148	e1110	1300	531	17	17
23	20	18	11	20	14	e76	e172	e1260	1650	395	18	17
24	20	17	12	24	14	e30	e217	e1760	1850	228	18	17
25	20	17	13	23	13	e26	e278	e1920	1930	144	17	18
26	19	18	12	23	14	e23	e306	980	1960	125	17	17
27	19	18	12	20	13	e23	e339	1050	1840	113	17	17
28	19	18	12	19	13	e21	e358	1090	1920	107	17	17
29	19	18	12	18	---	21	e792	1170	1620	55	17	17
30	19	18	12	17	---	20	e1590	1410	571	29	17	17
31	18	---	12	17	---	19	---	1990	---	20	17	---
TOTAL	605	541	408	581	412	3703	8224	26690	40940	27038	531	510
MEAN	19.5	18.0	13.2	18.7	14.7	119	274	861	1365	872	17.1	17.0
MAX	21	20	18	28	19	2100	1590	1990	2420	2460	18	18
MIN	18	17	11	12	13	13	16	335	333	20	15	16
AC-FT	1200	1070	809	1150	817	7340	16310	52940	81200	53630	1050	1010

e Estimated.

TULARE LAKE BASIN

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.7	20.5	26.5	44.4	45.1	42.3	72.0	230	325	177	49.3	29.4
MAX	60.5	92.3	332	408	239	405	490	1838	2042	1176	822	331
(WY)	1962	1962	1967	1969	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1960 - 1995

ANNUAL TOTAL	5649	110183	
ANNUAL MEAN	15.5	302	86.5
HIGHEST ANNUAL MEAN			406
LOWEST ANNUAL MEAN			8.47
HIGHEST DAILY MEAN	24	Aug 27	2460
LOWEST DAILY MEAN	11	Mar 24	11
ANNUAL SEVEN-DAY MINIMUM	11	Mar 31	12
INSTANTANEOUS PEAK FLOW			3130
INSTANTANEOUS PEAK STAGE			5.04
ANNUAL RUNOFF (AC-FT)	11200	218500	62690
10 PERCENT EXCEEDS	20	1170	192
50 PERCENT EXCEEDS	16	19	15
90 PERCENT EXCEEDS	11	14	8.3

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CA

LOCATION.--Lat 36°52'47", long 119°07'40", in NE 1/4 NW 1/4 sec.22, T.12 S., R.26 E., Fresno County, Hydrologic Unit 18030010, Sierra National Forest, on right bank 1.1 mi upstream from mouth, 1.7 mi south of Balch Camp, 2.1 mi downstream from Dinkey Creek, and 9 mi east of Trimmer.

DRAINAGE AREA.--387 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,035 ft above sea level, from river-profile map.

REMARKS.--No estimated daily discharges. 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. 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 ft³/s, Feb. 1, 1963, gage height, 19.20 ft, from rating curve extended above 10,100 ft³/s; minimum daily, 6.4 ft³/s, Oct. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,310 ft³/s, Apr. 27, gage height, 11.13 ft; minimum daily, 45 ft³/s, Nov. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	45	108	92	309	478	882	2600	4300	2150	260	79
2	55	48	109	82	312	383	921	2950	4150	2060	242	75
3	50	52	111	89	305	422	959	1900	4290	1950	230	75
4	85	48	113	130	274	411	883	1550	4530	1900	215	75
5	388	49	105	230	265	374	768	1380	4440	2010	204	73
6	180	224	100	129	270	349	822	1340	3910	2010	192	70
7	147	123	97	239	270	347	1010	1470	3070	3460	175	69
8	138	100	81	176	258	3560	1080	1670	1530	3640	164	67
9	134	96	79	321	308	5070	1050	1800	1510	3670	153	65
10	115	94	79	1310	282	2620	833	1750	1950	3120	144	65
11	102	81	77	808	249	1340	710	1660	2450	2110	137	64
12	90	91	79	543	235	1000	512	1390	2760	1750	130	63
13	81	85	83	528	225	995	479	1300	3040	2060	123	62
14	72	80	76	674	232	841	484	1220	3340	2260	119	61
15	66	80	82	539	251	845	578	1180	3190	2090	115	60
16	64	80	80	392	298	744	581	1240	2840	2440	112	59
17	59	80	86	326	326	680	538	1900	2460	2080	110	59
18	57	86	91	291	331	682	549	2550	2240	2290	108	59
19	55	83	87	267	342	739	623	2820	2390	2230	104	57
20	53	88	87	248	351	1180	765	2840	2570	1800	99	54
21	52	90	87	240	359	1990	979	2970	2660	1300	97	54
22	58	86	87	222	364	1030	1190	3250	2970	1160	95	53
23	55	85	86	282	372	1240	1330	3380	3400	827	92	52
24	56	87	104	251	369	871	1300	2940	3720	590	91	52
25	56	101	103	270	358	706	1400	2310	3840	485	87	51
26	51	103	108	303	351	622	2850	2720	3810	443	84	51
27	52	93	104	320	336	582	5090	2680	3730	421	82	50
28	50	96	111	326	354	546	4020	2930	3790	419	81	49
29	50	95	96	317	---	792	2970	3240	3500	369	78	49
30	48	101	92	315	---	699	2300	3810	2330	332	79	49
31	46	---	89	316	---	849	---	4100	---	287	83	---
TOTAL	2627	2650	2877	10576	8556	32987	38456	70840	94710	53713	4085	1821
MEAN	84.7	88.3	92.8	341	306	1064	1282	2285	3157	1733	132	60.7
MAX	388	224	113	1310	372	5070	5090	4100	4530	3670	260	79
MIN	46	45	76	82	225	347	479	1180	1510	287	78	49
AC-FT	5210	5260	5710	20980	16970	65430	76280	140500	187900	106500	8100	3610

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	49.8	87.6	137	217	271	360	612	1038	872	311	61.0	49.9
MAX	288	347	920	1187	1269	1329	2163	4253	4210	1894	422	233
(WY)	1983	1984	1967	1980	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1961 - 1995			
ANNUAL TOTAL	47863				323898							
ANNUAL MEAN	131				887				339			
HIGHEST ANNUAL MEAN									1045			
LOWEST ANNUAL MEAN									49.2			
HIGHEST DAILY MEAN	609				May 12				14900			
LOWEST DAILY MEAN	37				Jan 11				6.4			
ANNUAL SEVEN-DAY MINIMUM	37				Jan 11				9.6			
INSTANTANEOUS PEAK FLOW					7310				27400			
INSTANTANEOUS PEAK STAGE					11.13				19.20			
ANNUAL RUNOFF (AC-FT)	94940				642500				245300			
10 PERCENT EXCEEDS	321				2880				847			
50 PERCENT EXCEEDS	80				305				94			
90 PERCENT EXCEEDS	42				59				29			

TULARE LAKE BASIN

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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 mi².

PERIOD OF RECORD.--May 1945 to current year. Prior to October 1949 monthly discharge only, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1950. WSP 1735: 1952(M), 1956(M). WSP 1930: Drainage area. WDR CA-72-2: 1971(P).

GAGE.--Water-stage recorder 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 except those for estimated daily discharges, which are poor. Minor diversion for irrigation and stock ponds.

EXTREMES FOR PERIOD OF RECORD (SINCE 1950).--Maximum discharge, 5,700 ft³/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 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0300	828	7.01	Mar. 10	1930	*5700	*12.77
Jan. 24	1500	1300	8.04	Mar. 22	2100	871	6.70
Feb. 14	0400	44	4.27	Apr. 16	0645	45	3.90
Mar. 5	0330	251	5.28				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	11	5.4	50	21	7.1	2.1	.23	e.31
2	.00	.00	.00	.00	9.4	6.5	47	20	7.0	2.0	.14	e.30
3	.00	.00	.00	.00	7.9	21	43	19	6.8	2.0	.18	e.30
4	.00	.00	.00	.00	6.7	18	42	18	6.3	1.8	.16	e.32
5	.00	.00	.00	11	6.2	150	40	18	6.0	1.6	.18	e.31
6	.00	.00	.00	4.1	5.7	60	38	19	6.3	1.5	.25	e.31
7	.00	.00	.00	9.5	5.2	36	38	18	6.8	1.5	.19	e.31
8	.00	.00	.00	9.5	7.4	29	37	17	6.9	1.4	.23	e.31
9	.00	.00	.00	15	7.5	196	37	15	6.1	1.4	.22	e.32
10	.00	.00	.00	275	5.7	2940	36	15	5.7	1.4	.24	e.35
11	.00	.00	.00	38	5.3	1060	35	15	5.4	1.3	.52	e.35
12	.00	.00	.00	5.0	4.8	e454	34	14	5.3	1.4	.63	e.34
13	.00	.00	.00	2.1	6.5	e260	34	16	5.6	1.4	e.56	e.32
14	.00	.00	.00	2.8	21	e161	36	16	5.3	1.2	e.49	e.34
15	.00	.00	.00	5.8	e11	e116	36	16	6.3	.89	e.40	e.36
16	.00	.00	.00	3.5	e8.8	e98	39	15	7.4	.73	e.37	.39
17	.00	.00	.00	3.8	e7.7	e94	33	13	6.4	.81	e.36	.45
18	.00	.00	.00	4.6	e7.2	e92	32	12	5.6	1.1	e.38	.42
19	.00	.00	.00	4.0	e6.8	e88	31	11	4.9	1.1	e.42	.31
20	.00	.00	.00	3.9	e6.4	e88	30	9.8	4.8	1.0	e.41	.44
21	.00	.00	.00	4.5	e6.1	87	28	9.6	4.3	.98	e.40	1.1
22	.00	.00	.00	3.8	e5.8	199	25	9.8	3.9	.90	e.35	1.1
23	.00	.00	.00	23	e5.5	264	23	9.8	3.4	1.1	e.28	1.1
24	.00	.00	.00	514	e5.3	e162	22	16	2.7	1.2	e.26	.97
25	.00	.00	.00	313	e5.1	e140	21	13	2.5	1.1	e.26	1.0
26	.00	.00	.00	105	e4.9	e117	21	12	2.6	1.1	e.30	1.1
27	.00	.00	.00	56	e4.8	e105	21	10	2.2	.90	e.32	1.1
28	.00	.00	.00	33	4.8	e82	21	9.6	2.1	.65	e.34	.87
29	.00	.00	.00	17	---	70	22	8.6	2.1	.51	e.37	.85
30	.00	.00	.00	11	---	61	23	7.8	2.0	.49	e.36	.66
31	.00	---	.00	10	---	55	---	7.1	---	.37	e.34	---
TOTAL	0.00	0.00	0.00	1487.90	200.5	7314.9	975	431.1	149.8	36.93	10.14	16.71
MEAN	.000	.000	.000	48.0	7.16	236	32.5	13.9	4.99	1.19	.33	.56
MAX	.00	.00	.00	514	21	2940	50	21	7.4	2.1	.63	1.1
MIN	.00	.00	.00	.00	4.8	5.4	21	7.1	2.0	.37	.14	.30
AC-FT	.00	.00	.00	2950	398	14510	1930	855	297	73	20	33

e Estimated.

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.26	.94	3.69	12.7	22.5	21.2	9.07	2.61	.94	.23	.079	.25
MAX	7.15	18.2	36.3	139	287	236	160	40.0	16.4	5.71	2.92	8.33
(WY)	1946	1966	1967	1969	1978	1995	1958	1983	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1945 - 1995			
ANNUAL TOTAL	210.05				10622.98							
ANNUAL MEAN	.58				29.1				6.13			
HIGHEST ANNUAL MEAN									48.5			
LOWEST ANNUAL MEAN									.000			
HIGHEST DAILY MEAN	23				Feb 20				2940			
LOWEST DAILY MEAN	.00				Apr 22				Mar 10			
ANNUAL SEVEN-DAY MINIMUM	.00				Jun 13				Oct 1			
INSTANTANEOUS PEAK FLOW									.00			
INSTANTANEOUS PEAK STAGE									.00			
ANNUAL RUNOFF (AC-FT)	417				21070				5700			
10 PERCENT EXCEEDS	1.6				38				13.95			
50 PERCENT EXCEEDS	.00				1.5				4440			
90 PERCENT EXCEEDS	.00				.00				6.0			

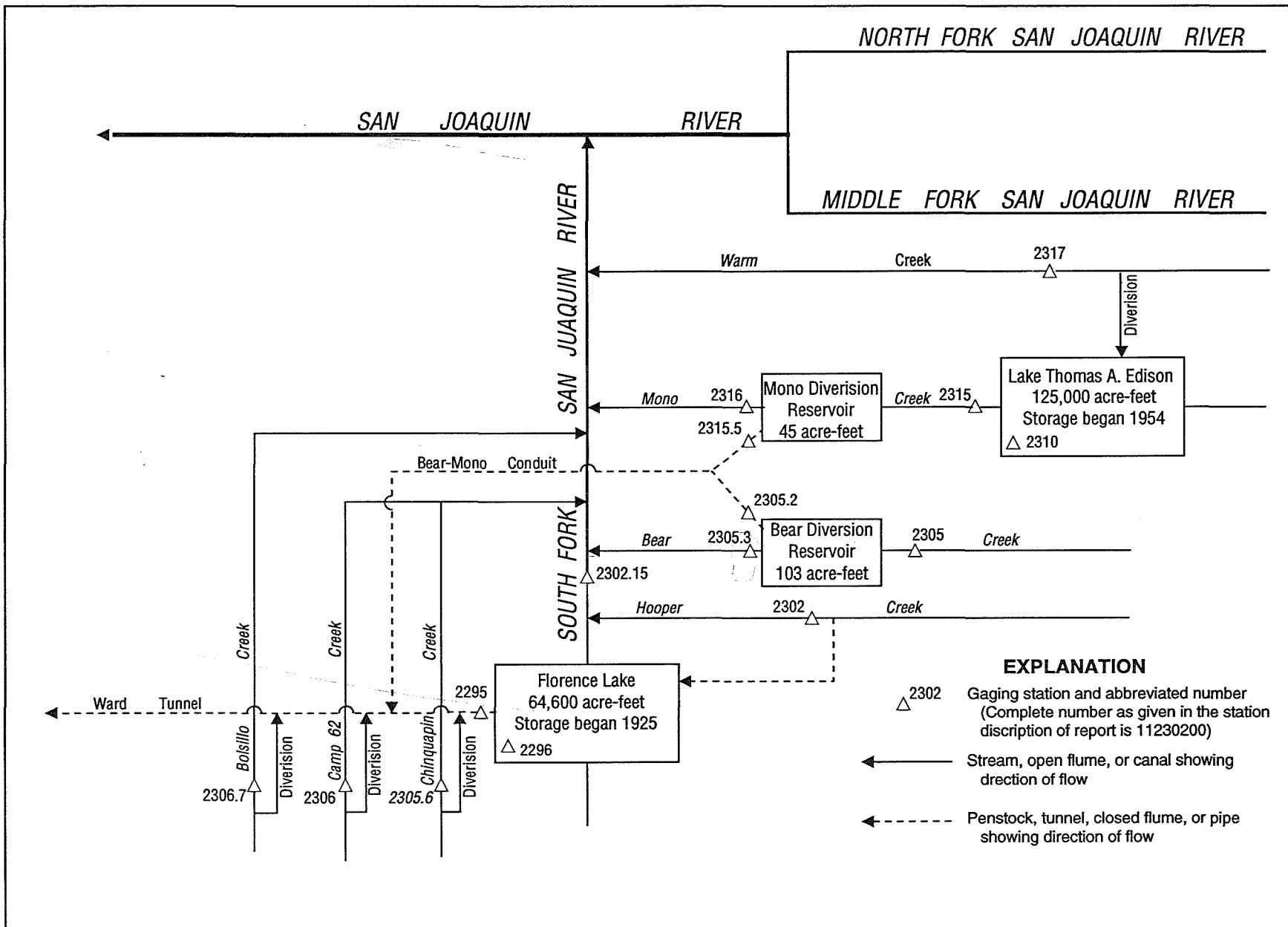


Figure 27. Diversions and storage in upper San Joaquin River basin.

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.--No estimated daily discharges. 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 ft³/s, Apr. 30, 1926; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	49	71	53	101	134	205	725	1050	485	1570	630
2	171	48	69	49	106	125	203	720	1090	532	1710	769
3	179	44	69	51	107	127	218	687	1150	173	1310	793
4	170	37	73	52	108	120	282	655	1200	353	1060	783
5	268	52	73	49	109	121	322	545	1220	350	1060	702
6	306	94	71	57	111	119	318	386	1260	109	1050	702
7	282	96	64	76	110	122	299	351	1320	197	1050	668
8	270	90	51	92	108	120	272	409	1250	316	1100	765
9	270	83	52	136	100	238	235	504	1210	463	785	850
10	260	73	51	160	96	391	232	574	1200	499	789	913
11	238	72	53	114	96	278	297	623	1240	675	1040	1060
12	210	72	54	180	95	252	357	641	752	1050	1120	729
13	176	72	54	229	90	325	360	556	2.2	1190	881	610
14	148	63	54	243	87	407	267	427	2.6	1190	656	658
15	129	63	58	214	89	423	225	399	2.8	1100	542	721
16	107	63	57	187	94	393	194	367	2.6	1040	761	765
17	100	62	58	178	90	305	172	414	2.6	1030	808	827
18	93	67	57	167	94	267	163	552	2.5	1030	794	825
19	86	66	54	145	106	292	161	655	248	1090	689	550
20	81	74	53	128	138	329	167	722	503	1390	603	879
21	76	74	52	114	160	324	153	785	1020	1540	706	778
22	73	66	51	108	163	255	160	845	1530	1600	730	295
23	70	62	51	107	161	228	210	848	1550	1650	731	294
24	68	61	50	111	165	246	313	827	1040	1450	733	238
25	66	61	52	118	158	240	450	788	442	1210	600	351
26	45	63	53	116	154	213	521	759	3.0	1270	734	221
27	51	66	55	111	154	189	548	780	264	1450	733	188
28	57	78	55	107	142	143	533	810	390	1450	666	356
29	56	73	55	100	---	133	555	863	3.4	1280	633	402
30	52	71	47	97	---	159	675	928	3.4	1270	480	401
31	52	---	47	95	---	181	---	983	---	1490	426	---
TOTAL	4412	2015	1764	3744	3292	7199	9067	20128	20954.1	29922	26550	18723
MEAN	142	67.2	56.9	121	118	232	302	649	698	965	856	624
MAX	306	96	73	243	165	423	675	983	1550	1650	1710	1060
MIN	45	37	47	49	87	119	153	351	2.2	109	426	188
AC-FT	8750	4000	3500	7430	6530	14280	17980	39920	41560	59350	52660	37140

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	234	134	110	79.5	76.3	110	270	456	547	533	415	342
MAX	522	745	1064	546	240	297	573	949	1161	1199	856	778
(WY)	1943	1938	1946	1939	1986	1986	1962	1974	1974	1967	1995	1983
MIN	.000	.47	3.04	2.13	.64	22.5	35.4	.85	1.49	90.1	48.3	1.50
(WY)	1946	1965	1991	1991	1991	1977	1991	1939	1938	1931	1977	1949

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1925 - 1995
ANNUAL TOTAL	77739.73	147770.1	
ANNUAL MEAN	213	405	278
HIGHEST ANNUAL MEAN			460
LOWEST ANNUAL MEAN			98.1
HIGHEST DAILY MEAN	1350	1710	1990
LOWEST DAILY MEAN	.41	2.2	.00
ANNUAL SEVEN-DAY MINIMUM	.80	38	.00
ANNUAL RUNOFF (AC-FT)	154200	293100	201100
10 PERCENT EXCEEDS	563	1050	655
50 PERCENT EXCEEDS	86	228	163
90 PERCENT EXCEEDS	12	54	12

SAN JOAQUIN RIVER BASIN

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 mi².

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. See schematic diagram of upper San Joaquin River basin. Records, including extremes, represent contents at 2400 hours.

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, 64,772 acre-ft, Aug. 22, elevation, 7,327.88 ft; minimum, 1,019 acre-ft, May 14, elevation, 7,230.85 ft.

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	4,666	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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1276	1127	1159	1141	1212	1230	1302	2759	8405	61189	61891	62519
2	1269	1129	1158	1137	1219	1221	1302	2452	9081	61644	61720	61986
3	1280	1119	1163	1137	1217	1225	1336	2084	10044	61540	62176	61777
4	1303	1125	1166	1142	1219	1214	1397	1731	11775	61236	63321	61682
5	1387	1154	1166	1137	1223	1217	1412	1129	13753	61331	64233	61492
6	1339	1205	1161	1141	1225	1226	1393	1377	14446	62348	63686	61018
7	1318	1190	1147	1144	1223	1221	1386	1419	14190	62195	63456	60536
8	1310	1185	1142	1164	1216	1214	1350	1466	13338	62614	63274	59697
9	1305	1171	1141	1257	1209	1565	1321	1458	12478	62938	63398	58617
10	1294	1166	1139	1239	1205	1451	1346	1520	12589	61521	63503	57386
11	1269	1164	1139	1244	1205	1314	1408	1727	14208	61160	63465	55805
12	1241	1168	1137	1316	1202	1357	1451	1701	17651	61653	62986	54840
13	1209	1154	1141	1348	1198	1496	1400	1178	22792	61919	62843	54107
14	1181	1151	1146	1343	1195	1711	1341	1019	27934	62195	63187	53287
15	1159	1147	1146	1298	1205	1658	1305	1020	30684	62300	63781	52320
16	1141	1144	1146	1300	1204	1380	1282	1291	33295	62405	64012	51244
17	1129	1151	1146	1276	1198	1362	1264	1421	35390	62681	64012	50042
18	1117	1149	1142	1269	1204	1364	1260	1548	37647	61824	63915	48836
19	1110	1154	1141	1251	1233	1397	1264	2055	39778	61397	63944	48127
20	1100	1161	1139	1233	1266	1464	1262	2701	41591	61255	64195	46731
21	1093	1161	1137	1219	1276	1362	1257	3591	52605	61634	64445	45514
22	1088	1158	1136	1216	1273	1328	1280	4185	53273	61720	64772	45276
23	1083	1151	1136	1216	1271	1323	1346	4067	44850	61464	64695	45003
24	1079	1146	1137	1221	1267	1337	1466	3706	48369	61682	64426	44816
25	1076	1144	1139	1228	1260	1323	1494	3153	53961	61995	64493	44410
26	1076	1144	1142	1223	1259	1296	1285	2962	59151	61948	64310	44198
27	1136	1151	1141	1217	1253	1275	1373	3341	59687	61919	63973	44113
28	1137	1159	1142	1210	1242	1266	1284	3763	59979	62405	63638	43911
29	1134	1159	1141	1205	---	1257	1682	4666	60961	63264	63274	42938
30	1129	1159	1132	1200	---	1266	2402	5792	60942	62662	63063	42296
31	1129	---	1141	1202	---	1291	---	6908	---	62138	62948	---
MAX	1387	1205	1166	1348	1276	1711	2402	6908	60961	63264	64772	62519
MIN	1076	1119	1132	1137	1195	1214	1257	1019	8405	61160	61720	42296
a	7231.51	7231.69	7231.58	7231.94	7232.17	7232.44	7237.81	7250.60	7323.87	7325.13	7325.98	7302.97
b	-23	+30	-18	+61	+40	+49	+1111	+4506	+54034	+1196	+810	-20652

CAL YR 1994 b +65
WTR YR 1995 b +41144

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 mi².

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 ft³/s, July 17, 1995; minimum daily, 1.2 ft³/s, Apr. 25, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 112 ft³/s, July 17; minimum daily, 2.2 ft³/s, Nov. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	2.4	2.7	2.4	2.9	4.1	5.9	22	e37	e44	e57	5.2
2	3.3	2.5	2.7	2.3	3.1	3.9	5.7	19	e37	e40	e54	4.9
3	3.2	2.2	2.6	2.3	3.1	4.0	6.3	18	e42	e44	e53	4.0
4	3.7	3.0	2.7	2.3	3.2	4.0	7.5	18	e58	e49	e51	3.2
5	5.0	3.0	2.7	2.4	3.3	4.0	8.1	17	e64	e67	e51	2.9
6	4.9	3.1	2.6	2.7	3.2	4.0	8.0	16	e58	e77	e48	2.9
7	5.0	2.8	2.5	2.9	3.2	4.0	7.5	16	e50	e70	e43	2.9
8	5.2	2.8	3.5	3.0	3.2	3.8	7.3	16	e40	e82	e40	2.9
9	5.4	2.6	3.4	3.3	3.0	8.2	7.1	16	e37	e104	e38	2.9
10	5.4	2.5	2.9	3.3	3.1	10	7.7	19	e42	e66	e16	2.9
11	5.2	4.3	3.0	4.0	3.2	11	8.8	21	e57	e37	6.1	2.9
12	4.8	3.5	2.5	4.1	3.1	8.3	9.8	21	e69	e20	6.1	2.8
13	4.4	3.2	2.5	3.7	3.0	6.8	9.6	e20	e80	e8.0	6.6	2.8
14	4.0	2.9	2.5	3.3	3.0	7.0	8.8	e20	e79	e8.0	6.8	2.8
15	3.8	2.6	2.5	3.6	3.0	6.6	8.4	e21	e72	e55	6.5	2.8
16	3.5	2.7	2.5	3.4	2.9	6.4	7.9	e20	e61	e106	6.5	2.9
17	3.4	2.7	2.5	3.9	2.9	6.1	7.5	e20	e41	e112	6.7	2.8
18	3.2	2.8	2.4	2.9	3.1	6.2	7.5	e21	e8.1	e105	6.2	2.8
19	3.2	3.2	2.4	2.7	3.5	6.8	7.3	e22	e8.5	e95	6.2	2.8
20	3.1	3.1	2.4	2.6	3.9	7.2	7.1	e23	e8.4	e93	6.3	2.8
21	3.0	3.4	2.4	2.6	4.2	7.1	6.9	e26	e8.2	e93	6.6	2.9
22	2.9	2.9	2.4	2.6	4.2	6.3	7.2	e26	e8.6	e86	7.0	3.0
23	2.9	2.7	2.4	2.8	4.4	6.6	8.3	e26	e15	e80	6.6	3.1
24	2.9	2.7	2.4	3.5	4.5	6.0	10	e25	e30	e78	6.3	3.0
25	2.8	2.6	2.5	3.4	4.5	6.1	12	e22	e39	e73	6.4	3.1
26	2.8	2.8	2.4	3.2	4.4	5.4	14	e22	e43	e69	6.3	3.0
27	2.6	3.0	2.5	3.0	4.3	5.3	14	e24	e49	e73	6.2	3.0
28	2.6	2.7	2.4	2.9	4.2	5.3	14	e26	e49	e75	5.6	3.0
29	2.5	2.6	2.4	2.8	---	5.2	17	e28	e56	e77	5.4	3.1
30	2.4	2.6	2.4	2.7	---	5.3	20	e31	e50	e70	5.5	3.0
31	2.4	---	2.6	2.8	---	5.7	---	e33	---	e61	5.4	---
TOTAL	113.1	85.9	80.3	93.4	97.6	186.7	277.2	675	1296.8	2117.0	582.3	93.1
MEAN	3.65	2.86	2.59	3.01	3.49	6.02	9.24	21.8	43.2	68.3	18.8	3.10
MAX	5.4	4.3	3.5	4.1	4.5	11	20	33	80	112	57	5.2
MIN	2.4	2.2	2.4	2.3	2.9	3.8	5.7	16	8.1	8.0	5.4	2.8
AC-FT	224	170	159	185	194	370	550	1340	2570	4200	1150	185

e Estimated.

SAN JOAQUIN RIVER BASIN

11230200 HOOPER CREEK BELOW DIVERSION DAM, NEAR FLORENCE LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.41	2.29	2.13	2.06	2.20	3.20	5.60	5.24	12.0	13.9	4.90	2.60
MAX	3.65	2.86	2.87	3.01	3.49	6.02	9.50	21.8	43.2	68.3	18.8	3.82
(WY)	1995	1995	1987	1995	1995	1995	1989	1995	1995	1995	1995	1993
MIN	1.68	1.82	1.59	1.55	1.55	2.10	3.23	2.50	2.46	2.66	2.32	1.91
(WY)	1991	1991	1989	1991	1991	1990	1991	1991	1989	1989	1989	1990

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1987 - 1995	
ANNUAL TOTAL	1158.1		5698.4			
ANNUAL MEAN	3.17		15.6		4.89	
HIGHEST ANNUAL MEAN					15.6	
LOWEST ANNUAL MEAN					2.42	
HIGHEST DAILY MEAN	9.1 Apr 18		112 Jul 17		112 Jul 17 1995	
LOWEST DAILY MEAN	2.1 Jan 22		2.2 Nov 3		1.2 Apr 25 1989	
ANNUAL SEVEN-DAY MINIMUM	2.1 Sep 4		2.4 Dec 29		1.3 Oct 10 1990	
ANNUAL RUNOFF (AC-FT)	2300		11300		3550	
10 PERCENT EXCEEDS	4.1		52		5.2	
50 PERCENT EXCEEDS	3.0		5.0		2.7	
90 PERCENT EXCEEDS	2.2		2.6		1.8	

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 mi².

PERIOD OF RECORD.--October 1978 to current year. October 1946 to September 1978, operated as a low-flow station only, in files of the 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 discharge, 5,950 ft³/s, Sept. 26, 1982, gage height, 11.42 ft, from rating curve extended above 1,300 ft³/s on basis of spill flow at Florence Lake; minimum daily, 3.9 ft³/s, Oct. 24, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,020 ft³/s, July 9; minimum daily, 12 ft³/s, Nov. 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	13	14	e14	20	28	40	125	101	2280	593	34
2	19	13	16	e14	22	26	41	92	101	1430	173	31
3	17	12	17	14	22	28	45	73	112	3040	162	30
4	18	12	16	14	22	26	56	63	138	3220	154	29
5	24	13	15	15	23	26	57	58	148	3580	286	29
6	21	14	14	15	23	26	54	52	138	e3700	834	30
7	19	13	14	17	23	26	54	51	126	e4300	e550	30
8	19	13	e14	16	23	27	52	52	110	e4250	e500	30
9	19	13	e14	19	21	125	46	53	102	e5020	e400	29
10	19	14	e14	25	21	202	47	54	112	e4700	e320	29
11	19	13	e14	24	21	100	59	56	138	e2400	e60	29
12	17	13	14	22	21	55	63	55	158	662	e50	30
13	16	13	14	21	20	47	57	51	181	611	e40	30
14	15	13	e14	24	20	54	45	49	178	672	39	29
15	14	13	e14	e23	e19	53	40	52	164	717	38	29
16	14	13	e14	e23	e19	52	37	51	142	726	38	29
17	14	13	14	e22	19	48	35	50	102	1820	38	29
18	14	e14	14	e21	20	47	35	52	55	e2700	36	29
19	15	e14	14	e20	22	54	36	54	54	e1600	30	30
20	15	e14	14	19	26	70	37	58	53	e850	30	29
21	15	13	e14	e19	29	69	34	68	52	673	35	29
22	14	e14	14	18	30	43	38	69	53	668	93	29
23	14	e14	14	e18	30	37	48	67	59	606	317	30
24	14	e14	14	19	30	e34	61	65	77	465	366	30
25	15	14	14	19	29	e31	68	56	94	583	194	30
26	15	e14	e14	19	28	30	71	56	460	627	47	29
27	14	e14	14	18	28	29	68	61	2980	616	31	29
28	14	e14	14	18	28	30	65	66	3370	677	29	29
29	14	e14	e14	18	---	30	88	74	3700	807	29	29
30	14	13	e14	18	---	31	116	85	4010	1020	28	29
31	14	---	e14	19	---	35	---	90	---	737	29	---
TOTAL	509	401	442	585	659	1519	1593	1958	17268	55757	5569	887
MEAN	16.4	13.4	14.3	18.9	23.5	49.0	53.1	63.2	576	1799	180	29.6
MAX	24	14	17	25	30	202	116	125	4010	5020	834	34
MIN	14	12	14	14	19	26	34	49	52	465	28	29
AC-FT	1010	795	877	1160	1310	3010	3160	3880	34250	110600	11050	1760

e Estimated.

11230215 SOUTH FORK SAN JOAQUIN RIVER BELOW HOOPER CREEK, NEAR FLORENCE LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.4	15.7	15.4	16.1	19.8	26.1	30.5	42.8	411	364	78.4	40.4
MAX	30.5	24.9	25.3	20.5	42.6	49.0	53.1	164	2429	1799	661	268
(WY)	1990	1984	1984	1984	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1979 - 1995			
ANNUAL TOTAL	7270				87147							
ANNUAL MEAN	19.9				239				90.0			
HIGHEST ANNUAL MEAN									396			
LOWEST ANNUAL MEAN									18.5			
HIGHEST DAILY MEAN	31				5020				5200			
LOWEST DAILY MEAN	12				12				3.9			
ANNUAL SEVEN-DAY MINIMUM	13				13				4.4			
INSTANTANEOUS PEAK FLOW					unknown				5950			
INSTANTANEOUS PEAK STAGE					unknown				11.42			
ANNUAL RUNOFF (AC-FT)	14420				172900				65220			
10 PERCENT EXCEEDS	24				563				49			
50 PERCENT EXCEEDS	22				30				22			
90 PERCENT EXCEEDS	14				14				14			

SAN JOAQUIN RIVER BASIN

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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 mi².

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near 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 ft³/s, Sept. 26, 1982, gage height, 8.35 ft, from rating curve extended above 570 ft³/s; minimum daily, 1.2 ft³/s, Sept. 29 to Oct. 5, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft³/s, July 9, gage height, 6.73 ft; minimum daily, 17 ft³/s, Nov. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	18	e27	e20	e30	40	58	188	454	720	490	122
2	55	19	e27	e21	e32	38	57	128	382	754	451	147
3	53	17	e26	e21	e33	37	61	122	480	822	481	191
4	53	19	e28	e20	33	37	85	126	650	867	479	214
5	83	26	e27	e20	34	37	100	105	637	962	514	176
6	89	41	e26	e23	36	39	100	87	434	1040	474	137
7	88	34	e24	e28	35	38	84	80	298	1010	396	114
8	86	34	e22	e31	34	36	73	91	218	1090	374	100
9	85	31	e21	e37	32	56	67	105	230	1420	335	93
10	80	25	e21	e44	32	57	72	134	394	1110	320	88
11	73	34	e21	e43	32	50	93	163	623	706	295	82
12	65	34	e20	e47	32	58	111	149	707	572	262	78
13	56	30	e22	e71	32	93	102	108	719	517	243	76
14	49	30	e23	e64	34	118	80	88	592	560	250	76
15	44	27	e24	e43	34	74	69	83	400	619	261	75
16	39	26	e24	e40	33	64	64	77	312	672	275	74
17	36	28	e24	e48	30	57	60	93	262	1050	251	72
18	34	e26	e24	e47	31	57	57	149	303	891	230	69
19	32	e30	e23	e47	36	63	54	218	338	647	214	64
20	30	e31	e23	e47	45	66	54	281	358	600	217	61
21	28	30	e23	e47	49	58	53	312	398	615	225	60
22	27	30	e22	e47	48	54	52	277	510	605	305	61
23	26	30	e21	e47	49	55	64	196	668	534	310	61
24	26	30	e20	e47	51	59	96	168	837	529	267	58
25	25	26	e22	e46	51	59	137	143	940	521	215	55
26	25	27	e22	e45	48	51	159	186	932	493	183	51
27	24	e27	e22	e43	47	47	156	247	913	536	164	47
28	22	e28	e22	e39	43	43	139	277	903	646	149	45
29	20	e26	e22	e32	---	41	139	360	963	752	131	42
30	19	e26	e21	e30	---	42	204	401	788	752	117	39
31	19	---	e21	e29	---	49	---	455	---	557	114	---
TOTAL	1454	840	715	1214	1056	1673	2700	5597	16643	23169	8992	2628
MEAN	46.9	28.0	23.1	39.2	37.7	54.0	90.0	181	555	747	290	87.6
MAX	89	41	28	71	51	118	204	455	963	1420	514	214
MIN	19	17	20	20	30	36	52	77	218	493	114	39
AC-FT	2880	1670	1420	2410	2090	3320	5360	11100	33010	45960	17840	5210

e Estimated.

SAN JOAQUIN RIVER BASIN

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.9	15.3	19.5	21.5	23.4	32.5	86.2	251	346	201	65.9	28.3
MAX	62.2	56.1	71.2	82.5	61.0	79.8	172	586	740	747	349	260
(WY)	1983	1951	1956	1980	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1922 - 1995			
ANNUAL TOTAL	22851.6				66681							
ANNUAL MEAN	62.6				183				92.4			
HIGHEST ANNUAL MEAN									201			
LOWEST ANNUAL MEAN									29.2			
HIGHEST DAILY MEAN	397				May 31				2610			
LOWEST DAILY MEAN	4.6				Sep 11				1.2			
ANNUAL SEVEN-DAY MINIMUM	4.7				Sep 10				1.2			
INSTANTANEOUS PEAK FLOW					1650				Jul 9			
INSTANTANEOUS PEAK STAGE					6.73				Jul 9			
ANNUAL RUNOFF (AC-FT)	45330				132300				66930			
10 PERCENT EXCEEDS	162				580				290			
50 PERCENT EXCEEDS	28				61				29			
90 PERCENT EXCEEDS	10				24				7.0			

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, 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, 462 ft³/s, June 11, 12, 1991; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	16	26	e19	29	39	56	184	.00	.00	.00	118
2	53	17	26	20	31	36	55	125	.00	.00	.00	144
3	52	15	25	20	32	35	60	119	.00	.00	.00	188
4	51	17	27	19	31	35	84	123	.00	.00	142	210
5	81	24	26	18	33	36	98	101	.00	.00	247	173
6	88	40	25	21	35	38	84	83	.00	.00	237	133
7	86	33	23	26	33	37	.00	77	.00	.00	231	110
8	84	32	21	30	33	35	.00	88	.00	.00	225	97
9	83	30	20	35	31	54	.00	102	.00	.00	224	89
10	79	24	20	43	31	56	.00	131	.00	.00	218	85
11	71	33	20	42	31	48	.00	160	.00	.00	213	79
12	63	33	19	46	31	57	59	146	.00	.00	212	74
13	54	28	21	70	31	92	100	105	.00	.00	218	72
14	47	29	e22	62	32	116	78	85	.00	.00	218	72
15	43	26	23	41	33	73	68	80	.00	.00	231	71
16	37	24	23	38	32	62	63	74	.00	.00	223	71
17	35	26	23	e47	29	55	59	51	.00	.00	215	69
18	32	25	23	46	30	55	56	.00	.00	.00	213	66
19	30	29	22	46	35	61	53	.00	.00	.00	210	61
20	29	29	22	46	44	65	53	.00	.00	.00	214	57
21	27	28	22	46	47	56	51	.00	.00	.00	220	56
22	26	29	21	46	47	52	50	.00	.00	.00	225	58
23	25	29	20	46	47	53	63	.00	.00	.00	223	57
24	24	29	19	46	50	57	95	.00	.00	.00	217	55
25	23	24	21	45	50	57	134	.00	.00	.00	207	52
26	23	26	21	44	47	50	156	.00	.00	.00	179	48
27	22	26	21	42	45	46	153	.00	.00	.00	160	44
28	21	26	21	38	41	41	136	.00	.00	.00	145	42
29	19	24	21	31	---	40	136	.00	.00	.00	127	38
30	17	25	20	29	---	40	201	.00	.00	.00	114	35
31	18	---	e20	28	---	47	---	.00	---	.00	111	---
TOTAL	1404	796	684	1176	1021	1624	2201.00	1834.00	0.00	0.00	5619.00	2524
MEAN	45.3	26.5	22.1	37.9	36.5	52.4	73.4	59.2	.000	.000	181	84.1
MAX	88	40	27	70	50	116	201	184	.00	.00	247	210
MIN	17	15	19	18	29	35	.00	.00	.00	.00	.00	35
AC-FT	2780	1580	1360	2330	2030	3220	4370	3640	.00	.00	11150	5010

e Estimated.

SAN JOAQUIN RIVER BASIN

11230520 BEAR CREEK CONDUIT NEAR LAKE THOMAS A. EDISON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.9	12.2	9.93	14.0	15.8	32.9	92.8	176	173	54.1	39.9	19.6
MAX	45.3	26.5	22.1	37.9	36.5	52.4	138	226	326	137	181	84.1
(WY)	1995	1995	1995	1995	1995	1995	1989	1992	1991	1991	1995	1995
MIN	3.23	3.68	3.23	3.46	4.12	17.4	43.2	59.2	.000	.000	10.6	4.53
(WY)	1989	1991	1991	1991	1991	1987	1991	1995	1995	1995	1989	1987

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1987 - 1995
ANNUAL TOTAL	23081.9	18883.00	
ANNUAL MEAN	63.2	51.7	54.1
HIGHEST ANNUAL MEAN			61.8 1981
LOWEST ANNUAL MEAN			49.2 1990
HIGHEST DAILY MEAN	433 May 31	247 Aug 5	462 Jun 11 1991
LOWEST DAILY MEAN	2.0 Sep 11	.00 Apr 7	.00 Oct 18 1988
ANNUAL SEVEN-DAY MINIMUM	2.3 Sep 10	.00 May 18	.00 May 18 1995
ANNUAL RUNOFF (AC-FT)	45780	37450	39190
10 PERCENT EXCEEDS	166	136	172
50 PERCENT EXCEEDS	26	33	20
90 PERCENT EXCEEDS	7.8	.00	3.5

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 mi².

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 ft³/s, July 9, 1995, gage height, 14.75 ft; minimum daily, 0.94 ft³/s, Oct. 15, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft³/s, July 9, gage height, 14.75 ft; minimum daily, 1.1 ft³/s, Feb. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.5	1.5	e1.5	e1.4	e1.5	1.6	3.3	454	720	490	3.5
2	1.6	1.5	1.5	e1.5	e1.4	e1.5	1.6	3.3	382	754	451	3.5
3	1.6	1.5	1.5	e1.5	e1.4	e1.5	1.5	3.3	480	822	481	3.6
4	1.7	1.5	1.5	e1.5	e1.3	e1.4	1.2	3.3	650	867	337	3.7
5	1.8	1.5	e1.4	e1.6	e1.3	e1.4	1.2	3.3	637	962	267	3.6
6	1.7	1.5	e1.4	e1.6	e1.3	e1.4	1.6	3.3	434	1040	237	3.5
7	1.7	1.5	e1.5	e1.6	e1.3	e1.4	84	3.3	298	1010	165	3.4
8	1.9	1.5	e1.4	e1.5	e1.3	1.5	73	3.3	218	1090	150	3.3
9	2.1	1.5	e1.3	e1.6	e1.3	1.5	67	3.3	230	1420	111	3.1
10	1.7	1.5	e1.4	e1.5	e1.3	1.6	72	3.3	394	1110	102	3.1
11	1.9	1.5	e1.3	e1.5	e1.2	1.6	93	3.4	623	706	82	3.4
12	1.8	1.5	e1.4	e1.5	e1.3	1.6	52	3.4	707	572	49	3.7
13	1.8	1.5	e1.4	e1.5	e1.2	1.6	1.2	3.4	719	517	25	3.7
14	1.6	1.5	e1.3	e1.6	e1.3	1.6	1.2	3.4	592	560	32	3.7
15	1.6	1.5	e1.3	e1.6	e1.2	1.6	1.2	3.4	400	619	30	3.7
16	1.6	1.5	e1.5	e1.6	e1.2	1.6	1.2	3.4	312	672	53	3.7
17	1.6	1.5	e1.4	e1.5	e1.1	1.5	1.2	41	262	1050	36	3.6
18	1.6	1.4	e1.4	e1.5	e1.2	1.5	1.2	149	303	891	17	3.6
19	1.6	1.3	e1.5	e1.5	e1.3	1.5	1.2	218	338	647	4.5	3.6
20	1.6	1.6	e1.5	e1.4	e1.5	1.5	1.2	281	358	600	3.7	3.6
21	1.6	1.5	e1.5	e1.3	e1.5	1.5	1.3	312	398	615	5.2	3.6
22	1.6	1.5	e1.5	e1.4	e1.5	1.5	1.3	277	510	605	80	3.6
23	1.6	1.5	e1.5	e1.4	e1.5	1.5	1.3	196	668	534	87	3.6
24	1.6	1.4	e1.5	e1.4	e1.5	1.5	1.3	168	837	529	50	3.6
25	1.6	1.5	e1.5	e1.4	e1.5	1.4	2.2	143	940	521	8.3	3.6
26	1.6	1.4	e1.5	e1.4	e1.5	1.5	3.2	186	932	493	3.7	3.6
27	1.6	1.4	e1.5	e1.4	e1.5	1.6	3.2	247	913	536	3.7	3.5
28	1.6	1.6	e1.5	e1.4	e1.5	1.6	3.2	277	903	646	3.6	3.5
29	1.6	1.5	e1.5	e1.4	---	1.6	3.3	360	963	752	3.6	3.5
30	1.5	1.5	e1.5	e1.4	---	1.6	3.3	401	788	752	3.6	3.5
31	1.5	---	e1.4	e1.4	---	1.6	---	455	---	557	3.6	---
TOTAL	51.9	44.6	44.8	45.9	37.8	47.2	497.3	3764.4	16643	23169	3375.5	106.2
MEAN	1.67	1.49	1.45	1.48	1.35	1.52	16.6	121	555	747	109	3.54
MAX	2.1	1.6	1.5	1.6	1.5	1.6	93	455	963	1420	490	3.7
MIN	1.5	1.3	1.3	1.3	1.1	1.4	1.2	3.3	218	493	3.6	3.1
AC-FT	103	88	89	91	75	94	986	7470	33010	45960	6700	211

e Estimated.

11230530 BEAR CREEK BELOW DIVERSION DAM, NEAR LAKE THOMAS A. EDISON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.88	1.68	1.73	1.82	1.82	1.88	3.67	17.8	75.1	95.7	15.9	3.27
MAX	2.60	2.41	2.47	2.59	2.60	2.54	16.6	121	555	747	109	6.43
(WY)	1994	1994	1994	1994	1994	1994	1995	1995	1995	1995	1995	1989
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1987 - 1995			
ANNUAL TOTAL	835.8				47827.6							
ANNUAL MEAN	2.29				131				18.6			
HIGHEST ANNUAL MEAN									131			
LOWEST ANNUAL MEAN									1.98			
HIGHEST DAILY MEAN	14				May 14				1420			
LOWEST DAILY MEAN	1.3				Nov 19				Jul 9			
ANNUAL SEVEN-DAY MINIMUM	1.3				Dec 9				Jul 9			
INSTANTANEOUS PEAK FLOW									1.1			
INSTANTANEOUS PEAK STAGE									Feb 17			
ANNUAL RUNOFF (AC-FT)	1660				94870				1.2			
10 PERCENT EXCEEDS	2.6				580				Apr 13			
50 PERCENT EXCEEDS	2.3				1.6				Jul 9			
90 PERCENT EXCEEDS	1.5				1.4				Jul 9			

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LOCATION.--Lat 37°18'26", long 119°01'08", unsurveyed, T.7 S, R.27 E, Fresno County, Hydrologic Unit 18040006, Sierra National Forest, 30 ft downstream from diversion dam to Ward Tunnel, 0.7 mi upstream from mouth, 1.7 mi south of Mono Hot Springs, and 14.0 mi northeast of town of Big Creek.

GAGE.--Water-stage recorder and 90° V-notch weir control. Elevation of gage is 7,260 ft above sea level, from topographic map.

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.

[illegible]

SAN JOAQUIN RIVER BASIN

11230600 CAMP 62 CREEK BELOW DIVERSION DAM, NEAR BIG CREEK, CA

LOCATION.--Lat 37°18'32", long 119°01'37", unsurveyed, T.7 S., R.27 E., Fresno County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 30 ft downstream from diversion dam, 1.4 mi southwest of Mono Hot Springs, and 13.5 mi northeast of town of Big Creek.

DRAINAGE AREA, --1.97 mi².

PERIOD OF RECORD.--October 1986 to current year. Prior to October 1991 published as "at Diversion Dam."

GAGE.--Water-stage recorder and 90° V-notch weir control. Elevation of gage is 7,320 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records of fishery release normally are computed only during periods of diversion to Ward Tunnel. Diversion during the current year occurred Aug. 14 to Sept. 30. Flow over the spillway bypasses this 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

[illegible]

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 mi².

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 Apr. 29 to May 3, May 21, 22, May 29 to June 16, June 18 to July 11, and July 14 to Sept. 14. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	e5.6	e10	e13	.59	.56
2	---	---	---	---	---	---	---	e6.1	e9.2	e14	.59	.56
3	---	---	---	---	---	---	---	e6.8	e9.3	e13	.59	.56
4	---	---	---	---	---	---	---	---	e11	e12	.59	.56
5	---	---	---	---	---	---	---	---	e10	e14	.59	.56
6	---	---	---	---	---	---	---	---	e7.0	e13	.59	.56
7	---	---	---	---	---	---	---	---	e4.2	e12	.59	.56
8	---	---	---	---	---	---	---	---	e2.9	e12	.59	.56
9	---	---	---	---	---	---	---	---	.56	e11	.59	.56
10	---	---	---	---	---	---	---	---	1.1	e12	.59	.56
11	---	---	---	---	---	---	---	---	4.7	e14	.59	.56
12	---	---	---	---	---	---	---	---	e10	---	.59	.56
13	---	---	---	---	---	---	---	---	e13	---	.59	.55
14	---	---	---	---	---	---	---	---	e13	e7.3	.59	.53
15	---	---	---	---	---	---	---	---	e14	.59	.59	---
16	---	---	---	---	---	---	---	---	e15	.59	.59	---
17	---	---	---	---	---	---	---	---	---	1.2	.59	---
18	---	---	---	---	---	---	---	---	e14	.59	.59	---
19	---	---	---	---	---	---	---	---	e15	.59	.59	---
20	---	---	---	---	---	---	---	---	e15	.59	.59	---
21	---	---	---	---	---	---	---	e14	e15	.59	.59	---
22	---	---	---	---	---	---	---	e14	e14	.59	.59	---
23	---	---	---	---	---	---	---	---	e14	.59	.59	---
24	---	---	---	---	---	---	---	---	e14	.61	.59	---
25	---	---	---	---	---	---	---	---	e14	.61	.59	---
26	---	---	---	---	---	---	---	---	e14	.61	.59	---
27	---	---	---	---	---	---	---	---	e15	.61	.56	---
28	---	---	---	---	---	---	---	---	e14	.61	.56	---
29	---	---	---	---	---	---	e4.6	e15	e14	.61	.56	---
30	---	---	---	---	---	---	e5.7	e14	e12	.61	.56	---
31	---	---	---	---	---	---	---	e9.6	---	.61	.56	---
TOTAL	---	---	---	---	---	---	---	---	---	---	18.14	---
MEAN	---	---	---	---	---	---	---	---	---	---	.59	---
MAX	---	---	---	---	---	---	---	---	---	---	.59	---
MIN	---	---	---	---	---	---	---	---	---	---	.56	---
AC-FT	---	---	---	---	---	---	---	---	---	---	36	---

e Estimated.

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 18.1 mi northeast of town of Big Creek.

DRAINAGE AREA.--90.0 mi².

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). See schematic diagram of upper San Joaquin River basin. Records, including extremes, represent contents at 2400 hours.

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, 125,128 acre-ft, Aug. 24, elevation, 7,642.41 ft; minimum, 9,298 acre-ft, Apr. 20, elevation, 7,559.70 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32690	30523	30534	31443	33089	24483	20437	13608	27884	91550	121748	123574
2	32444	30568	30500	31489	32866	24185	19794	14299	29591	94236	121215	123297
3	32186	30557	30466	31547	32667	24355	19069	14938	31489	97184	121066	123112
4	32034	30557	30443	31743	32468	24504	18387	15622	33756	100068	121049	122983
5	31916	30682	30375	31836	32268	24653	17713	16150	36290	103202	121472	122909
6	31709	30785	30330	31951	32060	24749	17046	16638	38236	106537	122318	122798
7	31501	30865	30330	32069	31893	24780	16379	17064	39749	109784	123038	122577
8	31316	30935	30330	32196	31720	24376	15677	17552	40950	113125	123574	122226
9	31143	30946	30330	32350	31535	24227	14947	18033	42112	117055	124109	122079
10	30946	31039	30330	32667	31339	24568	14247	18608	43582	119526	124461	121914
11	30762	31073	30330	32714	31154	24812	13608	19274	45660	119544	124017	121803
12	30546	31108	30330	32937	30958	25046	13240	19911	48094	119214	124128	121932
13	30386	31143	30330	33113	30831	25303	13317	20477	50640	118811	124331	121766
14	30295	31166	30659	33280	30591	25529	12993	20936	53197	118500	124479	121123
15	30193	31247	30705	33470	30114	25712	12544	21411	54855	118335	124535	120479
16	30034	31258	30762	33577	29681	25874	11959	21584	56350	118335	124739	119947
17	30023	31223	30796	33672	29199	25831	11289	21320	57631	118738	124720	119508
18	30057	31166	30842	33779	28750	25410	10585	21036	58880	118939	124591	119251
19	30102	31096	30877	33851	28305	24961	9868	20966	60318	118719	124591	118921
20	30159	31062	30912	33910	27928	24780	9298	21127	61831	118829	124646	118573
21	30227	30946	30946	34005	27508	24632	9313	21472	63332	119709	124628	118244
22	30273	30900	30992	34089	27091	24419	9328	21879	65126	120369	124702	117896
23	30318	30831	31027	34089	26687	24344	9387	22062	67334	120773	124776	117531
24	30364	30773	31108	34412	26316	24334	9521	22113	70053	121068	125128	117165
25	30409	30739	31166	34460	25939	23964	9729	22011	73124	121288	124868	116800
26	30443	30659	31200	34339	25594	23629	10053	22001	76342	121472	124868	116435
27	30489	30637	31235	34184	25217	23272	10538	22371	79411	121527	124813	116034
28	30500	30568	31304	33958	24866	22856	11037	22877	82489	121711	124628	115251
29	30511	30500	31351	33732	---	22226	11656	23587	85908	122097	124387	113688
30	30500	30591	31362	33529	---	21767	12619	24493	88795	122411	124128	112926
31	30511	---	31420	33303	---	21086	---	25885	---	122245	123555	---
MAX	32690	31258	31420	34460	33089	25874	20437	25885	88795	122411	125128	123574
MIN	30023	30500	30330	31443	24866	21086	9298	13608	27884	91550	121049	112926
a	7581.77	7581.84	7582.56	7584.17	7576.65	7573.01	7563.86	7577.60	7622.22	7640.99	7641.70	7635.89
b	-2354	+80	+829	+1883	-8437	-3780	-8467	+13266	+62910	+33450	+1310	-10629
CAL YR 1994	b	-25620										
WTR YR 1995	b	+80061										

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 mi².

PERIOD OF RECORD.--October 1921 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near 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.--No estimated daily discharges. 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 ft³/s, Sept. 26, 1982, gage height, 8.87 ft; minimum daily, 0.3 ft³/s, Nov. 11, 12, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s, July 10, gage height, 7.98 ft; minimum daily, 7.1 ft³/s, several days in October.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	22	73	19	150	274	443	46	41	25	1070	320
2	162	23	73	19	150	197	441	37	38	24	1050	320
3	163	23	73	19	150	23	483	36	39	23	750	320
4	163	23	73	19	150	23	522	36	40	23	460	272
5	163	23	73	19	150	23	514	32	38	23	280	262
6	163	23	56	19	150	23	511	29	33	23	293	275
7	163	23	19	19	150	75	507	28	29	23	277	319
8	163	23	19	19	150	274	502	28	27	22	293	207
9	163	23	19	19	150	275	498	31	27	22	397	208
10	163	23	19	19	148	100	496	35	29	611	594	161
11	163	23	19	19	147	21	493	39	32	1300	371	58
12	163	23	19	19	147	21	353	37	30	1300	294	242
13	126	23	19	19	147	21	163	32	29	1250	309	421
14	103	23	19	19	212	21	330	30	29	1210	315	429
15	103	21	19	19	289	21	366	29	28	1190	302	355
16	103	38	19	19	289	21	421	167	27	1170	360	296
17	55	75	19	19	289	141	461	396	27	1190	374	233
18	7.3	75	19	19	288	362	479	507	26	1230	295	249
19	7.2	75	19	19	285	338	475	509	26	1230	280	256
20	7.1	75	19	19	285	249	377	513	26	899	304	256
21	7.1	75	19	19	284	253	102	521	25	545	284	256
22	7.1	75	19	19	282	253	101	499	25	635	335	256
23	7.1	75	19	19	282	179	101	489	25	690	407	256
24	7.1	75	19	19	280	143	104	487	25	717	415	256
25	7.1	75	19	62	278	271	107	484	25	739	278	256
26	7.1	75	19	148	277	269	79	447	25	745	278	283
27	11	75	19	150	274	266	30	328	24	802	311	451
28	22	75	19	150	274	308	29	321	24	846	312	433
29	22	75	19	150	---	404	31	321	26	856	312	430
30	22	74	19	150	---	419	39	322	25	860	315	430
31	22	---	19	150	---	447	---	179	---	971	320	---
TOTAL	2606.2	1429	896	1416	6107	5715	9558	6995	870	21194	12235	8766
MEAN	84.1	47.6	28.9	45.7	218	184	319	226	29.0	684	395	292
MAX	163	75	73	150	289	447	522	521	41	1300	1070	451
MIN	7.1	21	19	19	147	21	29	28	24	22	277	58
AC-FT	5170	2830	1780	2810	12110	11340	18960	13870	1730	42040	24270	17390

SAN JOAQUIN RIVER BASIN

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1954, BY WATER YEAR (WY)

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	91.5	158	204	220	213	174	120	65.5	70.5	203	222	169
MAX	265	423	437	467	472	479	647	515	577	684	414	450
(WY)	1994	1994	1968	1984	1973	1973	1983	1983	1969	1995	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1956 - 1995

ANNUAL TOTAL	45402.2		77787.2	
ANNUAL MEAN	124		213	159
HIGHEST ANNUAL MEAN				366
LOWEST ANNUAL MEAN				53.2
HIGHEST DAILY MEAN	500	Sep 2	1300	Jul 11
LOWEST DAILY MEAN	7.1	Oct 20	7.1	Oct 20
ANNUAL SEVEN-DAY MINIMUM	7.1	Oct 20	7.1	Oct 20
INSTANTANEOUS PEAK FLOW			1380	Jul 10
INSTANTANEOUS PEAK STAGE			7.98	Jul 10
ANNUAL RUNOFF (AC-FT)	90060		154300	115300
10 PERCENT EXCEEDS	414		498	420
50 PERCENT EXCEEDS	27		141	92
90 PERCENT EXCEEDS	19		19	13

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 ft³/s, Apr. 7, 1995; minimum daily, -18 ft³/s, June 11, 1993 (reverse flow from Bear Creek Conduit).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	16	67	13	143	267	436	32	25	.00	.00	305
2	155	17	67	13	143	190	433	23	22	.00	.00	305
3	157	17	67	13	143	16	448	22	23	.00	e145	302
4	157	17	67	13	144	16	e412	21	24	.00	335	255
5	157	17	67	e13	144	16	e399	17	22	.00	257	247
6	157	17	51	e13	144	17	e444	15	17	.00	267	260
7	156	17	12	e13	144	68	499	13	13	.00	256	300
8	157	17	13	e13	144	267	494	13	11	.00	273	193
9	157	17	13	e13	144	268	490	16	11	.00	260	194
10	157	17	13	e13	142	94	488	21	14	.00	236	144
11	157	18	13	e13	141	16	485	25	16	.00	251	41
12	156	18	13	e13	141	15	345	22	e9.4	.00	253	218
13	119	18	13	e13	141	15	156	18	e.00	.00	270	405
14	97	18	13	e13	205	15	323	15	.00	.00	264	407
15	97	15	13	e13	282	15	358	14	.00	.00	282	339
16	97	31	13	e13	282	15	413	152	.00	.00	266	280
17	48	67	13	e13	282	134	453	380	.00	.00	256	218
18	.75	67	13	e13	281	355	471	476	.00	.00	271	234
19	.69	68	13	13	278	331	467	475	.00	.00	264	232
20	.57	69	13	13	278	242	369	470	.00	.00	285	241
21	.57	69	13	13	276	246	95	471	.00	.00	267	241
22	.68	69	13	13	274	246	95	469	.00	.00	270	241
23	.68	69	13	13	274	172	95	473	.00	.00	283	241
24	.68	69	13	13	273	136	97	471	.00	.00	324	241
25	.68	69	13	56	271	263	97	469	.00	.00	262	241
26	.57	69	13	142	269	262	66	432	.00	.00	263	267
27	4.0	69	13	144	267	259	16	314	.00	.00	296	433
28	15	69	13	144	267	301	15	307	.00	.00	297	416
29	15	69	13	144	---	396	17	307	.00	.00	297	413
30	15	68	13	143	---	412	25	308	.00	.00	300	413
31	15	---	13	143	---	439	---	163	---	.00	305	---
TOTAL	2403.87	1247	710 ⁴	1228	5917	5504	9001	6424	207.40	0.00	7855.00	8267
MEAN	77.5	41.6	22.9	39.6	211	178	300	207	6.91	.000	253	276
MAX	157	69	67	144	282	439	499	476	25	.00	335	433
MIN	.57	15	12	13	141	15	15	13	.00	.00	.00	41
AC-FT	4770	2470	1410	2440	11740	10920	17850	12740	411	.00	15580	16400

e Estimated.

SAN JOAQUIN RIVER BASIN

11231550 MONO CREEK CONDUIT NEAR MONO HOT SPRINGS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.6	119	116	72.1	62.9	105	106	58.4	55.9	148	247	170
MAX	254	412	421	213	211	253	300	207	155	417	383	440
(WY)	1994	1994	1987	1987	1995	1994	1995	1995	1989	1989	1989	1994
MIN	13.8	12.6	1.39	4.08	3.72	8.00	14.8	6.07	6.91	.000	134	11.8
(WY)	1990	1989	1991	1991	1991	1990	1992	1989	1995	1995	1992	1989

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1987 - 1995

ANNUAL TOTAL	42291.67	48764.27	
ANNUAL MEAN	116	134	112
HIGHEST ANNUAL MEAN			204
LOWEST ANNUAL MEAN			50.5
HIGHEST DAILY MEAN	490	Sep 2	499
LOWEST DAILY MEAN	.57	Oct 20	.00
ANNUAL SEVEN-DAY MINIMUM	.63	Oct 20	.00
ANNUAL RUNOFF (AC-FT)	83890	96720	80960
10 PERCENT EXCEEDS	404	356	381
50 PERCENT EXCEEDS	18	67	26
90 PERCENT EXCEEDS	12	.00	7.0

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 mi².

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. 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. 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 ft³/s, July 11, 12, 1995; minimum daily, 4.1 ft³/s, Dec. 12-16, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,300 ft³/s, July 11, 12; minimum daily, 5.3 ft³/s, Nov. 12-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	6.2	5.4	5.7	6.5	7.2	7.8	14	16	25	1070	15
2	6.8	5.7	5.5	5.7	6.5	7.1	7.8	14	16	24	1050	15
3	6.7	5.7	5.5	5.7	6.5	6.8	34	14	16	23	e605	18
4	6.7	5.7	5.6	5.7	6.4	6.7	e110	15	16	23	125	17
5	6.8	5.7	5.6	e5.7	6.4	6.7	e115	15	16	23	22	15
6	6.8	5.6	5.8	e5.7	6.4	6.3	e67	15	16	23	26	15
7	6.8	5.6	6.6	e5.7	6.4	6.2	8.0	15	16	23	22	18
8	6.7	5.5	6.2	e5.7	6.4	7.2	8.0	15	16	22	19	14
9	6.8	5.5	5.9	e5.7	6.4	7.2	8.0	15	16	22	136	14
10	6.8	5.5	5.7	e5.7	6.4	6.3	8.0	15	16	611	358	16
11	6.8	5.4	5.8	e5.7	6.4	5.9	8.0	15	16	1300	120	17
12	6.8	5.3	5.9	e5.7	6.4	5.9	7.6	15	16	1300	41	24
13	6.8	5.3	5.9	e5.7	6.4	5.9	6.8	15	16	1250	39	16
14	6.8	5.3	5.9	e5.7	6.7	5.9	7.5	15	29	1210	51	21
15	6.8	5.5	5.9	e5.7	7.1	5.8	7.5	15	28	1190	20	16
16	6.8	6.9	5.8	e5.7	7.1	5.8	7.7	15	27	1170	94	15
17	6.7	7.8	5.9	e5.7	7.1	6.6	8.1	16	27	1190	118	15
18	6.5	7.8	5.9	e5.7	7.1	7.6	8.4	31	26	1230	25	15
19	6.5	7.0	5.8	5.6	7.2	7.5	8.2	34	26	1230	16	24
20	6.5	5.8	5.8	5.6	7.2	7.2	7.7	42	26	899	19	15
21	6.5	5.8	5.8	5.5	7.3	7.2	6.6	50	25	545	17	15
22	6.4	5.7	5.7	5.5	7.3	7.3	6.6	30	25	635	65	15
23	6.4	5.7	5.7	5.5	7.3	6.9	6.6	16	25	690	124	15
24	6.4	5.7	5.6	5.6	7.3	6.7	6.6	16	25	717	91	15
25	6.4	5.7	5.6	5.8	7.2	7.4	9.8	16	25	739	16	15
26	6.5	5.7	5.6	6.3	7.3	7.4	13	15	25	745	15	15
27	6.7	5.6	5.6	6.4	7.3	7.4	13	15	24	802	15	17
28	6.7	5.6	5.6	6.4	7.2	7.5	15	15	24	846	15	17
29	6.8	5.6	5.6	6.4	---	7.8	14	14	26	856	15	17
30	6.8	5.6	5.6	6.5	---	7.8	14	14	25	860	15	17
31	6.9	---	5.7	6.5	---	7.8	---	15	---	971	15	---
OTAL	208.4	175.5	178.5	180.2	191.2	213.0	556.3	576	646	21194	4379	493
EAN	6.72	5.85	5.76	5.81	6.83	6.87	18.5	18.6	21.5	684	141	16.4
AX	8.0	7.8	6.6	6.5	7.3	7.8	115	50	29	1300	1070	24
IN	6.4	5.3	5.4	5.5	6.4	5.8	6.6	14	16	22	15	14
C-FT	413	348	354	357	379	422	1100	1140	1280	42040	8690	978

e Estimated.

11231600 MONO CREEK BELOW DIVERSION DAM, NEAR MONO HOT SPRINGS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.30	7.07	6.79	6.58	6.75	6.69	8.18	11.6	12.7	96.4	25.6	11.7
MAX	11.4	10.1	8.99	9.05	8.97	9.20	18.5	18.6	21.5	684	141	16.4
(WY)	1994	1994	1994	1994	1994	1987	1995	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1987 - 1995

ANNUAL TOTAL	3108.8	28991.1	
ANNUAL MEAN	8.52	79.4	17.5
HIGHEST ANNUAL MEAN			79.4
LOWEST ANNUAL MEAN			7.83
HIGHEST DAILY MEAN	12	Aug 20	1300
LOWEST DAILY MEAN	5.3	Nov 12	5.3
ANNUAL SEVEN-DAY MINIMUM	5.4	Nov 8	5.4
ANNUAL RUNOFF (AC-FT)	6170	57500	12690
10 PERCENT EXCEEDS	10	66	14
50 PERCENT EXCEEDS	9.3	7.6	8.8
90 PERCENT EXCEEDS	5.7	5.7	5.8

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 mi².

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 June 23 to Sept. 30. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.16	---	---	---	---	---	---	---	.00	1.7	.29
2	.16	---	---	---	---	---	---	---	---	.00	1.7	.21
3	.16	---	---	---	---	---	---	---	---	.75	1.7	.22
4	.19	---	---	---	---	---	---	---	---	2	1.7	.25
5	.24	---	---	---	---	---	---	---	---	2	1.4	.29
6	.22	---	---	---	---	---	---	---	---	2	.99	.29
7	.21	---	---	---	---	---	---	---	---	2	.99	.28
8	.29	---	---	---	---	---	---	---	---	1.7	.99	.29
9	.39	---	---	---	---	---	---	---	---	1.5	.99	.29
10	.38	---	---	---	---	---	---	---	---	1.7	.99	.29
11	.31	---	---	---	---	---	---	---	---	1.9	.99	.29
12	.28	---	---	---	---	---	---	---	---	1.9	.99	.29
13	.22	---	---	---	---	---	---	---	---	1.8	.99	.29
14	.21	---	---	---	---	---	---	---	---	1.8	.99	.29
15	.19	---	---	---	---	---	---	---	---	1.8	.99	.29
16	.18	---	---	---	---	---	---	---	---	1.8	.99	.29
17	.18	---	---	---	---	---	---	---	---	1.8	.99	.29
18	.18	---	---	---	---	---	---	---	---	1.8	.99	.29
19	.18	---	---	---	---	---	---	---	---	1.8	.99	.29
20	.18	---	---	---	---	---	---	---	---	1.8	.99	.29
21	.17	---	---	---	---	---	---	---	---	1.8	.76	.25
22	.17	---	---	---	---	---	---	---	---	1.8	.39	.29
23	.16	---	---	---	---	---	---	---	.69	1.8	.28	.29
24	.16	---	---	---	---	---	---	---	.69	1.8	.40	.29
25	.16	---	---	---	---	---	---	---	.63	1.8	.40	.29
26	.16	---	---	---	---	---	---	---	.55	1.8	.40	.28
27	.16	---	---	---	---	---	---	---	.00	1.8	.40	.27
28	.16	---	---	---	---	---	---	---	.00	1.8	.34	.27
29	.16	---	---	---	---	---	---	---	.29	1.8	.29	.27
30	.16	---	---	---	---	---	---	---	.26	1.7	.29	.27
31	.16	---	---	---	---	---	---	---	---	1.7	.29	---
TOTAL	6.30	---	---	---	---	---	---	---	---	51.45	27.29	8.37
MEAN	.20	---	---	---	---	---	---	---	---	1.66	.88	.28
MAX	.39	---	---	---	---	---	---	---	---	2.0	1.7	.29
MIN	.16	---	---	---	---	---	---	---	---	.00	.28	.21
AC-FT	12	---	---	---	---	---	---	---	---	102	54	17

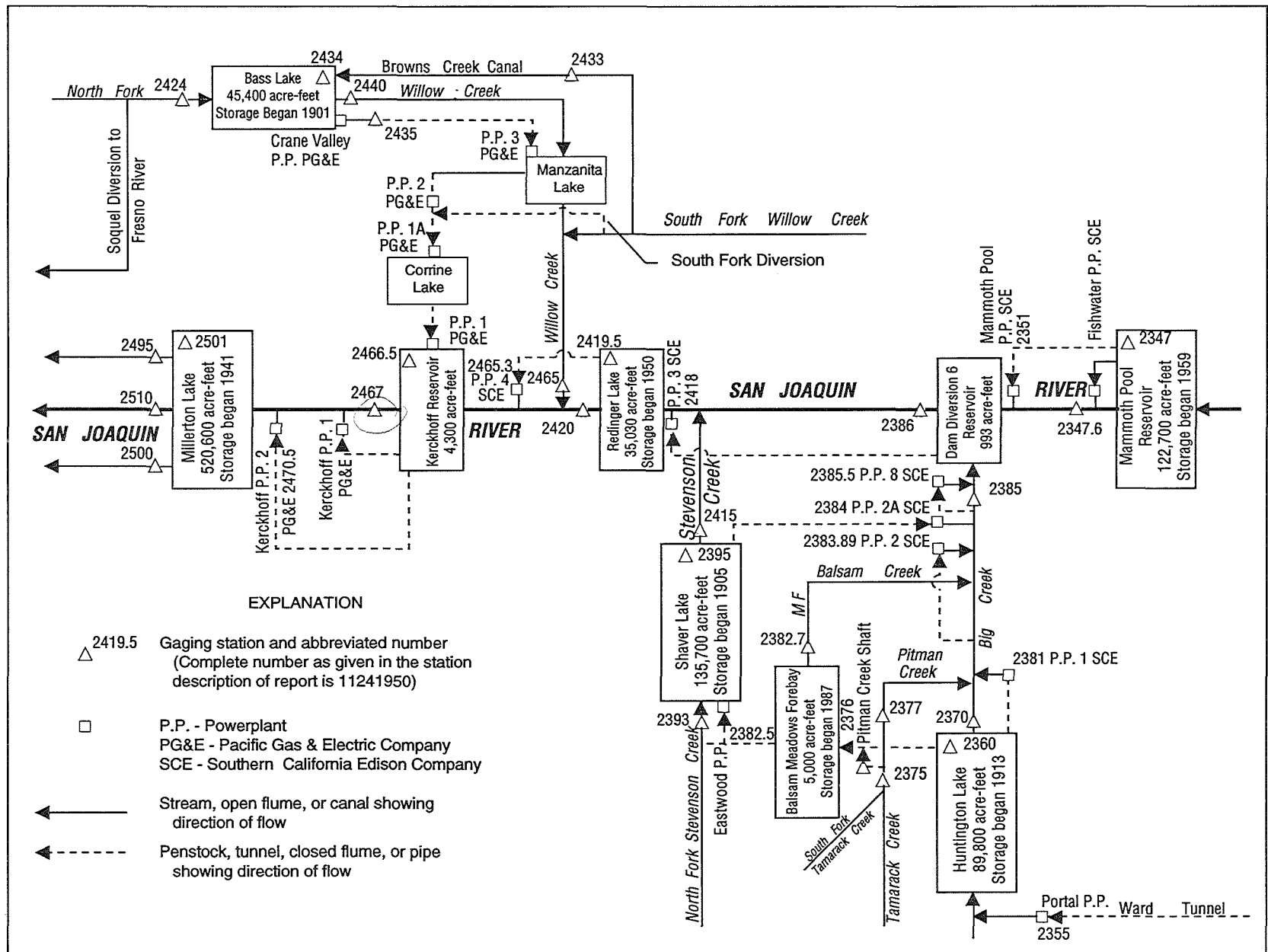


Figure 28. Diversions and storage in lower San Joaquin River basin.

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, 9.0 mi northwest of town of Big Creek.

DRAINAGE AREA.--995 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 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 diagrams of upper and 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, 126,503 acre-ft, June 2, 3, 1969; maximum elevation, 3,335.86 ft, June 3, 1969; 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, 125,248 acre-ft, July 9, elevation, 3,334.75 ft; minimum, 8,763 acre-ft, Oct. 3, elevation, 3,160.95 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	3,336	126,661

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e9293	e14413	e35916	e42712	e65614	e53571	e120006	e125180	e123783	e124999	e121848	e104252
2	e9081	e14347	e36663	e42172	e65486	e52660	e120239	e123716	e123300	e124999	e121370	e103821
3	e8763	e13940	e37564	e41226	e65094	e53422	e119765	e122999	e123783	e124999	e121125	e103821
4	e8870	e13413	e38466	e40560	e64750	e52953	e121203	e122574	e124266	e124999	e120892	e104252
5	e10333	e13546	e39117	e40695	e64399	e52358	e121548	e122328	e123783	e124999	e120892	e104463
6	e10844	e17331	e39773	e40959	e64057	e51901	e121793	e121848	e122820	e124751	e121125	e104252
7	e11373	e18986	e40560	e41766	e63718	e51146	e121793	e121615	e122328	e121789	e120648	e103379
8	e11914	e19930	e40959	e41897	e63382	e50100	e121548	e121848	e121848	e124751	e120416	e102949
9	e12406	e20818	e41362	e43397	e63046	e52794	e121303	e121848	e122093	e125248	e120172	e102520
10	e13223	e21738	e42034	e51880	e62371	e77143	e121303	e122328	e122820	e124751	e120416	e101872
11	e13875	e22204	e42442	e55572	e61542	e87354	e121548	e122574	e123783	e123536	e119700	e101444
12	e14621	e21595	e42851	e57638	e60887	e92373	e121793	e122093	e124030	e122820	e118524	e100374
13	e14969	e22257	e43397	e59903	e60229	e97573	e121793	e121615	e123783	e122574	e117585	e99300
14	e15323	e24545	e43671	e62557	e59745	e100958	e121303	e121370	e123300	e122574	e117735	e98676
15	e15396	e25051	e44228	e64519	e58931	e103971	e121303	e121125	e122820	e123054	e117039	e98462
16	e15539	e25666	e44782	e65478	e57958	e106806	e121069	e121125	e122093	e123300	e116357	e98248
17	e15254	e26304	e45480	e67878	e56994	e108575	e121069	e121370	e121848	e123783	e116357	e97833
18	e15254	e27060	e46184	e67708	e56046	e111260	e120826	e122093	e122093	e123300	e116357	e97621
19	e15682	e27496	e46745	e67529	e55262	e113528	e120826	e122820	e122328	e122820	e115432	e97418
20	e15830	e28274	e47314	e67001	e54793	e118351	e120826	e123054	e122328	e122328	e114521	e97006
21	e15612	e28940	e47599	e66483	e54793	e121203	e120826	e123054	e122328	e122328	e113370	e96795
22	e15539	e29620	e48171	e66129	e54635	e121437	e120826	e122820	e122820	e122093	e112997	e96173
23	e15539	e30302	e48755	e66129	e54635	e121437	e121069	e122574	e123300	e121848	e113370	e95553
24	e15323	e30996	e47884	e66483	e54793	e120958	e122026	e122574	e124030	e121848	e113834	e95144
25	e15041	e31815	e47170	e67001	e54951	e121203	e122507	e121904	e124266	e121848	e112917	e94736
26	e14778	e32648	e46327	e67001	e55262	e120958	e122507	e122261	e124176	e121848	e111552	e94319
27	e14691	e33361	e45760	e66831	e56276	e120958	e122507	e122630	e124176	e121848	e109751	e93911
28	e14483	e34415	e45760	e66653	e54499	e120482	e122753	e122931	e124176	e122093	e107969	e93098
29	e14554	e34807	e44924	e66129	---	e120006	e124695	e123189	e124999	e122574	e105994	e92486
30	e14413	e35174	e44228	e65783	---	e119765	e124695	e123446	e124999	e122574	e105116	e91668
31	e14413	---	e43397	e65438	---	e119765	---	e123783	---	e122093	e104684	---
MAX	15830	35174	48755	67878	65614	121437	124695	125180	124999	125248	121848	104463
MIN	8763	13413	35916	40560	54499	50100	119765	121125	121848	121789	104684	91668
a	3180.69	3227.35	3240.96	3271.85	3257.40	3329.84	3334.26	3333.45	3334.10	3331.94	3315.43	3302.02
b	+5186	+20761	+8223	+22041	-10939	+65266	+4930	-912	+1216	-2906	-17409	-13016

CAL YR 1994 b +31545
WTR YR 1995 b +82441

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CA

LOCATION (REVISED).--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 mi².

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 at times for low flows.

REMARKS.--No estimated daily discharges. 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 basins.

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, 18,400 ft³/s, June 3, 1969, gage height, 18.38 ft; minimum daily, 0.3 ft³/s, Oct. 14, Dec. 5, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,300 ft³/s, Apr. 30, gage height, 17.22 ft; minimum daily, 11 ft³/s, Dec. 20-23, Jan. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	16	11	50	826	949	13000	8980	9990	3310	29
2	15	15	16	11	115	823	1150	9850	7760	9200	2790	29
3	15	15	16	12	246	827	1190	6620	7770	9700	2370	29
4	17	15	16	14	244	824	1560	5220	9040	9850	1390	29
5	18	16	16	17	244	827	1960	4530	10200	10400	1310	26
6	15	16	16	14	244	824	2340	3630	7530	11200	1640	26
7	15	15	16	19	244	822	2270	2920	5040	11300	1190	28
8	15	15	16	15	244	820	2310	2630	3420	11000	702	28
9	15	15	16	17	244	843	1910	3110	3050	13500	337	28
10	15	20	16	43	243	920	1600	3560	4450	12400	340	28
11	15	16	16	27	243	921	1840	4410	6980	10200	256	28
12	15	16	16	27	242	908	2460	4520	8500	6890	50	28
13	15	16	17	23	243	910	2860	2870	8760	5260	50	28
14	15	16	17	24	248	912	2200	1840	8050	5100	50	28
15	15	16	17	24	243	915	1600	1410	7290	5820	49	28
16	15	16	17	20	242	917	1260	1510	4490	6750	49	28
17	15	16	17	19	242	918	1040	1300	3170	7660	41	28
18	15	17	17	28	242	921	988	2270	3470	9170	29	28
19	15	16	15	51	241	924	875	4060	4230	6830	29	28
20	15	16	11	50	240	938	859	5470	4550	5650	29	28
21	15	16	11	50	240	2250	771	6300	4260	4450	29	28
22	15	16	11	53	242	2720	673	6140	5050	4360	29	28
23	15	16	11	59	242	2420	849	4510	6430	3840	29	28
24	15	16	12	62	242	1830	2150	4390	8020	3340	29	28
25	15	18	13	60	242	1460	3660	3320	9560	3340	29	28
26	15	18	12	56	242	1260	4460	3280	9050	3250	29	28
27	15	17	12	55	393	1120	4800	4830	11200	3220	29	28
28	15	16	12	53	832	1030	4620	5210	11700	3990	29	28
29	15	16	12	52	---	965	6580	6210	11900	4510	29	28
30	15	16	12	52	---	922	12900	6970	11200	5590	29	28
31	15	---	12	65	---	922	---	7720	---	4480	29	---
TOTAL	470	483	450	1083	7219	34439	74684	143610	215100	222240	16330	840
MEAN	15.2	16.1	14.5	34.9	258	1111	2489	4633	7170	7169	527	28.0
MAX	18	20	17	65	832	2720	12900	13000	11900	13500	3310	29
MIN	15	15	11	11	50	820	673	1300	3050	3220	29	26
AC-FT	932	958	893	2150	14320	68310	148100	284900	426700	440800	32390	1670
a	13740	5310	17280	60520	64420	67660	53800	100000	134300	151300	128400	47690

a Diversion, in acre-feet, to Mammoth Pool Powerplant, provided by Southern California Edison Co.

SAN JOAQUIN RIVER BASIN

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11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.2	13.0	15.2	28.8	63.2	106	223	1388	2092	910	76.4	22.2
MAX	61.9	20.1	66.3	422	754	1111	2489	9681	12400	7169	1184	45.3
(WY)	1960	1974	1967	1967	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1960 - 1995			
ANNUAL TOTAL	5347				716948							
ANNUAL MEAN	14.6				1964				414			
HIGHEST ANNUAL MEAN									2022			
LOWEST ANNUAL MEAN									13.2			
HIGHEST DAILY MEAN	20				Nov 10				13500			
LOWEST DAILY MEAN	11				Dec 20				Jul 9			
ANNUAL SEVEN-DAY MINIMUM	12				Dec 20				16400			
INSTANTANEOUS PEAK FLOW					15300				Apr 30			
INSTANTANEOUS PEAK STAGE					17.22				Apr 30			
ANNUAL RUNOFF (AC-FT)	10610				1422000				18.38			
TOTAL DIVERSION (AC-FT) a	431900				844500				299900			
10 PERCENT EXCEEDS	16				6920				327			
50 PERCENT EXCEEDS	15				242				15			
90 PERCENT EXCEEDS	12				15				12			

a Diversion, in acre-ft, to Mammoth Pool Powerplant, provided by Southern California Edison Co.

SAN JOAQUIN RIVER BASIN

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. 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 8,999.00 ft above sea level (levels by Southern California Edison Co.). May 24, 1956, to Sept. 30, 1968, no recorder, see REMARKS below.

REMARKS.--No estimated daily discharges. 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 ft³/s, June 21, 1935; no flow at times many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	517	85	147	96	357	541	750	1210	1290	572	1470	1100
2	421	114	223	97	317	373	751	1040	1350	634	1780	1300
3	422	93	178	96	314	231	753	957	1390	269	1680	1350
4	421	70	195	95	259	148	947	990	1520	457	1620	1390
5	526	115	194	74	402	251	1120	811	1520	481	1630	1230
6	605	193	106	131	304	135	1120	592	1470	194	1650	1170
7	602	178	127	131	313	350	835	496	1470	289	1650	1090
8	560	162	135	131	326	464	816	566	1470	421	1700	1160
9	508	161	108	251	355	528	798	656	1390	576	1400	1210
10	578	126	101	262	294	656	764	819	1450	609	1350	1190
11	542	140	89	182	285	440	790	956	1510	690	1660	1250
12	404	133	107	286	287	272	814	983	976	1160	1710	1050
13	407	132	106	348	344	331	748	797	129	1240	1470	1130
14	275	135	94	361	304	433	730	629	174	1260	1250	1220
15	308	125	107	327	485	666	728	547	14	1230	1150	1200
16	298	90	115	262	461	523	726	681	103	1110	1350	1200
17	255	190	93	279	430	550	725	849	35	1130	1350	1190
18	102	145	113	243	432	730	728	1090	107	1150	1400	1190
19	135	147	105	220	463	736	730	1270	269	1140	1270	848
20	183	280	83	198	493	712	686	1360	638	1470	1190	1270
21	106	181	117	178	522	717	349	1470	1070	1640	1320	1020
22	128	111	61	114	539	632	314	1520	1660	1660	1330	671
23	119	146	87	244	558	722	433	1520	1730	1760	1320	634
24	123	191	75	176	486	492	549	1490	1230	1560	1290	581
25	144	212	112	253	579	624	727	1440	593	1280	1210	715
26	.00	142	120	283	458	639	775	1360	89	1340	1270	531
27	115	148	81	288	549	532	880	1280	430	1490	1270	710
28	147	199	149	341	478	561	784	1280	549	1540	1200	886
29	109	228	100	366	---	620	791	1380	85	1360	1110	929
30	64	195	96	268	---	661	1060	1420	140	1320	1000	921
31	100	---	91	273	---	673	---	1430	---	1570	912	---
TOTAL	9224.00	4567	3615	6854	11394	15943	22721	32889	25851	32602	42962	31336
MEAN	298	152	117	221	407	514	757	1061	862	1052	1386	1045
MAX	605	280	223	366	579	736	1120	1520	1730	1760	1780	1390
MIN	.00	70	61	74	259	135	314	496	14	194	912	531
AC-FT	18300	9060	7170	13590	22600	31620	45070	65240	51280	64670	85220	62150

11235500 PORTAL POWERPLANT AT HUNTINGTON LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	322	265	273	256	256	282	515	843	905	823	640	487
MAX	734	908	1102	793	806	815	953	1459	1665	1321	1386	1104
(WY)	1970	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1928 - 1995
ANNUAL TOTAL	156539.50	239958.00	
ANNUAL MEAN	429	657	490
HIGHEST ANNUAL MEAN			742
LOWEST ANNUAL MEAN			196
HIGHEST DAILY MEAN	1430	Aug 21	2080
LOWEST DAILY MEAN	.00	Jan 14	.00
ANNUAL SEVEN-DAY MINIMUM	39	Jan 8	.00
ANNUAL RUNOFF (AC-FT)	310500	476000	355000
10 PERCENT EXCEEDS	733	1400	1070
50 PERCENT EXCEEDS	470	547	458
90 PERCENT EXCEEDS	98	107	63

SAN JOAQUIN RIVER BASIN

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 1 on Big Creek, 2.7 mi northeast of town of Big Creek.
DRAINAGE AREA.--80.5 mi².

PERIOD OF RECORD.--April 1913 to current year. Prior to October 1926, monthly contents only, published in WSP 1315-A; 1926-31, published in WSP 721. 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. See schematic diagram of lower San Joaquin River basin. Records, including extremes, represent contents at 2400 hours.

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, 88,994 acre-ft, Aug. 24, elevation, 6,949.88 ft; minimum, 28,553 acre-ft, May 17, elevation, 6,897.28 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74311	59614	56067	e47523	42415	33356	45675	33230	51160	86345	87310	87537
2	73940	59037	56149	47510	42159	32941	46347	33794	53152	87537	87750	87679
3	73546	58357	56102	47143	41741	32376	47036	33940	55169	87993	87979	87822
4	73467	57774	56125	46615	41334	31843	47935	34133	57952	88022	88036	88079
5	73467	57455	56067	46454	41081	31439	49050	33720	61065	88365	88079	88108
6	73454	57348	55880	46454	40699	30931	50134	32833	63319	88079	88136	87936
7	73532	57207	55669	46261	40236	30577	51026	31701	64807	87665	88151	87779
8	73375	57242	55424	46080	39948	30362	51835	30775	65758	87495	88251	87850
9	73191	57230	55076	46315	39550	30336	52595	30198	66587	87722	88165	87951
10	73006	57266	54798	46896	39144	31185	52879	30095	68311	87466	87622	87893
11	72757	57219	54509	46702	38663	32047	52459	30422	70985	87012	87850	87822
12	72299	57160	54288	46917	38154	32047	51026	30818	73191	87225	88437	87580
13	71960	57089	54104	47251	37844	31517	49956	30740	73809	87651	88780	87608
14	71192	57018	53198	47826	37547	32154	48283	30155	74032	87822	88837	87865
15	70726	56959	e52788	48261	37370	32429	46658	29399	73414	87922	88708	88065
16	70493	56817	e52504	48403	37216	32323	45008	28794	72052	87736	88952	88008
17	70028	56924	e52220	48555	37072	32509	43541	28553	70196	87822	88837	87836
18	69219	56865	e51936	48174	36652	34178	42169	29848	68694	87651	88966	87822
19	68209	56794	e51655	47717	36119	35930	40840	30852	67904	87310	88909	87523
20	67623	56865	e51374	47230	36723	37747	39520	32269	68796	87353	88737	88179
21	66953	56865	e51093	46637	35421	39600	37660	34041	69835	87466	88894	88909
22	66297	56605	e50812	45995	35123	41111	35883	35657	72770	87509	88966	88694
23	65645	56336	e50534	45633	34863	42199	34417	36938	76012	87679	88980	88337
24	64994	56207	e50256	45176	34509	42631	33329	38086	78839	87993	88994	87822
25	64360	56382	e49978	44744	34316	42951	32554	38869	81890	87879	88966	87424
26	63541	56347	e49700	44291	33913	43291	31701	39759	82193	87808	88851	87027
27	62863	56254	e49425	43906	33794	43478	31194	40960	83012	87951	88751	86870
28	62310	56230	e49150	43562	33456	43708	30517	42230	84573	88194	88594	87055
29	61626	56172	e48874	43177	---	44072	30336	44052	85585	88036	88337	87282
30	60992	56219	e48599	42652	---	44523	31719	46283	85923	87779	88051	87486
31	60362	---	e48327	42477	---	45018	---	48852	---	87452	87622	---
MAX	74311	59614	56149	48555	42415	45018	52879	48852	85923	88365	88994	88909
MIN	60362	56172	48327	42477	33456	30336	30336	28553	51160	86345	87310	86870
a	6928.20	6924.72	---	6912.23	6902.02	6914.67	6900.96	6918.23	6947.72	6948.80	6948.92	6948.81
b	-14090	-4143	-7892	-5850	-9021	+11562	-13299	+17133	+37071	+1529	+170	-136

CAL YR 1994 b -14980

WTR YR 1995 b +13034

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

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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 mi².

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.--No estimated daily discharges. 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 ft³/s, June 23, 1925, gage height, 11.3 ft, present datum; minimum daily, 0.1 ft³/s, many days in 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s, Apr. 30, gage height, 2.96 ft; minimum daily, 3.3 ft³/s, Feb. 16-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.0	3.9	3.8	3.6	3.8	5.3	19	16	8.6	5.1	4.6
2	4.4	4.0	3.9	3.8	3.7	3.7	5.4	16	15	8.1	5.1	4.6
3	4.4	4.0	4.0	3.8	3.8	3.9	5.8	15	15	7.9	5.1	4.6
4	5.7	4.0	4.0	3.8	3.7	3.8	6.2	13	15	7.6	5.1	4.6
5	5.4	4.2	4.0	3.8	3.7	3.9	6.9	12	15	7.3	5.2	4.6
6	4.5	4.0	4.0	3.8	3.6	3.9	7.1	11	14	7.0	5.1	4.6
7	4.4	4.0	4.0	4.0	3.6	3.8	7.4	10	13	7.0	5.1	4.6
8	4.3	4.1	3.9	3.8	3.6	3.8	7.5	10	13	6.7	5.1	4.6
9	4.2	4.0	3.9	4.5	3.5	6.9	7.1	10	12	6.7	5.1	4.6
10	4.2	4.1	3.9	7.2	3.4	13	7.1	11	12	7.0	5.1	4.6
11	4.1	4.0	3.9	5.7	3.4	9.5	7.6	11	12	7.1	5.1	4.6
12	4.1	4.0	3.9	4.7	3.4	7.0	8.1	10	12	6.7	5.1	4.6
13	4.1	4.0	4.0	5.0	3.4	6.3	8.5	9.9	12	6.8	5.2	4.6
14	4.1	3.9	3.9	5.5	3.4	6.5	8.5	9.1	12	6.7	5.4	4.6
15	4.1	3.9	3.9	5.2	3.4	6.4	6.5	8.9	12	5.6	5.0	4.6
16	4.1	3.9	3.9	4.7	3.3	6.2	5.9	8.7	12	5.5	5.4	4.7
17	4.1	4.0	3.9	4.5	3.3	5.6	5.5	9.0	11	5.6	5.2	4.7
18	4.1	4.0	3.9	4.3	3.3	5.7	5.3	10	11	5.5	6.5	4.7
19	4.0	3.9	3.9	4.2	3.3	6.2	5.1	12	10	5.5	13	4.7
20	4.0	3.9	3.9	4.1	3.4	7.5	5.0	13	9.9	5.5	5.9	4.6
21	4.0	3.9	3.9	4.0	3.5	8.4	5.0	14	9.8	5.5	4.8	5.3
22	4.0	3.9	3.9	4.0	3.5	7.6	5.0	13	9.7	5.5	5.6	4.8
23	4.0	3.9	3.9	3.9	3.5	6.5	5.2	13	9.7	5.4	5.8	4.7
24	4.0	3.9	3.9	3.9	3.6	5.9	5.8	12	9.7	5.4	5.2	4.7
25	4.0	3.9	3.9	3.8	3.7	5.5	6.6	12	9.7	5.4	8.2	4.6
26	4.0	3.9	3.9	3.7	3.7	5.4	7.5	12	9.4	5.3	5.0	4.6
27	4.0	3.9	3.9	3.7	3.7	5.4	7.7	13	9.6	5.4	4.7	4.6
28	4.0	3.9	3.9	3.7	3.7	5.3	8.1	13	9.4	5.3	4.6	4.6
29	4.0	3.9	3.9	3.6	---	5.2	11	14	9.4	5.3	4.6	4.5
30	4.0	3.9	3.9	3.6	---	5.1	19	15	9.0	5.2	4.6	4.6
31	4.0	---	3.8	3.6	---	5.2	---	16	---	5.2	4.6	---
TOTAL	130.8	118.9	121.4	131.7	98.7	182.9	212.7	375.6	349.3	193.3	170.6	139.4
MEAN	4.22	3.96	3.92	4.25	3.52	5.90	7.09	12.1	11.6	6.24	5.50	4.65
MAX	5.7	4.2	4.0	7.2	3.8	13	19	19	16	8.6	13	5.3
MIN	4.0	3.9	3.8	3.6	3.3	3.7	5.0	8.7	9.0	5.2	4.6	4.5
AC-FT	259	236	241	261	196	363	422	745	693	383	338	276
a	13560	2290	5470	14950	30290	25090	33130	34730	39330	41870	42720	32250

a Diversion, in acre-ft, 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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.35	1.37	1.40	1.20	1.26	1.64	2.65	9.34	9.40	10.6	1.93	1.45
MAX	4.79	4.55	4.70	4.25	3.52	5.90	7.09	297	242	293	8.34	4.86
(WY)	1994	1994	1956	1995	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1925 - 1995

ANNUAL TOTAL	1553.2	2225.3	
ANNUAL MEAN	4.26	6.10	3.20
HIGHEST ANNUAL MEAN			45.9
LOWEST ANNUAL MEAN			.35
HIGHEST DAILY MEAN	5.7 Oct 4	19 Apr 30	1160 May 23 1926
LOWEST DAILY MEAN	3.2 Feb 27	3.3 Feb 16	.10 Jan 18 1931
ANNUAL SEVEN-DAY MINIMUM	3.3 Feb 26	3.3 Feb 13	.10 Aug 21 1931
INSTANTANEOUS PEAK FLOW		24 Apr 30	2040 Jun 23 1925
INSTANTANEOUS PEAK STAGE		2.96 Apr 30	11.30 Jun 23 1925
ANNUAL RUNOFF (AC-FT)	3080	4410	2320
TOTAL DIVERSION (AC-FT) a	182400	315700	
10 PERCENT EXCEEDS	4.8	12	3.9
50 PERCENT EXCEEDS	4.2	4.7	1.3
90 PERCENT EXCEEDS	3.6	3.8	.30

a Diversion, in acre-ft, 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 mi².

PERIOD OF RECORD.--October 1927 to current year. Records for water year 1928 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WSP 931: 1940. WSP 1315-A: 1944. WSP 1395: 1928-29, 1938. WSP 1515: 1929.
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. 29, 1940, at site 10 ft downstream at same datum.

REMARKS.--No estimated daily discharges. 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, 3,670 ft³/s, Dec. 23, 1955, gage height, 11.20 ft, from rating curve extended above 1,100 ft³/s on basis of slope-area measurement at gage height 10.77 ft; no flow, Oct. 15-18, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft³/s, June 4, gage height, 8.15 ft; minimum daily, 0.35 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	2.1	9.3	8.7	22	39	63	725	614	397	41	4.7
2	.42	2.5	9.8	8.7	23	37	63	483	593	382	38	4.7
3	.35	2.3	9.9	8.7	24	36	67	381	650	357	34	4.6
4	5.8	2.1	10	8.7	25	34	83	350	754	344	32	4.3
5	10	5.6	9.6	8.7	25	34	105	266	672	365	29	3.8
6	5.5	21	9.0	8.7	26	34	113	210	495	341	26	3.4
7	4.8	9.8	8.6	8.8	26	36	115	179	355	296	23	3.1
8	5.2	7.4	8.1	9.1	26	34	112	165	285	294	21	2.9
9	7.1	6.0	8.0	12	25	63	106	190	333	286	19	2.8
10	7.3	9.2	7.0	29	24	143	100	253	480	231	17	2.7
11	6.9	15	6.8	32	24	147	117	306	617	197	16	2.5
12	5.9	7.9	7.1	34	24	122	136	294	675	176	15	2.3
13	5.4	6.1	7.3	39	23	110	142	229	675	158	14	2.2
14	4.9	5.8	8.0	32	24	144	121	185	568	151	13	2.0
15	4.7	5.8	8.0	44	22	121	105	163	454	150	12	1.9
16	3.9	5.9	8.0	42	21	113	91	152	328	148	12	1.8
17	3.3	5.8	8.0	37	21	97	80	161	273	152	11	1.7
18	3.0	6.4	8.0	37	21	88	76	222	311	132	11	1.7
19	2.8	6.8	8.0	37	22	107	70	345	388	121	9.7	1.6
20	2.6	6.0	8.0	36	24	122	68	433	407	112	8.9	1.5
21	2.6	6.0	8.0	34	27	132	66	446	425	108	8.9	1.5
22	2.6	5.7	8.0	31	29	106	66	398	480	100	8.5	1.5
23	2.6	5.6	8.0	27	31	85	77	364	539	89	8.1	1.4
24	2.6	5.7	7.7	25	34	77	106	341	589	79	7.7	1.4
25	2.8	6.2	7.4	22	36	69	141	267	572	73	7.0	1.5
26	2.9	7.7	8.4	19	39	64	175	336	562	66	6.3	1.5
27	2.8	9.4	8.7	18	39	61	190	420	562	63	5.8	1.4
28	2.6	8.8	8.7	17	39	60	189	459	535	61	5.6	1.5
29	2.5	8.4	8.7	18	---	58	295	535	488	56	5.4	1.6
30	2.3	8.5	8.7	19	---	56	787	572	428	52	5.1	1.5
31	2.1	---	8.7	21	---	59	---	635	---	45	4.8	---
TOTAL	118.84	211.5	257.5	732.1	746	2488	4025	10465	15107	5582	475.8	71.0
MEAN	3.83	7.05	8.31	23.6	26.6	80.3	134	338	504	180	15.3	2.37
MAX	10	21	10	44	39	147	787	725	754	397	41	4.7
MIN	.35	2.1	6.8	8.7	21	34	63	152	273	45	4.8	1.4
AC-FT	236	420	511	1450	1480	4930	7980	20760	29960	11070	944	141

SAN JOAQUIN RIVER BASIN

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.96	5.41	10.7	9.66	13.6	26.8	90.9	199	118	19.6	2.40	1.41
MAX	42.0	110	135	91.1	91.1	136	264	550	648	180	21.4	18.9
(WY)	1983	1951	1951	1980	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1928 - 1995			
ANNUAL TOTAL	6712.18				40279.74							
ANNUAL MEAN	18.4				110				41.9			
HIGHEST ANNUAL MEAN									118			
LOWEST ANNUAL MEAN									6.16			
HIGHEST DAILY MEAN	153				787				1590			
LOWEST DAILY MEAN	.10				.35				.00			
ANNUAL SEVEN-DAY MINIMUM	.10				1.5				.04			
INSTANTANEOUS PEAK FLOW					1120				3670			
INSTANTANEOUS PEAK STAGE					8.15				11.20			
ANNUAL RUNOFF (AC-FT)	13310				79890				30360			
10 PERCENT EXCEEDS	61				384				126			
50 PERCENT EXCEEDS	5.5				26				5.5			
90 PERCENT EXCEEDS	.15				2.7				.30			

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 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, 624 ft³/s, June 12, 1995; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.5	8.4	7.7	21	38	60	561	107	71	40	3.1
2	.00	1.9	8.9	7.7	22	36	61	269	100	72	36	3.1
3	.00	1.8	8.9	7.7	23	35	64	91	164	73	32	3.0
4	4.9	1.6	9.4	7.7	23	33	81	84	316	69	29	2.7
5	9.2	5.0	8.7	7.7	24	33	19	69	486	66	27	2.2
6	4.8	20	8.0	7.7	25	33	15	43	479	64	24	1.8
7	4.1	9.3	7.6	7.8	25	35	15	36	352	47	22	1.5
8	4.5	6.9	7.1	8.1	25	33	15	38	283	45	19	1.4
9	6.4	5.4	7.0	11	24	62	15	31	330	43	17	1.2
10	6.7	8.6	6.0	28	23	142	15	41	474	17	16	1.2
11	6.3	14	5.8	31	23	146	17	53	573	107	15	1.0
12	5.2	7.2	6.1	32	23	120	19	51	624	174	13	.86
13	4.8	5.3	6.3	37	22	108	18	33	610	156	12	.72
14	4.2	4.9	7.0	31	23	142	21	26	517	150	11	.55
15	4.1	4.8	7.0	43	21	119	23	33	439	149	11	.42
16	3.3	5.0	7.0	41	20	111	18	33	328	147	10	.34
17	2.7	4.9	7.0	36	20	94	16	27	273	119	9.5	.27
18	2.4	5.5	7.0	36	20	86	17	26	311	91	8.9	.25
19	2.2	5.8	7.0	36	21	105	18	36	387	75	8.0	.19
20	2.1	5.1	7.0	35	23	119	19	34	406	38	7.2	.15
21	2.0	5.1	7.0	32	26	130	19	30	420	37	7.3	.13
22	2.0	4.8	7.0	30	28	104	19	36	475	65	6.9	.08
23	2.0	4.7	7.0	26	30	83	19	45	525	87	6.5	.05
24	2.0	4.8	6.7	24	33	75	26	51	555	78	6.1	.06
25	2.3	5.2	6.4	20	35	67	24	37	546	46	5.4	.09
26	2.3	6.7	7.4	18	38	61	20	44	384	22	4.7	.09
27	2.2	8.5	7.7	17	38	59	20	52	159	38	4.2	.06
28	2.0	7.9	7.7	16	38	58	20	59	145	60	4.0	.10
29	1.9	7.5	7.7	17	---	56	20	72	107	55	3.8	.18
30	1.7	7.5	7.7	18	---	54	489	78	75	50	3.5	.11
31	1.5	---	7.7	20	---	57	---	121	---	44	3.3	---
TOTAL	99.80	187.2	227.2	697.1	717	2434	1222	2240	10950	2355	423.3	26.90
MEAN	3.22	6.24	7.33	22.5	25.6	78.5	40.7	72.3	365	76.0	13.7	.80
MAX	9.2	20	9.4	43	38	146	489	561	624	174	40	3.1
MIN	.00	1.5	5.8	7.7	20	33	15	26	75	17	3.3	.05
AC-FT	198	371	451	1380	1420	4830	2420	4440	21720	4670	840	53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1987	.68	3.22	1985	.000	1989
1988	1.13	6.24	1986	.000	1988
1989	1.12	7.33	1987	.000	1987
1990	3.85	22.5	1988	.000	1988
1991	5.65	25.6	1989	.000	1989
1992	24.9	78.5	1990	.000	1990
1993	83.5	124	1991	40.7	1991
1994	121	440	1992	57.4	1992
1995	81.9	365	1993	9.14	1993
1996	11.8	76.0	1994	.83	1994
1997	1.89	13.7	1995	.000	1995
1998	.13	.90	1996	.000	1996
1999			1997		1997

SUMMARY STATISTICS

	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1987 - 1995
ANNUAL TOTAL	6365.25	21579.50	
ANNUAL MEAN	17.4	59.1	29.3
HIGHEST ANNUAL MEAN			67.8
LOWEST ANNUAL MEAN			13.5
HIGHEST DAILY MEAN	151 May 12	624 Jun 12	624 Jun 12 1995
LOWEST DAILY MEAN	.00 Jul 25	.00 Oct 1	.00 Nov 12 1986
ANNUAL SEVEN-DAY MINIMUM	.00 Jul 25	.08 Sep 22	.00 Dec 5 1986
ANNUAL RUNOFF (AC-FT)	12630	42800	21230
10 PERCENT EXCEEDS	59	142	87
50 PERCENT EXCEEDS	4.8	20	1.1
90 PERCENT EXCEEDS	.00	2.0	.00

SAN JOAQUIN RIVER BASIN

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 mi².

PERIOD OF RECORD.--October 1986 to February 1989, March 1989 to current year. No record of release for fishery maintenance Feb. 19 to Mar. 24, 1989.

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 the 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, 514 ft³/s, May 31, 1995; no flow, Feb. 15 to Apr. 4, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 514 ft³/s, May 31; minimum daily, 0.25 ft³/s, June 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.57	e.95	e1.0	e1.1	e.90	e2.1	164	507	325	1.2	1.6
2	.46	.58	e.95	e1.0	e1.1	e.90	e2.1	214	494	310	1.5	1.6
3	.38	.56	e.95	e1.0	e1.1	e.90	e2.1	290	486	283	2.1	1.6
4	.86	.55	e.95	e1.0	e1.1	e.90	e2.1	266	438	275	2.1	1.6
5	.88	.58	e.95	e1.0	e1.1	e.80	e86	197	185	300	2.1	1.6
6	.76	.63	e1.0	e1.0	e1.1	e.80	e125	167	16	277	2.0	1.6
7	.73	.59	e1.0	e1.0	e1.1	e.80	113	143	2.3	249	2.0	1.6
8	.71	.59	e1.0	e1.0	e1.1	e.80	104	127	2.2	249	1.9	1.6
9	.68	.57	e1.0	e1.1	e1.1	e.80	97	159	2.2	243	1.9	1.6
10	.65	.56	e1.0	e1.1	e1.1	e1.0	92	212	6.1	214	1.9	1.5
11	.64	.63	e1.0	e1.1	e1.0	e1.2	99	253	44	90	1.8	1.5
12	.64	.71	e1.0	e1.1	e1.0	e1.7	117	243	50	1.8	1.8	1.5
13	.64	.79	e1.0	e1.2	e1.0	e1.9	124	196	65	1.6	1.8	1.5
14	.63	e.90	e1.0	e1.2	e1.0	e2.0	100	159	51	1.0	1.8	1.5
15	.61	e.92	e1.0	e1.2	e1.0	e2.0	83	131	15	.92	1.8	1.5
16	.59	e.92	e1.0	e1.2	e1.0	e2.0	73	119	.31	.89	1.7	1.5
17	.59	e.92	e1.0	e1.2	e1.0	e2.0	64	134	.25	33	1.7	1.5
18	.59	e.92	e1.0	e1.2	e1.0	e2.0	58	197	.25	41	1.7	1.5
19	.59	e.92	e1.0	e1.2	e1.0	e2.0	52	309	.27	47	1.7	1.4
20	.59	e.92	e1.0	e1.2	e1.0	e2.0	49	399	1.7	73	1.7	1.4
21	.59	e.93	e1.0	e1.2	e1.0	e2.1	47	417	4.6	71	1.7	1.4
22	.59	e.93	e1.0	e1.2	e1.0	e2.1	47	362	4.1	35	1.7	1.4
23	.59	e.93	e1.0	e1.2	e1.0	e2.1	58	318	14	1.4	1.7	1.4
24	.59	e.93	e1.0	e1.2	e1.0	e2.1	79	290	34	1.3	1.7	1.4
25	.59	e.93	e1.0	e1.2	e1.0	e2.1	117	230	26	27	1.6	1.4
26	.59	e.94	e1.0	e1.2	e1.0	e2.1	166	293	178	43	1.6	1.4
27	.59	e.94	e1.0	e1.1	e1.0	e2.1	187	368	403	25	1.6	1.4
28	.59	e.94	e1.0	e1.1	e1.0	e2.1	192	399	390	1.3	1.6	1.4
29	.59	e.94	e1.0	e1.1	---	e2.1	296	463	381	1.2	1.6	1.4
30	.58	e.94	e1.0	e1.1	---	e2.1	297	494	354	1.2	1.6	1.4
31	.59	---	e1.0	e1.1	---	e2.1	---	514	---	1.2	1.6	---
TOTAL	19.28	23.68	30.75	34.7	29.0	50.50	2930.4	8227	4155.28	3223.81	54.2	44.7
MEAN	.62	.79	.99	1.12	1.04	1.63	97.7	265	139	104	1.75	1.49
MAX	.88	.94	1.0	1.2	1.1	2.1	297	514	507	325	2.1	1.6
MIN	.38	.55	.95	1.0	1.0	.80	2.1	119	.25	.89	1.2	1.4
AC-FT	38	47	61	69	58	100	5810	16320	8240	6390	108	89

e Estimated.

11237700 PITMAN CREEK NEAR TAMARACK MOUNTAIN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.60	.87	1.03	1.33	1.88	5.68	19.3	32.8	17.6	14.6	.68	.50
MAX	1.40	1.74	1.50	2.17	5.19	24.8	97.7	265	139	104	1.75	1.49
(WY)	1987	1990	1990	1990	1992	1990	1995	1995	1995	1995	1995	1995
MIN	.13	.31	.41	.56	.35	.000	1.21	1.22	.66	.52	.16	.13
(WY)	1989	1991	1991	1991	1991	1991	1994	1990	1990	1992	1994	1987

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1987 - 1995
ANNUAL TOTAL	319.46	18823.30	
ANNUAL MEAN	.88	51.6	8.91
HIGHEST ANNUAL MEAN			51.6
LOWEST ANNUAL MEAN			.79
HIGHEST DAILY MEAN	2.9 May 13	514 May 31	514 May 31
LOWEST DAILY MEAN	.09 Sep 8	.25 Jun 17	.00 Feb 15
ANNUAL SEVEN-DAY MINIMUM	.10 Sep 5	.57 Oct 30	.00 Feb 15
ANNUAL RUNOFF (AC-FT)	634	37340	6450
10 PERCENT EXCEEDS	1.5	220	2.5
50 PERCENT EXCEEDS	.88	1.4	1.1
90 PERCENT EXCEEDS	.15	.64	.20

SAN JOAQUIN RIVER BASIN

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.--No estimated daily discharges. 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 ft³/s, May 24, 1993; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	708	520	168	285	462	172	0	1710	1370	1120	1370	545
2	626	408	539	301	309	218	0	1400	1460	737	985	597
3	593	534	284	439	523	217	0	1180	1290	667	1090	661
4	592	604	196	737	451	223	0	1170	1590	1530	1110	652
5	547	292	185	364	474	215	0	1130	1390	1440	1000	671
6	586	347	155	265	365	134	0	1110	1770	1480	1250	595
7	320	507	241	224	399	181	0	1010	1670	1400	1040	553
8	474	373	249	572	413	185	0	1030	1830	1580	1010	501
9	597	182	324	210	261	321	0	943	1710	1390	892	543
10	570	263	230	547	323	278	432	940	1600	1430	998	591
11	613	161	371	580	198	136	880	905	1690	1550	855	493
12	267	226	275	483	198	145	1200	963	1900	1470	735	668
13	583	45	170	479	335	265	1270	1020	1690	1410	777	465
14	551	362	465	189	262	420	1130	974	1750	1610	692	446
15	536	316	291	453	124	198	1210	931	1670	1570	660	466
16	545	393	163	312	84	308	1170	863	1680	1530	595	565
17	575	258	172	166	219	199	1280	918	1670	1560	713	803
18	397	481	165	227	100	0	1240	493	1730	1340	734	547
19	436	177	190	308	175	172	971	718	1630	1720	702	576
20	397	367	48	221	308	196	991	1180	1220	1450	570	528
21	727	160	148	152	179	209	1060	1070	1840	1600	647	404
22	348	229	527	409	256	220	922	1230	1400	1360	602	424
23	239	209	145	380	196	237	851	1370	1660	1680	636	558
24	541	133	216	356	319	200	675	1410	1860	1160	703	409
25	263	479	278	280	203	291	829	1310	897	1090	939	384
26	277	302	318	52	223	0	1080	1340	752	961	633	357
27	430	462	211	530	394	0	1020	1130	198	1180	568	598
28	627	525	163	306	210	0	1040	1310	9	978	638	407
29	277	386	246	368	---	0	972	1130	0	1360	608	586
30	266	496	238	486	---	0	1350	1110	982	895	652	378
31	662	---	186	54	---	0	---	1320	---	1380	663	---
TOTAL	15170	10197	7557	10735	7963	5340	21573	34318	41908	41628	25067	15971
MEAN	489	340	244	346	284	172	719	1107	1397	1343	809	532
MAX	727	604	539	737	523	420	1350	1710	1900	1720	1370	803
MIN	239	45	48	52	84	0	0	493	0	667	568	357
AC-FT	30090	20230	14990	21290	15790	10590	42790	68070	83120	82570	49720	31680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1995, BY WATER YEAR (WY)

	MEAN	222	156	188	257	252	190	419	698	804	633	468	367
	MAX	489	340	375	400	406	534	852	1604	1501	1343	809	556
	(WY)	1995	1995	1988	1989	1988	1989	1989	1993	1993	1995	1995	1993
	MIN	.000	.000	21.4	6.19	85.4	19.5	29.3	159	270	156	181	81.7
	(WY)	1988	1988	1991	1990	1992	1991	1991	1991	1990	1992	1992	1992

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1988 - 1995
ANNUAL TOTAL	132792	237427	
ANNUAL MEAN	364	650	388
HIGHEST ANNUAL MEAN			650
LOWEST ANNUAL MEAN			141
HIGHEST DAILY MEAN	882	1900	1910
LOWEST DAILY MEAN	0	0	0
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	263400	470900	281400
10 PERCENT EXCEEDS	614	1410	906
50 PERCENT EXCEEDS	352	528	310
90 PERCENT EXCEEDS	144	163	.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, 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.--No estimated daily discharges. 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 ft³/s, Feb. 4, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.9 ft³/s, Sept. 4, gage height, 0.99 ft; minimum daily, 0.58 ft³/s, Dec. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.71	.65	.74	.70	.72	1.2	1.4	1.3	1.2	1.4	1.5
2	1.4	.68	.60	.66	.70	.73	1.2	1.4	1.3	1.2	1.5	1.6
3	1.3	.63	.63	.68	.73	.75	1.2	1.3	1.3	1.2	1.4	1.7
4	1.3	.65	.64	.74	.76	.72	1.2	1.3	1.2	1.2	1.4	1.6
5	1.2	.67	.58	.76	.76	.70	1.2	1.3	1.2	1.2	1.4	1.5
6	.96	.66	.65	.76	.77	.60	1.2	1.2	1.3	1.5	1.4	1.5
7	.69	.66	.65	.80	.75	.62	1.2	1.2	1.5	1.4	1.4	1.5
8	.67	.70	.69	.79	.74	.70	1.2	1.2	1.6	1.4	1.5	1.5
9	.67	.70	.69	.81	.74	.87	1.2	1.2	1.5	1.3	1.5	1.4
10	.67	.70	.68	.84	.74	1.0	1.2	1.3	1.6	1.3	1.5	1.4
11	.67	.69	.65	.77	.72	.67	1.2	1.3	1.6	1.3	1.5	1.4
12	.68	.67	.63	.72	.71	1.3	1.2	1.2	1.6	1.3	1.5	1.3
13	.70	.63	.62	.71	.78	1.3	1.2	1.2	1.6	1.3	1.5	1.3
14	.70	.65	.63	.71	.73	1.2	1.2	1.2	1.5	1.4	1.5	1.3
15	.68	.64	.70	.71	.76	1.2	1.2	1.2	1.5	1.5	1.4	1.3
16	.69	.62	.71	.71	.75	1.2	1.2	1.2	1.5	1.4	1.5	1.3
17	.69	.59	.66	.71	.73	1.2	1.2	1.2	1.5	1.5	1.5	1.3
18	.70	.60	.67	.70	.77	1.2	1.2	1.3	1.5	1.4	1.5	1.3
19	.68	.63	.68	.70	.72	1.2	1.2	1.3	1.5	1.4	1.5	1.3
20	.70	.59	.71	.70	.75	1.3	1.2	1.3	1.5	1.5	1.4	1.3
21	.71	.60	.64	.70	.71	1.3	1.2	1.3	1.5	1.5	1.4	1.3
22	.71	.60	.74	.70	.71	1.3	1.2	1.3	1.5	1.4	1.4	1.3
23	.71	.60	.70	.70	.71	1.3	1.2	1.3	1.5	1.4	1.5	1.3
24	.71	.60	.69	.70	.73	1.2	1.2	1.3	1.5	1.4	1.5	1.2
25	.72	.62	.63	.70	.71	1.2	1.2	1.3	1.5	1.5	1.5	1.2
26	.72	.65	.75	.70	.70	1.2	1.2	1.3	1.5	1.4	1.6	1.2
27	.74	.64	.74	.70	.75	1.2	1.2	1.3	1.4	1.4	1.5	1.2
28	.74	.66	.73	.70	.73	1.2	1.2	1.3	1.3	1.4	1.5	1.3
29	.72	.67	.64	.70	---	1.2	1.4	1.3	1.3	1.4	1.5	1.4
30	.71	.67	.71	.70	---	1.2	1.6	1.3	1.3	1.4	1.3	1.4
31	.73	---	.71	.70	---	1.2	---	1.4	---	1.4	1.3	---
TOTAL	25.07	19.38	20.80	22.42	20.56	32.68	36.6	39.6	43.4	42.5	45.2	41.1
MEAN	.81	.65	.67	.72	.73	1.05	1.22	1.28	1.45	1.37	1.46	1.37
MAX	1.4	.71	.75	.84	.78	1.3	1.6	1.4	1.6	1.5	1.6	1.7
MIN	.67	.59	.58	.66	.70	.60	1.2	1.2	1.2	1.2	1.3	1.2
AC-FT	50	38	41	44	41	65	73	79	86	84	90	82

11238270 MIDDLE FORK BALSAM CREEK BELOW BALSAM MEADOWS FOREBAY, NEAR BIG CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.83	.78	.86	.83	.83	1.07	1.26	.91	1.33	1.35	1.38	1.37
MAX	.93	1.15	1.44	1.10	1.10	2.20	2.75	1.28	1.45	1.38	1.48	1.50
(WY)	1992	1992	1992	1993	1993	1992	1992	1995	1995	1990	1992	1992
MIN	.72	.65	.67	.72	.73	.74	.79	.74	1.16	1.29	1.26	1.22
(WY)	1994	1995	1995	1995	1995	1994	1994	1992	1994	1991	1991	1991

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1989 - 1995			
ANNUAL TOTAL	337.69				389.31							
ANNUAL MEAN	.93				1.07				1.07			
HIGHEST ANNUAL MEAN									1.38			
LOWEST ANNUAL MEAN									.92			
HIGHEST DAILY MEAN	1.5 Jun 7				1.7 Sep 3				3.4 Apr 2 1992			
LOWEST DAILY MEAN	.58 Dec 5				.58 Dec 5				.31 Feb 4 1989			
ANNUAL SEVEN-DAY MINIMUM	.60 Nov 17				.60 Nov 17				.54 Oct 8 1992			
INSTANTANEOUS PEAK FLOW					1.9 Sep 4							
INSTANTANEOUS PEAK STAGE					.99 Sep 4							
ANNUAL RUNOFF (AC-FT)	670				772				778			
10 PERCENT EXCEEDS	1.3				1.5				1.4			
50 PERCENT EXCEEDS	.77				1.2				.92			
90 PERCENT EXCEEDS	.67				.66				.70			

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 mi².

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.--No estimated daily discharges. 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). 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, 2,630 ft³/s, Mar. 10, 1995, gage height, 6.98 ft, from rating curve extended above 1,200 ft³/s; no flow several days in 1925 and 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,630 ft³/s, Mar. 10, gage height, 6.98 ft; minimum daily, 1.0 ft³/s, Dec. 8-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	5.2	2.1	1.2	4.3	2.2	14	350	720	369	5.7	4.2
2	6.3	5.4	1.6	1.2	4.0	2.3	13	329	694	391	5.6	4.1
3	6.2	5.2	1.1	1.4	3.6	3.0	12	376	873	337	9.6	4.1
4	7.3	5.2	1.1	7.2	3.4	2.5	11	377	991	317	5.8	4.1
5	6.6	5.3	1.1	12	3.2	2.6	16	311	506	340	5.8	4.1
6	5.4	9.9	1.1	3.5	3.1	2.3	48	236	150	319	5.8	4.1
7	5.4	15	1.1	8.7	2.9	2.1	50	176	106	266	5.6	4.1
8	5.4	18	1.0	3.4	2.8	2.1	46	146	88	255	5.6	4.2
9	5.4	13	1.0	3.9	2.5	105	42	158	85	251	5.4	4.2
10	5.5	30	1.0	28	2.5	1320	22	224	88	183	5.3	4.2
11	5.5	17	1.1	35	2.4	1090	32	287	142	88	6.4	6.0
12	5.4	15	1.1	9.7	2.3	1430	95	283	186	6.8	6.8	4.1
13	5.5	15	1.5	6.5	2.4	1260	81	239	183	6.7	6.8	4.0
14	5.6	14	1.2	8.0	4.4	838	43	161	179	6.5	6.8	4.0
15	5.6	14	1.3	19	2.7	1340	19	125	151	6.4	6.8	4.3
16	5.6	15	1.1	6.7	2.4	1350	9.0	113	101	6.4	6.8	4.3
17	5.5	16	1.1	4.4	2.3	1080	3.9	118	78	6.4	6.7	4.3
18	5.4	6.7	1.1	3.5	2.2	153	3.5	179	176	6.5	6.6	4.2
19	5.3	3.4	1.1	3.0	2.2	149	3.3	335	59	6.4	6.9	4.2
20	5.3	3.4	1.1	2.7	2.1	220	3.5	451	58	6.6	7.0	4.4
21	5.3	2.9	1.1	2.5	2.1	335	3.2	493	54	63	7.0	4.4
22	5.4	2.1	1.1	2.7	2.1	248	2.9	437	48	52	7.0	4.4
23	5.4	2.0	1.1	5.0	2.0	108	2.8	379	26	5.8	7.0	4.4
24	5.4	2.0	2.2	15	2.0	21	2.9	364	50	5.7	5.9	4.4
25	5.3	2.5	1.9	9.6	2.0	175	53	257	70	17	4.1	4.4
26	5.3	2.5	1.5	6.6	2.0	392	64	314	215	35	4.2	4.3
27	5.2	2.1	1.3	5.6	2.1	8.2	87	452	543	26	4.2	4.3
28	5.2	2.1	1.7	4.4	2.2	11	113	542	519	5.8	4.2	4.1
29	5.2	2.1	1.4	3.8	---	17	275	590	473	5.8	4.1	4.0
30	5.2	2.1	1.3	107	---	16	578	634	412	5.8	4.1	3.9
31	5.2	---	1.3	5.1	---	14	---	699	---	5.8	4.2	---
TOTAL	172.7	254.1	39.8	336.3	74.2	11699.3	1749.0	10135	8024	3402.4	183.8	127.8
MEAN	5.57	8.47	1.28	10.8	2.65	377	58.3	327	267	110	5.93	4.26
MAX	7.3	30	2.2	107	4.4	1430	578	699	991	391	9.6	6.0
MIN	5.2	2.0	1.0	1.2	2.0	2.1	2.8	113	26	5.7	4.1	3.9
AC-FT	343	504	79	667	147	23210	3470	20100	15920	6750	365	253
a	31440	8470	13800	49030	68910	45730	80630	85170	81320	81890	82890	70750

a Diversion, in acre-feet, to Big Creek Powerplant No. 8, provided by Southern California Edison Co.

11238500 BIG CREEK NEAR MOUTH, NEAR BIG CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.56	3.57	2.41	7.53	3.33	49.8	11.6	41.2	36.4	20.7	3.80	3.68
MAX	5.66	8.47	5.42	39.0	9.08	377	58.3	327	267	110	6.22	6.34
(WY)	1994	1995	1994	1993	1993	1995	1995	1995	1995	1995	1994	1994
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1987 - 1995			
ANNUAL TOTAL	2095.8				36198.4							
ANNUAL MEAN	5.74				99.2				15.8			
HIGHEST ANNUAL MEAN									99.2			
LOWEST ANNUAL MEAN									2.34			
HIGHEST DAILY MEAN	30 Nov 10				1430 Mar 12				1430 Mar 12 1995			
LOWEST DAILY MEAN	1.0 Dec 8				1.0 Dec 8				1.0 Dec 8 1994			
ANNUAL SEVEN-DAY MINIMUM	1.1 Dec 4				1.1 Dec 4				1.1 Dec 4 1994			
INSTANTANEOUS PEAK FLOW					2630 Mar 10				2630 Mar 10 1995			
INSTANTANEOUS PEAK STAGE					6.98 Mar 10				6.98 Mar 10 1995			
ANNUAL RUNOFF (AC-FT)	4160				71800				11410			
TOTAL DIVERSION (AC-FT) a	401600				700000				430300			
10 PERCENT EXCEEDS	6.5				336				6.5			
50 PERCENT EXCEEDS	5.9				5.8				2.8			
90 PERCENT EXCEEDS	2.1				2.0				1.7			

a Diversion, in acre-feet, to Big Creek Powerplant No. 8, 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 mi².

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, 1,370 ft³/s, June 26, 1995, gage height, 8.37 ft; minimum daily, 1.6 ft³/s, Feb. 14, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft³/s, June 26, gage height, 8.37 ft; minimum daily, 2.5 ft³/s, Nov. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.5	5.6	5.5	11	16	88	107	78	30	9.5	7.7
2	4.2	4.9	5.6	6.2	11	16	89	87	76	47	9.1	7.7
3	4.1	4.7	5.6	5.5	11	23	93	73	78	603	9.1	7.7
4	4.5	4.7	5.7	5.7	11	18	110	74	81	25	9.1	7.7
5	5.3	5.0	5.6	5.7	11	20	98	65	77	24	9.0	7.5
6	5.8	5.3	5.6	5.8	11	19	39	55	64	23	8.8	7.6
7	5.2	5.1	5.6	7.1	11	17	33	49	54	22	8.7	7.4
8	5.2	4.9	e5.6	6.7	11	17	32	47	47	21	8.7	7.3
9	5.1	4.8	e5.5	13	11	55	31	47	46	20	8.6	7.4
10	5.0	5.2	e5.4	43	11	151	30	49	51	19	8.9	7.4
11	5.0	5.0	5.4	22	11	69	32	51	56	19	8.8	7.4
12	5.0	4.9	5.2	18	11	45	36	51	58	19	8.6	7.3
13	5.0	4.9	e5.2	18	10	40	37	49	60	18	8.4	7.4
14	4.9	4.8	e5.2	e14	10	41	33	47	56	17	8.2	7.0
15	4.9	4.7	e5.3	e14	11	38	32	47	56	16	8.1	7.0
16	4.9	4.7	5.4	14	9.7	37	30	45	49	16	8.0	7.1
17	4.7	e4.7	5.4	11	9.6	34	29	45	44	16	8.1	7.3
18	4.7	e4.5	5.3	10	9.9	33	28	51	43	15	8.0	7.2
19	4.6	4.2	5.3	9.9	11	35	27	62	44	15	7.8	6.9
20	4.6	2.5	5.3	9.5	12	55	26	69	42	14	7.7	6.9
21	4.6	3.6	5.4	9.2	12	57	26	69	42	13	7.7	6.8
22	4.6	5.4	5.3	e9.3	13	41	26	67	43	12	7.6	6.8
23	4.6	5.6	5.3	e9.4	14	37	28	66	44	12	7.7	6.8
24	4.6	5.5	5.5	e10	15	32	31	64	45	12	7.6	6.8
25	4.6	e5.5	5.9	e10	15	30	35	58	44	11	7.6	6.8
26	4.6	e5.5	5.6	e10	15	28	39	60	349	11	7.5	6.8
27	4.6	e5.5	5.5	e10	15	27	40	65	1300	11	7.4	6.8
28	4.6	e5.5	5.6	e10	16	27	42	68	999	11	7.4	6.7
29	4.6	5.5	6.1	e10	---	40	62	73	806	10	7.3	6.7
30	4.6	5.5	6.7	e10	---	80	122	78	515	10	7.7	6.7
31	4.5	---	9.1	e10	---	83	---	82	---	10	7.7	---
TOTAL	147.5	147.1	174.8	352.5	330.2	1261	1404	1920	5347	1122	254.4	214.6
MEAN	4.76	4.90	5.64	11.4	11.8	40.7	46.8	61.9	178	36.2	8.21	7.15
MAX	5.8	5.6	9.1	43	16	151	122	107	1300	603	9.5	7.7
MIN	4.1	2.5	5.2	5.5	9.6	16	26	45	42	10	7.3	6.7
AC-FT	293	292	347	699	655	2500	2780	3810	10610	2230	505	426

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	4.58	5.64	6.91	6.58	6.74	16.8	28.3	23.1	33.7	9.94	5.19	5.14
MEAN	4.58	5.64	6.91	6.58	6.74	16.8	28.3	23.1	33.7	9.94	5.19	5.14
MAX	6.39	9.75	14.1	11.4	11.8	40.7	53.9	61.9	178	36.2	8.21	7.15
(WY)	1994	1992	1992	1995	1995	1995	1992	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1989 - 1995

ANNUAL TOTAL	2151.3	12675.1	
ANNUAL MEAN	5.89	34.7	13.7
HIGHEST ANNUAL MEAN			34.7
LOWEST ANNUAL MEAN			5.57
HIGHEST DAILY MEAN	13	Apr 18	1300
LOWEST DAILY MEAN	2.5	Nov 20	2.5
ANNUAL SEVEN-DAY MINIMUM	3.9	Jul 21	4.1
INSTANTANEOUS PEAK FLOW			1370
INSTANTANEOUS PEAK STAGE			8.37
ANNUAL RUNOFF (AC-FT)	4270	25140	9960
10 PERCENT EXCEEDS	8.7	64	23
50 PERCENT EXCEEDS	5.5	10	5.8
90 PERCENT EXCEEDS	4.2	4.9	4.0

e Estimated.

SAN JOAQUIN RIVER BASIN

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, 5.2 mi southwest of town of Big Creek.

DRAINAGE AREA.--29.1 mi².

PERIOD OF RECORD.--November 1909 to current year. Prior to January 1927, monthly contents only, published in WSP 1315-A; January 1927 to September 1931, published in WSP 721. 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 Nos. 1 and 2 beginning prior to 1907 and discontinued July 7, 1920. Present lake formed by concrete-arch dam; dam completed Nov. 18, 1927. Usable capacity of present lake, 135,568 acre-ft between elevations 5,225 ft, trash-rack foundation, and 5,370.13 ft, crest of spillway. 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. See schematic diagram of lower San Joaquin River basin. Records, including extremes, represent contents at 2400 hours.

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, 135,458 acre-ft, Aug. 25, elevation, 5,370.08 ft; minimum, 53,507 acre-ft, Apr. 10, elevation, 5,329.79 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80941	84715	92831	98368	91450	69277	63790	70104	91227	119025	132871	134761
2	81079	84362	93530	97660	90229	68721	62655	71696	92289	118136	132871	134631
3	81131	84202	93869	97353	89714	68864	61482	72772	93360	118342	133000	134609
4	81665	84220	94096	98062	88761	68437	e60316	73952	95006	118880	133130	134587
5	82065	84132	94002	98445	87871	68014	e59009	75007	96244	119232	133114	134522
6	81872	84822	94285	98330	87091	67340	e57783	75807	98004	120288	133500	134370
7	82047	85352	94739	98483	86069	66703	e56435	76407	99176	121789	133587	134152
8	82518	85818	95235	98310	85388	66069	e55174	77044	100312	123652	134391	133848
9	82536	86195	95825	98445	84503	67027	e53776	77482	101572	125167	134609	133587
10	82641	86912	96283	100564	e82903	70972	53507	77887	102740	126456	134522	133456
11	82885	86984	96741	100816	e82030	71891	53818	78274	103991	127411	134478	133152
12	82903	87399	96913	100971	e80993	71761	54916	78750	105725	127921	134631	133108
13	83601	87308	97315	101320	80528	71858	55971	79415	107014	128239	134870	133391
14	83725	87980	98234	102115	79517	72429	56903	79824	108228	128899	134979	132418
15	83955	88616	98811	102955	78682	71777	57783	80252	109471	129412	135022	132073
16	84026	89016	99138	103150	78545	71230	58595	80476	110395	129947	134913	132030
17	84043	89218	99465	102622	77415	70698	59586	80786	111343	130546	135022	132202
18	84202	89972	99754	101980	76507	70763	60525	80303	112332	130781	135174	132181
19	84149	90284	100139	101359	75573	71101	60912	80355	113164	131728	135261	132052
20	84114	90560	100216	100700	74908	72364	61377	81200	113124	132159	135087	131793
21	84609	90615	100409	99869	73886	73457	61903	81925	114363	132606	135066	131362
22	84592	90799	100797	99330	73277	74281	62128	82536	114853	133108	134957	130974
23	84486	90910	100564	98830	72609	74431	62323	83689	115568	133913	134913	130866
24	84468	91059	100622	98253	72168	73473	62233	84662	117004	133913	134979	130353
25	84432	91730	100448	97870	71535	72625	62473	85388	116716	133717	135458	130011
26	84397	92382	100370	96856	70875	71535	63185	86518	116572	133217	135393	129433
27	84539	92550	99946	96492	70669	70199	63836	87055	117374	132979	135174	129284
28	84698	92944	99542	95368	69961	68848	64491	88089	117354	132634	135131	128920
29	84645	92831	99215	94134	---	67528	65391	88761	117148	132871	134979	128834
30	84662	93133	98830	93454	---	66285	67575	89512	118321	132440	134979	128346
31	84804	---	98503	92401	---	65040	---	90358	---	132397	135000	---
MAX	84804	93133	100797	103150	91450	74431	67575	90358	118321	133913	135458	134761
MIN	80941	84132	92831	92401	69961	65040	53507	70104	91227	118136	132871	128346
a	5344.68	5349.24	5352.06	5348.85	5335.86	5332.71	5334.35	5347.75	5362.00	5368.67	5369.87	5366.78
b	+4449	+8329	+5370	-6102	-22440	-4921	+2535	+22783	+27963	+14076	+26031	-6654

CAL YR 1994 b +3764

WTR YR 1995 b +47991

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 Hwy 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 mi².

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. 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.--No estimated daily discharges. 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 ft³/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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 816 ft³/s, June 13, gage height, 7.46 ft; minimum daily, 2.4 ft³/s, Dec. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.4	2.5	2.9	3.1	2.7	257	268	338	541	434	4.4
2	3.3	3.5	2.5	2.9	3.0	2.7	257	270	321	649	329	4.4
3	3.3	3.4	2.5	2.7	2.9	4.1	257	272	321	667	331	4.4
4	4.1	3.4	2.5	3.2	2.9	3.3	257	274	325	670	329	4.4
5	4.1	3.4	2.5	3.0	2.9	3.4	257	276	321	672	332	3.8
6	3.5	3.5	2.5	2.7	2.8	3.0	256	278	318	361	333	3.1
7	3.4	3.4	2.5	3.7	2.8	2.8	253	280	470	14	192	3.1
8	3.4	3.5	2.5	3.1	2.9	2.7	247	282	600	14	6.4	3.1
9	3.4	3.5	2.5	4.1	2.8	5.2	246	284	600	14	105	3.0
10	3.4	3.7	2.5	7.9	2.8	16	247	286	520	170	330	3.0
11	3.4	3.6	2.4	4.8	2.8	8.0	244	288	520	470	206	3.0
12	3.4	3.6	2.4	4.5	2.8	5.2	247	290	520	652	6.4	3.0
13	3.4	3.6	2.5	4.2	2.8	4.6	254	292	520	650	6.4	3.6
14	3.4	3.5	2.5	4.4	2.8	112	256	294	680	650	6.4	3.7
15	3.4	3.5	2.5	4.2	2.8	216	254	296	680	650	6.4	3.3
16	3.4	3.6	2.5	3.5	2.7	225	257	300	682	650	6.4	3.3
17	3.4	3.6	2.5	3.3	2.7	231	261	304	670	644	6.4	3.3
18	3.4	3.0	2.5	3.1	2.7	231	258	308	672	538	6.4	3.3
19	3.4	2.5	2.6	3.1	2.6	235	257	312	676	516	6.4	3.3
20	3.4	2.5	2.8	3.0	2.7	232	257	316	678	529	6.7	3.3
21	3.4	2.5	2.8	2.9	2.7	229	258	320	679	542	6.7	3.3
22	3.4	2.5	2.8	3.1	2.7	222	258	324	678	548	6.4	3.3
23	3.4	2.5	2.8	3.8	2.7	207	256	328	681	530	6.4	3.3
24	3.4	2.5	2.9	4.7	2.7	206	257	332	685	450	6.1	3.3
25	3.4	2.5	2.9	4.4	2.7	208	255	336	688	455	6.4	3.3
26	3.4	2.5	2.9	3.6	2.6	211	259	340	682	491	6.1	3.3
27	3.4	2.5	2.9	3.4	2.6	224	260	342	682	508	5.8	3.3
28	3.4	2.5	2.9	3.2	2.7	250	257	344	687	516	6.1	3.3
29	3.4	2.5	2.9	3.1	---	251	259	346	467	528	6.1	3.3
30	3.4	2.5	2.9	3.0	---	253	261	348	314	524	5.0	3.3
31	3.4	---	2.9	3.0	---	262	---	350	---	520	4.4	---
TOTAL	106.6	92.7	81.8	112.5	77.7	4068.7	7659	9480	16675	15333	3050.8	102.8
MEAN	3.44	3.09	2.64	3.63	2.77	131	255	306	556	495	98.4	3.43
MAX	4.1	3.7	2.9	7.9	3.1	262	261	350	688	672	434	4.4
MIN	3.3	2.5	2.4	2.7	2.6	2.7	244	268	314	14	4.4	3.0
AC-FT	211	184	162	223	154	8070	15190	18800	33070	30410	6050	204
a	17470	5920	7360	27970	36230	31280	37820	39540	38850	40360	40430	38170

a Diversion, in acre-feet, to Big Creek Powerplant No. 2A, provided by Southern California Edison Co.

SAN JOAQUIN RIVER BASIN

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.56	3.26	2.72	2.82	2.80	17.3	34.3	49.2	93.1	78.8	14.0	3.48
MAX	3.80	3.84	3.73	3.63	3.34	131	255	306	556	495	98.4	3.93
(WY)	1987	1988	1994	1995	1991	1995	1995	1995	1995	1995	1995	1993
MIN	3.31	2.92	2.22	2.40	2.39	2.58	3.43	3.45	3.23	3.19	3.26	3.34
(WY)	1993	1993	1990	1992	1990	1990	1989	1992	1994	1994	1988	1994

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1987 - 1995

ANNUAL TOTAL	1139.7	56840.6	
ANNUAL MEAN	3.12	156	25.5
HIGHEST ANNUAL MEAN			156 1995
LOWEST ANNUAL MEAN			3.06 1990
HIGHEST DAILY MEAN	4.1 Oct 4	688 Jun 25	688 Jun 25 1995
LOWEST DAILY MEAN	2.1 Jan 7	2.4 Dec 11	1.2 Dec 1 1991
ANNUAL SEVEN-DAY MINIMUM	2.1 Jan 7	2.5 Dec 6	1.9 Nov 26 1991
INSTANTANEOUS PEAK FLOW		816 Jun 13	816 Jun 13 1995
INSTANTANEOUS PEAK STAGE		7.46 Jun 13	7.64 Apr 26 1993
ANNUAL RUNOFF (AC-FT)	2260	112700	18500
TOTAL DIVERSION (AC-FT) a	213400	361400	207500
10 PERCENT EXCEEDS	3.8	520	4.1
50 PERCENT EXCEEDS	3.3	4.4	3.4
90 PERCENT EXCEEDS	2.4	2.7	2.6

a Diversion, in acre-ft, to Big Creek Powerplant No. 2A, provided by Southern California Edison Co.

SAN JOAQUIN RIVER BASIN

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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, 4.2 mi northeast of Auberry.

DRAINAGE AREA.--1,295 mi².

PERIOD OF RECORD.--November 1950 to current year. Prior to October 1965, monthend contents only, published in WSP 1930.

GAGE.--Water-stage recorder. Datum of gage is 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). See schematic diagram of lower San Joaquin River basin. Records, including extremes, represent contents at 2400 hours.

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, 26,045 acre-ft, Mar. 9, elevation, 1,402.84 ft; minimum, 7,805 acre-ft, Nov. 6, elevation, 1,353.61 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8518	8660	14624	24829	25137	24421	15351	23478	23830	24614	24162	24390
2	8897	8518	14895	24313	25598	24748	15183	24020	24256	24211	25001	24744
3	9937	8648	15318	24685	25809	24870	15026	25024	25150	24929	24843	24484
4	10802	8613	15731	25460	25777	24906	15197	25101	25019	24614	24167	24739
5	11601	8495	16312	25209	25749	25101	15066	24376	24042	24703	25078	25291
6	12268	7805	16783	23640	25712	25374	15274	24038	23680	23838	24875	25259
7	12408	7987	17206	23228	25675	24997	15230	23561	24322	24007	24078	25611
8	11989	8179	17687	22633	25177	24906	15292	24118	24176	24466	24658	25351
9	12325	8410	18206	22572	24654	26045	15018	24555	24658	24780	24730	24542
10	12358	8734	18512	25786	24618	25666	14892	25287	25019	23080	25378	24780
11	13721	8964	18904	25087	24798	23940	15117	25365	24479	23084	25773	25433
12	14902	9072	19567	25879	24974	24056	15366	25529	25019	24345	25712	24861
13	16168	9295	20039	25598	24775	24304	16015	24784	24025	24198	25429	25119
14	17388	9357	20723	26036	23874	24363	15532	24546	24524	24497	25282	25128
15	18353	9577	21088	25934	22572	25164	15011	24811	25291	25024	25488	25015
16	18364	9759	21473	25888	22434	24915	14877	23989	24078	24475	25625	24690
17	18956	9910	21715	25902	22568	23737	14910	23847	24793	23940	25593	24902
18	18293	10038	21915	25833	23080	20802	15410	24947	25246	24060	24618	24349
19	18767	10333	22421	25791	23058	18088	16466	24969	25474	24296	24663	24304
20	17915	10553	22910	25809	23302	16554	17314	24834	25474	24385	24843	24367
21	17179	10859	23425	25837	23900	18775	18072	24282	25019	24354	24979	24466
22	16289	11213	23878	25902	23530	18416	18504	24524	25205	24897	24997	24390
23	15175	11598	23764	25250	23601	23058	19013	23834	23874	24367	25010	24515
24	14506	11742	23786	25506	24542	23548	19596	24295	24313	24247	25173	24466
25	13780	12105	23878	25164	24406	23010	22672	23764	24775	24825	25401	24775
26	13006	12358	23923	25506	24291	21388	25051	24153	23936	24979	25456	24983
27	12429	12553	24273	25579	23759	19588	24336	25419	24327	24685	25511	25082
28	11820	12848	24176	25337	23232	18123	24861	24748	24408	24843	25433	25182
29	11015	13299	24376	25082	---	16990	25819	24537	23945	24847	25520	25232
30	10240	14203	24757	25028	---	16184	21579	24717	24211	24412	25570	25177
31	9497	---	24888	24906	---	15701	---	24542	---	24020	25073	---
MAX	18956	14203	24888	26036	25809	26045	25819	25529	25474	25024	25773	25611
MIN	8518	7805	14624	22572	22434	15701	14877	23478	23680	23080	24078	24304
a	1359.48	1373.86	1400.31	1400.35	1396.56	1377.99	1392.74	1399.54	1398.80	1398.37	1400.72	1400.95
b	+1577	+4706	+10685	+18	-1674	-7531	+5878	+2963	-331	-191	+1053	+104

CAL YR 1994 b +189

WTR YR 1995 b +17257

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

SAN JOAQUIN RIVER BASIN

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CA

LOCATION.--Lat 37°08'40", long 119°27'13", in SW 1/4 SW 1/4 sec.15, T.9 S., R.23 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 1,000 ft downstream from Redinger Lake Dam, 0.4 mi upstream from Willow Creek, and 4.2 mi northeast of Auberry.

DRAINAGE AREA.--1,295 mi².

PERIOD OF RECORD.--March 1951 to current year.

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 No. 4 Powerplant (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, 73,200 ft³/s, Dec. 23, 1955, gage height, 54.2 ft, from floodmarks, from rating curve extended above 7,000 ft³/s on basis of computed flow over dam; no flow Sept. 25, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,500 ft³/s, Mar. 10, gage height, 30.65 ft; minimum daily, 4.4 ft³/s, Mar. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	26	23	21	2140	8.6	852	11400	10300	11100	3490	e20
2	26	26	23	21	2180	6.3	923	8840	8310	10800	2700	e20
3	26	26	23	21	2450	4.5	938	5090	7920	10500	2780	e20
4	26	26	23	21	2570	4.4	1030	4820	10000	11300	2150	e20
5	27	26	23	21	2570	4.4	1530	4700	11700	11500	1290	e20
6	22	26	23	21	2290	4.5	1770	3400	7970	12600	2050	e20
7	22	26	23	20	907	4.5	1830	2670	4890	11600	1960	20
8	22	30	24	19	967	6.0	1790	1780	3810	11300	632	21
9	22	26	24	19	722	480	1590	2230	3110	13600	618	20
10	22	26	23	376	8.9	8800	1170	2450	4200	13800	477	20
11	22	26	23	1900	8.9	5360	1150	3510	7180	11200	538	30
12	23	27	23	375	8.9	1190	1540	3830	8440	6820	280	35
13	23	30	23	524	8.9	380	1890	3800	9880	5830	21	26
14	23	39	22	69	8.9	23	1990	e2790	8660	5300	21	20
15	24	31	21	811	9.0	200	1410	e1850	6760	5860	20	20
16	24	27	21	188	9.0	533	948	1920	5920	7330	18	20
17	24	40	21	187	9.0	816	686	1830	3500	8300	e20	20
18	24	40	21	465	9.0	747	370	1860	4250	9900	e20	20
19	24	40	21	437	9.0	636	19	4250	4930	6950	e20	20
20	24	40	22	407	9.0	515	19	5810	4890	6020	e20	20
21	24	40	21	399	9.0	678	20	6840	5040	4860	e20	20
22	24	40	21	423	9.0	1910	20	6280	5350	4560	e20	20
23	23	40	21	1300	9.0	734	20	5210	7390	4490	e20	20
24	23	40	22	1220	9.0	1280	20	4580	8360	3710	e20	20
25	23	40	22	1240	9.0	1470	110	3870	10300	3310	e20	20
26	23	41	22	913	9.0	1720	1320	3220	10700	3560	e20	20
27	23	40	21	907	9.0	1560	3200	4450	12100	3660	e20	20
28	41	40	21	904	9.4	1360	2350	5900	13200	4170	e20	20
29	27	32	21	1170	---	1180	4000	6580	13300	4710	e20	20
30	26	23	21	2490	---	1020	14800	7240	12200	6080	e20	20
31	26	---	21	2370	---	899	---	8300	---	5180	e20	---
TOTAL	758	980	684	19259	16966.9	33534.2	49305	141400	234560	239900	19345	632
MEAN	24.5	32.7	22.1	621	606	1082	1643	4561	7819	7739	624	21.1
MAX	41	41	24	2490	2570	8800	14800	11400	13300	13800	3490	35
MIN	22	23	21	19	8.9	4.4	19	1780	3110	3310	18	20
AC-FT	1500	1940	1360	38200	33650	66520	97800	280500	465200	475800	38370	1250
a	44470	9710	22450	103800	117400	210900	207500	220000	207500	213600	206800	120200

e Estimated.

a Diversion, in acre-feet, to Big Creek No. 4 Powerplant, provided by Southern California Edison Co.

SAN JOAQUIN RIVER BASIN

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11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.0	20.2	113	81.8	114	150	423	1651	2197	869	76.4	21.2
MAX	25.9	76.2	3501	679	1255	1456	2739	10410	12700	7739	1343	33.9
(WY)	1990	1983	1956	1980	1986	1983	1951	1969	1983	1995	1983	1952
MIN	8.15	8.55	5.66	3.83	3.37	2.86	3.27	4.76	8.59	13.3	16.5	2.79
(WY)	1983	1985	1966	1965	1966	1968	1955	1971	1971	1979	1984	1951
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR					FOR 1995 WATER YEAR				WATER YEARS 1951 - 1995		
ANNUAL TOTAL	7738.6					757324.1						
ANNUAL MEAN	21.2					2075				472		
HIGHEST ANNUAL MEAN										2409		
LOWEST ANNUAL MEAN										11.4		
HIGHEST DAILY MEAN	41 Oct 28					14800 Apr 30				47700 Dec 23 1955		
LOWEST DAILY MEAN	8.4 Feb 21					4.4 Mar 4				.00 Sep 25 1951		
ANNUAL SEVEN-DAY MINIMUM	9.9 Mar 9					4.9 Mar 2				.38 Oct 17 1982		
INSTANTANEOUS PEAK FLOW						25500 Mar 10				73200 Dec 23 1955		
INSTANTANEOUS PEAK STAGE						30.65 Mar 10				54.20 Dec 23 1955		
ANNUAL RUNOFF (AC-FT)	15350					1502000				342200		
TOTAL DIVERSION (AC-FT) a	864600					1684000						
10 PERCENT EXCEEDS	26					7280				1120		
50 PERCENT EXCEEDS	22					41				20		
90 PERCENT EXCEEDS	11					20				4.8		

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 mi².

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.--No estimated daily discharges. Records good. No storage upstream from station. Madera Irrigation District has water rights to divert up to 50 ft³/s from North Fork Willow Creek through Soquel Ditch into Nelder Creek (Fresno River basin) from October through July each year. See schematic diagram of lower San Joaquin River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s, Jan. 13, 1980, gage height, 7.41 ft, from rating curve extended above 1,100 ft³/s on basis of a step-backwater survey; minimum daily, 0.27 ft³/s, Oct. 4, 1987.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0545	425	4.56	Mar. 10	unknown	*1340	*5.64
Mar. 3	1645	167	3.95	Apr. 30	0015	757	5.03

Minimum daily, 2.5 ft³/s, Oct. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.6	7.4	7.6	36	42	83	469	267	200	25	10
2	2.5	4.8	7.3	7.6	38	45	85	353	253	186	24	10
3	2.5	4.6	7.6	8.2	36	127	92	299	252	176	23	10
4	22	4.3	8.6	12	36	77	102	314	267	166	23	10
5	31	11	9.6	21	35	77	111	290	266	169	22	9.7
6	8.2	17	9.0	11	35	62	112	244	229	158	21	9.5
7	6.4	8.0	8.3	26	34	53	121	225	193	143	21	9.3
8	5.8	9.6	8.1	20	34	48	112	211	164	133	20	9.1
9	5.5	7.5	8.7	65	32	215	95	204	165	127	19	9.0
10	5.0	8.3	7.9	289	30	528	90	201	188	116	19	8.9
11	4.7	7.5	7.5	127	30	334	96	201	220	101	16	8.7
12	4.5	7.0	8.1	110	29	220	106	219	244	92	13	8.5
13	4.3	6.7	8.7	118	28	174	111	220	248	82	12	8.4
14	4.1	6.6	8.5	152	27	164	100	183	240	76	9.5	8.1
15	4.1	6.6	7.5	103	27	146	90	172	242	70	9.3	7.8
16	4.1	6.5	7.1	55	25	136	82	160	196	66	9.4	7.6
17	4.0	6.5	7.6	40	25	127	76	157	158	68	12	7.7
18	4.0	6.7	7.5	34	25	134	76	164	146	58	15	8.3
19	4.0	7.6	7.3	30	27	134	73	188	151	52	15	9.0
20	3.9	7.0	7.4	28	30	171	76	214	158	48	15	8.8
21	3.8	6.8	7.6	25	32	157	77	225	174	43	15	8.5
22	3.8	6.6	7.7	27	34	123	81	213	201	35	15	8.1
23	3.8	6.6	7.7	32	36	149	87	202	230	38	12	8.1
24	3.7	6.7	8.9	52	38	104	100	200	253	38	7.6	8.1
25	3.7	9.8	11	56	40	91	115	187	256	36	13	8.3
26	3.8	23	9.3	38	40	87	126	191	253	33	12	8.4
27	3.8	14	8.9	33	39	85	138	205	258	32	12	8.4
28	3.7	7.4	8.9	31	40	81	152	213	249	31	12	8.5
29	3.6	7.4	9.0	29	---	78	350	230	236	29	12	8.7
30	3.7	7.3	7.5	29	---	77	516	250	216	28	11	8.6
31	3.7	---	7.7	31	---	80	---	268	---	26	11	---
TOTAL	174.3	243.0	253.9	1647.4	918	4126	3631	7072	6573	2656	475.8	262.1
MEAN	5.62	8.10	8.19	53.1	32.8	133	121	228	219	85.7	15.3	8.74
MAX	31	23	11	289	40	528	516	469	267	200	25	10
MIN	2.5	3.6	7.1	7.6	25	42	73	157	146	26	7.6	7.6
AC-FT	346	482	504	3270	1820	8180	7200	14030	13040	5270	944	520

SAN JOAQUIN RIVER BASIN

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11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.63	9.04	13.5	24.9	27.3	40.1	49.2	75.8	51.9	16.7	5.72	4.39
MAX	17.8	43.0	69.2	147	178	151	176	228	219	109	26.9	14.3
(WY)	1983	1984	1984	1980	1986	1986	1982	1985	1995	1983	1983	1978
MIN	.41	1.63	1.20	1.84	2.07	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1965 - 1995			
ANNUAL TOTAL	3747.7				28032.5							
ANNUAL MEAN	10.3				76.8				26.9			
HIGHEST ANNUAL MEAN									82.7			
LOWEST ANNUAL MEAN									1.57			
HIGHEST DAILY MEAN	41				528				1360			
LOWEST DAILY MEAN	1.4				2.5				.27			
ANNUAL SEVEN-DAY MINIMUM	1.5				3.7				.29			
INSTANTANEOUS PEAK FLOW					1340				2750			
INSTANTANEOUS PEAK STAGE					5.64				7.41			
ANNUAL RUNOFF (AC-FT)	7430				55600				19490			
10 PERCENT EXCEEDS	23				219				75			
50 PERCENT EXCEEDS	7.3				31				7.6			
90 PERCENT EXCEEDS	1.8				6.6				1.8			

SAN JOAQUIN RIVER BASIN

11243300 BROWNS CREEK CANAL AT BASS LAKE, CA

LOCATION.--Lat 37°17'19", long 119°31'09", in SE 1/4 SW 1/4 sec.25, T.7 S., R.22 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on left bank 900 ft upstream from Bass Lake, and 3.0 mi southeast of town of Bass Lake.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder and concrete canal. Elevation of gage is 3,440 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Canal diverts from South Fork Willow Creek at diversion dam 1.5 mi upstream from gage, in NW 1/4 NE 1/4 sec.30, T.7 S., R.23 E. Flow enters Bass Lake (station 11243400) for power development in San Joaquin River powerplants. 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, 86 ft³/s, Mar. 8, 1989; no flow at times in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	13	9.6	79	77	76	41	76	71	18	6.7
2	.00	.00	13	8.7	78	77	77	20	75	67	17	6.6
3	.00	.00	14	9.3	76	82	78	.46	75	63	17	6.5
4	.29	.00	15	17	76	79	78	41	75	59	16	6.5
5	17	.00	15	31	76	78	78	74	75	57	16	6.3
6	14	6.1	14	19	76	78	78	32	74	53	15	6.0
7	7.2	7.3	13	39	75	76	79	1.0	74	49	15	6.0
8	4.7	13	9.6	37	76	69	78	37	73	47	15	5.7
9	2.3	6.3	8.1	62	73	69	77	75	75	44	14	5.5
10	.57	12	7.8	61	70	40	76	75	78	42	14	5.5
11	.39	8.5	7.2	62	69	5.8	76	75	78	40	14	5.5
12	.12	9.0	7.4	68	67	3.3	77	75	78	39	14	5.2
13	.02	7.7	7.6	44	63	11	77	76	78	38	13	5.0
14	.00	6.9	7.0	1.7	66	27	76	75	78	36	13	5.0
15	.00	7.2	7.5	.67	59	70	75	74	79	34	12	4.5
16	.00	6.3	7.5	.53	56	73	75	74	78	32	12	4.5
17	.00	5.4	10	20	53	74	74	75	77	35	12	4.3
18	.00	5.4	11	78	54	76	74	76	76	32	12	3.7
19	.00	5.8	9.9	76	59	75	73	77	76	30	12	3.2
20	.00	6.0	10	66	66	71	73	77	76	29	11	2.9
21	.00	6.4	10	58	73	62	75	78	76	28	10	2.9
22	.00	6.6	10	55	78	65	78	78	78	28	9.7	2.9
23	.00	6.6	10	66	79	70	78	77	78	27	9.0	2.9
24	.00	7.1	14	74	80	68	78	76	78	26	8.9	2.9
25	.00	7.8	16	76	79	68	78	73	78	25	8.5	2.9
26	.00	6.2	16	71	78	71	79	73	77	24	8.4	3.0
27	.00	7.1	15	70	77	76	79	73	76	23	8.3	2.9
28	.00	7.1	15	67	76	76	79	74	76	21	8.0	3.0
29	.00	7.8	13	64	---	76	83	75	76	21	7.8	3.3
30	.00	9.8	11	69	---	76	54	76	75	20	7.5	3.3
31	.00	---	10	74	---	76	---	76	---	19	7.0	---
TOTAL	46.59	185.40	347.6	1454.50	1987	1995.1	2286	1979.46	2292	1159	375.1	135.1
MEAN	1.50	6.18	11.2	46.9	71.0	64.4	76.2	63.9	76.4	37.4	12.1	4.50
MAX	17	13	16	78	80	82	83	78	79	71	18	6.7
MIN	.00	.00	7.0	.53	53	3.3	54	.46	73	19	7.0	2.9
AC-FT	92	368	689	2890	3940	3960	4530	3930	4550	2300	744	268

11243300 BROWNS CREEK CANAL AT BASS LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.27	3.99	5.89	18.1	28.0	47.1	54.1	38.1	21.4	7.60	2.20	1.09
MAX	6.53	6.18	11.2	53.5	71.0	72.7	77.2	76.3	76.4	37.4	12.1	4.50
(WY)	1990	1995	1995	1993	1995	1993	1993	1993	1995	1995	1995	1995
MIN	.000	1.74	1.07	3.01	2.87	25.3	29.1	14.1	3.80	.032	.000	.000
(WY)	1989	1991	1991	1991	1991	1991	1994	1987	1987	1987	1987	1987

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1987 - 1995			
ANNUAL TOTAL	4119.60				14242.85							
ANNUAL MEAN	11.3				39.0				19.1			
HIGHEST ANNUAL MEAN									39.0			
LOWEST ANNUAL MEAN									10.3			
HIGHEST DAILY MEAN	56 May 7				83 Apr 29				86 Mar 8 1989			
LOWEST DAILY MEAN	.00 Jul 11				.00 Oct 1				.00 Jul 3 1987			
ANNUAL SEVEN-DAY MINIMUM	.00 Jul 11				.00 Oct 14				.00 Jul 3 1987			
ANNUAL RUNOFF (AC-FT)	8170				28250				13830			
10 PERCENT EXCEEDS	32				78				67			
50 PERCENT EXCEEDS	6.0				31				6.7			
90 PERCENT EXCEEDS	.00				2.1				.00			

SAN JOAQUIN RIVER BASIN

11243400 BASS LAKE NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'33", long 119°31'43", in SE 1/4 NE 1/4 sec.26, T.7 S., R.22 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, at outlet tower at dam on North Fork Willow Creek, 2.2 mi southeast of town of Bass Lake, and 5 mi north of North Fork.
DRAINAGE AREA.--50.4 mi².

PERIOD OF RECORD.--January 1911 to September 1982 (monthend contents only), October 1982 to 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 ft³/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, 45,410 acre-ft, June 27-29 and July 2, 4-7, elevation, 3,376.40 ft; minimum, 22,661 acre-ft, Dec. 20, elevation, 3,353.80 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27141	22812	23493	23671	33928	33805	34176	42524	43451	45185	43298	38937
2	27141	22804	23425	23722	33990	33898	34155	42672	43451	45140	43168	38959
3	27105	22795	23484	23816	34031	34402	34268	42433	43440	45287	43041	38981
4	27342	22795	23569	24329	34062	34464	34464	42479	43475	45410	42913	39003
5	27675	22837	23646	24769	34062	34526	34610	42890	43499	45410	42821	39014
6	27721	22905	23731	24726	34052	34495	34724	42775	43605	45410	42752	39036
7	27749	22997	23785	25092	34021	34454	34871	42387	43818	45410	42672	39036
8	27758	23081	23841	25154	34021	34340	34934	42048	44069	45309	42570	39057
9	27768	23173	23875	25498	33990	35270	34955	41773	44366	45264	42444	39068
10	27768	23358	23909	28028	33949	37684	34965	41477	44726	45264	42285	39079
11	27768	23409	23943	28791	33918	36167	34965	41292	45038	45230	42104	39090
12	27582	23459	24045	29578	33867	35196	35028	41314	45242	45185	41849	39112
13	27305	23484	24106	30053	33928	34745	35344	41510	45253	45162	41751	39112
14	26966	23518	23952	30909	33990	34568	35633	41532	44970	45151	41553	39134
15	26698	23552	23705	31424	33949	34495	35898	41586	44948	45129	41335	39134
16	26383	23580	23467	31571	33867	34433	36145	41762	44630	45082	41107	39134
17	26113	23688	23215	31620	33795	34361	36394	41916	44222	45049	40867	39155
18	25818	23722	22947	31718	33724	34361	36664	42093	43960	44982	40681	39155
19	25534	23748	22720	31787	33683	34330	36869	42319	44068	44925	40463	39177
20	25233	23782	22661	31826	33662	34620	37139	42581	44390	44869	40267	39177
21	24935	23818	22711	31816	33642	34693	37346	42867	44690	44762	40038	39177
22	24639	23856	22745	31914	33662	34986	37542	43122	45038	44654	39842	39188
23	24346	23886	22795	32290	33673	34892	37728	43286	45320	44546	39624	39188
24	24157	23909	23081	32840	33693	34578	38000	43475	45343	44414	39395	39188
25	23773	24063	23165	33254	33713	34402	38273	43475	45287	44306	39145	39057
26	23476	24166	23257	33458	33734	34310	38545	43381	45298	44187	38927	38807
27	23190	24200	23333	33673	33754	34250	38839	43310	45410	44056	38828	38556
28	22888	24414	23442	33734	33764	34217	39199	43274	45410	43925	38850	38283
29	22795	23892	23527	33775	---	34196	40147	43263	45410	43782	38872	38011
30	22795	23680	23569	33805	---	34176	41817	43286	45354	43628	38894	37738
31	22795	---	23620	33867	---	34155	---	43369	---	43475	38916	---
MAX	27768	24414	24106	33867	34062	37684	41817	43475	45410	45410	43298	39188
MIN	22795	22795	22661	23671	33642	33805	34155	41292	43440	43475	38828	37738
a	3353.96	3355.01	3354.94	3365.92	3365.82	3366.20	3373.30	3374.66	3376.35	3374.75	3370.64	3369.56
b	-4365	885	-60	10247	-103	391	7662	1552	1985	-1879	-4559	-1178

CAL YR 1994 b +1000
WTR YR 1995 b +10597

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.--No estimated daily discharges. 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 ft³/s, June 23, 24, 1965; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.57	120	.94	139	129	115	127	147	142	140	.00
2	1.8	.36	61	.94	139	129	115	127	146	143	137	.00
3	1.8	.36	1.0	.96	139	130	115	130	146	144	128	.00
4	1.5	.30	1.0	.95	139	130	115	131	146	144	135	.00
5	1.1	.21	1.0	39	139	129	115	129	146	145	102	.01
6	1.1	.21	1.0	113	139	125	116	129	143	144	98	.09
7	1.1	.21	1.0	113	138	126	116	129	144	144	98	.03
8	.83	.27	1.0	113	138	127	118	129	143	145	98	.04
9	.47	.89	.86	113	137	126	117	128	142	145	115	.07
10	.46	1.4	.60	114	137	123	117	130	141	145	135	.08
11	.36	1.4	.44	114	137	7.8	117	133	141	145	134	.12
12	85	1.5	.29	114	136	.00	119	133	141	145	132	.18
13	142	1.5	.30	114	135	30	120	133	140	142	129	.18
14	141	1.5	93	113	134	122	121	134	140	140	133	.26
15	141	1.7	142	114	134	121	122	135	140	141	135	.34
16	141	2.2	142	107	133	121	123	136	139	144	132	.30
17	141	2.2	142	101	133	121	120	137	137	145	130	.30
18	141	2.2	142	107	132	121	121	138	139	140	127	.30
19	141	1.0	141	106	132	120	122	140	139	133	125	.30
20	141	.39	58	106	131	120	122	141	140	135	124	.30
21	141	.37	1.0	106	132	119	122	142	25	137	123	.30
22	141	.43	1.0	105	131	119	122	142	.00	138	122	.32
23	141	.34	1.0	115	131	119	122	143	59	143	113	.96
24	141	.26	1.0	132	131	118	124	142	138	142	115	.26
25	141	.25	1.0	132	131	118	123	146	138	136	127	75
26	141	1.2	1.0	133	131	117	123	146	138	136	127	139
27	141	2.1	1.0	135	130	117	124	147	139	135	43	139
28	141	63	1.0	136	128	117	124	146	140	137	.25	119
29	48	121	.97	136	---	116	125	146	140	138	.02	5.7
30	.87	120	.94	136	---	116	127	145	141	139	.00	.72
31	.87	---	.94	138	---	115	---	146	---	141	.00	---
TOTAL	2404.06	329.32	1060.34	3108.79	3766	3448.80	3602	4240	3898.00	4373	3257.27	483.16
MEAN	77.6	11.0	34.2	100	134	111	120	137	130	141	105	16.1
MAX	142	121	142	138	139	130	127	147	147	145	140	139
MIN	.36	.21	.29	.94	128	.00	115	127	.00	133	.00	.00
AC-FT	4770	653	2100	6170	7470	6840	7140	8410	7730	8670	6460	958
a	4630	579	2010	6600	8000	7570	7380	7780	7570	8380	5820	536
b	4920	664	2070	7630	8170	8170	8640	8920	8430	8710	6550	1520
c	5820	641	2630	9030	9610	9750	10250	10700	10110	10550	7880	1750
d	5430	1490	2930	9910	10830	9960	11290	12110	11630	10350	6880	1860

a Discharge, in acre-ft, to San Joaquin Powerplant No. 3, provided by Pacific Gas & Electric Co.

b Discharge, in acre-ft, to San Joaquin Powerplant No. 2, provided by Pacific Gas & Electric Co.

c Discharge, in acre-ft, to San Joaquin Powerplant No. 1A, provided by Pacific Gas & Electric Co.

d Discharge, in acre-ft, to San Joaquin Powerplant No. 1, provided by Pacific Gas & Electric Co.

SAN JOAQUIN RIVER BASIN

11243500 PACIFIC GAS & ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.6	40.5	56.4	62.2	69.4	73.6	63.2	59.4	59.5	82.3	105	87.9
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	.47
(WY)	1988	1968	1954	1954	1977	1947	1947	1977	1942	1977	1977	1987

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1941 - 1995

ANNUAL TOTAL	6910.21	33970.74	
ANNUAL MEAN	18.9	93.1	68.5
HIGHEST ANNUAL MEAN			128
LOWEST ANNUAL MEAN			14.4
HIGHEST DAILY MEAN	144	Jul 21	167
LOWEST DAILY MEAN	.00	Sep 20	.00
ANNUAL SEVEN-DAY MINIMUM	.03	Aug 31	.00
ANNUAL RUNOFF (AC-FT)	13710	67380	49640
10 PERCENT EXCEEDS	140	142	151
50 PERCENT EXCEEDS	.87	123	62
90 PERCENT EXCEEDS	.24	.31	.03

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CA

LOCATION.--Lat 37°17'20", long 119°31'45", in SE 1/4 SE 1/4 sec.26, T.7 S., R.22 E., Madera County, Hydrologic Unit 18040006, Sierra National Forest, on right bank 1,500 ft downstream from Bass Lake Spillway and 2.5 mi southeast of town of Bass Lake.

DRAINAGE AREA.--50.8 mi².

PERIOD OF RECORD.--May 1940 to current year. Prior to October 1944, published as Willow Creek below Crane Valley Reservoir. October 1944 to September 1954, published as "below Crane Valley Reservoir."

GAGE.--Water-stage recorder. Broad-crested weir with V-notch Dec. 21, 1961, to Jan. 16, 1969, and since Mar. 26, 1971. 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 ft³/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 daily discharge, 2,300 ft³/s, Mar. 11, 1996; minimum daily, 0.01 ft³/s, Dec. 4, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,300 ft³/s, Mar. 11; minimum daily, 3.1 ft³/s, July 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	5.0	4.5	4.5	18	e16	154	28	341	246	4.5	5.0
2	5.0	5.0	4.7	4.5	13	e17	154	33	343	167	5.1	5.0
3	5.0	5.0	5.0	4.7	12	e47	160	286	343	48	4.8	5.0
4	5.3	5.0	5.0	5.5	15	e86	97	403	344	37	4.5	5.0
5	5.3	5.0	5.0	6.6	17	e97	87	471	317	95	4.5	5.0
6	5.0	4.8	5.0	5.0	e31	e106	111	495	204	116	4.5	4.8
7	5.0	4.5	5.0	5.8	e28	e99	133	427	106	116	4.5	4.5
8	5.0	4.5	5.0	5.0	e18	e86	152	365	51	115	4.5	4.5
9	5.0	4.6	5.0	6.7	e16	e234	170	405	10	73	4.5	4.5
10	5.0	5.2	5.0	7.6	e14	e1550	162	467	10	45	4.5	4.5
11	4.5	5.0	5.0	6.2	e12	e2300	158	457	79	43	4.5	4.5
12	4.4	5.0	5.0	7.0	e10	e1180	160	447	137	34	4.5	4.5
13	4.5	5.0	5.0	5.3	e8.9	e660	161	438	275	13	4.5	4.5
14	4.5	5.0	4.7	4.8	e16	e367	94	425	402	4.2	4.5	4.5
15	4.5	5.0	4.5	4.5	e14	e307	31	316	399	4.2	4.5	4.5
16	5.0	5.0	4.5	4.5	e11	e277	32	247	394	4.2	4.5	4.5
17	4.7	5.0	4.5	6.0	e8.8	e249	33	246	385	4.2	4.5	4.5
18	4.2	5.0	4.5	6.5	e7.1	e228	34	246	282	4.2	4.5	4.5
19	4.2	5.0	4.5	12	e5.7	e227	34	246	93	3.8	4.5	4.5
20	4.2	5.0	4.8	15	e5.0	e240	36	246	12	3.1	4.5	4.5
21	4.2	5.2	5.0	14	e5.0	e387	36	247	133	3.1	4.5	4.5
22	4.2	5.1	5.0	11	e4.8	e369	37	249	158	3.4	4.5	4.5
23	4.2	5.0	5.0	11	e4.7	e593	36	250	142	3.6	4.5	4.5
24	4.2	5.0	5.5	13	e5.0	583	36	253	231	3.7	4.5	4.5
25	4.2	5.1	5.0	27	e5.0	434	37	253	273	3.7	4.5	4.5
26	4.2	5.0	4.9	31	e5.0	268	32	256	211	4.0	4.5	4.5
27	4.5	5.0	4.5	30	e6.8	269	8.4	269	163	4.7	4.5	6.1
28	4.5	4.7	4.7	25	e12	239	31	341	165	5.0	4.5	20
29	4.8	4.5	4.5	20	---	173	31	340	215	5.0	4.5	142
30	5.0	4.5	4.5	23	---	164	28	340	279	5.0	4.7	148
31	5.0	---	4.5	26	---	157	---	340	---	4.9	5.0	---
TOTAL	144.0	147.7	149.3	358.7	328.8	12009	2465.4	9832	6497	1222.0	141.1	435.9
MEAN	4.65	4.92	4.82	11.6	11.7	387	82.2	317	217	39.4	4.55	14.5
MAX	5.3	5.2	5.5	31	31	2300	170	495	402	246	5.1	148
MIN	4.2	4.5	4.5	4.5	4.7	16	8.4	28	10	3.1	4.5	4.5
AC-FT	286	293	296	711	652	23820	4890	19500	12890	2420	280	865

e Estimated.

SAN JOAQUIN RIVER BASIN

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.83	4.05	6.81	16.8	27.1	35.8	21.2	31.0	21.6	4.56	4.07	4.17
MAX	77.8	54.6	106	194	380	387	272	317	217	73.6	66.4	103
(WY)	1949	1958	1947	1956	1986	1995	1982	1995	1995	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1941 - 1995	
ANNUAL TOTAL	4604.5		33730.9			
ANNUAL MEAN	12.6		92.4		14.9	
HIGHEST ANNUAL MEAN					92.4	1995
LOWEST ANNUAL MEAN					.26	1977
HIGHEST DAILY MEAN	152	Aug 20	2300	Mar 11	2300	Mar 11 1995
LOWEST DAILY MEAN	3.4	Sep 18	3.1	Jul 20	.01	Dec 4 1989
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 13	3.5	Jul 19	.11	Oct 1 1990
ANNUAL RUNOFF (AC-FT)	9130		66910		10820	
10 PERCENT EXCEEDS	5.5		294		18	
50 PERCENT EXCEEDS	5.0		5.5		.70	
90 PERCENT EXCEEDS	4.2		4.5		.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 mi².

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 ft³/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 ft³/s, Dec. 23, 1955, gage height, 28.5 ft, from floodmarks, from rating curve extended above 4,700 ft³/s; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,460 ft³/s, Mar. 10, gage height, 19.38 ft; no flow Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.30	1.8	3.8	5.5	63	48	443	1400	556	248	16	8.2
2	e.10	1.7	4.7	5.8	76	49	441	1190	539	210	29	5.1
3	e.00	1.3	4.2	7.9	75	299	464	1060	527	100	12	3.8
4	e40	1.3	4.5	18	66	344	526	979	520	34	11	3.5
5	e95	1.2	6.8	111	67	253	491	979	520	73	11	3.4
6	8.8	2.0	5.9	36	84	246	461	919	447	111	10	3.1
7	3.5	3.6	5.3	53	73	187	438	913	259	110	9.3	2.8
8	2.1	4.2	4.7	33	77	159	393	842	216	109	8.7	2.6
9	1.5	4.2	3.9	38	61	736	348	755	128	98	8.6	2.4
10	1.1	9.6	5.0	1350	50	4970	309	741	122	39	7.8	2.5
11	.89	5.6	3.7	839	44	4950	317	715	144	35	7.7	2.4
12	2.1	3.5	3.4	461	40	2150	341	563	249	33	7.8	2.3
13	2.6	3.0	6.0	518	39	1340	303	595	315	28	7.3	2.2
14	2.5	2.6	4.7	602	136	983	232	534	523	22	6.6	2.2
15	1.7	2.4	6.0	701	72	799	189	491	565	19	6.4	1.9
16	1.5	2.7	5.6	311	50	718	172	371	567	17	8.8	2.1
17	1.3	3.3	5.0	197	41	630	162	343	515	17	14	2.3
18	1.3	5.1	4.8	94	37	578	176	348	442	17	9.7	2.3
19	1.1	3.4	4.7	62	36	607	172	394	217	15	10	2.3
20	.94	3.2	4.4	53	38	710	170	431	99	14	11	2.2
21	1.9	2.9	4.1	46	42	1200	160	447	78	14	10	2.0
22	2.3	2.8	3.9	44	42	905	148	445	69	14	10	2.0
23	1.6	2.5	3.7	168	44	1590	155	437	80	13	27	1.8
24	1.2	2.5	9.2	248	46	982	172	451	224	12	49	1.8
25	.97	3.7	18	243	49	723	185	477	316	13	14	1.9
26	.82	7.7	8.5	178	53	580	219	520	280	14	14	2.1
27	.82	4.9	6.4	153	49	510	237	531	192	14	8.0	11
28	.90	4.1	6.4	122	47	457	232	530	186	12	6.2	3.6
29	1.0	4.9	6.3	95	---	424	520	536	185	15	7.4	2.8
30	13	3.8	5.2	76	---	438	1960	543	302	25	10	2.7
31	3.6	---	4.8	61	---	442	---	543	---	20	11	---
TOTAL	196.44	105.5	173.6	6930.2	1597	29007	10536	20023	9382	1515	379.3	91.3
MEAN	6.34	3.52	5.60	224	57.0	936	351	646	313	48.9	12.2	3.04
MAX	95	9.6	18	1350	136	4970	1960	1400	567	248	49	11
MIN	.00	1.2	3.4	5.5	36	48	148	343	69	12	6.2	1.8
AC-FT	390	209	344	13750	3170	57540	20900	39720	18610	3010	752	181

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1995, BY WATER YEAR (WY)

	3.49	14.3	55.1	108	125	148	145	154	55.2	9.06	2.37	2.71
MEAN	3.49	14.3	55.1	108	125	148	145	154	55.2	9.06	2.37	2.71
MAX	24.6	138	652	837	1255	1033	995	747	504	88.8	12.6	28.3
(WY)	1983	1984	1956	1969	1986	1983	1982	1967	1983	1983	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1952 - 1995
ANNUAL TOTAL	2512.08	79936.34	
ANNUAL MEAN	6.88	219	66.5
HIGHEST ANNUAL MEAN			344
LOWEST ANNUAL MEAN			1.71
HIGHEST DAILY MEAN	95 Oct 5	4970 Mar 10	7500 Dec 23 1955
LOWEST DAILY MEAN	.00 Aug 4	.00 Oct 3	.00 Sep 4 1955
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 4	1.0 Oct 23	.00 Sep 4 1955
INSTANTANEOUS PEAK FLOW		8460 Mar 10	15700 Dec 23 1955
INSTANTANEOUS PEAK STAGE		19.38 Mar 10	28.50 Dec 23 1955
ANNUAL RUNOFF (AC-FT)	4980	158600	48190
10 PERCENT EXCEEDS	18	566	160
50 PERCENT EXCEEDS	4.1	39	8.1
90 PERCENT EXCEEDS	.00	2.2	.27

e Estimated.

SAN JOAQUIN RIVER BASIN

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 mi².

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 and No. 2 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, 4,236 acre-ft, Mar. 9, 1995, elevation, 985.60 ft; minimum, 2,104 acre-ft, Nov. 14-17, 1988, elevation, 970.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,236 acre-ft, Mar. 9, elevation, 985.60 ft; minimum, 3,050 acre-ft, Nov. 24, elevation, 977.60 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3665	3664	3815	4062	3590	3502	3459	3694	3984	3830	3830	4062
2	3682	3104	3922	3724	3580	3605	3590	3694	3830	3815	3830	3845
3	3694	3800	3850	3784	3561	3576	3590	3968	3845	3830	3830	3784
4	3784	3906	3830	4015	3532	3906	3459	4172	3830	3830	3459	3517
5	3860	3769	3786	3784	3620	3502	3590	4172	3830	3830	3459	3561
6	3532	3358	3754	3590	3709	3576	3502	4156	3830	3830	3709	4046
7	3605	3330	3718	3620	3644	3546	3459	4172	3830	3830	3430	3992
8	3845	3287	3679	3517	3800	3769	3488	3770	3830	3830	3590	3590
9	3800	3272	3650	3517	3992	4236	3517	4188	3830	3830	3664	4030
10	3900	3287	3620	3287	3739	4140	3620	4172	3830	3709	3546	3845
11	3910	3280	3576	3387	3561	4046	3620	4188	3830	3694	3650	4077
12	3950	3244	3517	3664	3830	4062	3488	4172	3830	3679	3444	3984
13	3953	3202	3444	3387	3800	3416	3605	3532	3830	3830	3517	3953
14	3739	3188	3358	3502	3650	3709	3644	3945	3830	3830	3460	4046
15	3769	3160	3502	3546	3790	3769	3561	3532	3830	3830	3460	3800
16	3754	3105	3561	3430	3876	3754	3561	3664	3830	3830	3420	4030
17	4030	3118	3922	3488	3754	3532	3444	3473	3830	3830	3532	3968
18	4030	3132	3845	3664	3679	3680	3644	3590	3815	3830	3444	3430
19	3860	3132	3815	3784	3605	3605	3430	3992	3830	3830	3459	3620
20	3739	3118	3860	3532	3605	3620	3576	3968	3830	3830	3459	3984
21	3992	3104	3845	3416	3830	3387	3387	3968	3830	3830	3532	3891
22	4015	3096	3860	3590	3860	3937	3664	3970	3830	3830	3430	3694
23	4046	3070	3605	3754	3891	3876	3416	3970	3830	3830	3561	4062
24	3876	3050	3860	3664	3502	3937	4030	3984	3830	4172	3416	3953
25	3953	3063	3679	3532	3546	3502	3590	3992	3830	4172	3387	3784
26	3754	3104	3922	3473	3546	3724	3416	3984	3830	4172	3415	3784
27	3840	3118	4046	3532	3830	3620	4062	3984	3830	4156	3416	3940
28	4046	3244	3769	3430	3416	3724	3488	3968	3830	4156	3401	3984
29	3992	3473	3845	3605	---	3680	4172	3968	3830	4172	3754	3754
30	3992	3650	3724	3694	---	3473	3664	3968	3830	3830	3784	3984
31	3992	---	3830	3459	---	3459	---	3968	---	3800	3532	---
MAX	4046	3906	4046	4062	3992	4236	4172	4188	3984	4172	3830	4077
MIN	3532	3050	3358	3287	3416	3387	3387	3473	3815	3679	3387	3430
a	984.10	981.80	983.00	980.50	980.20	980.50	981.90	983.90	983.00	982.80	981.00	984.00
b	-70	-342	+180	-371	-43	+43	+205	+304	-138	-30	-268	+452

CAL YR 1994 b +328

WTR YR 1995 b - 78

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 mi².

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 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, 33,700 ft³/s, Mar. 11, 1995, gage height, 24.34 ft; minimum daily, 16 ft³/s, May 9-18, 1987, Sept. 29, 30, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,700 ft³/s, Mar. 11, gage height, 24.34 ft; minimum daily, 28 ft³/s, Nov. 9, 11-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	29	30	29	35	35	31	9490	8460	e9100	1210	34
2	42	29	30	29	35	35	31	7660	6380	e7800	223	35
3	42	29	30	30	35	36	31	3660	5510	e7900	322	35
4	43	29	30	30	35	35	31	2960	7230	e7400	104	35
5	43	29	30	31	35	35	32	3110	8710	e9600	32	34
6	42	29	30	30	35	35	34	1980	6120	e10700	33	34
7	42	29	30	30	35	35	34	857	2820	e9700	34	34
8	40	29	29	29	35	35	34	134	1490	e9500	33	34
9	36	28	29	29	35	37	34	116	493	10000	33	34
10	36	29	29	33	35	10900	34	434	1320	10800	33	34
11	36	28	29	486	35	12900	34	1390	4250	8460	33	34
12	36	28	29	37	35	1460	34	1770	5650	4710	33	34
13	36	28	30	36	35	70	34	4990	6890	3430	34	34
14	36	28	29	36	36	34	34	899	6450	2800	34	35
15	35	28	29	36	35	33	34	29	4890	3260	34	35
16	36	29	29	36	35	33	34	29	4230	4790	34	35
17	36	29	30	35	35	32	34	30	1570	5320	34	35
18	35	29	30	35	35	32	34	56	1090	6850	34	35
19	35	29	30	35	35	31	34	1360	1910	4780	34	33
20	35	29	30	35	35	82	34	3360	2340	3530	34	34
21	35	29	30	35	35	784	34	4680	2450	2490	34	35
22	35	29	30	35	35	33	35	4180	2630	1920	34	34
23	35	29	30	35	35	302	35	3220	4700	2090	34	34
24	34	29	30	36	35	37	35	2340	5690	1070	34	34
25	35	29	30	36	35	35	35	1850	e7700	842	34	34
26	34	29	30	37	35	33	35	998	e9100	1030	34	34
27	33	29	29	36	35	32	330	2030	e10400	1190	34	34
28	30	29	30	35	35	32	176	3760	e11200	1580	34	34
29	30	29	29	35	---	32	953	4390	e11400	2280	34	34
30	30	29	29	35	---	31	13700	5230	e10500	3790	33	33
31	29	---	29	35	---	31	---	6180	---	3000	34	---
TOTAL	1125	864	918	1497	981	27307	16034	83172	163573	161712	2768	1027
MEAN	36.3	28.8	29.6	48.3	35.0	881	534	2683	5452	5217	89.3	34.2
MAX	43	29	30	486	36	12900	13700	9490	11400	10800	1210	35
MIN	29	28	29	29	35	31	31	29	493	842	32	33
AC-FT	2230	1710	1820	2970	1950	54160	31800	165000	324400	320800	5490	2040
a	0	0	0	6160	0	48940	53790	84130	79970	82080	20470	1280
b	42740	9200	21200	158700	154800	234300	237300	299600	286300	270700	205300	110300

e Estimated.

a Discharge, in acre-ft, to Kerckhoff Powerplant, provided by Pacific Gas & Electric Co.

b Discharge, in acre-ft, to Kerckhoff Powerplant No. 2, provided by Pacific Gas & Electric Co.

SAN JOAQUIN RIVER BASIN

11246700 SAN JOAQUIN RIVER NEAR AUBERRY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.1	27.8	29.0	92.2	26.7	126	84.2	512	817	633	37.2	30.8
MAX	36.3	37.4	43.1	603	35.0	881	534	2683	5452	5217	89.3	45.6
(WY)	1995	1990	1991	1993	1995	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1987 - 1995			
ANNUAL TOTAL	12264				460978				205			
ANNUAL MEAN	33.6				1263				1263			
HIGHEST ANNUAL MEAN									18.2			
LOWEST ANNUAL MEAN									13700			
HIGHEST DAILY MEAN	44				Jul 30				13700			
LOWEST DAILY MEAN	27				Jan 3				16			
ANNUAL SEVEN-DAY MINIMUM	27				Jan 30				16			
INSTANTANEOUS PEAK FLOW									33700			
INSTANTANEOUS PEAK STAGE									24.34			
ANNUAL RUNOFF (AC-FT)	24330				914300				148200			
10 PERCENT EXCEEDS	44				5090				36			
50 PERCENT EXCEEDS	33				35				29			
90 PERCENT EXCEEDS	28				29				18			

SAN JOAQUIN RIVER BASIN

277

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 valve openings in dam and head on valves. Prior to Oct. 1, 1948, water-stage recorder at several sites at various datums. Oct. 1, 1948, to Sept. 30, 1949, water-stage recorder at site 8.8 mi downstream.

REMARKS.--No estimated daily discharges. 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 ft³/s, July 2, 1983; no flow for many days in each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	200	180	928	1170	1180	1090	1000
2	.00	.00	.00	.00	.00	342	180	922	1130	1140	1130	981
3	.00	.00	.00	.00	.00	547	180	940	1080	1130	1150	944
4	.00	.00	.00	.00	.00	561	228	940	1070	1130	1140	930
5	.00	.00	.00	.00	.00	514	372	973	1060	1180	1140	949
6	.00	.00	.00	.00	.00	435	985	1040	1050	1210	1120	941
7	.00	.00	.00	.00	.00	387	985	1040	1050	1230	1110	930
8	.00	.00	.00	.00	.00	380	985	1040	1050	1230	1110	884
9	.00	.00	.00	.00	.00	332	985	1040	1020	1230	1100	818
10	.00	.00	.00	.00	.00	514	985	1040	994	1200	1060	800
11	.00	.00	.00	.00	.00	900	985	1040	985	1200	1010	794
12	.00	.00	.00	.00	.00	900	985	1040	1040	1200	977	732
13	.00	.00	.00	.00	.00	1040	985	1040	1060	1180	970	668
14	.00	.00	.00	.00	.00	1070	985	1040	1090	1180	957	585
15	.00	.00	.00	.00	.00	1020	985	1040	1050	1160	911	518
16	.00	.00	.00	.00	.00	1020	985	1040	936	1150	890	500
17	.00	.00	.00	.00	.00	1020	985	1040	851	1170	890	487
18	.00	.00	.00	.00	.00	1020	985	1040	830	1180	890	474
19	.00	.00	.00	.00	.00	1020	985	1040	830	1190	890	470
20	.00	.00	.00	.00	.00	1020	985	1040	830	1210	890	470
21	.00	.00	.00	.00	.00	1020	985	1040	897	1210	890	460
22	.00	.00	.00	.00	200	1020	985	1040	975	1210	890	473
23	.00	.00	.00	.00	200	1020	985	1040	1050	1180	870	506
24	.00	.00	.00	.00	200	573	985	1040	1090	1150	870	530
25	.00	.00	.00	.00	200	200	985	1040	1090	1150	870	504
26	.00	.00	.00	.00	232	200	1030	1040	1090	1160	948	400
27	.00	.00	.00	.00	218	180	1050	1040	1090	1170	990	350
28	.00	.00	.00	.00	200	180	1050	1070	1130	1160	976	382
29	.00	.00	.00	.00	---	180	1010	1110	1150	1140	960	465
30	.00	.00	.00	.00	---	180	958	1150	1160	1130	1020	500
31	.00	---	.00	.00	---	180	---	1170	---	1100	1030	---
TOTAL	0.00	0.00	0.00	0.00	1450.00	19175	25938	32083	30898	36440	30739	19445
MEAN	.0000	.0000	.0000	.0000	51.8	619	865	1035	1030	1175	992	648
MAX	.00	.00	.00	.00	232	1070	1050	1170	1170	1230	1150	1000
MIN	.00	.00	.00	.00	.00	180	180	922	830	1100	870	350
AC-FT	.00	.00	.00	.00	2880	38030	51450	63640	61290	72280	60970	38570

SAN JOAQUIN RIVER BASIN

11249500 MADERA CANAL AT FRIANT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	102	13.4	1.08	20.0	108	298	337	482	784	979	733	340
MAX	599	143	49.0	473	659	1094	1258	1261	1277	1293	1233	1153
(WY)	1984	1987	1970	1974	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1949 - 1995			
ANNUAL TOTAL	72999.00				196168.00							
ANNUAL MEAN	200				537				351			
HIGHEST ANNUAL MEAN									736			
LOWEST ANNUAL MEAN									43.8			
HIGHEST DAILY MEAN	950				1230				1330			
LOWEST DAILY MEAN	.00				.00				.00			
ANNUAL SEVEN-DAY MINIMUM	.00				.00				.00			
INSTANTANEOUS PEAK FLOW									1330			
ANNUAL RUNOFF (AC-FT)	144800				389100				254500			
10 PERCENT EXCEEDS	718				1130				1070			
50 PERCENT EXCEEDS	.00				506				90			
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.--No estimated daily discharges. 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 ft³/s, June 25, 1982; no flow for many days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	543	417	.00	.00	481	2920	812	1930	4230	4340	4400	3700
2	544	342	.00	.00	788	2930	829	1740	4220	4410	4500	3500
3	579	241	.00	222	879	2990	1030	1650	3860	4400	4600	3510
4	495	186	.00	222	900	2960	1090	1610	3980	4420	4600	3660
5	300	177	.00	.00	929	2950	1130	1410	4020	4440	4600	3810
6	218	178	.00	.00	950	2680	1260	1300	4120	4480	4600	3820
7	176	178	.00	.00	1000	2310	1260	1390	4270	4500	4560	3570
8	159	178	.00	.00	1060	2040	1260	1480	4340	4580	4590	3170
9	160	177	.00	.00	1100	1670	1340	1570	4290	4490	4600	2580
10	236	177	.00	.00	1310	1300	1500	1700	4340	4480	4600	2520
11	371	176	.00	.00	1550	1250	1720	1660	4390	4500	4510	2650
12	426	59	.00	.00	1550	1380	1820	1510	4410	4470	4500	2650
13	423	.00	.00	.00	2010	1870	1770	1450	4410	4460	4600	2650
14	386	.00	.00	.00	2220	2190	1500	1610	4400	4600	4600	2560
15	331	.00	.00	.00	2070	2480	1240	1710	4300	4600	4580	2370
16	369	.00	.00	.00	2310	2770	1200	1620	3780	4600	4400	2100
17	473	.00	.00	.00	3330	3130	1200	2040	3510	4600	4210	2050
18	525	120	.00	.00	3440	3370	1150	2350	3770	4600	3830	2200
19	552	174	.00	.00	3340	3400	1120	2490	4100	4600	3720	2350
20	544	174	.00	.00	3070	3140	1120	2540	4340	4600	3990	2720
21	454	173	.00	.00	2770	2430	1120	2640	4370	4600	4220	2790
22	402	58	.00	.00	2610	1780	1190	2800	4380	4550	4240	2690
23	434	.00	.00	181	3140	940	1370	3240	4400	4500	4230	2490
24	459	.00	.00	307	3160	420	1570	3340	4400	4390	4270	2370
25	444	.00	.00	390	3200	379	1780	3170	4400	4390	4080	2450
26	462	.00	.00	450	3200	442	1960	3040	4400	4410	3840	2410
27	449	.00	.00	383	3110	594	2050	2980	4310	4410	3930	2300
28	359	.00	.00	350	2890	690	1960	3080	4300	4410	4040	2260
29	301	.00	.00	350	---	796	1870	3270	4300	4410	4030	2030
30	327	.00	94	321	---	958	1970	3590	4260	4410	4040	1910
31	383	---	.00	388	---	942	---	3900	---	4410	3880	---
TOTAL	12284	3185.00	94.00	3564.00	58367	60101	42191	69810	126600	139060	133390	81840
MEAN	396	106	3.03	115	2085	1939	1406	2252	4220	4486	4303	2728
MAX	579	417	94	450	3440	3400	2050	3900	4410	4600	4600	3820
MIN	159	.00	.00	.00	481	379	812	1300	3510	4340	3720	1910
AC-FT	24370	6320	186	7070	115800	119200	83690	138500	251100	275800	264600	162300

11250000 FRIANT-KERN CANAL AT FRIANT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	809	305	63.4	196	1287	1245	1353	1619	2608	2883	2566	1509
MAX	3084	1364	629	1348	4505	3551	4475	4238	4529	4905	4339	4033
(WY)	1979	1979	1970	1966	1965	1965	1962	1993	1993	1993	1967	1967
MIN	.000	.000	.000	.000	.000	5.13	141	87.5	598	262	384	1.33
(WY)	1950	1950	1950	1950	1950	1991	1977	1977	1977	1949	1949	1950

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1949 - 1995			
ANNUAL TOTAL	311899.00				730486.00							
ANNUAL MEAN	855				2001				1382			
HIGHEST ANNUAL MEAN									2356			
LOWEST ANNUAL MEAN									270			
HIGHEST DAILY MEAN	3520				4600				5330			
LOWEST DAILY MEAN	.00				.00				.00			
ANNUAL SEVEN-DAY MINIMUM	.00				.00				.00			
INSTANTANEOUS PEAK FLOW									5330			
ANNUAL RUNOFF (AC-FT)	618700				1449000				1001000			
10 PERCENT EXCEEDS	2360				4410				3510			
50 PERCENT EXCEEDS	496				1710				955			
90 PERCENT EXCEEDS	.00				.00				.00			

SAN JOAQUIN RIVER BASIN

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11250100 MILLERTON LAKE AT FRIANT, CA

LOCATION.--Lat 37°00'00", Long 119°42'13", in SW 1/4 SW 1/4 sec.5, T.11 S., R.21 E., Fresno County, Hydrologic Unit 18040006, near center of Friant Dam on San Joaquin River just upstream from Cottonwood Creek, 0.9 mi northeast of Friant.

DRAINAGE AREA.--1,638 mi².

PERIOD OF RECORD.--October 1941 to current year. Monthend contents only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 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 were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 528,700 acre-ft, June 12, 1973, elevation, 579.66 ft; minimum since lake first filled, 133,600 acre-ft, Apr. 11, 1969, elevation, 467.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 526,500 acre-ft, July 11, elevation, 577.21 ft; minimum, 183,100 acre-ft, Oct. 4, elevation, 488.47 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184400	199400	197100	218900	406600	436000	467800	361100	270000	491100	515200	410600
2	184100	200400	197000	222000	410500	436100	460800	371200	276800	493900	513800	405900
3	183400	200500	196900	224000	414700	437200	454100	373000	282400	497400	513800	401400
4	183100	201400	196800	226400	419200	438700	446400	373500	291400	502400	513900	396500
5	183500	202300	196800	232200	423200	439400	440000	374100	305300	506200	511900	390600
6	184400	203100	196700	236800	427800	440000	433600	371700	315800	510800	511400	384600
7	185000	202700	197000	241200	431600	442400	428800	366300	320000	513600	511700	379700
8	185800	202200	196500	245500	436400	445000	425800	359800	321700	514600	508700	376200
9	186500	201700	196400	249100	440600	450700	422900	352200	321600	520300	505300	373600
10	186900	201200	196300	259300	444300	486500	418700	345600	322600	526300	502000	370700
11	186100	200800	196200	271900	447300	515800	414000	340600	329300	526500	499100	366700
12	185000	200500	196300	278800	449600	515200	410200	337300	337900	520900	496000	365100
13	184200	200300	196400	286500	451800	507100	407800	335000	348500	516300	491700	362200
14	183900	200200	196500	292600	454700	496000	407200	329900	358100	513100	486800	359300
15	183300	200000	196500	302200	456100	485600	405800	322800	365000	511700	480200	357400
16	183800	199900	196500	308800	455600	476200	403400	315400	371900	514200	477200	355500
17	184000	199800	196400	314100	452900	470800	400500	306700	374300	515900	473500	353900
18	184600	199500	196600	319500	449600	465900	396900	296600	375300	516600	470200	352700
19	184400	199000	196800	324800	447200	462900	391900	289800	378200	514200	467100	350400
20	185400	198500	196800	330500	444500	461600	384900	286900	382700	512700	463200	346400
21	186200	198000	196700	335700	442100	465700	377100	286100	387800	512700	458800	342800
22	187600	197800	196600	340900	441600	471300	368600	284300	393400	514800	454600	339700
23	189000	197700	197800	348500	440000	482000	360500	280100	402600	517400	450200	336000
24	190400	197500	200300	357100	438200	487000	351000	273800	413600	518500	446100	333200
25	191600	197500	203100	365700	436800	492400	342300	267100	427700	519300	442200	330400
26	193000	197500	205600	372800	435700	495600	334700	261000	440800	520300	438700	327300
27	194000	197400	207600	379400	435000	495500	330200	258100	454300	520800	434800	324700
28	195100	197400	210200	385600	436500	491600	326300	258400	468900	520400	430800	322400
29	196200	197300	212500	391400	---	486900	323200	259200	481100	520500	426300	320700
30	197000	197200	214700	396800	---	481100	346700	261100	488100	521300	420800	319200
31	198100	---	216800	402200	---	474600	---	263500	---	518400	416100	---
MAX	198100	203100	216800	402200	456100	515800	467800	374100	488100	526500	515200	410600
MIN	183100	197200	196200	218900	406600	436000	323200	258100	270000	491100	416100	319200
a	493.90	493.57	500.39	552.09	560.01	568.38	538.40	515.30	571.27	577.56	555.34	531.13
b	+14300	-900	+19600	+185400	+34300	+38100	-127900	-83200	+224600	+30300	-102300	-96900
c	1022	429	164	529	404	975	1214	1427	2508	3692	3462	2115

CAL YR 1994 b +11100
WTR YR 1995 b +135400

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet, published as provided, not reviewed by U.S. Geological Survey.

SAN JOAQUIN RIVER BASIN

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CA

LOCATION.--Lat 36°59'04", long 119°43'24", in SW 1/4 SW 1/4 sec.7, T.11 S., R.21 E., Fresno County, Hydrologic Unit 18040001, on left bank 0.5 mi west of Friant, 1.5 mi downstream from Cottonwood Creek, 2 mi downstream from Friant Dam, and at mile 268.1.

DRAINAGE AREA.--1,676 mi².

PERIOD OF RECORD.--October 1907 to current year. Published as "near Pollasky" October 1907 to December 1908, and as "near Friant" January 1909 to September 1938. Monthly discharge only for October 1907 to November 1908, published in WSP 1315-A.

REVISED RECORDS.--WSP 843: 1914(M).

GAGE.--Water-stage recorder. Datum of gage is 294.00 ft 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.--No estimated daily discharges. 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 ft³/s, Dec. 11, 1937, gage height, 23.8 ft, site and datum then in use; minimum, 38 ft³/s, regulated, July 29, 1940. Maximum discharge since construction of Friant Dam in 1941, 15,500 ft³/s, Feb. 18, 1986, gage height, 13.41 ft; minimum, 5.5 ft³/s, Oct. 20, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft³/s, Mar. 11, gage height, 12.09 ft; minimum daily, 33 ft³/s, Jan. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	161	102	113	77	128	8390	6490	5370	7650	3840	184
2	226	162	100	113	73	123	8350	6940	4030	7270	1810	185
3	214	164	98	114	71	138	8310	7370	4050	6500	1000	184
4	165	164	98	120	65	156	8470	7360	4080	6420	717	184
5	151	164	99	95	61	139	8310	7710	3080	7100	400	184
6	150	164	100	42	58	132	7670	8500	1960	7970	307	184
7	150	129	100	37	74	123	6850	8440	1970	8230	305	184
8	151	124	101	33	79	123	5750	8390	1980	8150	303	186
9	152	125	102	49	72	160	5260	8370	1980	8170	301	187
10	152	126	100	122	66	4020	5260	8370	1980	8990	300	187
11	151	125	100	84	64	8810	5240	8330	1990	9400	284	187
12	150	125	101	61	62	8610	5230	8050	2200	8300	257	187
13	151	125	102	62	262	9350	4750	7760	2530	6520	257	187
14	152	125	98	52	982	9060	4150	7730	2550	5020	257	187
15	151	126	102	98	1210	8040	4140	7690	2560	4450	254	187
16	150	126	102	80	1180	7050	4140	7650	2580	3960	254	187
17	150	121	101	69	1170	4750	4130	7830	2590	4950	252	187
18	151	107	100	58	1170	3620	4130	8260	2590	7050	250	184
19	151	107	102	56	1160	2540	4620	8200	2150	6620	250	182
20	150	107	104	53	1160	2150	5910	8250	1470	4790	250	182
21	152	107	104	52	1160	2340	6340	8330	1200	3080	250	182
22	152	113	103	49	808	2240	6290	8320	1000	1490	250	182
23	152	107	102	89	419	3390	6260	8280	1010	1490	250	182
24	152	107	106	165	418	4600	6220	8230	1020	1490	250	182
25	153	106	104	223	266	4520	6300	8250	1020	1490	252	175
26	146	102	104	172	125	5140	6330	6980	1800	1490	253	164
27	157	102	104	169	125	6470	6300	6130	3030	1880	253	164
28	151	102	108	136	122	7970	6330	6130	3640	2550	232	164
29	157	102	111	106	---	7930	6350	6130	5180	3110	188	164
30	159	101	112	93	---	8120	6450	6130	6950	4010	184	164
31	159	---	113	84	---	8360	---	6140	---	5400	184	---
TOTAL	4934	3726	3183	2849	12559	130302	182230	236740	79540	164990	14394	5429
MEAN	159	124	103	91.9	449	4203	6074	7637	2651	5322	464	181
MAX	226	164	113	223	1210	9350	8470	8500	6950	9400	3840	187
MIN	146	101	98	33	58	123	4130	6130	1000	1490	184	164
AC-FT	9790	7390	6310	5650	24910	258500	361500	469600	157800	327300	28550	10770

SAN JOAQUIN RIVER BASIN

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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
LOWEST ANNUAL MEAN	698
HIGHEST DAILY MEAN	38800
LOWEST DAILY MEAN	54
ANNUAL SEVEN-DAY MINIMUM	105
INSTANTANEOUS PEAK FLOW	77200
INSTANTANEOUS PEAK STAGE	23.80
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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	368	270	405	643	988	1225	1788	1959	1717	1040	616	483
MAX	1663	1623	3798	5376	7100	7705	7701	9107	9438	5322	2807	2392
(WY)	1946	1983	1983	1956	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1941 - 1995

ANNUAL TOTAL	61010	840876	
ANNUAL MEAN	167	2304	957
HIGHEST ANNUAL MEAN			4385
LOWEST ANNUAL MEAN			66.9
HIGHEST DAILY MEAN	263	Aug 27	9400
LOWEST DAILY MEAN	65	Jan 10	33
ANNUAL SEVEN-DAY MINIMUM	79	Jan 4	60
INSTANTANEOUS PEAK FLOW			12500
INSTANTANEOUS PEAK STAGE			12.09
ANNUAL RUNOFF (AC-FT)	121000	1668000	693500
10 PERCENT EXCEEDS	252	7870	2890
50 PERCENT EXCEEDS	152	250	146
90 PERCENT EXCEEDS	100	100	51

11253310 CANTUA CREEK NEAR CANTUA CREEK, CA

LOCATION.--Lat 36°24'08", long 120°25'57", in SE 1/4 SE 1/4 sec.34, T.17 S., R.14 E., Fresno County, Hydrologic Unit 18030012, on left bank 9.2 mi southwest of town of Cantua Creek and 19 mi north of Coalinga.

DRAINAGE AREA.--46.4 mi².

PERIOD OF RECORD.--Water years 1958-65 (annual maximum), October 1966 to current year.

GAGE.--Water-stage recorder 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 except those for estimated daily discharges, which are poor. Some small dams for stock use upstream from station. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/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 ft³/s and maximum (*), from floodmarks:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	2130	58	2.42	Mar. 4	2315	58	2.43
Jan. 10	0130	583	4.36	Mar. 10	1815	*2970	*7.13
Jan. 24	1415	928	5.25	June 15	1330	59	1.58
Feb. 8	1945	111	2.57				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	11	4.3	39	11	5.4	2.2	.63	.25
2	.00	.00	.00	.00	9.9	4.3	35	10	5.3	2.1	.60	.23
3	.00	.00	.00	.00	9.0	7.6	31	9.6	5.0	2.1	.55	.23
4	.00	.00	.00	14	8.2	12	30	9.4	4.8	2.0	.50	.24
5	.00	.00	.00	10	7.8	29	30	9.5	4.4	1.9	.52	.23
6	.00	.00	.00	1.1	7.5	15	30	9.1	4.3	1.8	.54	.23
7	.00	.00	.00	26	7.1	9.3	30	9.3	4.4	1.8	.47	.23
8	.00	.00	.00	8.9	15	7.8	28	9.2	4.9	1.8	.39	.23
9	.00	.00	.00	31	15	69	25	8.7	4.2	1.7	.38	.24
10	.00	.00	.00	177	7.7	1070	23	8.6	4.1	1.7	.38	.26
11	.00	.00	.00	46	7.1	328	22	8.1	4.2	1.6	.39	.26
12	.00	.00	.00	17	6.7	166	21	7.6	4.2	1.5	.39	.24
13	.00	.00	.00	9.3	6.2	e136	22	9.3	4.1	1.6	.39	.24
14	.00	.00	.00	6.4	21	e100	22	11	4.2	1.5	.34	.25
15	.00	.00	.00	12	9.3	e78	22	12	6.3	1.3	.29	.27
16	.00	.00	.00	7.3	7.7	e62	25	9.3	5.5	1.1	.27	.25
17	.00	.00	.00	5.3	6.7	e59	22	7.4	4.7	1.1	.27	.21
18	.00	.00	.00	3.2	6.0	e57	22	6.8	4.2	1.2	.28	.23
19	.00	.00	.00	2.6	5.7	e56	20	6.6	4.1	1.3	.32	.20
20	.00	.00	.00	2.8	5.4	e54	22	6.3	4.0	1.1	.31	.12
21	.00	.00	.00	4.7	4.9	e55	21	5.9	3.8	1.1	.29	.12
22	.00	.00	.00	3.1	4.8	e106	20	6.2	3.5	1.1	.25	.12
23	.00	.00	.00	48	4.8	e166	16	6.5	3.3	1.1	.20	.11
24	.00	.00	.00	284	4.5	82	14	6.2	3.1	1.1	.20	.10
25	.00	.00	.00	115	4.3	70	13	6.6	2.9	.98	.20	.13
26	.00	.00	.00	40	4.1	65	12	6.3	2.7	.94	.23	.13
27	.00	.00	.00	28	4.0	61	12	6.0	2.4	.88	.24	.12
28	.00	.00	.00	21	3.9	56	12	5.9	2.3	.88	.24	.12
29	.00	.00	.00	17	---	50	12	5.7	2.1	.83	.26	.12
30	.00	.00	.00	14	---	43	12	5.4	2.2	.76	.28	.12
31	.00	---	.00	12	---	41	---	5.4	---	.72	.27	---
TOTAL	0.00	0.00	0.00	966.70	215.3	3119.3	665	244.9	120.6	42.79	10.87	5.83
MEAN	.000	.000	.000	31.2	7.69	101	22.2	7.90	4.02	1.38	.35	.19
MAX	.00	.00	.00	284	21	1070	39	12	6.3	2.2	.63	.27
MIN	.00	.00	.00	.00	3.9	4.3	12	5.4	2.1	.72	.20	.10
AC-FT	.00	.00	.00	1920	427	6190	1320	486	239	85	22	12

e Estimated.

11253310 CANTUA CREEK NEAR CANTUA CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.087	.36	1.34	7.06	9.74	14.1	5.03	2.49	1.05	.38	.098	.14
MAX	1.40	2.82	11.2	44.0	53.9	101	23.2	17.4	7.64	3.83	1.83	1.41
(WY)	1984	1973	1984	1969	1969	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1967 - 1995	
ANNUAL TOTAL	173.99		5391.29			
ANNUAL MEAN	.48		14.8		3.46	
HIGHEST ANNUAL MEAN					18.9	1983
LOWEST ANNUAL MEAN					.003	1989
HIGHEST DAILY MEAN	16	Feb 20	1070	Mar 10	1070	Mar 10 1995
LOWEST DAILY MEAN	.00	Jun 11	.00	Oct 1	.00	Oct 1 1966
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 11	.00	Oct 1	.00	Oct 1 1966
INSTANTANEOUS PEAK FLOW			2970	Mar 10	3420	Mar 1 1983
INSTANTANEOUS PEAK STAGE			7.38	Mar 10	7.38	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	345		10690		2510	
10 PERCENT EXCEEDS	1.1		30		6.2	
50 PERCENT EXCEEDS	.00		1.8		.05	
90 PERCENT EXCEEDS	.00		.00		.00	

SAN JOAQUIN RIVER BASIN

11253500 JAMES BYPASS NEAR SAN JOAQUIN, CA

LOCATION.--Lat 36°39'09", long 120°10'49", in NE 1/4 SW 1/4 sec.1, T.15 S., R.16 E., Fresno County, Hydrologic Unit 18030012, on right bank 3.2 mi north of San Joaquin.

PERIOD OF RECORD.--October 1947 to current year. Published as "Fresno Slough bypass" in WSP 1315-A and 1735. Daily discharge 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 ft³/s, June 7, 1969; no flow for all or most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,990 ft³/s, May 25, no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	1750	3310	3630	818	39	.00
2	.00	.00	.00	.00	.00	.00	2120	3040	3280	1150	180	.00
3	.00	.00	.00	.00	.00	.00	2450	3120	3280	1170	164	.00
4	.00	.00	.00	.00	.00	.00	2530	3460	3150	1040	150	.00
5	.00	.00	.00	.00	.00	.00	2510	e3540	3070	902	135	.00
6	.00	.00	.00	.00	.00	.00	2680	e3440	2960	782	121	.00
7	.00	.00	.00	.00	.00	.00	2790	e3640	2840	883	110	.00
8	.00	.00	.00	.00	.00	.00	2940	e3770	2450	1460	98	.00
9	.00	.00	.00	.00	.00	.00	3260	e3660	2210	1990	76	.00
10	.00	.00	.00	.00	.00	.00	3620	3570	2040	2350	15	.00
11	.00	.00	.00	.00	.00	.00	2300	3660	1710	2660	.00	.00
12	.00	.00	.00	.00	.00	540	1710	3750	1660	3140	.00	.00
13	.00	.00	.00	.00	.00	2010	2430	3820	1450	3470	.00	.00
14	.00	.00	.00	.00	.00	655	2550	3810	1210	3400	.00	.00
15	.00	.00	.00	.00	.00	316	2410	3900	1040	2680	.00	.00
16	.00	.00	.00	.00	.00	130	2570	3880	878	2550	.00	.00
17	.00	.00	.00	.00	.00	e98	2470	3880	679	2430	.00	.00
18	.00	.00	.00	.00	.00	e65	2420	3880	907	2090	.00	.00
19	.00	.00	.00	.00	.00	e32	2470	3780	1050	1080	.00	.00
20	.00	.00	.00	.00	.00	.00	2480	3800	1010	793	.00	.00
21	.00	.00	.00	.00	.00	.00	2580	3860	775	693	.00	.00
22	.00	.00	.00	.00	.00	.00	2730	3960	653	361	.00	.00
23	.00	.00	.00	.00	.00	426	2860	3960	353	166	.00	.00
24	.00	.00	.00	.00	.00	816	2870	3980	235	262	.00	.00
25	.00	.00	.00	.00	.00	2000	2930	3990	100	207	.00	.00
26	.00	.00	.00	.00	.00	1760	2980	3920	200	94	.00	.00
27	.00	.00	.00	.00	.00	1550	3030	3800	53	224	.00	.00
28	.00	.00	.00	.00	.00	1560	3160	3740	291	39	.00	.00
29	.00	.00	.00	.00	---	1420	3210	3750	357	39	.00	.00
30	.00	.00	.00	.00	---	1410	3310	3740	331	39	.00	.00
31	.00	---	.00	.00	---	1660	---	3720	---	39	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	16448.00	80120	115130	43852	39001	1088.00	0.00
MEAN	.000	.000	.000	.000	.000	531	2671	3714	1462	1258	35.1	.000
MAX	.00	.00	.00	.00	.00	2010	3620	3990	3630	3470	180	.00
MIN	.00	.00	.00	.00	.00	.00	1710	3040	53	39	.00	.00
AC-FT	.00	.00	.00	.00	.00	32620	158900	228400	86980	77360	2160	.00

e Estimated.

11253500 JAMES BYPASS NEAR SAN JOAQUIN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	66.3	168	252	314	256	584	743	852	513	210	42.8	31.2
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 1995 WATER YEAR

WATER YEARS 1948 - 1995 a

ANNUAL TOTAL	295639.00		
ANNUAL MEAN	810	336	
HIGHEST ANNUAL MEAN		3189	1983
LOWEST ANNUAL MEAN		.000	1954
HIGHEST DAILY MEAN	3990	May 25	5360
LOWEST DAILY MEAN	.00	Oct 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1	.00
INSTANTANEOUS PEAK FLOW			5570
ANNUAL RUNOFF (AC-FT)	586400		243600
10 PERCENT EXCEEDS	3270		971
50 PERCENT EXCEEDS	.00		.00
90 PERCENT EXCEEDS	.00		.00

a Does not include water years 1955 to 1972, (See Period of Record)

SAN JOAQUIN RIVER BASIN

11260815 SAN JOAQUIN RIVER NEAR STEVINSON, CA

LOCATION.--Lat 37°14'52", long 120°51'00", in NE 1/4 SE 1/4 sec.27, T.7 S., R.10 E., Merced County, Hydrologic Unit 18040001, on left bank at bridge on Highway 165 and 2.0 mi south of Stevinson.

DRAINAGE AREA.--7,388 mi², approximately.

PERIOD OF RECORD.--Water year 1989 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 June 1985 to September 1988 are available in U.S. Geological Survey Open-File Report 91-74.

SPECIFIC CONDUCTANCE: Water year 1989 to current year.

WATER TEMPERATURE: Water year 1989 to current year.

CHEMICAL DATA: Water year 1993.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to current year.

WATER TEMPERATURE: October 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1985.

REMARKS.--Maximum and minimum values are affected by upstream regulation of flow.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 4,040 microsiemens, Sept. 30, 1992; minimum recorded, 57 microsiemens, May 24, 25, 1995.

WATER TEMPERATURE: Maximum recorded, 32.0°C, July 15, 16, 1994; minimum recorded, 3.0°C, Dec. 26, 1990.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3,080 microsiemens, Nov. 9; minimum recorded, 57 microsiemens, May 24, 25.

WATER TEMPERATURE: Maximum recorded, 31.5°C, June 26; minimum recorded, 6.5°C, Dec. 11.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1770	1710	2920	2820	850	810	1350	1330	250	200	880	830
2	1820	1760	3020	2890	870	850	1360	1340	270	250	920	880
3	1860	1810	3050	2960	940	850	1380	1350	320	270	970	910
4	1940	1850	3040	2920	930	880	1400	1370	340	320	1060	970
5	2060	1890	3020	2970	1010	930	1430	1390	380	340	1060	980
6	2090	1890	2970	2920	1040	1000	1480	380	430	370	980	810
7	2100	1920	3010	2930	1060	1020	380	170	490	430	850	760
8	2440	2080	3050	2930	1120	1050	180	170	520	470	770	740
9	2580	2410	3080	2980	1130	1110	200	180	620	520	780	740
10	2600	2460	3070	2980	1140	1110	270	200	660	620	740	320
11	2610	2520	3060	2050	1150	1130	310	220	660	640	320	130
12	2650	2580	2100	1480	1160	1140	230	130	650	430	150	120
13	2710	2590	1480	660	1160	1140	170	130	560	490	300	120
14	2750	2660	1030	730	1160	1110	180	160	580	490	280	180
15	2710	2560	1060	860	1150	1110	190	170	620	540	320	260
16	2600	2510	960	740	1140	1070	170	130	540	350	320	240
17	2580	2490	870	820	1070	1010	150	130	470	390	250	210
18	2530	2460	870	780	1070	1000	160	150	500	460	220	190
19	2510	2460	780	630	1070	1040	170	160	560	500	190	180
20	2550	2480	650	630	1070	820	210	170	610	550	200	180
21	2560	2500	720	650	1020	820	290	210	640	610	220	190
22	2570	2510	770	710	1070	830	320	290	710	640	230	220
23	2610	2560	860	770	1120	1060	330	320	800	710	230	220
24	2650	2580	970	860	1140	1100	320	260	930	800	220	170
25	2700	2620	1010	940	1180	1140	260	170	1040	930	180	170
26	2740	2640	1070	960	1230	1180	170	140	1050	970	220	180
27	2780	2680	1080	1000	1220	1140	150	140	980	660	240	220
28	2820	2700	1030	720	1190	1160	150	140	840	790	240	200
29	2850	2780	800	780	1210	1170	150	140	---	---	200	170
30	2870	2760	820	790	1240	1200	170	150	---	---	170	150
31	2880	2780	---	---	1360	1230	210	170	---	---	160	140
MONTH	2880	1710	3080	630	1360	810	1480	130	1050	200	1060	120

SAN JOAQUIN RIVER BASIN

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11260815 SAN JOAQUIN RIVER NEAR STEVINSON, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	140	130	76	74	91	87	250	100	200	98	230	220
2	130	110	81	74	97	91	100	85	98	68	240	200
3	110	110	81	77	100	96	180	83	68	61	210	190
4	120	110	78	76	150	100	86	81	150	66	210	190
5	110	100	78	74	150	140	83	76	180	150	190	160
6	100	93	76	73	140	130	77	73	290	180	280	190
7	95	89	74	71	140	130	81	73	300	290	280	270
8	90	84	72	70	160	130	80	76	340	290	280	260
9	86	81	72	68	180	160	79	70	390	340	270	260
10	83	80	70	67	180	170	72	70	450	380	270	210
11	86	80	71	66	180	170	73	71	480	450	210	190
12	88	85	68	65	190	180	71	66	490	450	190	160
13	92	86	66	64	210	180	68	66	480	460	160	120
14	100	92	68	64	240	210	69	67	480	390	150	130
15	110	94	69	66	240	220	69	66	390	360	130	110
16	95	89	69	67	240	220	74	67	360	310	110	95
17	92	89	71	69	250	240	80	74	350	310	100	92
18	93	90	74	69	260	240	83	79	380	350	97	84
19	95	93	75	73	260	250	91	81	390	370	84	67
20	94	82	76	72	260	250	94	76	400	390	77	68
21	93	83	72	66	250	230	76	60	400	300	79	73
22	94	88	69	64	270	240	66	60	300	280	76	68
23	88	80	67	62	360	260	81	66	290	250	100	70
24	81	78	62	57	380	350	110	81	270	250	100	87
25	80	78	63	57	440	360	170	110	270	260	120	81
26	79	70	71	63	490	440	230	170	260	230	150	110
27	70	67	74	71	520	390	270	230	240	230	160	140
28	75	68	77	69	800	500	360	270	240	230	150	120
29	70	64	89	77	810	340	430	360	280	240	120	110
30	76	65	92	88	340	210	470	420	280	250	140	110
31	---	---	93	87	---	---	470	200	250	210	---	---
MONTH	140	64	93	57	810	87	470	60	490	61	280	67

SAN JOAQUIN RIVER BASIN

11260815 SAN JOAQUIN RIVER NEAR STEVINSON, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	23.0	21.0	16.0	15.0	8.5	8.0	8.5	7.0	13.5	12.5	15.5	14.0
2	23.5	21.0	15.5	13.5	8.5	8.0	8.0	7.5	13.5	13.0	16.0	15.0
3	22.5	21.0	13.5	12.0	8.5	8.0	8.5	7.5	13.5	13.0	16.5	15.5
4	21.5	19.5	12.0	11.5	9.5	8.5	8.5	8.0	13.5	12.5	15.5	14.5
5	21.0	19.0	12.5	11.5	9.5	8.5	9.5	8.5	13.0	12.5	15.0	14.0
6	21.5	19.0	13.5	12.0	10.5	8.5	9.0	8.0	12.5	12.0	15.5	13.0
7	21.5	18.5	13.5	12.5	9.5	8.5	9.5	8.5	12.0	11.5	14.5	13.0
8	21.5	19.0	13.5	12.0	9.5	8.0	10.5	9.5	12.0	11.0	14.5	13.5
9	21.5	19.5	13.0	12.0	9.0	7.5	11.5	10.5	12.5	11.0	14.0	13.0
10	21.5	20.0	13.5	12.0	7.5	7.0	13.0	11.5	12.5	11.5	13.5	13.0
11	21.5	19.0	12.0	11.5	7.5	6.5	13.0	12.5	12.5	11.5	14.0	12.5
12	21.0	19.0	12.0	11.0	8.0	7.0	12.5	11.5	12.5	11.5	16.0	13.5
13	20.0	18.5	11.5	9.5	8.5	7.0	13.0	11.5	12.5	11.5	16.5	14.5
14	19.0	18.0	11.0	9.5	8.0	7.5	14.0	13.0	12.5	11.0	14.5	14.0
15	18.5	16.5	10.5	10.0	8.5	7.5	13.0	11.5	12.0	10.0	14.5	14.0
16	17.0	15.0	11.0	9.0	8.0	7.5	11.5	10.5	11.5	10.0	15.0	13.5
17	17.0	15.0	10.5	10.0	8.0	7.5	11.0	9.0	11.5	10.0	15.0	14.0
18	17.5	15.0	10.0	8.5	8.5	7.5	9.5	9.0	12.5	10.5	14.5	14.0
19	17.5	15.0	9.5	7.5	9.0	8.5	9.5	8.5	13.5	11.0	14.5	13.0
20	17.5	15.0	9.0	7.0	8.5	8.5	8.5	8.0	14.0	12.0	14.5	14.0
21	17.0	15.0	9.0	8.0	8.5	8.0	8.5	7.5	14.0	12.5	14.0	13.0
22	17.0	15.0	10.5	8.0	8.5	8.0	9.0	8.5	14.0	13.0	14.0	11.0
23	17.5	15.5	10.0	8.0	8.5	7.5	10.0	8.5	14.0	13.5	11.5	11.0
24	17.5	16.0	9.5	8.5	8.0	7.5	10.5	9.5	14.0	13.5	12.5	10.5
25	17.5	16.0	9.5	9.0	8.5	7.0	11.0	10.5	14.0	13.5	12.0	10.5
26	18.5	16.0	10.0	8.5	8.5	7.5	11.0	10.5	14.0	13.5	13.0	11.0
27	18.5	16.5	9.0	9.0	8.0	7.0	11.5	11.0	14.5	13.5	13.5	11.5
28	18.5	16.5	9.5	8.5	9.0	8.0	12.0	11.0	15.0	14.0	14.5	12.5
29	17.5	16.0	10.5	8.0	9.0	8.0	13.0	11.5	---	---	15.0	13.0
30	16.5	15.5	9.0	8.0	8.5	7.5	12.5	12.0	---	---	16.0	13.5
31	16.5	15.0	---	---	8.0	7.0	13.0	12.0	---	---	16.0	14.0
MONTH	23.5	15.0	16.0	7.0	10.5	6.5	14.0	7.0	15.0	10.0	16.5	10.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	16.0	14.5	18.5	17.0	22.5	21.5	28.0	26.0	28.0	26.5	23.0	21.0
2	15.5	14.0	18.5	17.0	21.5	19.5	26.0	24.0	27.5	26.0	22.5	21.0
3	16.0	14.0	18.5	17.0	21.0	19.0	25.0	23.0	26.0	25.0	22.5	21.0
4	17.5	15.0	18.5	17.5	22.0	20.0	24.5	22.5	26.0	25.0	21.5	20.0
5	17.5	16.0	17.5	14.5	22.0	20.5	26.0	23.5	27.0	25.0	21.5	20.0
6	16.5	16.0	15.5	13.5	20.5	18.5	26.0	24.0	27.5	26.0	22.5	20.0
7	16.0	15.5	16.5	15.0	18.5	16.5	25.5	23.5	27.5	26.0	23.0	21.0
8	15.5	14.0	17.0	15.0	20.0	17.5	25.0	23.5	26.0	24.5	23.0	21.5
9	14.5	12.5	17.0	15.5	21.0	19.5	24.5	23.0	25.5	24.0	23.0	21.5
10	14.0	11.5	17.5	15.5	22.5	21.0	23.0	21.5	26.0	24.0	22.0	20.5
11	16.0	13.0	17.5	16.0	23.5	22.0	23.0	21.5	25.5	22.5	22.5	20.5
12	16.5	15.0	17.0	15.5	23.0	22.5	22.5	21.0	25.5	22.5	22.5	20.5
13	16.5	14.5	16.5	14.5	24.0	22.5	22.5	20.5	25.5	23.0	22.5	20.5
14	14.5	13.5	16.5	15.0	23.5	21.5	24.0	21.5	26.0	23.5	22.0	21.0
15	14.0	12.5	17.5	15.0	21.5	19.5	25.5	23.0	26.5	25.0	22.0	20.5
16	13.5	11.5	18.0	16.0	19.5	18.5	25.5	24.0	26.5	24.0	23.0	21.0
17	13.5	12.0	19.0	16.5	22.5	19.5	25.5	23.5	25.0	23.5	22.5	20.5
18	13.0	12.5	19.5	17.5	23.5	21.5	26.0	24.0	24.5	22.5	22.0	20.5
19	13.5	11.5	21.0	18.5	23.0	21.5	26.5	25.0	24.0	22.0	22.0	21.0
20	14.5	13.0	21.0	19.5	23.0	21.5	26.5	24.5	25.0	22.5	23.0	22.0
21	14.0	12.5	20.0	18.0	23.0	22.0	25.0	23.0	25.5	24.0	23.0	22.0
22	16.0	13.0	18.5	17.0	26.0	23.0	23.5	22.5	25.5	24.0	22.5	21.5
23	17.5	15.0	19.0	17.0	28.0	25.0	23.5	23.0	26.0	24.5	22.0	20.5
24	18.5	16.5	19.0	17.5	29.5	28.0	24.5	23.0	25.5	24.0	21.5	20.5
25	18.5	17.0	19.5	17.0	30.5	28.5	25.0	23.5	25.0	22.5	21.5	20.0
26	18.5	17.0	20.0	18.0	31.5	30.0	26.0	24.5	23.5	22.0	21.0	19.5
27	18.0	17.0	20.5	18.5	30.5	29.5	27.0	25.0	23.0	21.5	21.0	19.5
28	17.0	16.0	21.0	19.0	30.0	28.5	28.5	27.0	22.5	20.5	21.0	19.5
29	17.0	16.5	22.5	20.0	29.5	28.5	27.5	26.5	22.0	20.0	20.0	18.5
30	17.5	16.5	23.0	21.5	29.0	28.0	27.5	25.5	22.5	20.5	19.0	18.0
31	---	---	23.0	21.5	---	---	27.0	25.5	23.0	21.0	---	---
MONTH	18.5	11.5	23.0	13.5	31.5	16.5	28.5	20.5	28.0	20.0	23.0	18.0

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 fair except for periods of backwater, Mar. 2 to June 20 and July 4-20, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 710 ft³/s, Mar. 16, 1995; gage height, 10.96; minimum daily, 0.01 ft³/s, Sept. 24, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 710 ft³/s, Mar. 16, gage height, 10.96 ft; minimum daily, 1.2 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	67	63	76	446	53	301	28	25	19	37	25
2	3.7	67	67	75	390	52	287	35	29	34	24	31
3	5.1	64	72	79	359	54	269	36	34	25	17	42
4	8.7	62	79	111	321	57	238	32	34	37	11	40
5	11	63	75	161	246	59	222	29	22	61	10	46
6	8.0	59	74	160	172	58	216	28	24	38	13	47
7	7.9	55	73	144	131	55	198	28	30	14	30	38
8	7.9	49	71	144	97	49	178	32	32	3.4	33	28
9	14	43	68	146	84	51	169	36	25	3.7	23	17
10	22	44	63	166	72	159	132	35	15	7.3	7.9	15
11	21	43	61	212	72	398	100	37	13	13	7.8	11
12	15	42	61	266	81	508	81	36	21	14	5.8	6.1
13	16	43	62	264	88	512	84	36	43	15	17	6.0
14	20	40	63	256	100	562	84	42	59	30	15	3.0
15	23	39	63	255	93	597	65	51	39	47	6.8	1.5
16	31	39	60	266	84	681	65	60	31	39	9.3	4.9
17	75	39	60	271	77	680	59	64	27	16	7.0	10
18	56	41	59	275	72	636	50	68	29	20	6.3	12
19	62	39	62	323	66	597	47	66	43	34	15	9.0
20	57	40	62	328	64	562	46	66	67	57	25	7.6
21	60	43	57	297	63	530	50	65	78	95	30	16
22	57	44	61	230	67	479	43	62	38	122	33	22
23	64	45	64	207	72	433	56	61	26	69	29	21
24	57	51	70	200	62	451	77	59	20	18	23	16
25	56	50	83	259	55	479	72	54	19	51	23	15
26	64	50	76	411	57	478	59	50	24	37	20	9.3
27	59	51	71	452	57	457	44	46	13	32	15	7.8
28	60	56	72	487	56	423	31	43	13	43	16	7.4
29	63	68	78	507	---	365	23	31	13	40	56	7.3
30	66	64	75	509	---	331	21	21	16	39	46	6.9
31	67	---	74	488	---	325	---	18	---	39	39	---
TOTAL	1138.5	1500	2099	8025	3604	11131	3367	1355	902	1112.4	650.9	528.8
MEAN	36.7	50.0	67.7	259	129	359	112	43.7	30.1	35.9	21.0	17.6
MAX	75	68	83	509	446	681	301	68	78	122	56	47
MIN	1.2	39	57	75	55	49	21	18	13	3.4	5.8	1.5
AC-FT	2260	2980	4160	15920	7150	22080	6680	2690	1790	2210	1290	1050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1995, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	28.1	38.0	50.6	92.7	97.6	127	68.8	28.8	33.9	32.1
MAX	61.0	92.0	111	259	177	359	229	109	130	92.7
(WY)	1994	1994	1986	1995	1993	1995	1986	1986	1986	1987
MIN	3.35	7.53	5.86	6.17	6.96	28.0	19.2	1.76	3.79	7.42
(WY)	1993	1991	1991	1991	1991	1990	1992	1992	1994	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1986 - 1995
ANNUAL TOTAL	14805.78	35413.6	
ANNUAL MEAN	40.6	97.0	53.0
HIGHEST ANNUAL MEAN			120
LOWEST ANNUAL MEAN			17.6
HIGHEST DAILY MEAN	180	681	681
LOWEST DAILY MEAN	.42	1.2	.01
ANNUAL SEVEN-DAY MINIMUM	.94	6.1	.12
INSTANTANEOUS PEAK FLOW		710	710
INSTANTANEOUS PEAK STAGE		10.96	10.96
ANNUAL RUNOFF (AC-FT)	29370	70240	38410
10 PERCENT EXCEEDS	110	280	125
50 PERCENT EXCEEDS	22	53	28
90 PERCENT EXCEEDS	2.1	13	4.0

e Estimated.

11262900 MUD SLOUGH NEAR GUSTINE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1989 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 1993-94.

SPECIFIC CONDUCTANCE: Water year 1989 to current year.

WATER TEMPERATURE: Water year 1989 to current year.

SEDIMENT DATA: Water years 1988-94.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to current year.

WATER TEMPERATURE: October 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1985.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments. Maximum and minimum values are affected by the drainage of holding ponds located immediately upstream from the station.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 15,900 microsiemens, Feb. 25, 1991; minimum recorded, 560 microsiemens, Oct. 5, 6, 1990.

WATER TEMPERATURE: Maximum recorded, 34.5°C, Aug. 6, 1990; minimum recorded, 2.5°C, Dec. 24, 1990.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 5,760 microsiemens, Sept. 16; minimum recorded, 610 microsiemens, Sept. 21, 22.

WATER TEMPERATURE: Maximum recorded, 33.5°C, June 25; minimum recorded, 5.5°C, Nov. 19, Dec. 11.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2480	2330	1380	1340	1630	1610	1780	1760	1370	1250	2540	2520
2	2590	1780	1510	1380	1630	1590	1780	1760	1460	1370	2560	2520
3	1780	1470	1410	1390	1610	1580	1800	1760	1520	1460	2590	2510
4	1560	1290	1440	1400	1590	1520	1760	1570	1670	1520	2540	2500
5	1570	1270	1460	1420	1630	1590	1580	1460	1830	1670	2540	2480
6	1630	1560	1520	1460	1640	1620	1520	1460	1950	1830	2540	2480
7	1710	1580	1570	1520	1670	1620	1580	1520	2170	1950	2630	2520
8	1760	1610	1710	1560	1680	1660	1620	1570	2240	2170	2650	2610
9	1740	1670	1750	1710	1720	1670	1720	1600	2390	2220	2710	2620
10	1700	1580	1720	1690	1790	1720	1780	1650	2440	2360	2660	1610
11	1580	1320	1740	1690	1780	1760	1650	1570	2430	2400	1610	1140
12	1560	1440	1740	1640	1770	1750	1690	1530	2400	2170	1160	1080
13	1660	1490	1700	1640	1770	1740	1710	1630	2190	2130	1080	1010
14	1550	1460	1720	1690	1750	1730	1690	1640	2190	2050	1030	1010
15	1570	1240	1730	1710	1790	1740	1710	1680	2210	2120	1770	1030
16	1540	1020	1770	1710	1800	1770	1710	1670	2240	2180	2340	1550
17	1020	870	1760	1740	1810	1780	1720	1670	2310	2240	2670	2000
18	1060	980	1950	1740	1810	1780	1760	1690	2390	2290	2730	1920
19	1120	1020	1800	1770	1800	1750	1750	1370	2450	2380	2160	1740
20	1190	1120	1820	1720	1830	1770	1390	1370	2500	2440	1870	1740
21	1230	1160	1760	1730	1880	1830	1620	1370	2560	2430	1920	1870
22	1290	1220	1760	1730	1840	1780	1780	1620	2440	2360	2020	1920
23	1300	1260	1740	1610	1820	1780	1890	1780	2370	2330	1980	1760
24	1300	1270	1660	1590	1820	1690	1890	1860	2580	2320	1760	1470
25	1310	1210	1690	1640	1690	1600	1870	1620	2560	2430	1620	1420
26	1290	1190	1710	1680	1750	1680	1620	1200	2490	2450	1630	1420
27	1310	1290	1700	1680	1820	1740	1210	1150	2520	2480	1650	1530
28	1330	1290	1690	1530	1830	1760	1200	1150	2530	2500	1900	1600
29	1290	1270	1590	1500	1770	1750	1160	1140	---	---	2180	1900
30	1320	1280	1620	1580	1790	1770	1160	1150	---	---	2250	2170
31	1350	1310	---	---	1780	1760	1250	1160	---	---	2370	2250
MONTH	2590	870	1950	1340	1880	1520	1890	1140	2580	1250	2730	1010

11262900 MUD SLOUGH NEAR GUSTINE, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2320	2240	1850	1410	2690	1410	2040	1590	1000	910	1350	1200
2	2370	2300	1990	1290	1410	880	1590	1200	1530	1000	1470	1200
3	2400	2330	---	---	1580	930	1680	1330	1640	1350	1420	880
4	2410	2270	---	---	1560	1240	1840	1560	2500	1540	880	830
5	2320	2260	2170	1850	1430	1250	1570	1320	2450	1640	850	760
6	2300	2270	2170	1780	1710	1380	1390	1140	1640	1530	770	760
7	2280	2200	2430	1580	1880	1070	1570	1160	1600	850	790	740
8	2530	2200	2700	1230	1280	1110	1640	1250	1270	770	920	790
9	2500	2270	1450	1150	1520	1280	1260	1120	1890	970	1000	920
10	2440	2250	1930	1410	1410	1210	1150	970	3200	1860	1150	1000
11	2460	1910	1800	1510	1370	1110	1030	900	3050	1840	1670	1050
12	2060	1780	2480	1610	1270	1100	1090	940	4190	1760	2410	1640
13	1960	1830	3250	1780	1270	760	1040	860	1760	1090	2410	1560
14	1830	1650	4080	1760	930	740	940	840	1420	1080	3370	2410
15	1800	1730	1810	1300	1280	900	1330	940	2730	1180	5490	3370
16	1820	1620	1320	900	1370	1210	1320	1130	1630	1170	5760	1410
17	1680	1500	950	830	1570	1320	1410	1200	2490	1230	1700	1140
18	1910	1680	890	830	1590	1390	1860	1380	5620	1000	1220	730
19	2000	1910	880	820	1390	1020	1770	1320	1210	1010	1270	840
20	1910	1770	1120	870	1050	860	1460	1240	1010	870	1360	1010
21	1780	1650	1210	1060	950	840	1690	1200	880	840	1010	610
22	1670	1650	1060	890	1490	950	1610	1100	840	760	730	610
23	1680	1490	920	840	1510	1370	2230	1280	890	800	700	620
24	1970	1460	900	770	1650	1510	2170	1870	1040	860	800	700
25	1970	1830	980	870	1790	1350	1920	720	1050	880	850	680
26	1870	1440	1150	940	1860	1300	1130	840	1050	960	1080	850
27	1730	1630	1340	1140	2330	1860	1300	890	1150	980	1140	1050
28	1800	1620	1610	1260	2350	1980	970	860	1120	950	1150	1080
29	1900	1790	1660	1360	2280	2000	1030	890	950	760	1130	1070
30	1910	1840	1850	1340	2120	1790	960	920	1160	890	1200	1100
31	---	---	2390	1650	---	---	970	900	1200	1000	---	---
MONTH	2530	1440	---	---	2690	740	2230	720	5620	760	5760	610

SAN JOAQUIN RIVER BASIN

11262900 MUD SLOUGH NEAR GUSTINE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	25.0	17.5	16.0	13.5	8.5	7.5	9.5	7.5	14.5	13.0	18.0	14.0
2	25.5	17.5	15.5	12.0	9.0	7.5	9.0	8.5	14.5	14.0	18.0	15.5
3	24.0	18.0	12.0	9.5	9.5	8.5	10.5	8.5	14.5	13.5	17.0	15.0
4	20.5	17.5	11.0	9.0	10.5	9.0	10.0	9.5	14.5	13.0	16.0	13.5
5	22.5	16.5	13.0	11.0	10.5	9.5	11.0	9.0	13.5	13.0	14.5	13.5
6	23.0	16.5	15.0	12.5	10.5	9.0	10.5	9.5	13.0	12.5	15.5	11.5
7	24.0	16.5	14.0	13.0	9.5	8.0	11.5	9.0	12.5	11.5	16.0	12.0
8	24.5	16.5	14.5	11.5	8.5	6.5	11.5	10.5	13.0	11.0	15.5	13.5
9	24.5	17.5	13.5	12.5	8.0	6.0	14.0	11.5	15.5	11.5	14.0	12.5
10	24.5	19.5	14.0	11.0	7.0	6.0	15.0	13.0	14.0	12.5	13.5	13.0
11	23.0	18.0	13.5	10.5	8.0	5.5	13.5	12.0	14.0	12.5	13.5	12.5
12	22.5	17.0	13.0	11.0	9.0	7.5	13.0	12.5	15.0	12.5	15.0	12.5
13	20.5	15.5	12.5	10.0	9.5	7.5	14.5	13.0	13.5	12.0	15.0	14.0
14	19.5	16.0	11.5	9.0	8.5	7.5	15.5	14.0	13.0	10.0	15.5	14.0
15	18.0	14.5	11.0	9.0	9.5	8.0	14.0	12.0	13.0	9.0	16.0	13.5
16	16.5	12.0	11.5	9.0	8.5	8.0	12.5	10.5	13.0	9.5	16.5	14.0
17	17.0	13.5	11.0	9.5	9.0	8.0	11.0	9.5	14.5	10.0	17.0	14.5
18	18.0	14.5	10.0	7.5	10.0	8.5	11.0	9.0	16.0	12.0	16.5	16.0
19	18.5	15.0	8.5	5.5	10.0	9.0	10.5	9.0	16.5	13.0	17.5	14.5
20	18.5	15.5	8.5	6.0	9.5	9.0	10.0	9.5	17.0	13.5	17.0	15.5
21	18.5	15.0	10.0	8.0	9.5	8.5	10.0	9.0	16.5	14.0	16.0	14.0
22	19.0	15.5	10.0	7.0	8.5	8.0	10.5	9.5	15.5	14.5	14.5	11.5
23	19.0	16.0	10.0	7.5	8.5	7.5	11.0	10.0	15.5	14.0	13.0	10.5
24	19.5	16.5	10.0	8.5	8.0	7.5	12.0	10.5	15.0	14.0	14.5	11.0
25	19.5	16.5	11.0	9.0	9.0	7.0	12.5	11.0	14.5	13.5	14.0	11.0
26	19.5	16.0	11.0	9.0	9.0	7.0	12.0	10.5	15.5	13.5	15.0	11.5
27	20.0	16.5	9.0	8.0	9.5	7.5	11.5	11.0	16.0	14.0	16.0	12.5
28	20.5	17.0	9.5	8.5	10.5	9.0	12.5	11.0	16.5	14.5	17.5	13.5
29	18.5	15.0	9.5	7.0	9.5	8.0	13.0	12.0	---	---	18.0	14.5
30	16.0	13.5	9.5	7.5	8.5	7.0	13.0	12.0	---	---	19.5	15.5
31	16.5	13.0	---	---	8.0	6.5	13.5	12.0	---	---	20.5	17.0
MONTH	25.5	12.0	16.0	5.5	10.5	5.5	15.5	7.5	17.0	9.0	20.5	10.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	21.0	18.0	23.0	19.0	26.0	24.5	29.5	22.0	30.5	25.0	28.5	20.0
2	19.5	16.0	22.5	19.0	24.5	21.5	28.0	22.0	32.5	24.5	28.5	19.5
3	21.0	16.5	---	---	24.0	21.0	28.5	22.0	32.0	23.5	27.0	20.0
4	22.5	18.0	---	---	25.5	21.5	29.5	22.0	32.5	23.5	26.5	18.5
5	22.5	19.0	20.5	16.5	24.5	20.5	29.5	24.0	32.0	22.0	27.0	18.5
6	21.5	19.5	18.0	15.5	22.5	18.0	29.5	23.5	33.0	22.5	28.5	19.5
7	20.0	17.5	18.5	17.5	21.0	15.5	29.5	23.0	29.5	22.5	29.0	20.0
8	19.0	16.5	21.5	18.0	24.0	16.5	28.0	23.5	27.5	20.5	29.0	20.5
9	17.5	14.0	20.5	19.0	25.0	18.5	28.0	24.0	31.0	21.5	28.0	19.0
10	16.5	12.0	20.5	18.0	26.5	19.5	27.5	22.5	29.0	20.0	27.5	18.5
11	20.5	15.0	20.5	19.5	27.0	19.5	26.0	22.0	29.0	18.5	28.5	19.0
12	21.5	18.0	20.0	18.5	26.0	20.0	25.0	22.0	28.5	19.5	30.0	20.0
13	20.5	16.5	18.5	17.0	26.5	20.0	25.5	21.0	30.5	20.5	28.5	19.5
14	17.5	14.0	18.5	16.5	23.5	20.0	24.5	22.5	32.5	21.5	28.5	18.5
15	16.0	13.0	20.0	17.0	21.0	18.0	24.5	24.0	32.0	22.0	28.5	20.0
16	17.0	12.0	22.0	18.0	22.5	16.5	28.0	24.5	30.5	21.0	28.0	19.0
17	16.0	12.5	22.5	19.0	26.0	17.5	27.0	25.0	28.5	19.5	28.0	19.0
18	15.5	13.5	23.5	20.5	25.0	19.5	29.0	23.5	27.5	18.0	29.0	19.5
19	17.5	12.0	25.0	21.5	23.5	18.0	30.0	23.5	30.0	19.5	30.5	21.0
20	18.0	14.0	25.0	22.5	23.5	19.5	29.5	23.5	29.5	22.5	30.0	21.0
21	17.5	12.5	24.0	21.5	24.5	19.5	28.5	23.5	30.0	24.5	28.0	21.5
22	20.0	14.0	23.0	20.0	28.0	20.5	28.0	22.0	30.5	25.0	26.0	22.0
23	23.0	16.5	23.5	19.5	30.5	22.0	28.5	21.5	30.0	25.0	26.0	21.0
24	24.0	18.5	22.5	20.0	32.0	24.0	30.5	20.0	30.5	23.5	25.5	21.0
25	23.5	19.5	22.5	19.5	33.5	25.0	27.5	22.0	29.0	23.5	25.5	20.0
26	23.5	19.0	23.5	20.5	32.5	27.0	28.0	23.0	28.5	21.0	27.0	19.0
27	22.0	19.5	24.0	21.5	32.5	24.5	29.5	24.5	29.5	20.5	27.0	18.5
28	20.5	19.0	25.0	21.5	31.0	23.0	30.5	26.0	27.5	20.0	26.0	18.0
29	20.0	18.5	26.0	23.0	31.0	23.0	29.0	25.5	25.5	22.0	23.5	17.5
30	21.0	18.5	26.0	24.0	30.5	22.5	29.0	24.0	28.5	22.0	25.0	16.0
31	---	---	25.5	24.5	---	---	30.5	23.5	30.0	20.0	---	---
MONTH	24.0	12.0	---	---	33.5	15.5	30.5	20.0	33.0	18.0	30.5	16.0

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA
(Hydrologic Benchmark Station)

LOCATION.--Lat 37°43'54", long 119°33'28", unsurveyed, Mariposa County, Hydrologic Unit 18040008, Yosemite National Park, on right bank 10 ft downstream from footbridge at Happy Isles, 0.4 mi downstream from Illilouette Creek, and 2.0 mi southeast of Yosemite National Park Headquarters.

DRAINAGE AREA.--181 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1915 to current year.

REVISED RECORDS.--WSP 1215: 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 4,016.58 ft above sea level. Prior to Nov. 2, 1916, nonrecording gage at datum 0.55 ft lower.

REMARKS.--Records good. Up to 5 ft³/s can be diverted upstream from station for Yosemite Valley water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s, Dec. 23, 1955, gage height, 12.73 ft, from rating curve extended above 4,000 ft³/s on basis of contracted-opening measurements at gage heights 10.4 and 11.55 ft; minimum daily, 1.5 ft³/s, Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 1	0600	2,720	6.70	June 13	0130	3,530	7.35
June 5	0130	4,030	7.71	July 9	0415	*5,220	*8.46

Minimum daily, 16 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	29	114	85	175	255	382	2550	3070	3120	1260	200
2	20	31	116	81	193	238	382	1760	2780	2960	1170	215
3	20	30	124	82	195	264	404	1380	2800	2950	1120	293
4	41	27	126	83	196	230	507	1290	3230	3000	1050	406
5	98	122	124	86	202	226	617	1080	3470	3150	1150	363
6	93	483	119	93	205	208	644	863	2590	3570	1130	265
7	99	278	111	e135	201	202	609	754	1910	3570	895	207
8	106	190	90	e130	198	197	531	778	1410	3550	807	178
9	126	143	97	e185	182	566	465	925	1360	4780	692	162
10	131	114	95	e335	177	1120	452	1050	1970	3660	648	152
11	131	113	93	e280	177	719	549	1240	2820	2720	615	142
12	121	117	93	e265	189	512	683	1180	3140	2140	524	129
13	105	103	91	e275	179	454	719	962	3190	1910	471	126
14	85	96	87	e310	e170	486	579	786	3090	1880	472	126
15	73	93	91	255	e160	477	489	706	2540	2110	468	126
16	63	91	93	207	e155	465	431	655	1760	2260	496	126
17	55	89	93	174	e155	430	394	756	1390	2490	477	125
18	50	90	91	171	e160	480	377	1120	1520	2470	441	118
19	46	108	88	155	e179	549	356	1580	1890	2060	391	106
20	43	103	87	148	e191	640	354	1940	2010	1860	389	99
21	41	95	87	139	e217	592	327	2120	2020	1830	401	100
22	39	87	87	137	e265	464	330	2010	2360	1820	471	101
23	38	88	87	140	263	414	400	1550	2840	1570	567	101
24	38	93	89	146	275	379	572	1460	3350	1520	535	97
25	38	93	96	151	281	336	816	1200	3810	1500	443	90
26	38	94	96	145	287	317	983	1350	3540	1410	359	84
27	37	121	95	146	276	305	1060	1830	3380	1390	306	77
28	35	111	95	142	266	298	936	1930	3710	1700	268	70
29	34	109	90	141	---	293	1270	2250	3730	1870	234	65
30	32	111	80	140	---	302	2220	2470	3660	1930	212	60
31	30	---	85	149	---	340	---	2750	---	1420	200	---
TOTAL	1922	3452	3010	5111	5769	12758	18838	44275	80340	74170	18662	4509
MEAN	62.0	115	97.1	165	206	412	628	1428	2678	2393	602	150
MAX	131	483	126	335	287	1120	2220	2750	3810	4780	1260	406
MIN	16	27	80	81	155	197	327	655	1360	1390	200	60
AC-FT	3810	6850	5970	10140	11440	25310	37370	87820	159400	147100	37020	8940

e Estimated.

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.4	61.9	84.2	79.1	104	185	535	1250	1222	471	113	43.5
MAX	267	818	736	366	401	575	1007	2675	3317	2393	775	360
(WY)	1919	1951	1965	1980	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1916 - 1995			
ANNUAL TOTAL	66385.7				272816							
ANNUAL MEAN	182				747				349			
HIGHEST ANNUAL MEAN									802			
LOWEST ANNUAL MEAN									84.9			
HIGHEST DAILY MEAN	1580				4780				7480			
LOWEST DAILY MEAN	4.0				16				1.5			
ANNUAL SEVEN-DAY MINIMUM	4.1				30				1.9			
INSTANTANEOUS PEAK FLOW					5220				9860			
INSTANTANEOUS PEAK STAGE					8.46				12.73			
ANNUAL RUNOFF (AC-FT)	131700				541100				253000			
10 PERCENT EXCEEDS	565				2300				1120			
50 PERCENT EXCEEDS	89				276				98			
90 PERCENT EXCEEDS	9.6				85				11			

SAN JOAQUIN RIVER BASIN

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375438119152901 TIOGA PASS PRECIPITATION GAGE NEAR LEE VINING, CA

PRECIPITATION RECORDS

PERIOD OF RECORD.--October 1994 to September 1995.

INSTRUMENTATION.--Recording-weighting gage since Oct. 6, 1994.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded daily precipitation, 4.82 in, Mar. 23, 1995; no precipitation for many days.

PRECIPITATION INCHES, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	.04	.00	.00	.00	.07	.00	.99	.56	.00	.00	.00
2	---	.03	.00	.00	.00	.03	.55	.33	.00	.00	.00	.03
3	---	.07	.03	.06	.00	.71	.14	.20	.00	.00	.00	.03
4	---	.04	.22	.79	.00	.03	.03	.07	.03	.00	.00	.00
5	---	.64	.17	.70	.03	.16	.00	.16	.03	.00	.00	.00
6	---	.16	.07	.40	.00	.00	.00	.06	.11	.00	.00	.00
7	.00	.10	.06	1.16	.03	.04	.00	.04	.10	.00	.00	.00
8	.00	.20	.08	.82	.04	.00	.16	.00	.00	.00	.00	.00
9	.00	.46	.00	.86	.10	1.65	.10	.00	.00	.07	.00	.00
10	.00	.68	.00	2.42	.03	1.63	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.31	.03	.74	.00	.15	.00	.03	.00	.00
12	.00	.10	.45	.00	.00	.08	.21	.13	.00	.00	.00	.00
13	.05	.03	.31	.21	.18	.00	.31	.21	.00	.00	.00	.00
14	.00	.00	.16	.73	.36	.00	.13	.13	.15	.00	.00	.00
15	.03	.35	.17	.29	.00	.00	.10	.13	.30	.00	.00	.00
16	.00	.17	.00	.20	.00	.00	.14	.00	.13	.00	.00	.00
17	.00	.52	.00	.06	.00	.04	.19	.00	.00	.10	.00	.00
18	.00	.44	.00	.03	.00	.26	.13	.04	.00	.00	.00	.00
19	.00	.03	.00	.03	.00	.13	.10	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	1.80	.37	.00	.00	.00	.00	.00
21	.00	.00	.00	.04	.03	1.03	.06	.00	.00	.00	.22	.00
22	.00	.00	.00	.12	.00	1.53	.17	.10	.00	.00	.00	.00
23	.00	.00	.00	.12	.00	4.82	.03	.39	.00	.00	.07	.00
24	.00	.16	.49	.88	.00	.00	.17	.17	.00	.00	.00	.00
25	.04	.82	.17	.36	.00	.00	.03	.00	.00	.00	.00	.00
26	.00	.33	.03	.10	.03	.46	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.33	.00	.12	.00	.00	.00	.03	.00	.00
28	.00	.10	.19	.16	.00	.04	.00	.00	.00	.00	.00	.00
29	.00	.00	.10	.16	---	.09	.00	.00	.38	.00	.00	.03
30	.00	.00	.00	.00	---	.10	.47	.00	.09	.00	.00	.00
31	.00	---	.00	.07	---	.00	---	.00	---	.00	.00	---
TOTAL	---	5.47	2.70	11.41	0.86	15.56	3.59	3.30	1.88	0.23	0.29	0.09

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL DATA: Water years 1968 to current year.

BIOLOGICAL DATA: Water years 1973-81.

WATER TEMPERATURE: Water years 1966-77, 1979-93.

SEDIMENT DATA: Water years 1970-71, 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1965 to September 1977, October 1978 to September 1993.

REMARKS.--Water-quality samples were obtained 1.0 mi downstream of the gage at or below Clarks Bridge.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 17...	1130	90	23	7.8	1.0	0.30	655	12.0	98 K1
JAN 26...	1210	143	24	7.1	2.0	0.20	659	11.8	99 K3
MAY 16...	1700	631	15	6.8	9.0	0.30	654	9.9	99 --
JUL 12...	1415	1990	7	6.9	9.0	0.70	676	9.6	94 <1
SEP 12...	1700	128	12	6.8	13.0	--	661	9.0	99 --

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3
NOV 17...	--	6	2.1	0.20	1.9	39	0.3	0.30	6 --
JAN 26...	K6	7	2.4	0.21	<0.20	--	--	0.40	8 --
MAY 16...	--	5	1.5	0.18	1.3	36	0.3	0.40	8 0
JUL 12...	K5	2	0.68	0.08	0.5	32	0.2	0.20	3 --
SEP 12...	--	3	1.2	0.12	0.90	34	0.2	0.30	-- --

DATE	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 17...	5	0.40	3.4	<0.10	5.4	20	17	0.03	0.010	<0.050
JAN 26...	7	0.40	3.4	<0.10	7.8	23	--	--	<0.010	<0.050
MAY 16...	6	0.30	0.70	<0.10	7.9	12	16	0.02	<0.010	<0.050
JUL 12...	2	0.30	0.20	<0.10	3.4	8	7	0.01	0.010	<0.050
SEP 12...	--	0.30	0.90	<0.10	3.9	7	11	0.01	<0.010	<0.050

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 17...	<0.015	<0.20	--	<0.010	<0.010	<0.010	20	<2	<3	60
JAN 26...	<0.015	<0.20	--	<0.010	<0.010	<0.010	30	3	<3	44
MAY 16...	<0.015	<0.20	--	<0.010	<0.010	<0.010	60	3	<3	34
JUL 12...	<0.015	<0.20	--	<0.010	0.010	<0.010	40	<2	<3	20
SEP 12...	<0.015	<0.20	<0.20	<0.010	0.020	<0.010	--	--	--	33

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
NOV 17...	<4	1	<10	<1	<1	<1.0	39	<6	--	--
JAN 26...	8	1	<10	<1	<1	<1.0	40	<6	0.16	1.3
MAY 16...	<4	<1	<10	<1	<1	<1.0	18	<6	--	--
JUL 12...	<4	4	<10	<1	<1	<1.0	6	<6	0.04	0.42
SEP 12...	--	1	--	--	--	--	--	--	--	--

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDED (MG/L)
NOV 17...	1123	1.60	15.0	24	7.9	1.0	655	12.1	99	0
17...	1127	1.50	28.0	24	7.9	1.0	655	12.1	99	1
17...	1131	1.80	33.0	24	7.8	1.0	655	12.1	99	2
17...	1135	1.40	42.0	24	7.8	1.0	655	12.2	100	2
17...	1139	1.00	50.0	24	7.8	1.0	655	12.2	100	1
MAY 16...	1640	3.40	20.0	16	7.6	9.0	654	9.9	99	4
16...	1643	3.80	31.0	16	7.6	9.0	654	9.9	99	2
16...	1647	3.60	43.0	15	7.3	9.0	654	10.0	100	4
16...	1650	3.90	54.0	15	7.3	9.0	654	9.9	99	4
16...	1652	3.20	67.0	15	7.2	9.0	654	9.9	99	4

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 17...	1130	90	1.0	1	0.24	--
JAN 26...	1210	143	2.0	3	1.2	--
MAY 16...	1700	631	9.0	4	6.8	--
JUL 12...	1415	1990	9.0	26	140	34

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3,861.66 ft 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.--No estimated daily discharges. Records good. No diversions between stations at Happy Isles Bridge and Pohono Bridge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft³/s, Dec. 23, 1955, gage height, 21.52 ft, from floodmarks in well, from rating curve extended above 17,000 ft³/s on basis of computation of flow over diversion dam for Yosemite Powerplant 1 mi downstream at gage heights 20.1 and 21.98 ft, present datum; minimum daily 5.4 ft³/s, Oct. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 1	0945	6,130	9.80	June 13	0245	6,590	10.14
June 5	0230	*7,370	*10.70	July 9	0900	6,660	10.19

Minimum daily, 18 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	51	199	162	408	562	938	5880	5950	5110	1580	270
2	24	53	205	152	445	522	927	4340	5610	4780	1470	281
3	26	51	217	159	444	597	955	3190	5430	4700	1410	347
4	43	48	230	169	442	523	1160	3000	6050	4690	1320	468
5	133	153	228	183	444	519	1370	2490	6480	4830	1390	449
6	127	928	222	176	448	469	1440	2030	4920	5350	1380	347
7	130	485	204	273	439	457	1390	1780	3630	5410	1160	279
8	138	334	163	261	442	446	1280	1760	2770	5140	1060	244
9	165	254	172	333	404	1240	1130	2000	2640	6300	941	223
10	175	214	168	755	383	2550	1070	2230	3600	5410	884	210
11	173	198	163	654	381	1980	1240	2640	4980	4070	840	198
12	163	207	169	553	377	1400	1490	2540	5690	3230	744	184
13	145	178	166	595	366	1180	1620	2140	5890	2800	671	178
14	120	167	152	741	368	1240	1340	1790	5730	2700	653	176
15	103	161	163	700	337	1220	1210	1630	4820	2940	639	175
16	91	154	165	545	329	1200	1060	1500	3450	3110	658	173
17	80	147	173	431	318	1100	973	1640	2770	3350	643	173
18	73	143	174	413	324	1160	934	2230	2900	3420	598	166
19	70	143	166	372	355	1380	876	3180	3520	2810	533	153
20	66	169	165	353	427	1480	864	3890	3680	2500	514	143
21	63	161	163	327	505	1460	791	4260	3630	2400	523	140
22	61	144	164	326	535	1190	793	4030	4110	2370	580	141
23	59	146	164	334	551	1070	927	3230	4860	2080	695	143
24	58	154	177	354	583	974	1230	3100	5690	1980	677	138
25	58	168	177	360	597	863	1670	2610	6290	1930	578	131
26	58	155	181	342	622	823	1990	2830	5960	1820	475	124
27	58	170	185	341	596	790	2190	3630	5620	1780	410	116
28	57	184	188	336	578	776	2180	3890	6020	2030	364	109
29	57	186	172	335	---	751	2990	4480	5930	2190	324	102
30	55	190	156	338	---	762	5130	4900	6040	2320	295	95
31	52	---	159	352	---	837	---	5300	---	1780	277	---
TOTAL	2699	5896	5550	11725	12448	31521	43158	94140	144660	105330	24286	6076
MEAN	87.1	197	179	378	445	1017	1439	3037	4822	3398	783	203
MAX	175	928	230	755	622	2550	5130	5880	6480	6300	1580	468
MIN	18	48	152	152	318	446	791	1500	2640	1780	277	95
AC-FT	5350	11690	11010	23260	24690	62520	85600	186700	286900	208900	48170	12050

SAN JOAQUIN RIVER BASIN

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11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	64.5	123	184	176	237	407	1088	2306	1913	636	149	64.8
MAX	436	1587	1666	967	1035	1459	2136	5305	6279	3460	1045	426
(WY)	1983	1951	1951	1980	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1917 - 1995
ANNUAL TOTAL	106745	487489	
ANNUAL MEAN	292	1336	613
HIGHEST ANNUAL MEAN			1466
LOWEST ANNUAL MEAN			127
HIGHEST DAILY MEAN	2110	May 31	6480
LOWEST DAILY MEAN	10	Sep 20	18
ANNUAL SEVEN-DAY MINIMUM	10	Sep 17	52
INSTANTANEOUS PEAK FLOW			7370
INSTANTANEOUS PEAK STAGE			10.70
ANNUAL RUNOFF (AC-FT)	211700	966900	444300
10 PERCENT EXCEEDS	923	4170	1880
50 PERCENT EXCEEDS	146	545	178
90 PERCENT EXCEEDS	18	138	25

SAN JOAQUIN RIVER BASIN

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April to September 1995 (discontinued).

INSTRUMENTATION.--Temperature recorder since March 30, 1995.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 17.0°C, Aug. 21-23; minimum recorded, 1.5°C, Apr. 14.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1971-72, 1981-82, September 1994, and April through September 1995.

SEDIMENT DATA: April through September 1995.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)
APR												
19...	1120	865	21	5.9	4.0	--	658	10.3	91	5	1.8	0.22
MAY												
16...	1840	1480	21	6.5	8.5	0.20	656	9.8	98	5	1.6	0.20
JUN												
20...	1220	3600	10	6.5	6.0	--	674	10.5	96	3	0.93	0.12
JUL												
12...	1030	3320	14	7.0	8.0	0.60	676	10.2	97	2	0.79	0.09
AUG												
29...	1230	324	17	6.6	13.5	--	748	8.8	86	5	1.6	0.19
SEP												
12...	1410	183	18	6.3	13.0	--	665	8.8	96	6	1.9	0.24

DATE	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CaCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR												
19...	1.5	35	0.3	0.50	9	0	8	0.50	0.90	<0.10	9.1	22
MAY												
16...	1.3	34	0.3	0.50	8	0	6	0.30	0.60	<0.10	8.4	16
JUN												
20...	0.70	32	0.2	0.30	5	0	4	0.30	0.20	<0.10	5.0	15
JUL												
12...	0.50	30	0.1	0.20	3	0	3	0.20	0.20	<0.10	3.7	9
AUG												
29...	1.1	31	0.2	0.40	8	0	7	0.60	0.70	<0.10	5.4	11
SEP												
12...	1.3	31	0.2	0.50	9	0	7	0.50	1.0	<0.10	6.5	21

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS Al)
APR											
19...	19	0.03	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	--
MAY											
16...	17	0.02	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	50
JUN											
20...	11	0.02	<0.010	0.110	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	--
JUL											
12...	7	0.01	0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	50
AUG											
29...	14	0.02	<0.010	<0.050	<0.015	<0.20	<0.20	0.020	<0.010	<0.010	--
SEP											
12...	16	0.03	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	--

SAN JOAQUIN RIVER BASIN

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM, DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)
APR 19...	--	--	57	--	3	--	--	--	--	--	--
MAY 16...	4	<3	50	5	3	<10	<1	<1	<1.0	18	<6
JUN 20...	--	--	94	--	5	--	--	--	--	--	--
JUL 12...	<2	<3	41	4	5	<10	<1	<1	<1.0	9	<6
AUG 29...	--	--	76	--	6	--	--	--	--	--	--
SEP 12...	--	--	27	--	4	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 16...	1840	1480	8.5	8	32	--
JUN 20...	1220	3600	6.0	7	68	48
JUL 12...	1030	3320	8.0	18	161	--
AUG 29...	1230	324	13.5	1	0.87	--
SEP 12...	1410	183	13.0	2	0.99	--

SAN JOAQUIN RIVER BASIN

305

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 except for November 9 to January 5 and February 13 to March 16, which were estimated and considered poor. 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 ft³/s, June 1, 2, 1975; no flow for several days in summer months of most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.55	e2.2	e2.2	8.8	e14	2.9	5.0	.01	.01	.13	4.0
2	.11	.95	e2.3	e2.4	8.9	e24	2.9	4.7	.00	.01	.11	4.0
3	.11	.85	e2.4	e3.0	8.7	e24	2.9	4.7	.00	.01	.11	4.0
4	.13	.71	e2.7	e4.5	8.7	e16	2.9	4.5	.00	.01	.12	3.9
5	.07	4.3	e2.8	e10	8.5	e14	3.0	4.3	.00	.00	.12	3.9
6	.04	15	e2.6	8.0	8.6	e9.0	3.1	4.2	.00	1.1	.12	3.8
7	.06	5.3	e2.4	25	8.6	e8.2	3.3	4.0	.00	1.8	.11	3.8
8	.07	6.1	e2.8	16	8.5	e8.2	3.3	4.0	.00	1.6	.04	3.8
9	.07	e5.4	e2.3	24	8.2	e2.6	3.4	3.8	.00	1.5	.81	3.8
10	.07	e4.5	e2.3	16	8.2	e2.6	3.5	3.6	.00	1.3	2.9	3.8
11	.07	e3.6	e2.4	13	8.1	e2.6	3.5	3.7	.02	1.2	3.4	3.7
12	.08	e3.1	e2.5	12	8.0	e2.6	3.5	3.7	.05	1.1	3.3	3.5
13	.09	e2.5	e2.4	12	e8.0	e2.6	3.3	3.6	.05	.83	3.2	3.4
14	.09	e2.2	e2.4	13	e7.5	e2.6	3.2	3.2	.03	.61	3.0	3.3
15	.09	e2.1	e2.2	12	e7.2	e2.6	3.1	3.2	.06	.56	2.9	3.2
16	.06	e2.0	e2.2	11	e7.1	e2.6	3.1	3.3	.06	.39	3.0	3.2
17	.06	e1.9	e2.2	11	e7.1	3.3	3.1	3.3	.05	.37	2.9	3.3
18	.84	e2.0	e2.2	11	e7.3	3.3	3.2	3.5	.05	.36	2.9	3.2
19	1.3	e2.1	e2.2	9.7	e8.0	3.4	3.1	3.7	.04	.34	2.9	3.1
20	1.3	e2.0	e2.2	9.0	e8.5	3.6	3.0	3.3	.05	.36	2.7	3.1
21	1.2	e2.0	e2.3	8.9	e9.5	3.7	3.1	3.0	.09	.33	3.0	3.1
22	1.0	e1.9	e2.4	8.9	e10	3.3	3.1	1.5	.03	.27	3.3	3.0
23	.88	e1.9	e2.8	9.0	e11	5.7	3.0	.03	.03	.25	3.2	3.0
24	.92	e2.5	e3.0	9.2	e12	8.0	3.1	.02	.03	.23	3.2	3.0
25	.94	e5.0	e3.1	9.3	e13	5.8	3.1	.02	.03	.25	3.2	3.0
26	.87	e6.1	e2.6	9.1	e13	2.6	3.1	.01	.03	.35	3.5	3.3
27	.82	e3.5	e2.6	9.1	e14	2.7	3.2	.03	.01	.33	4.3	3.4
28	.73	e2.4	e2.6	9.1	e15	2.8	3.3	.05	.01	.25	4.4	3.4
29	.53	e2.2	e2.5	9.1	---	2.9	3.6	.05	.01	.21	4.3	3.5
30	.52	e2.2	e2.3	9.0	---	2.8	4.4	.04	.01	.17	4.0	3.4
31	.54	---	e2.2	8.8	---	2.9	---	.02	---	.14	4.0	---
TOTAL	13.76	96.86	76.1	324.3	260.0	195.0	96.3	82.07	0.75	16.24	75.17	103.9
MEAN	.44	3.23	2.45	10.5	9.29	6.29	3.21	2.65	.025	.52	2.42	3.46
MAX	1.3	15	3.1	25	15	24	4.4	5.0	.09	1.8	4.4	4.0
MIN	.04	.55	2.2	2.2	7.1	2.6	2.9	.01	.00	.00	.04	3.0
AC-FT	27	192	151	643	516	387	191	163	1.5	32	149	206

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.63	3.43	4.99	8.05	9.27	17.0	21.5	25.8	15.1	3.34	1.18	.98
MAX	7.61	7.65	13.1	35.8	32.7	37.3	43.3	56.2	46.1	11.2	3.14	3.46
(WY)	1970	1970	1970	1970	1970	1972	1993	1975	1975	1993	1973	1995
MIN	.026	1.10	.75	.82	.71	.38	3.21	2.65	.025	.52	.025	.000
(WY)	1989	1991	1991	1974	1974	1974	1995	1995	1995	1995	1988	1987

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1970 - 1995			
ANNUAL TOTAL	2445.65				1340.45							
ANNUAL MEAN	6.70				3.67				10.0			
HIGHEST ANNUAL MEAN									19.3			
LOWEST ANNUAL MEAN									3.67			
HIGHEST DAILY MEAN	39				May 11				66			
LOWEST DAILY MEAN	.04				Oct 6				.00			
ANNUAL SEVEN-DAY MINIMUM	.06				Oct 5				.00			
ANNUAL RUNOFF (AC-FT)	4850				2660				7250			
10 PERCENT EXCEEDS	19				9.0				31			
50 PERCENT EXCEEDS	2.8				2.9				3.7			
90 PERCENT EXCEEDS	.37				.05				.30			

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 mi².

PERIOD OF RECORD.--April 1926 to September 1930 (daily gage heights; also summary of yearly contents in WSP 881), October 1930 to current year.

REVISED RECORDS.--WSP 881: 1926-32 (yearly summaries only). WSP 1345: 1951(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 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 a series of powerplants down the Merced River to a diversion dam for Merced Irrigation District's main canal.

COOPERATION.--Records were provided by Pacific Gas and Electric Company 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, 1,022,000 acre-ft, July 10, elevation, 866.59 ft; minimum, 263,100 acre-ft, Nov. 5, elevation, 700.05 ft.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	306300	265100	272000	281700	469100	527100	739600	729400	810100	984400	1015000	931000
2	305200	264700	272300	282000	473300	529600	737200	741400	818000	991400	1014000	927900
3	304000	264200	272700	282100	475200	534000	734700	747400	825600	997800	1013000	924600
4	302700	263900	273100	283500	475300	538800	732800	751400	834400	1003000	1011000	921500
5	302100	263100	273600	291900	481200	542300	731500	755000	845700	1006000	1011000	918700
6	301500	265000	273900	295200	483400	545500	730300	757200	852600	1011000	1010000	915700
7	300700	266500	274300	298900	485100	548400	729500	757600	855000	1014000	1008000	912300
8	300100	267200	274500	301800	487200	551000	728400	757200	854500	1016000	1006000	908500
9	299500	267800	274800	304500	489200	562800	726300	757000	852500	1020000	1003000	904300
10	298300	268200	275000	321100	491000	668600	724000	756900	852800	1022000	999900	904200
11	297300	268400	275100	336100	492700	668300	721700	758000	857600	1019000	997400	895700
12	296000	268600	275300	342300	494500	685500	720200	759100	864800	1014000	994000	894500
13	293300	268800	275500	349300	496500	692100	719600	760400	872800	1009000	991100	887300
14	290100	269200	275700	360400	498000	695900	718300	759600	880500	1005000	987500	883200
15	287400	269500	275900	375200	499800	698600	716400	758300	887400	1004000	984400	879100
16	285300	269400	276000	382200	501500	700500	713800	756200	889400	1004000	980600	874900
17	283900	269400	276200	387000	503000	701200	710800	757000	888200	1006000	977000	870700
18	282800	269300	276400	390300	504500	701800	708000	755800	886500	1010000	973900	866600
19	281400	269400	276600	393000	506100	703200	704900	757300	886900	1012000	971000	862000
20	279900	269500	276700	395200	507700	706700	702200	761300	888100	1014000	966700	857100
21	279000	269600	276900	397100	509400	717700	699100	766800	889600	1015000	962900	851800
22	277400	269700	277100	398800	511300	725800	695900	771800	893500	1016000	960200	846700
23	276100	269800	277200	401800	513400	743900	693000	774700	900800	1016000	956400	842900
24	274300	269800	277900	411600	515600	750300	690500	776200	912600	1016000	954300	840000
25	272600	270200	278900	425900	517800	751900	689000	776300	926200	1015000	952000	837300
26	271400	270500	279500	435000	520100	751700	688600	776200	937600	1015000	949500	834500
27	270300	270900	279900	446300	522300	750600	689200	778700	947300	1015000	946700	832000
28	268900	271100	280500	454200	524500	749000	689900	781900	958200	1015000	943500	829200
29	267500	271400	280900	459300	---	746900	694300	786700	968000	1016000	940600	823900
30	266300	271700	281200	461300	---	744300	712500	793400	977200	1016000	937700	816100
31	265200	---	281500	466300	---	741900	---	800700	---	1016000	934800	---
MAX	306300	271700	281500	466300	524500	751900	739600	800700	977200	1022000	1015000	931000
MIN	265200	263100	272000	281700	469100	527100	688600	729400	810100	984400	934800	816100
a	700.87	703.36	707.05	763.45	777.59	822.24	816.87	832.50	860.22	865.80	853.93	835.11
b	-42500	+6500	+9800	+184800	+58200	+217400	-29400	+88200	+176500	+38800	-81200	-118700

CAL YR 1994 b -361200
WTR YR 1995 b +508400

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

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CA

LOCATION.--Lat 37°31'18", long 120°19'53", in SE 1/4 SW 1/4 sec.4, T.5 S., R.15 E., Merced County, Hydrologic Unit 18040008, on right bank 0.1 mi south of Merced Falls, 0.2 mi downstream from Merced Falls Dam, and 5.8 mi east of Snelling.

DRAINAGE AREA.--1,061 mi².

PERIOD OF RECORD.--April 1901 to current year. Records for water years 1914-16 incomplete, yearly estimates published in WSP 1315-A. Published as "near Merced Falls" 1901-13; as "at Exchequer" 1916-64.

REVISED RECORDS.--WSP 1315-A: 1901-9, 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, McSwain, and Merced Falls powerplants, Lake McClure since 1926, enlarged 1967, and McSwain Reservoir since 1966, capacity, 9,200 acre-ft.

COOPERATION.--Records were provided by Pacific Gas and Electric Company, 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, 1916-95).--Maximum discharge observed, 47,700 ft³/s, Jan. 31, 1911, gage height, 23.3 ft, site and datum then in use; no flow for part of Nov. 21, 1901. Maximum discharge since construction of Exchequer Dam in 1926, 46,200 ft³/s, Dec. 4, 1950, gage height, 22.6 ft, from floodmarks, site and datum then in use, from rating curve extended above 16,000 ft³/s on basis of computation of peak flow over dam; minimum daily, 3.4 ft³/s, Mar. 5, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,680 ft³/s, July 11, gage height, 11.56 ft; minimum daily, 205 ft³/s, Jan. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	242	243	243	206	e233	e4100	4380	5110	4410	2510	1760
2	1650	243	243	246	e212	e233	e4100	4630	5250	3820	2510	1770
3	1630	243	243	249	e212	e236	e4090	4670	5200	3900	2210	1760
4	1260	243	243	262	e212	e247	3940	4690	5190	4640	2100	1780
5	946	246	243	252	e209	e240	3940	4700	5110	5510	2100	1870
6	757	249	243	246	e209	e240	3930	4700	5060	6140	2090	1900
7	753	249	242	246	e209	e236	3930	4710	5050	6530	2340	2030
8	752	249	240	246	e209	e233	3930	4710	5290	6450	2430	2170
9	727	249	240	245	e209	e236	3920	4700	5380	6810	2360	2230
10	727	252	240	342	e209	e462	3910	4690	5370	7490	2360	2230
11	652	252	240	247	e209	e477	3900	4690	5380	7550	2350	2250
12	1040	250	240	246	e209	e545	3880	4680	5390	7550	2360	2280
13	1530	249	240	246	e209	e2470	3880	4700	5390	7210	2370	2240
14	1640	272	240	276	e219	e3450	3880	4690	5410	7000	2360	2240
15	1410	271	240	245	e212	e3340	3890	4700	5120	6990	2340	2240
16	1060	255	240	243	e212	e3320	3880	4710	5260	6990	2340	2240
17	825	257	240	243	e209	e3200	3880	4700	5450	6990	2300	2240
18	750	244	240	243	e216	e3320	3890	4690	5480	6990	2300	2250
19	748	252	240	244	e216	e3230	3820	4690	5480	4020	2300	2460
20	733	246	240	246	e216	e3120	3660	4710	5470	2800	2310	2600
21	726	246	240	245	e222	e3410	3660	4810	5090	2800	2310	2600
22	727	246	240	243	e222	e3290	3650	4850	4560	2800	2310	2610
23	751	246	240	243	e222	e3450	3640	4540	3860	2800	2320	2000
24	760	246	240	291	e222	e3280	3720	5070	2850	2810	2030	1570
25	774	246	240	333	e222	e4300	3870	5060	2840	2780	1750	1460
26	745	246	240	235	e222	e4320	3890	5050	3550	2620	1780	1320
27	729	246	240	223	e222	e4410	3890	5050	3930	2520	1750	1290
28	727	246	240	205	e222	e4310	4020	5050	3890	2500	1750	1260
29	721	246	240	206	---	e4300	4200	5050	4280	2490	1750	2690
30	671	243	241	206	---	e4280	4220	5060	4720	2500	1750	4020
31	431	---	243	206	---	e4130	---	5080	---	2500	1750	---
TOTAL	28702	7470	7464	7692	5999	72548	117110	148210	145410	148910	67590	63360
MEAN	926	249	241	248	214	2340	3904	4781	4847	4804	2180	2112
MAX	1650	272	243	342	222	4410	4220	5080	5480	7550	2510	4020
MIN	431	242	240	205	206	233	3640	4380	2840	2490	1750	1260
AC-FT	56930	14820	14800	15260	11900	143900	232300	294000	288400	295400	134100	125700

e Estimated.

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)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	800	392	527	603	786	1219	1806	2255	2327	2098	1730	1379
MAX	3143	1396	2451	2936	4247	4680	5278	5701	6975	5177	2761	3049
(WY)	1984	1970	1983	1984	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1968 - 1995

ANNUAL TOTAL	347617	820465	
ANNUAL MEAN	952	2248	1329
HIGHEST ANNUAL MEAN			3779
LOWEST ANNUAL MEAN			363
HIGHEST DAILY MEAN	2690	Jul 21	7550
LOWEST DAILY MEAN	222	Feb 10	205
ANNUAL SEVEN-DAY MINIMUM	225	Feb 9	208
INSTANTANEOUS PEAK FLOW			7680
INSTANTANEOUS PEAK STAGE			11.56
ANNUAL RUNOFF (AC-FT)	689500	1627000	963000
10 PERCENT EXCEEDS	1730	5060	2770
50 PERCENT EXCEEDS	925	2030	1120
90 PERCENT EXCEEDS	227	234	179

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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.

PERIOD OF RECORD.--October 1965 to current year (low flow only).

GAGE.--Water-stage recorder. Datum of gage is 116.79 ft above sea level.

REMARKS.--No estimated daily discharges. Most water released from Lake McClure (station 11269500) is diverted upstream into the main canal of Merced Irrigation District. Flow past station consists of releases from diversion dam, irrigation return flow, and tributary inflow. No records computed above 200 ft³/s.

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.

[illegible]

11272500 MERCED RIVER NEAR STEVINSON, CA

LOCATION.--Lat 37°22'15", long 120°55'46", in SW 1/4 NE 1/4 sec.36, T.6 S., R.9 E., Merced County, Hydrologic Unit 18040002, on right bank 4.4 mi upstream from mouth and 5.3 mi northwest of Stevinson.

DRAINAGE AREA.--1,273 mi².

PERIOD OF RECORD.--October 1940 to September 1995 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1989-92.

TEMPERATURE: Water years 1989-92.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is sea level. October 1940 to Aug. 15, 1955, at datum 55.74 ft higher; Aug. 16, 1955, to Sept. 30, 1959, at datum 54.74 ft higher.

REMARKS.--No estimated daily discharges. Records good except for period of backwater, March 12 to July 25, which is fair. Practically entire flow is diverted upstream from station for irrigation of 120,000 acres during low runoff years. Some return flow enters upstream from station. Flow regulated by three reservoirs, combined capacity, 1,035,000 acre-ft, the largest of which is Lake McClure (station 11269500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, Dec. 5, 1950, elevation, 73.79 ft, present datum; no flow July 19 to Aug. 21, 1961, result of temporary dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,260 ft³/s, July 13, elevation, 69.19 ft; minimum daily, 131 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	294	221	216	432	259	3900	3510	3470	2370	748	300
2	155	292	223	217	379	255	3840	3650	3450	2580	731	304
3	152	286	220	229	349	263	3830	3930	3510	2290	718	321
4	131	265	216	236	331	291	3820	4020	3480	2430	635	343
5	142	247	216	241	324	362	3790	4070	3470	2550	428	334
6	197	236	216	301	320	303	3810	4110	3400	3040	408	401
7	195	236	214	367	317	280	3680	4160	3370	3540	406	443
8	161	232	214	296	310	277	3430	4190	3360	3870	416	457
9	174	233	213	272	306	308	3340	4160	3420	4140	545	551
10	209	240	215	283	306	515	3270	4140	3520	4170	550	687
11	232	241	214	689	306	2500	3210	4110	3480	4830	567	779
12	242	234	218	1020	305	3200	3210	4000	3520	5110	573	747
13	245	231	221	531	302	1750	3160	3880	3490	5170	574	786
14	597	229	222	485	297	2460	3170	3830	3450	4850	617	847
15	971	229	219	796	293	2990	3170	3830	3500	4020	635	868
16	1080	240	216	972	291	3080	3190	3780	3610	3300	622	910
17	871	244	219	627	284	3020	3190	3710	3650	2620	617	929
18	647	236	220	486	279	3020	3140	3630	3910	1930	630	936
19	484	231	219	402	275	3040	3170	3590	4000	1400	634	912
20	438	226	219	362	274	3050	3140	3530	3910	1190	638	965
21	402	226	219	346	274	3180	3010	3510	3850	1110	677	1140
22	368	223	219	340	271	3380	2950	3550	3630	1120	638	1240
23	357	222	218	343	270	3510	2920	3560	3170	1140	579	1340
24	314	222	217	383	269	3920	2900	3370	2630	1150	575	1280
25	290	222	221	989	269	3450	2880	3490	1870	1090	579	873
26	285	220	223	1660	269	3910	2930	3630	1620	1040	452	700
27	301	221	218	955	268	4050	2910	3580	1710	949	405	613
28	271	219	218	1590	264	4040	2890	3540	2040	816	378	594
29	249	217	215	1110	---	4000	2940	3550	1990	759	360	576
30	255	217	214	703	---	3960	3260	3520	2070	768	319	923
31	266	---	214	526	---	3940	---	3480	---	794	308	---
TOTAL	10821	7111	6751	17973	8434	72563	98050	116610	95550	76136	16962	22099
MEAN	349	237	218	580	301	2341	3268	3762	3185	2456	547	737
MAX	1080	294	223	1660	432	4050	3900	4190	4000	5170	748	1340
MIN	131	217	213	216	264	255	2880	3370	1620	759	308	300
AC-FT	21460	14100	13390	35650	16730	143900	194500	231300	189500	151000	33640	43830

11272500 MERCED RIVER NEAR STEVINSON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	359	297	515	713	838	1032	1042	1300	1082	394	226	307
MAX	2739	1314	4718	4568	4695	5478	4949	5792	4545	3593	1192	1716
(WY)	1984	1970	1951	1956	1983	1983	1983	1952	1983	1983	1983	1983
MIN	11.4	69.9	105	109	69.2	94.4	59.7	65.1	19.2	6.18	8.91	11.3
(WY)	1978	1962	1962	1962	1991	1977	1961	1977	1977	1991	1977	1977

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1941 - 1995
ANNUAL TOTAL	92835	549060	
ANNUAL MEAN	254	1504	674
HIGHEST ANNUAL MEAN			3155 1983
LOWEST ANNUAL MEAN			78.8 1961
HIGHEST DAILY MEAN	1080	Oct 16	5170 Jul 13 12000 Dec 10 1950
LOWEST DAILY MEAN	24	Jul 17	131 Oct 4 .00 Jul 19 1961
ANNUAL SEVEN-DAY MINIMUM	49	Aug 14	159 Oct 1 .00 Jul 19 1961
INSTANTANEOUS PEAK FLOW			5260 Jul 13 13600 Dec 5 1950
INSTANTANEOUS PEAK STAGE			69.19 Jul 13 73.79 Dec 5 1950
INSTANTANEOUS LOW FLOW			131 Oct 4
ANNUAL RUNOFF (AC-FT)	184100	1089000	488400
10 PERCENT EXCEEDS	412	3810	1820
50 PERCENT EXCEEDS	231	635	232
90 PERCENT EXCEEDS	75	219	100

SAN JOAQUIN RIVER BASIN

11273500 MERCED RIVER AT RIVER ROAD BRIDGE, NEAR NEWMAN, CA

WATER-QUALITY RECORDS

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 of Hatfield State Park and 1.1 river miles upstream of confluence with the San Joaquin River.

DRAINAGE AREA.--1,276 mi².

PERIOD OF RECORD.--April 1992 to current year. Published as Merced River near Stevinson (11272500) water years 1989-94.

SPECIFIC CONDUCTANCE: April 1992 to current year.

WATER TEMPERATURE: April 1992 to current year.

CHEMICAL DATA: Water year 1994.

SEDIMENT DATA: Water year 1994.

PERIOD OF DAILY RECORD.--

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.

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, 32.5°C, July 14, 15, 1992, Aug. 12, 1992; minimum recorded, 6.0°C, January 4, 5, 1993.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 279 microsiemens, Oct. 6; minimum recorded, 22 microsiemens, June 23.

WATER TEMPERATURE: Maximum recorded, 25.0°C, Aug. 9; minimum recorded, 7.0°C, Dec. 11.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	202	160	134	109	164	116	153	148	168	158	191	186
2	261	167	138	112	150	133	151	149	174	160	194	183
3	245	169	142	118	158	124	159	129	175	166	185	176
4	244	170	154	136	151	124	139	122	180	174	178	155
5	219	185	173	152	155	134	125	109	185	178	164	139
6	279	137	181	167	148	129	109	73	195	185	190	147
7	161	125	176	151	166	140	107	62	202	195	200	190
8	248	159	164	146	181	128	143	107	223	193	---	---
9	217	156	163	153	160	129	152	143	223	206	---	---
10	181	89	167	141	164	139	166	133	224	210	---	---
11	115	81	159	128	166	138	135	94	214	208	---	---
12	109	79	147	129	161	130	100	87	214	209	---	---
13	87	77	173	135	175	132	102	91	211	206	---	---
14	77	40	164	139	152	127	103	94	231	208	---	---
15	52	36	164	149	147	130	140	99	235	203	---	---
16	55	35	165	126	156	128	103	90	220	198	81	78
17	51	34	138	122	154	129	117	101	226	219	78	77
18	44	37	152	135	155	149	135	107	232	221	78	77
19	60	39	153	135	156	152	150	122	233	225	77	76
20	94	49	158	139	154	147	159	134	229	217	76	73
21	102	73	157	139	153	147	180	143	224	204	79	70
22	103	88	160	130	154	149	168	150	206	196	86	71
23	120	89	146	129	155	133	182	152	199	194	81	71
24	117	92	147	131	158	130	189	149	213	196	81	77
25	121	76	149	130	160	140	187	130	218	208	78	76
26	135	76	144	123	144	130	130	95	214	209	76	71
27	125	112	135	119	150	127	142	98	216	202	71	69
28	149	118	139	118	127	125	142	110	208	190	69	64
29	177	130	164	118	128	126	126	110	---	---	67	64
30	161	143	125	115	131	126	144	126	---	---	67	63
31	148	130	---	---	151	127	162	143	---	---	65	62
MONTH	279	34	181	109	181	116	189	62	235	158	---	---

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	63	60	59	56	50	48	50	43	121	71	188	171
2	66	60	62	57	50	44	56	49	90	72	186	152
3	65	60	62	58	49	35	60	56	95	72	181	150
4	61	61	61	58	47	43	60	57	122	84	163	132
5	66	61	64	58	49	44	59	56	---	---	154	136
6	66	60	62	58	50	44	58	54	---	---	136	101
7	63	60	62	59	49	42	---	---	---	---	115	98
8	63	62	61	59	49	43	---	---	---	---	148	109
9	67	62	61	55	46	40	---	---	124	89	133	92
10	71	64	56	53	47	40	---	---	94	87	102	74
11	66	62	54	50	47	40	---	---	111	86	---	---
12	65	61	51	48	49	40	---	---	107	82	---	---
13	65	63	50	47	42	38	---	---	110	85	---	---
14	65	62	52	47	39	36	47	44	105	77	---	---
15	64	61	51	47	38	33	49	44	90	75	---	---
16	64	61	51	47	38	31	46	43	103	78	---	---
17	67	62	52	48	34	31	49	43	96	77	---	---
18	64	61	52	49	37	30	61	49	90	74	---	---
19	65	60	55	50	36	31	84	57	93	74	---	---
20	64	61	54	50	35	30	75	66	109	85	---	---
21	65	62	53	47	37	30	74	70	99	73	---	---
22	64	61	49	45	33	27	81	71	90	75	---	---
23	63	58	52	47	31	22	91	76	99	82	---	---
24	62	57	53	47	---	---	87	68	105	86	---	---
25	61	55	51	48	47	30	79	64	108	85	---	---
26	60	53	54	50	---	---	76	65	147	95	---	---
27	60	53	53	48	52	33	83	64	167	141	---	---
28	60	53	50	47	47	33	92	77	158	143	---	---
29	59	54	51	47	48	41	90	76	154	141	---	---
30	60	56	52	47	43	40	101	77	194	152	---	---
31	---	---	49	47	---	---	148	72	200	173	---	---
MONTH	71	53	64	45	---	---	---	---	---	---	---	---

SAN JOAQUIN RIVER BASIN

11273500 MERCED RIVER AT RIVER ROAD BRIDGE, NEAR NEWMAN, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	23.5	20.0	16.0	14.0	9.0	8.5	10.0	8.5	13.0	12.5	16.0	13.5
2	24.0	20.5	15.5	13.5	10.0	9.0	9.5	9.0	13.0	12.5	16.5	14.5
3	23.0	20.5	13.5	12.0	10.0	9.5	10.5	9.0	13.5	12.5	16.0	14.5
4	21.5	19.5	13.0	11.0	11.0	10.0	10.0	9.5	13.5	12.5	15.0	13.5
5	21.5	18.0	14.0	12.5	11.0	10.0	11.0	9.5	13.0	12.5	14.5	13.5
6	21.5	18.5	15.5	14.0	10.5	9.5	10.5	9.5	12.5	12.0	15.0	12.5
7	22.0	18.5	15.0	13.5	10.5	9.0	10.5	9.5	12.5	11.5	15.5	12.5
8	22.5	18.5	14.5	12.0	9.5	8.0	11.0	10.5	12.5	11.5	---	---
9	22.5	19.0	13.5	12.5	9.0	7.5	12.5	11.0	13.5	11.0	---	---
10	22.5	19.5	13.5	12.0	8.5	7.5	13.5	12.5	12.5	11.5	---	---
11	21.5	18.5	13.0	11.0	9.5	7.0	12.5	11.5	12.0	11.5	---	---
12	20.5	18.5	13.0	11.5	10.0	9.0	12.5	12.0	13.5	11.5	---	---
13	19.5	17.0	12.5	11.0	10.0	8.5	13.0	12.0	12.5	11.5	---	---
14	19.0	17.5	12.0	10.0	9.0	8.0	13.5	13.0	12.5	10.5	---	---
15	18.0	16.0	11.5	10.0	9.5	8.0	13.0	12.5	12.5	10.0	---	---
16	16.0	15.0	12.0	10.0	9.0	8.5	12.5	12.0	12.0	10.0	13.5	12.5
17	16.0	14.5	11.5	10.5	9.5	9.0	12.0	11.0	13.0	10.0	13.0	12.0
18	16.0	14.5	10.5	8.5	10.5	9.0	11.5	10.5	13.5	11.0	12.5	12.0
19	17.0	14.5	9.5	7.5	10.0	9.5	11.0	10.0	14.0	11.5	12.0	11.5
20	17.0	15.0	10.0	8.0	10.0	9.5	10.0	9.5	14.5	12.0	12.0	11.5
21	17.5	15.0	10.5	9.5	9.5	9.0	10.5	9.5	14.5	12.0	12.0	11.5
22	17.5	15.0	10.5	8.5	9.0	9.0	10.5	10.0	13.5	13.0	11.5	11.0
23	17.5	15.5	9.5	8.0	9.5	8.5	11.0	10.0	14.5	13.0	11.0	10.5
24	18.5	16.0	10.0	8.5	9.0	8.5	11.5	10.5	14.0	13.5	11.5	10.0
25	18.0	16.0	11.0	9.5	10.0	8.0	11.0	10.5	14.5	13.5	11.5	10.5
26	18.0	15.5	11.0	9.5	9.5	8.0	10.5	10.5	14.5	13.5	12.0	10.5
27	18.5	16.0	9.5	8.5	9.5	8.0	11.0	10.5	15.0	13.5	12.5	11.0
28	18.5	16.0	10.5	9.5	10.5	9.0	11.0	11.0	15.0	14.0	12.5	11.0
29	18.0	15.5	10.0	8.0	10.0	8.5	11.5	11.0	---	---	12.5	11.0
30	16.5	14.5	9.5	8.0	9.0	7.5	12.0	11.0	---	---	12.5	11.0
31	16.5	14.0	---	---	9.0	7.5	12.5	11.5	---	---	12.5	11.0
MONTH	24.0	14.0	16.0	7.5	11.0	7.0	13.5	8.5	15.0	10.0	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	12.5	11.0	14.5	12.5	16.5	15.0	18.5	17.0	23.5	21.0	23.0	19.5
2	12.5	11.0	14.5	13.0	16.5	14.5	18.5	16.5	24.0	21.0	23.0	19.5
3	13.0	11.0	14.5	13.0	16.0	14.5	19.0	17.5	24.0	22.0	23.0	20.0
4	13.0	11.5	15.0	13.0	16.5	14.5	19.0	17.5	24.0	22.0	22.5	19.5
5	13.0	11.5	14.5	13.0	16.5	15.0	19.5	18.0	---	---	23.0	19.5
6	13.0	12.0	13.5	12.0	16.0	14.0	19.0	17.0	---	---	23.5	19.5
7	13.0	12.0	14.0	12.0	16.0	14.0	18.0	16.5	---	---	24.0	20.5
8	12.5	11.5	14.5	12.5	16.0	14.0	17.5	16.0	---	---	24.0	21.0
9	12.0	11.0	14.0	13.0	16.0	14.5	17.0	15.5	25.0	22.0	23.5	21.0
10	12.5	11.0	14.0	12.5	16.5	14.5	17.0	15.5	24.0	21.5	22.0	20.5
11	13.0	11.5	14.5	13.0	17.0	14.5	16.5	15.0	22.5	20.0	---	---
12	13.5	12.0	14.0	13.0	17.0	15.0	16.5	14.5	23.0	20.0	---	---
13	13.5	12.5	13.5	12.5	17.0	15.0	16.5	14.5	23.0	20.5	---	---
14	12.5	11.5	13.5	12.0	16.5	15.0	17.0	15.0	23.5	21.0	---	---
15	12.0	11.0	14.0	12.5	15.5	14.0	17.5	15.0	23.5	21.5	---	---
16	12.0	11.0	15.0	13.0	14.0	13.0	18.5	16.0	23.0	21.0	---	---
17	12.0	11.5	15.5	13.5	15.5	13.5	18.0	16.5	22.0	20.0	---	---
18	12.0	11.0	16.0	14.0	16.5	14.0	18.5	17.5	21.5	19.5	---	---
19	12.0	11.0	16.0	14.5	16.5	14.5	20.0	18.0	22.0	19.5	---	---
20	13.0	11.5	16.5	14.5	16.5	14.5	21.0	19.0	22.5	20.0	---	---
21	13.0	11.5	16.0	14.5	17.0	14.5	21.0	19.5	23.0	21.0	---	---
22	13.5	12.0	15.0	13.5	17.5	15.0	21.0	19.5	23.0	21.0	---	---
23	14.0	12.5	15.5	13.5	18.0	15.5	21.0	19.5	23.5	21.0	---	---
24	15.0	13.5	15.5	14.0	18.5	16.5	21.0	19.5	23.0	21.0	---	---
25	15.0	13.5	15.5	14.0	20.0	18.0	21.0	19.5	22.5	20.5	---	---
26	14.5	13.5	16.0	14.0	21.5	19.5	21.5	19.5	22.5	19.5	---	---
27	14.5	13.0	16.0	14.5	21.5	20.0	22.0	20.0	22.5	19.0	---	---
28	14.0	13.0	16.0	14.5	20.0	18.5	22.5	20.5	22.0	19.0	---	---
29	13.5	13.0	17.0	15.0	19.0	18.0	23.0	21.0	22.5	19.0	---	---
30	13.5	12.5	17.0	15.0	19.0	18.0	23.0	21.0	22.5	19.5	---	---
31	---	---	17.0	15.0	---	---	23.0	20.0	23.0	19.5	---	---
MONTH	15.0	11.0	17.0	12.0	21.5	13.0	23.0	14.5	---	---	---	---

SAN JOAQUIN RIVER BASIN

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11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA

LOCATION.--Lat 37°21'02", long 120°58'34", in NW 1/4 SW 1/4 sec.3, T.7 S., R.9 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 600 ft downstream from bridge on Hills Ferry Road, 650 ft downstream from Merced River, and 3.5 mi northeast of Newman.

DRAINAGE AREA.--9,520 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to current year. Water years 1938 to 1943 include flows through Merced River Slough.

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), 30,700 ft³/s, Mar. 4, 1983, elevation, 65.78 ft; minimum daily, 15 ft³/s, Aug. 9, 10, 1924. Maximum discharge (including flow in Merced River Slough in water years 1938-43), 33,000 ft³/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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,300 ft³/s, Mar. 16, elevation, 64.81 ft; minimum daily, 260 ft³/s, Oct. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	520	453	537	3510	842	14400	10800	11200	3690	1960	1040
2	273	530	467	560	2890	835	13700	11800	10900	4500	2250	1010
3	279	520	483	594	2410	847	13400	13000	10600	5140	2740	1050
4	266	484	478	642	2000	881	13300	13300	10200	6080	3050	1100
5	268	461	485	697	1710	983	12900	13300	9360	6970	2540	1100
6	284	448	496	813	1490	967	13400	13300	8700	7840	1920	1150
7	306	440	503	1110	1320	970	13600	13300	8500	8280	1560	1100
8	280	424	506	1310	1220	982	13200	13400	8440	8500	1480	1090
9	260	420	505	1320	1130	990	12800	13800	8050	9000	1550	1150
10	293	426	506	1330	1050	1200	12500	13800	7520	9440	1510	1280
11	318	439	508	1500	995	2950	12000	13800	6710	10700	1420	1420
12	325	469	509	2230	968	5690	11400	13600	6210	11700	1360	1450
13	320	479	511	2380	953	6030	11000	13300	5960	12200	1370	1490
14	491	468	512	2600	956	10800	10500	13100	5770	12600	1420	1530
15	865	456	514	2740	959	18600	9840	13300	5600	12700	1470	1550
16	1050	459	515	3190	979	20900	9480	13600	5610	11800	1480	1580
17	997	454	515	3200	988	18700	9270	13600	5650	9770	1430	1600
18	842	456	514	3100	949	17100	8930	13700	5800	7840	1380	1630
19	677	448	512	2670	911	15700	8810	13600	5930	6240	1350	1620
20	602	439	510	2180	891	14300	8790	13400	5940	5370	1320	1650
21	571	436	511	1790	880	12800	8590	13600	5940	5250	1390	1750
22	538	432	510	1540	872	11600	8540	13700	5890	5410	1410	1850
23	538	429	507	1370	869	10600	8720	13600	5410	5150	1390	1940
24	519	426	506	1330	852	10800	9270	13300	4540	4450	1350	1910
25	490	431	509	1810	841	11600	9600	13100	3510	3510	1290	1610
26	485	440	512	3340	848	14000	9690	13200	3030	2810	1190	1390
27	511	448	517	3940	866	15500	9580	13100	2910	2420	1160	1270
28	493	451	524	4820	860	15800	9390	13000	3170	2160	1150	1220
29	469	448	528	5010	---	15200	9440	12700	3180	1980	1140	1240
30	483	452	530	4690	---	14600	9810	11800	3290	1860	1110	1360
31	493	---	532	4160	---	14700	---	11400	---	1820	1080	---
TOTAL	14853	13633	15688	68503	35167	287467	325850	407300	193520	207180	48220	42130
MEAN	479	454	506	2210	1256	9273	10860	13140	6451	6683	1555	1404
MAX	1050	530	532	5010	3510	20900	14400	13800	11200	12700	3050	1940
MIN	260	420	453	537	841	835	8540	10800	2910	1820	1080	1010
AC-FT	29460	27040	31120	135900	69750	570200	646300	807900	383800	410900	95640	83560

e Estimated.

SAN JOAQUIN RIVER BASIN

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	655	646	1178	2030	2714	2964	2894	2776	2142	933	501	616
MAX	5831	4039	10880	12490	21100	24170	18860	14050	15280	11320	2683	3786
(WY)	1984	1984	1983	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1944 - 1995

ANNUAL TOTAL	201740	1659511	
ANNUAL MEAN	553	4547	1664
HIGHEST ANNUAL MEAN			11620
LOWEST ANNUAL MEAN			200
HIGHEST DAILY MEAN	1660	Feb 10	20900
LOWEST DAILY MEAN	208	Sep 20	260
ANNUAL SEVEN-DAY MINIMUM	217	Sep 18	278
INSTANTANEOUS PEAK FLOW			21300
INSTANTANEOUS PEAK STAGE			64.81
INSTANTANEOUS LOW FLOW			260
ANNUAL RUNOFF (AC-FT)	400200	3292000	1206000
10 PERCENT EXCEEDS	907	13300	3800
50 PERCENT EXCEEDS	509	1550	568
90 PERCENT EXCEEDS	245	460	212

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1989, July 1992 to current year. Data for the period March 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 year 1993.

SPECIFIC CONDUCTANCE: Water year 1989, 1992 to current year.

TEMPERATURE: Water year 1989, 1992 to current year.

SEDIMENT DATA: Water year 1993.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Water year 1989, July 1992 to current year.

WATER TEMPERATURE: Water year 1989, July 1992 to current year.

INSTRUMENTATION.--Water-quality monitor October 1988 to September 1989 and since July 1992.

REMARKS.--The water-quality monitor for this site is located 1.2 mi downstream from the gage. Specific-conductance and water-temperature values are affected by an irrigation-return-flow canal upstream or by a pump located by monitor electrodes.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3,000 microsiemens, July 10, 1994; minimum recorded, 136 microsiemens, Jan. 10, 1993.

WATER TEMPERATURE: Maximum recorded, 32.0°C, July 14, 1992; minimum recorded, 4.5°C, January 3, 1993.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,190 microsiemens, Feb. 24, 25; minimum recorded, 143 microsiemens, June 4.

WATER TEMPERATURE: Maximum recorded, 27.5°C, Aug. 2, 3, 6; minimum recorded, 6.5°C, Dec. 9-11.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1410	1190	1170	1060	1460	1420	1600	1530	919	772	2140	2080
2	1310	1220	1120	1040	1490	1210	1650	1570	1080	919	2160	2080
3	1370	1260	1130	1060	1470	1240	1630	1560	1200	1080	2120	2000
4	1380	1190	1150	1100	1420	1380	1570	1450	1380	1200	2030	1850
5	1190	1130	1260	1110	1460	1380	1540	1440	1530	1380	1850	1680
6	1140	1050	1360	1100	1380	1340	1540	1440	1610	1530	1840	1740
7	1130	1060	1350	1260	1400	1340	1440	1050	1690	1610	1880	1830
8	1230	1070	1370	1340	1460	1390	1050	866	1760	1690	1930	1860
9	1230	1190	1380	1340	1520	1390	1100	955	1890	1760	1990	1910
10	1200	1050	1400	1350	1540	1420	1210	1100	1980	1890	1990	1400
11	1120	999	1430	1370	1490	1420	1230	983	2030	1980	1400	559
12	1080	912	1440	1350	1450	1410	983	567	2050	2000	628	515
13	1030	947	1390	1350	1480	1410	608	488	2060	2000	563	507
14	1020	492	1460	1370	1540	1470	672	608	2090	2010	547	426
15	492	350	1480	1360	1600	1520	726	672	2090	2000	429	385
16	468	376	1410	1360	1590	1530	712	549	2050	1950	518	403
17	585	468	1410	1370	1630	1540	596	539	1990	1910	609	516
18	612	498	1420	1360	1720	1580	722	596	2080	1990	666	597
19	793	612	1440	1370	1680	1580	913	722	2150	2080	681	645
20	882	785	1480	1360	1680	1580	1040	913	2140	2080	691	616
21	934	871	1540	1400	1590	1550	1170	1040	2140	2090	684	628
22	965	849	1560	1500	1590	1560	1320	1170	2170	2140	665	615
23	1030	956	1530	1470	1630	1560	1420	1320	2170	2140	672	619
24	1140	1000	1550	1470	1620	1570	1420	1340	2190	2140	668	629
25	1220	1140	1530	1500	1570	1510	1340	838	2190	1960	663	565
26	1220	1130	1550	1500	1600	1470	838	446	2110	1920	579	496
27	1210	1080	1550	1420	1640	1580	455	426	2130	2070	545	488
28	1250	1110	1530	1430	1640	1540	515	455	2130	2090	569	528
29	1280	1180	1510	1440	1630	1580	539	515	---	---	569	533
30	1190	1150	1480	1430	1610	1510	648	539	---	---	582	530
31	1170	1130	---	---	1600	1560	772	648	---	---	586	496
MONTH	1410	350	1560	1040	1720	1210	1650	426	2190	772	2160	385

SAN JOAQUIN RIVER BASIN

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	530	480	259	233	159	148	410	302	911	623	939	853
2	507	480	258	235	172	145	302	203	623	474	971	884
3	510	464	244	220	161	145	325	169	553	426	937	811
4	517	465	239	211	156	143	190	161	469	398	883	826
5	501	467	228	211	191	156	174	165	742	469	855	799
6	501	411	230	212	201	191	188	169	894	742	814	765
7	427	397	225	205	202	195	194	178	1030	894	873	812
8	427	387	226	217	201	180	180	160	1050	925	871	812
9	413	352	224	209	209	184	164	154	925	851	854	745
10	376	335	229	212	234	209	170	153	916	850	759	669
11	393	353	228	214	250	234	156	149	1050	916	683	593
12	388	357	221	200	271	239	158	150	1070	999	650	614
13	372	345	208	198	273	241	159	152	1030	972	633	579
14	366	343	209	199	269	253	163	158	1020	924	584	567
15	377	354	218	200	285	263	168	161	924	816	579	523
16	382	367	220	201	275	257	193	166	864	808	540	490
17	370	347	220	203	285	261	240	193	878	835	531	459
18	371	352	212	196	274	248	292	239	891	835	503	411
19	365	336	198	176	266	255	325	291	897	834	488	461
20	359	330	183	171	267	258	332	313	917	856	462	418
21	359	329	194	172	267	256	315	276	889	789	419	397
22	356	330	185	157	260	244	300	271	799	736	400	355
23	349	303	180	155	317	260	357	300	796	723	370	348
24	318	281	181	157	416	317	430	357	814	785	379	345
25	283	259	181	156	533	416	547	430	901	812	465	379
26	268	242	159	150	606	531	615	547	964	899	522	465
27	254	225	168	150	617	530	750	615	964	888	560	522
28	256	232	167	151	530	491	821	750	901	865	575	519
29	277	251	152	144	519	494	865	821	890	854	526	508
30	276	240	160	144	547	388	931	863	915	872	533	379
31	---	---	163	155	---	---	951	903	927	833	---	---
MONTH	530	225	259	144	617	143	951	149	1070	398	971	345

SAN JOAQUIN RIVER BASIN

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11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.5	20.0	16.0	14.0	9.0	8.0	9.5	8.0	13.5	13.0	16.5	14.0
2	25.0	20.0	15.5	13.0	9.5	8.5	9.5	9.0	13.5	13.5	17.0	15.0
3	24.0	20.5	13.0	10.5	10.0	9.0	10.5	9.0	13.5	13.5	16.5	15.5
4	21.5	19.0	12.0	10.5	11.0	9.5	10.0	9.5	14.0	13.0	15.5	14.0
5	22.0	17.5	13.0	12.0	10.5	10.0	11.0	9.5	13.5	12.5	15.0	13.5
6	22.5	18.5	15.0	13.0	10.5	9.5	10.5	9.5	12.5	12.0	14.5	12.0
7	22.5	18.5	14.5	13.5	10.0	8.5	10.5	9.5	12.0	12.0	15.0	12.5
8	23.5	18.5	14.5	12.0	9.0	7.5	11.0	10.0	12.5	11.5	15.0	13.5
9	23.5	19.0	13.5	12.5	8.5	6.5	12.5	11.0	13.0	11.5	14.0	13.0
10	23.5	19.5	13.5	12.0	8.0	6.5	13.5	12.5	12.5	12.0	14.0	13.5
11	22.0	19.0	13.0	10.5	8.5	6.5	13.0	12.5	12.5	12.0	14.0	13.0
12	21.0	18.0	13.0	11.0	9.5	8.0	13.0	12.5	13.5	12.0	15.0	13.0
13	20.0	16.5	12.5	10.5	10.0	8.5	13.0	12.0	13.0	12.0	16.0	14.5
14	19.5	16.5	11.5	9.5	9.0	8.0	14.0	13.0	12.0	11.0	16.0	15.0
15	18.5	16.0	11.0	9.5	9.5	8.0	14.0	13.0	12.0	10.0	16.0	15.0
16	17.0	14.5	11.5	9.5	9.0	8.5	13.0	12.0	12.0	10.0	16.0	14.5
17	16.5	14.5	11.5	10.0	9.5	8.5	12.0	10.5	13.0	10.5	16.5	15.0
18	17.0	14.5	10.5	8.0	10.0	9.0	10.5	9.5	13.5	11.5	16.0	15.5
19	17.5	15.0	9.0	7.0	10.5	9.5	10.0	9.5	15.0	12.0	16.0	15.0
20	17.5	15.0	9.0	7.0	10.0	9.5	9.5	9.0	15.5	13.0	16.0	15.0
21	18.0	15.0	10.5	8.5	9.5	9.0	9.5	8.5	15.5	13.0	15.0	14.0
22	18.0	15.5	10.0	8.0	9.0	8.5	10.0	9.0	14.0	13.5	14.5	12.5
23	18.0	15.5	10.0	8.0	9.0	8.5	10.5	9.5	15.0	13.5	12.5	11.5
24	19.5	16.5	10.0	8.5	9.0	8.0	11.5	10.5	14.0	13.5	13.0	11.5
25	19.0	16.5	11.0	9.5	9.5	8.0	11.5	10.5	14.0	13.5	13.0	12.0
26	19.0	15.5	10.5	9.5	9.5	8.0	11.0	10.5	15.0	13.5	14.0	12.5
27	19.5	16.5	9.5	8.5	9.5	8.0	11.5	10.5	15.5	14.0	15.0	13.5
28	19.5	16.5	10.5	9.0	10.5	9.0	12.0	11.0	15.5	14.0	15.5	14.0
29	18.5	15.5	9.5	8.0	10.0	8.5	12.5	11.5	---	---	16.0	15.0
30	16.5	14.0	9.5	8.0	9.0	7.5	12.5	12.0	---	---	17.0	15.5
31	16.5	13.5	---	---	8.5	7.0	13.0	12.5	---	---	18.0	16.5
MONTH	25.0	13.5	16.0	7.0	11.0	6.5	14.0	8.0	15.5	10.0	18.0	11.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.5	17.0	20.0	17.5	23.0	21.0	22.0	20.0	26.5	24.0	24.5	22.0
2	18.0	16.5	20.5	18.5	22.0	20.0	22.0	19.5	27.5	24.5	24.5	22.0
3	18.5	16.5	20.5	18.5	21.5	19.0	23.5	21.0	27.5	25.0	24.0	22.0
4	19.0	17.5	20.5	19.0	22.0	19.5	23.5	21.0	27.0	24.0	23.5	21.5
5	20.0	18.0	19.5	17.0	21.0	19.0	24.5	22.0	27.0	24.5	24.0	21.0
6	19.5	18.5	17.0	15.5	20.0	17.5	24.5	22.0	27.5	24.5	24.5	21.5
7	19.0	17.5	18.0	16.0	18.5	16.5	23.5	21.0	27.0	24.5	25.5	22.0
8	18.0	16.5	19.5	17.0	19.5	17.5	23.0	20.5	26.0	23.0	25.5	22.5
9	17.0	14.5	19.0	17.5	20.0	17.5	22.0	20.0	26.5	23.0	25.0	22.0
10	15.5	13.0	19.0	17.0	20.0	18.0	21.5	19.5	26.0	23.0	24.0	21.5
11	17.5	15.0	19.5	17.5	20.5	18.0	21.0	19.0	24.0	21.5	23.5	21.0
12	18.5	16.5	19.0	17.0	20.0	18.0	20.5	19.0	24.0	22.0	23.5	21.0
13	18.0	16.5	18.0	16.0	20.0	18.0	21.0	18.5	25.5	22.0	23.5	21.0
14	16.5	15.0	18.0	16.0	20.0	18.0	22.0	19.0	26.0	23.0	23.0	21.0
15	16.0	14.5	19.5	17.0	18.0	16.5	24.0	21.0	26.5	23.5	23.0	21.0
16	15.5	13.5	19.5	17.5	17.0	15.5	25.0	22.5	26.0	23.5	23.5	21.5
17	15.5	14.0	21.0	18.5	18.0	16.0	25.0	22.5	24.0	22.0	23.0	21.0
18	14.5	14.0	22.0	19.5	19.0	16.5	25.5	22.5	23.5	21.0	23.0	21.0
19	15.5	13.0	22.5	20.5	19.0	17.0	26.0	23.0	24.0	21.0	24.0	21.5
20	15.5	14.0	22.5	21.0	19.0	16.5	26.0	23.5	25.0	22.0	24.0	22.0
21	15.5	13.5	22.0	20.0	19.5	17.0	25.5	23.0	26.0	23.0	23.0	21.5
22	17.5	14.5	21.0	19.0	20.5	18.0	25.0	22.5	26.0	23.5	22.5	21.0
23	19.0	16.0	21.0	19.0	22.0	19.0	24.5	22.5	26.0	24.0	21.5	20.0
24	20.5	18.0	20.5	19.0	22.0	20.5	24.5	22.0	26.0	23.5	21.5	19.5
25	20.5	18.5	21.0	19.0	24.5	22.0	24.0	22.5	25.0	22.0	22.0	20.0
26	20.5	18.5	21.5	19.0	25.5	23.0	24.0	22.0	24.5	22.0	23.0	20.0
27	20.0	18.0	21.5	20.0	25.0	23.0	25.5	22.5	24.5	21.5	23.0	20.0
28	18.5	17.5	22.5	20.0	23.5	21.0	26.5	23.5	24.0	21.0	22.5	20.0
29	18.0	17.0	23.0	20.5	22.0	20.5	26.0	23.5	24.0	21.0	22.0	20.0
30	18.5	17.0	23.5	21.0	22.5	20.5	26.0	23.0	24.5	21.5	22.0	19.5
31	---	---	23.5	21.5	---	---	26.0	23.0	25.0	22.0	---	---
MONTH	20.5	13.0	23.5	15.5	25.5	15.5	26.5	18.5	27.5	21.0	25.5	19.5

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 mi².

PERIOD OF RECORD.--January 1932 to current year.

REVISED RECORDS.--WSP 1445: 1932(M), 1938(P), 1940-41(M), 1945, 1951(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 216.01 ft 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 ft³/s, and estimated daily discharges which are fair. No storage or diversion upstream from station except for minor stock ponds.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s, Mar. 10, 1995, gage height, 9.51; no flow for all or parts of each year.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0315	2,110	6.41	Mar. 10	1315	*12,000	*9.51
Jan. 28	0045	464	3.87	Mar. 23	0245	1,800	5.31

No flow for many days.

REVISIONS.--The maximum discharge for the water year 1986 has been revised to 9,160 ft³/s, Feb. 19, 1986, gage height, 9.12 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	56	9.8	78	24	4.5	e.00	.00	.00
2	.00	.00	.00	.00	44	11	69	22	3.4	e.00	.00	.00
3	.00	.00	.00	.00	35	12	58	18	2.7	e.00	e.00	.00
4	.00	.00	.00	.00	30	15	52	16	2.3	e.00	e.00	.00
5	.00	.00	.00	.00	27	17	47	15	1.7	e.00	e.00	.00
6	.00	.00	.00	.00	24	17	43	14	1.2	e.00	e.00	.00
7	.00	.00	.00	.00	22	14	42	14	.92	e.00	e.00	.00
8	.00	.00	.00	.00	21	13	41	13	.78	e.00	e.00	.00
9	.00	.00	.00	.10	18	100	38	13	.63	e.00	e.00	.00
10	.00	.00	.00	952	17	4260	36	12	.54	e.00	e.00	.00
11	.00	.00	.00	322	16	1490	34	11	.46	.00	e.00	.00
12	.00	.00	.00	97	16	594	32	11	.37	.00	e.00	.00
13	.00	.00	.00	87	16	295	32	12	.30	.00	e.00	.00
14	.00	.00	.00	63	22	200	32	13	.34	.00	.00	.00
15	.00	.00	.00	110	17	170	31	12	.40	.00	.00	.00
16	.00	.00	.00	82	15	150	32	12	.24	.00	.00	.00
17	.00	.00	.00	39	13	127	30	12	.23	.00	.00	.00
18	.00	.00	.00	24	12	110	29	11	.27	.00	.00	.00
19	.00	.00	.00	15	12	99	27	9.3	.24	.00	.00	.00
20	.00	.00	.00	11	12	92	26	8.4	.17	.00	.00	.00
21	.00	.00	.00	11	11	101	25	8.5	.11	.00	.00	.00
22	.00	.00	.00	15	11	445	24	8.2	.08	.00	.00	.00
23	.00	.00	.00	188	11	1130	23	7.9	.06	.00	.00	.00
24	.00	.00	.00	290	10	433	22	9.5	.04	.00	.00	.00
25	.00	.00	.00	290	10	247	20	9.7	e.04	.00	.00	.00
26	.00	.00	.00	204	9.8	160	19	10	e.03	.00	.00	.00
27	.00	.00	.00	280	9.5	111	19	10	e.03	.00	.00	.00
28	.00	.00	.00	340	9.4	80	20	9.3	e.02	.00	.00	.00
29	.00	.00	.00	187	---	60	22	8.1	e.01	.00	.00	.00
30	.00	.00	.00	117	---	57	27	7.0	e.00	.00	.00	.00
31	.00	---	.00	77	---	76	---	5.8	---	.00	.00	---
TOTAL	0.00	0.00	0.00	3801.10	526.7	10695.8	1030	366.7	22.11	0.00	0.00	0.00
MEAN	.000	.000	.000	123	18.8	345	34.3	11.8	.74	.000	.000	.000
MAX	.00	.00	.00	952	56	4260	78	24	4.5	.00	.00	.00
MIN	.00	.00	.00	.00	9.4	9.8	19	5.8	.00	.00	.00	.00
AC-FT	.00	.00	.00	7540	1040	21220	2040	727	44	.00	.00	.00

e Estimated.

SAN JOAQUIN RIVER BASIN

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11274500 ORESTIMBA CREEK NEAR NEWMAN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.000	.99	10.9	41.1	74.8	49.2	22.5	3.16	.63	.11	.001	.000
MAX	.000	31.0	181	264	482	345	362	46.9	15.1	5.32	.045	.000
(WY)	1933	1951	1956	1983	1980	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 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1932 - 1995

ANNUAL TOTAL	6.43	16442.41	
ANNUAL MEAN	.018	45.0	16.7
HIGHEST ANNUAL MEAN			89.4
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	3.7 Feb 20	4260 Mar 10	4260 Mar 10
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 May 9
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 1	.00 May 9
INSTANTANEOUS PEAK FLOW		12000 Mar 10	12000 Mar 10
INSTANTANEOUS PEAK STAGE		9.51 Mar 10	9.51 Mar 10
ANNUAL RUNOFF (AC-FT)	13	32610	12080
10 PERCENT EXCEEDS	.00	76	18
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 estimated record and period of backwater March 14 to July 20 which are poor. Flows during summer and fall consist mainly of return water from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,650 ft³/s, Mar. 10, 1995, gage height 18.40 ft, from rating curve extended above 2,470 ft³/s; no flow for many days during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,650 ft³/s, Mar. 10, gage height, 18.40 ft; no flow, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	2.4	3.0	.00	e50	12	155	30	12	11	41	11
2	.76	.41	3.0	.00	e40	8.6	119	44	18	3.3	21	12
3	13	7.2	8.8	.54	e35	7.3	98	66	24	.52	24	39
4	4.3	15	6.1	4.5	18	19	79	72	29	2.4	22	52
5	.78	11	2.3	.25	11	14	60	64	25	14	38	40
6	.21	7.0	.51	14	6.6	e3.5	66	53	16	29	40	27
7	.13	1.4	.22	32	e2.0	12	76	45	16	37	45	10
8	1.5	15	.00	13	e1.0	12	68	38	26	35	28	32
9	.90	8.6	1.3	8.0	e.00	18	58	36	37	33	25	17
10	6.4	4.8	.71	565	e.00	1280	49	32	43	38	24	8.2
11	4.7	.56	1.3	416	e.00	2130	42	34	36	42	23	45
12	1.7	1.3	1.1	90	e.00	924	32	38	31	62	24	14
13	1.2	.29	1.3	70	e1.0	352	30	39	33	75	56	1.8
14	2.1	2.0	.37	43	e.50	203	30	39	26	80	41	2.8
15	1.7	2.1	.01	54	e.00	244	25	51	25	76	26	25
16	.17	3.0	.00	74	e.00	126	24	66	23	52	21	15
17	6.9	2.1	.00	38	e.00	94	27	75	31	20	18	25
18	2.4	1.2	.00	15	e.00	69	22	84	44	25	24	18
19	.36	1.5	.00	5.0	e.00	66	18	80	75	34	47	7.5
20	.57	5.4	.00	3.0	e.00	67	17	69	66	48	37	8.9
21	.06	3.2	.00	2.3	e.00	83	14	63	46	44	41	2.5
22	1.1	1.5	.01	9.6	e.00	334	12	61	44	68	37	4.7
23	2.9	.80	.00	106	e.00	1020	15	55	27	54	14	8.5
24	3.3	1.1	.00	830	e.00	562	25	47	15	38	14	14
25	2.7	6.1	.00	798	e.00	386	33	37	45	33	25	8.7
26	2.0	2.4	.00	269	e.00	384	35	38	36	24	38	4.4
27	.83	1.4	.00	207	e.00	419	30	36	18	24	16	6.1
28	1.0	1.4	.29	352	e7.0	377	21	33	16	20	29	3.4
29	.36	1.5	.98	201	---	279	19	29	18	20	18	4.3
30	.08	3.0	.02	e95	---	186	21	17	14	33	20	5.9
31	.09	---	.00	e60	---	162	---	9.4	---	54	10	---
TOTAL	68.00	114.66	31.32	4375.19	172.10	9853.4	1320	1480.4	915	1129.22	887	473.7
MEAN	2.19	3.82	1.01	141	6.15	318	44.0	47.8	30.5	36.4	28.6	15.8
MAX	13	15	8.8	830	50	2130	155	84	75	80	56	52
MIN	.06	.29	.00	.00	.00	3.5	12	9.4	12	.52	10	1.8
AC-FT	135	227	62	8680	341	19540	2620	2940	1810	2240	1760	940

e Estimated.

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.70	12.5	12.2	109	83.3	140	29.8	23.7	17.2	24.1	25.7	14.0
MAX	19.2	17.8	27.7	175	223	318	44.0	47.8	30.5	36.4	46.1	21.1
(WY)	1994	1993	1994	1993	1993	1995	1995	1995	1995	1995	1993	1993
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1992 - 1995			
ANNUAL TOTAL	4011.58				20819.99							
ANNUAL MEAN	11.0				57.0				43.2			
HIGHEST ANNUAL MEAN									57.0			
LOWEST ANNUAL MEAN									15.7			
HIGHEST DAILY MEAN	57				2130				2130			
LOWEST DAILY MEAN	.00				.00				.00			
ANNUAL SEVEN-DAY MINIMUM	.00				.00				.00			
INSTANTANEOUS PEAK FLOW					2650				2650			
INSTANTANEOUS PEAK STAGE					18.40				18.40			
ANNUAL RUNOFF (AC-FT)	7960				41300				31270			
10 PERCENT EXCEEDS	23				79				61			
50 PERCENT EXCEEDS	8.6				18				14			
90 PERCENT EXCEEDS	.77				.07				1.0			

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1992 to current year.

CHEMICAL DATA: April 1992 to March 1995 (discontinued)

SPECIFIC CONDUCTANCE: April 1992 to current year.

WATER TEMPERATURE: April 1992 to current year.

SEDIMENT DATA: April 1992 to March 1995 (discontinued).

PERIOD OF DAILY RECORD.--

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 and days where no flow occurred. Specific-conductance, water-temperature, and chemical values are affected by irrigation-return flow from a drainage pipe located 30 ft upstream from gage.

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, 30.0°C, June 3, July 27, 1992, July 29, Aug. 1, 2, 1993; minimum recorded, 4.0°C, Dec. 28, 1992.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,470 microsiemens, Oct. 6; minimum recorded, 404 microsiemens, July 12, Sept. 30.

WATER TEMPERATURE: Maximum recorded, 29.5°C, July 31; minimum recorded, 6.5°C, Dec. 12, 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT										
27...	1250	0.57	748	7.8	13.5	770	8.9	85	190	39
NOV										
30...	1300	2.5	753	7.6	12.5	768	9.3	86	170	36
DEC										
29...	1250	1.2	1310	8.1	8.5	754	11.5	100	520	110
JAN										
24...	1315	520	344L	7.7	13.0	756	10.5	100	130	29
MAR										
02...	1100	7.9	910	7.8	15.0	760	8.5	85	220	46
21...	1530	79	825	8.2	14.5	756	8.4	83	380	77

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
27...	23	74	45	2	4.6	138	0	113	61	110
NOV										
30...	19	86	52	3	4.9	120	0	98	84	120
DEC										
29...	60	75	24	1	5.2	401	0	329	160	130
JAN										
24...	14	19	24	0.7	2.9	137	0	112	49	8.6
MAR										
02...	26	69	36	2	33	--	--	--	93	95
21...	45	65	27	1	3.7	288	0	236	250	20

SAN JOAQUIN RIVER BASIN

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11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT 27...	0.20	8.9	409	394	0.56	<0.010	1.10	<0.015	0.50	0.30
NOV 30...	0.20	8.2	439	423	0.60	0.020	1.00	0.150	0.50	0.40
DEC 29...	0.10	11	854	811	1.16	0.100	14.0	0.040	0.30	0.30
JAN 24...	0.20	13	211	206	0.29	0.020	0.530	0.090	0.50	0.40
MAR 02...	0.10	13	538	497	0.73	0.210	1.80	6.20	9.8	8.2
21...	0.30	14	645	622	0.88	<0.010	1.10	0.060	0.30	0.20

DATE	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C)
OCT 27...	0.080	0.030	0.020	250	23	15	2	<1	5.2	--
NOV 30...	0.190	0.160	0.160	330	28	1	--	1	4.3	10
DEC 29...	0.050	0.060	0.050	330	4	18	2	<1	2.1	0.3
JAN 24...	0.110	0.050	0.070	140	44	41	<1	<1	6.4	6.8
MAR 02...	2.90	2.30	2.10	440	86	17	2	1	21	5.0
21...	0.080	0.040	0.040	390	<3	11	1	1	8.0	0.4

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- SUS- PENDEED (MG/L)	SEDI- MENT, CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 27...N	1250	0.57	13.5	75	0.12	--
NOV 30...N	1300	2.5	12.5	1340	9.0	--
DEC 29...N	1250	1.2	8.5	6	0.02	--
JAN 10...N	0100	51	--	4980	686	100
10...N	0900	26	--	3100	218	100
10...N	1000	550	--	13800	20500	96
10...N	1015	586	--	7100	11200	97
10...N	1035	700	--	5720	10800	96
10...N	1055	870	--	4760	11200	94
10...N	1110	940	--	4110	10400	95
10...N	1400	1130	--	1920	5860	95
10...N	2145	684	--	1180	2180	98
24...N	1315	520	13.0	1300	1830	--
MAR 02...N	1100	7.9	15.0	45	0.96	--
21...N	1530	79	14.5	49	10	--

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	934	885	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	1160	1080	1110	852	---	---	---	---	---	---	---	---
5	---	---	854	762	---	---	---	---	---	---	---	---
6	1470	1040	846	801	---	---	---	---	---	---	---	---
7	1120	1060	859	829	---	---	---	---	---	---	---	---
8	1170	1100	891	782	---	---	---	---	---	---	---	---
9	1140	1050	870	711	---	---	---	---	---	---	---	---
10	1060	928	757	687	---	---	---	---	---	---	---	---
11	1120	935	---	---	---	---	---	---	---	---	---	---
12	1390	1050	---	---	---	---	---	---	---	---	---	---
13	1310	1010	---	---	---	---	---	---	---	---	---	---
14	1050	955	---	---	---	---	---	---	---	---	---	---
15	1280	955	---	---	---	---	---	---	---	---	---	---
16	---	---	656	640	---	---	---	---	---	---	---	---
17	---	---	671	642	---	---	---	---	---	---	---	---
18	975	949	713	662	---	---	---	535	---	---	---	567
19	992	921	725	693	---	---	---	---	---	---	---	---
20	---	---	720	664	---	---	---	---	---	---	---	---
21	---	---	712	665	---	---	---	---	---	---	---	---
22	---	---	769	709	---	---	---	---	---	---	---	---
23	1030	949	794	676	---	---	---	---	---	---	---	---
24	1010	946	---	---	---	---	---	---	---	---	---	---
25	946	810	---	---	---	---	---	---	---	---	---	---
26	810	732	---	---	---	---	---	---	---	---	---	---
27	748	736	---	---	---	---	---	---	---	---	---	---
28	749	733	---	---	---	---	---	---	---	---	---	---
29	752	729	---	---	---	---	---	423	---	---	---	545
30	758	727	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	664	494	---	---	619	559
2	---	---	---	---	---	---	675	535	---	---	695	567
3	---	---	---	---	---	---	611	575	---	---	585	469
4	---	---	---	---	---	---	681	549	---	---	503	457
5	---	---	---	---	---	---	684	644	---	---	495	475
6	---	---	---	---	---	---	683	657	---	---	508	493
7	---	---	---	---	---	---	712	681	---	---	524	499
8	---	---	---	---	---	---	713	694	---	---	535	520
9	---	---	---	---	---	---	708	583	671	501	551	534
10	---	---	---	---	---	---	583	438	671	586	554	545
11	---	---	---	---	---	---	446	428	674	555	558	546
12	---	---	---	---	---	---	428	404	649	582	562	552
13	---	---	---	---	---	---	438	423	644	464	559	545
14	---	---	---	---	---	---	440	417	563	464	552	535
15	---	---	---	---	---	---	440	417	601	561	547	530
16	---	---	---	---	---	---	481	430	644	571	539	522
17	---	---	---	---	---	---	505	481	655	588	527	511
18	---	---	---	---	---	---	530	504	689	627	514	500
19	---	---	---	---	---	---	572	524	627	542	504	491
20	---	---	---	---	---	---	572	560	589	572	496	488
21	---	---	---	---	---	---	572	558	591	519	493	483
22	---	---	---	---	---	---	573	565	545	494	489	475
23	---	---	---	---	---	---	570	559	586	545	480	467
24	---	---	---	---	---	---	563	537	581	555	471	458
25	---	---	---	---	---	---	543	505	597	565	463	451
26	---	---	---	---	---	---	551	477	597	538	456	442
27	---	---	---	---	---	---	550	437	561	545	447	432
28	---	---	---	---	578	448	---	---	576	561	438	425
29	---	---	---	---	626	501	---	---	570	553	431	415
30	---	---	---	---	708	601	---	---	562	545	419	404
31	---	---	---	---	---	---	---	---	590	526	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	695	400

11274538 ORESTIMBA CREEK AT RIVER ROAD, NEAR CROWS LANDING, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	17.0	---	---	---	---	---	---	---	---	16.0	14.0
2	---	---	---	---	---	---	---	---	---	---	16.5	14.5
3	---	---	---	---	9.5	8.0	---	---	---	---	16.5	14.5
4	19.5	16.5	11.0	8.5	10.0	8.5	---	---	14.5	13.0	14.5	12.5
5	---	---	12.5	10.5	9.5	7.5	---	---	13.5	13.0	14.5	13.0
6	20.0	16.0	13.5	12.5	---	---	---	---	13.0	12.0	14.0	11.0
7	20.5	15.0	13.5	12.0	---	---	13.0	11.0	12.5	11.5	14.5	11.0
8	17.5	14.0	13.0	11.5	---	---	13.0	12.5	13.5	11.5	14.5	13.5
9	18.0	15.0	13.0	12.0	---	---	15.5	13.0	---	---	15.0	13.5
10	19.0	15.5	12.0	10.0	---	---	16.0	15.0	---	---	14.5	13.5
11	18.0	15.5	---	---	---	---	15.0	13.5	---	---	14.5	13.0
12	17.5	15.0	---	---	8.0	6.5	14.5	14.5	---	---	16.5	13.0
13	15.0	12.5	---	---	8.5	6.5	16.0	14.5	---	---	15.0	13.5
14	15.0	13.0	---	---	7.5	7.0	16.5	15.5	---	---	16.0	13.5
15	14.5	12.5	---	---	---	---	16.0	13.5	---	---	16.0	14.0
16	---	---	10.0	8.5	---	---	13.5	12.0	---	---	16.5	14.5
17	---	---	10.0	8.5	---	---	12.0	10.5	---	---	16.5	15.5
18	14.0	12.0	---	---	---	---	---	---	---	---	16.5	15.5
19	---	---	---	---	---	---	---	---	---	---	16.5	14.0
20	---	---	---	---	---	---	---	---	---	---	16.5	15.5
21	---	---	---	---	---	---	---	---	---	---	15.5	14.0
22	---	---	---	---	---	---	---	---	---	---	14.5	12.5
23	14.5	11.5	---	---	---	---	12.5	11.5	---	---	12.5	10.0
24	16.0	14.5	---	---	---	---	13.0	12.5	---	---	13.0	9.5
25	15.0	13.0	9.5	7.5	---	---	13.5	13.0	---	---	13.5	10.0
26	15.0	12.0	9.0	7.0	---	---	13.0	12.0	---	---	13.5	11.0
27	15.0	13.0	---	---	---	---	13.5	12.5	---	---	14.0	12.0
28	15.5	13.0	---	---	---	---	14.5	13.0	---	---	15.5	13.0
29	---	---	---	---	---	---	14.5	14.0	---	---	16.0	14.0
30	---	---	---	---	---	---	---	---	---	---	17.5	14.5
31	---	---	---	---	---	---	---	---	---	---	18.5	16.0
MONTH	---	---	---	---	---	---	---	---	---	---	18.5	9.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.8	17.0	20.5	18.5	22.0	21.5	27.0	21.5	28.5	24.0	25.0	20.0
2	18.2	15.6	20.5	19.0	22.0	21.5	26.0	21.0	28.0	24.0	24.0	19.5
3	19.5	16.0	21.0	18.5	21.5	20.5	26.0	22.0	28.0	23.5	24.0	21.0
4	21.0	17.0	20.5	19.0	21.5	20.5	26.5	23.0	27.5	23.5	24.0	21.0
5	21.0	18.0	20.5	17.5	21.5	20.5	26.5	24.0	28.5	24.0	24.0	21.5
6	21.0	18.5	17.5	15.5	20.5	18.5	26.5	23.5	29.0	24.0	24.0	21.5
7	20.5	18.0	18.5	16.0	18.5	17.5	26.5	23.5	28.0	24.5	25.5	22.0
8	19.5	16.5	18.5	17.0	18.5	17.5	27.5	23.5	25.8	21.4	25.0	23.0
9	17.0	14.5	18.5	17.0	19.0	18.5	27.0	23.0	27.0	21.5	25.0	22.0
10	14.5	13.5	18.5	17.0	20.0	19.0	27.0	21.5	26.5	22.0	23.5	21.0
11	17.5	14.5	18.5	17.5	20.0	19.5	25.0	20.5	25.0	20.0	24.5	22.0
12	18.5	17.0	17.5	17.0	20.0	19.5	24.0	19.5	26.0	21.5	24.0	22.0
13	18.5	17.0	17.5	16.0	20.0	19.0	24.5	19.5	28.0	23.0	24.0	21.0
14	17.0	15.0	17.0	15.5	20.5	19.5	24.5	21.0	29.0	24.0	25.0	20.5
15	15.5	14.5	18.5	16.5	19.5	19.0	26.5	24.0	28.0	24.5	25.0	20.5
16	16.0	13.5	19.5	17.5	19.0	18.5	26.5	25.0	28.0	23.0	24.5	22.0
17	16.0	14.5	20.0	18.5	20.0	19.0	26.5	24.0	26.0	22.0	24.5	22.0
18	15.0	14.0	21.0	19.0	20.5	20.0	25.5	23.5	25.0	20.5	24.0	22.0
19	15.5	13.0	21.5	20.0	21.0	20.0	26.0	23.5	27.0	22.0	24.0	22.5
20	16.0	13.5	21.5	20.5	21.0	20.0	26.0	23.0	28.0	23.5	25.0	22.5
21	16.0	13.0	21.5	20.5	21.0	20.0	25.5	22.0	28.5	24.5	24.0	21.5
22	17.0	13.5	21.0	19.5	22.0	21.0	25.5	22.0	28.5	25.0	23.5	20.5
23	18.5	16.0	20.5	19.5	23.0	21.5	25.5	21.0	28.0	25.5	22.5	20.5
24	19.5	17.5	20.5	19.5	24.5	23.0	25.5	21.0	27.0	24.5	22.5	21.5
25	20.5	18.5	20.5	19.5	26.5	24.0	25.5	20.5	25.5	22.5	22.0	20.5
26	20.5	18.5	20.5	19.5	26.5	25.0	26.5	20.0	26.0	22.5	21.5	19.5
27	20.5	19.0	21.0	20.5	28.0	24.5	28.0	22.0	25.5	22.0	21.5	19.0
28	19.5	18.5	21.0	20.5	27.5	24.0	28.0	24.0	26.0	21.0	21.0	19.0
29	18.5	18.0	22.0	20.5	27.5	23.0	26.5	23.0	25.0	21.5	19.5	17.5
30	19.0	18.0	22.0	21.5	27.0	22.5	28.0	21.5	25.0	22.0	20.0	17.5
31	---	---	22.0	21.5	---	---	29.5	22.5	24.0	20.0	---	---
MONTH	21.0	13.0	22.0	15.5	28.0	17.5	29.5	19.5	29.0	20.0	25.5	17.5

11274554 SPANISH GRANT COMBINED DRAIN NEAR PATTERSON, CA

LOCATION.--Lat 37°26'09", long 121°01'57", in NW 1/4 NW 1/4 sec.19, T.6 S, R. 9 E, Stanislaus County, Hydrologic Unit 18040002, on right bank 3.0 mi northeast of Crows Landing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1993 to January 31, 1995 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 45 ft above sea level, from topographic map.

REMARKS.--Records fair except flows above 50 ft³/s, which are poor. Flows during summer and fall consist mainly of irrigation-return water. The drain overflows its banks at about 9.35 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 138 ft³/s, Aug. 9, 1994, gage height, 9.87 ft, from rating curve extended above 29.6 ft³/s; minimum daily, no flow, Nov. 15, 16, 27, 28, 1993, several days in December 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	1.5	.92	3.5	---	---	---	---	---	---	---	---
2	3.3	.98	1.6	3.5	---	---	---	---	---	---	---	---
3	2.7	3.2	1.6	6.5	---	---	---	---	---	---	---	---
4	4.8	2.3	1.6	19	---	---	---	---	---	---	---	---
5	5.9	2.7	2.7	2.4	---	---	---	---	---	---	---	---
6	3.1	2.2	3.1	.22	---	---	---	---	---	---	---	---
7	2.3	1.1	4.0	.45	---	---	---	---	---	---	---	---
8	1.3	.61	6.1	.10	---	---	---	---	---	---	---	---
9	.57	2.0	4.7	6.4	---	---	---	---	---	---	---	---
10	.44	2.2	2.6	65	---	---	---	---	---	---	---	---
11	.98	2.0	2.0	21	---	---	---	---	---	---	---	---
12	1.5	.27	e3.1	19	---	---	---	---	---	---	---	---
13	1.2	.07	e1.7	5.4	---	---	---	---	---	---	---	---
14	2.0	.67	e.09	2.0	---	---	---	---	---	---	---	---
15	1.6	.04	.00	.93	---	---	---	---	---	---	---	---
16	1.6	.02	.00	.71	---	---	---	---	---	---	---	---
17	1.6	.02	.00	.47	---	---	---	---	---	---	---	---
18	3.5	.01	.01	.56	---	---	---	---	---	---	---	---
19	3.1	.07	.03	.41	---	---	---	---	---	---	---	---
20	3.4	.58	.07	1.4	---	---	---	---	---	---	---	---
21	4.2	.05	.04	.95	---	---	---	---	---	---	---	---
22	1.4	.30	.02	18	---	---	---	---	---	---	---	---
23	2.0	.50	.61	27	---	---	---	---	---	---	---	---
24	2.1	.19	.32	43	---	---	---	---	---	---	---	---
25	1.8	.07	.04	31	---	---	---	---	---	---	---	---
26	.78	.08	.00	10	---	---	---	---	---	---	---	---
27	1.5	.10	.00	11	---	---	---	---	---	---	---	---
28	1.2	.10	.00	9.1	---	---	---	---	---	---	---	---
29	1.1	.19	.49	3.3	---	---	---	---	---	---	---	---
30	1.2	.81	1.8	e1.6	---	---	---	---	---	---	---	---
31	1.1	---	3.9	e.09	---	---	---	---	---	---	---	---
TOTAL	67.37	24.93	43.14	313.99	---	---	---	---	---	---	---	---
MEAN	2.17	.83	1.39	10.1	---	---	---	---	---	---	---	---
MAX	5.9	3.2	6.1	65	---	---	---	---	---	---	---	---
MIN	.44	.01	.00	.09	---	---	---	---	---	---	---	---
AC-FT	134	49	86	623	---	---	---	---	---	---	---	---

CAL YR 1994 TOTAL 4545.50 MEAN 12.5 MAX 40 MIN .00 AC-FT 9020

e Estimated.

11274554 SPANISH GRANT COMBINED DRAIN NEAR PATTERSON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1992 to January 1995 (discontinued).
 CHEMICAL DATA: October 1992 to December 1994 (discontinued).
 SPECIFIC CONDUCTANCE: April 1993 to January 1995 (discontinued).
 WATER TEMPERATURE: April 1993 to January 1995 (discontinued).
 SEDIMENT DATA: October 1992 to January 1995 (discontinued).

PERIOD OF DAILY RECORD.--
 SPECIFIC CONDUCTANCE: April 1993 to January 1995 (discontinued).
 WATER TEMPERATURE: April 1993 to January 1995 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1993.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments. Flow consists of return water from irrigation areas.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3,640 microsiemens, Mar. 1, 2, 1994, minimum recorded, 413 microsiemens, Feb. 8, 1994.
 WATER TEMPERATURE: Maximum recorded, 32.0°C, July 7, 1993 and July 12, 1994; minimum recorded, 1.5°C, Dec. 10, 11, 1994.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,660 microsiemens, Oct. 13, minimum recorded, 432 microsiemens, Jan. 25.
 WATER TEMPERATURE: Maximum recorded, 22.0°C, Oct. 1; minimum recorded, 1.5°C, Dec. 10, 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 27...	1415	1.7	1580	7.4	18.0	765	10.0	106	600	120
NOV 30...	1500	0.58	744	7.9	10.5	767	10.6	95	190	42
DEC 29...	1130	0.53	506	7.7	7.5	764	11.5	96	120	25
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 27...	74	130	32	2	3.8	232	0	190	480	110
NOV 30...	21	80	47	3	4.2	124	0	102	100	100
DEC 29...	14	50	47	2	3.5	85	0	70	50	69
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT 27...	0.40	22	1150	1080	1.56	0.040	6.10	0.080	0.40	0.40
NOV 30...	0.20	6.0	450	423	0.61	0.030	1.80	0.030	0.80	0.40
DEC 29...	<0.10	18	314	280	0.43	0.080	1.60	0.610	1.2	1.0

SAN JOAQUIN RIVER BASIN

11274554 SPANISH GRANT COMBINED DRAIN NEAR PATTERSON, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEDED TOTAL (MG/L AS C)
OCT 27...	0.150	0.130	0.100	680	<3	43	2	7	2.7	0.9
NOV 30...	0.250	0.090	0.080	270	14	4	--	1	4.3	5.8
DEC 29...	0.160	0.150	0.140	150	100	39	2	<1	5.8	0.7

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 27...	1415	1.7	18.0	97	0.45	--
NOV 30...	1500	0.58	10.5	956	1.5	--
DEC 29...	1130	0.53	7.5	26	0.04	--
JAN 10...	0645	66	--	4420	788	100

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

[illegible]

LOCATION.--Lat 37°27'52", Long 121°01'52", in SE 1/4 SE 1/4 sec.25, T.5 S, R.8 E., Stanislaus County, Hydrologic Unit 18040002, on right bank at upstream side of abandoned bridge upstream of bridge crossing on Carpenter Road, and 7.2 mi east of Patterson.
DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--May 1992 to December 1, 1994 (discontinued).

REMARKS.--No estimated daily discharges. Records good. Flows consist mainly of return water from irrigation areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197 ft³/s, Jan. 18, 1993, gage height, 2.99 ft; minimum daily, 11 ft³/s, Dec. 25, 1992, Jan. 22, Mar. 16, 1994.

[illegible]

11274560 TURLOCK IRRIGATION DISTRICT LATERAL NO. 5 NEAR PATTERSON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1992 to December 1994 (discontinued).

CHEMICAL DATA: April 1992 to November 1994 (discontinued).

SPECIFIC CONDUCTANCE: April 1992 to December 1994 (discontinued).

WATER TEMPERATURE: April 1992 to December 1994 (discontinued).

SEDIMENT DATA: April 1992 to November 1994 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1992 to December 1994 (discontinued).

WATER TEMPERATURE: May 1992 to December 1994 (discontinued).

INSTRUMENTATION.--Water-quality monitor since May 1992.

REMARKS.--Flows consist mainly of return water from irrigation areas.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3,060 microsiemens, Oct. 8, 1994; minimum recorded, 204 microsiemens, May 29, 1994.

WATER TEMPERATURE: Maximum recorded, 31.5°C, July 2, 1994; minimum recorded, 7.0°C, Jan. 3, 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

		DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)
OCT 27...	1140	40	1090	7.8	17.0	768	7.5	77	250	69
NOV 30...	1140	14	1070	7.4	12.0	769	6.1	56	180	49
DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CaCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	
OCT 27...	18	120	50	3	8.4	305	0	250	38	140
NOV 30...	13	140	61	5	17	337	0	276	36	140
DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT 27...	0.20	51	646	657	0.88	0.560	12.0	3.50	4.8	4.4
NOV 30...	0.20	48	622	656	0.85	0.480	4.30	11.0	13	12
DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT 27...	1.70	1.70	1.50	130	13	61	3	<1	5.2	--
NOV 30...	4.80	4.40	4.50	160	33	110	--	<1	7.4	1.0

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 27...	1140	40	17.0	9	0.97
NOV 30...	1140	14	12.0	7	0.26

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	647	412	1050	948	1150	1060	---	---	---	---	---	---
2	751	506	1120	988	---	---	---	---	---	---	---	---
3	510	379	1160	854	---	---	---	---	---	---	---	---
4	763	388	1040	904	---	---	---	---	---	---	---	---
5	828	489	1150	1030	---	---	---	---	---	---	---	---
6	704	401	1120	1050	---	---	---	---	---	---	---	---
7	723	348	1300	1050	---	---	---	---	---	---	---	---
8	3060	527	1210	1090	---	---	---	---	---	---	---	---
9	920	409	1360	1160	---	---	---	---	---	---	---	---
10	1390	518	1360	770	---	---	---	---	---	---	---	---
11	1770	565	1190	742	---	---	---	---	---	---	---	---
12	829	567	1100	1000	---	---	---	---	---	---	---	---
13	838	414	1110	1050	---	---	---	---	---	---	---	---
14	1150	480	1160	1070	---	---	---	---	---	---	---	---
15	1200	291	1080	951	---	---	---	---	---	---	---	---
16	747	215	1010	878	---	---	---	---	---	---	---	---
17	676	352	1050	940	---	---	---	---	---	---	---	---
18	758	483	1100	992	---	---	---	---	---	---	---	---
19	1080	461	1170	924	---	---	---	---	---	---	---	---
20	1080	395	1230	1080	---	---	---	---	---	---	---	---
21	946	412	1220	1030	---	---	---	---	---	---	---	---
22	715	436	1090	1030	---	---	---	---	---	---	---	---
23	622	370	1090	973	---	---	---	---	---	---	---	---
24	953	487	1120	916	---	---	---	---	---	---	---	---
25	1050	921	1130	950	---	---	---	---	---	---	---	---
26	1100	956	1020	888	---	---	---	---	---	---	---	---
27	1120	1020	1060	929	---	---	---	---	---	---	---	---
28	1100	1010	1130	965	---	---	---	---	---	---	---	---
29	1070	1000	1020	977	---	---	---	---	---	---	---	---
30	1040	903	1110	982	---	---	---	---	---	---	---	---
31	1070	924	---	---	---	---	---	---	---	---	---	---
MONTH	3060	215	1360	742	---	---	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.0	18.5	18.5	14.5	13.0	11.0	---	---	---	---	---	---
2	22.5	18.0	17.0	13.5	---	---	---	---	---	---	---	---
3	21.0	18.5	14.0	11.5	---	---	---	---	---	---	---	---
4	19.0	17.0	15.0	11.5	---	---	---	---	---	---	---	---
5	20.5	17.0	16.0	14.5	---	---	---	---	---	---	---	---
6	20.0	17.5	17.5	16.0	---	---	---	---	---	---	---	---
7	21.0	17.0	16.5	15.0	---	---	---	---	---	---	---	---
8	21.5	17.5	18.0	13.0	---	---	---	---	---	---	---	---
9	24.0	18.0	16.0	13.0	---	---	---	---	---	---	---	---
10	22.0	18.0	16.0	13.0	---	---	---	---	---	---	---	---
11	21.5	17.0	16.0	11.5	---	---	---	---	---	---	---	---
12	20.0	17.0	16.5	13.5	---	---	---	---	---	---	---	---
13	18.5	16.0	15.0	12.0	---	---	---	---	---	---	---	---
14	19.0	15.5	15.5	11.5	---	---	---	---	---	---	---	---
15	17.5	15.0	14.0	12.5	---	---	---	---	---	---	---	---
16	17.0	13.5	15.0	12.5	---	---	---	---	---	---	---	---
17	18.0	14.0	15.0	12.5	---	---	---	---	---	---	---	---
18	19.0	14.5	13.0	9.5	---	---	---	---	---	---	---	---
19	19.0	15.0	13.0	9.0	---	---	---	---	---	---	---	---
20	18.5	14.5	13.0	10.0	---	---	---	---	---	---	---	---
21	18.5	14.5	14.5	12.5	---	---	---	---	---	---	---	---
22	18.0	15.0	15.0	11.0	---	---	---	---	---	---	---	---
23	17.5	15.5	15.5	11.0	---	---	---	---	---	---	---	---
24	20.0	16.0	15.0	12.5	---	---	---	---	---	---	---	---
25	20.0	16.0	15.5	13.0	---	---	---	---	---	---	---	---
26	20.0	16.0	14.0	11.5	---	---	---	---	---	---	---	---
27	20.5	17.0	13.0	11.0	---	---	---	---	---	---	---	---
28	21.0	16.5	14.0	12.0	---	---	---	---	---	---	---	---
29	19.0	15.5	14.5	11.0	---	---	---	---	---	---	---	---
30	17.0	14.0	14.0	11.5	---	---	---	---	---	---	---	---
31	18.0	13.5	---	---	---	---	---	---	---	---	---	---
MONTH	24.0	13.5	18.5	9.0	---	---	---	---	---	---	---	---

11274570 SAN JOAQUIN RIVER AT PATTERSON BRIDGE, NEAR PATTERSON, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°29'54", long 121°04'54", in SW 1/4 SW 1/4 sec.15, T.5 S., R.8 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 0.2 mi below bridge on Palm Avenue, 2.3 mi northeast of Patterson.

DRAINAGE AREA.--9,760 mi², approximately.

PERIOD OF RECORD.--October 1988 to September 1989, January 1990 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.
 SPECIFIC CONDUCTANCE: October 1988 to September 1989, January 1990 to current year.
 WATER TEMPERATURE: October 1988 to September 1989, January 1990 to current year.
 CHEMICAL DATA: Water years 1993 and 1994.
 SEDIMENT DATA: Water years 1993 and 1994.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to September 1989, January 1990 to current year.
 WATER TEMPERATURE: October 1988 to September 1989, January 1990 to current year.

INSTRUMENTATION.--Water-quality monitor October 1985 to September 1989 and since January 1990.

REMARKS.--Operation of pumping station and canal outlet located just downstream from the gage may affect specific conductance and water temperature during low-flow periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,660 microsiemens, Apr. 15, 1991; minimum recorded, 140 microsiemens, several days in May 1995.
 WATER TEMPERATURE: Maximum recorded, 36.0°C, July 18, 1992; minimum recorded, 2.0°C, Dec. 23, 1990.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,090 microsiemens, Feb. 23; minimum recorded, 140 microsiemens, several days in May.
 WATER TEMPERATURE: Maximum recorded, 27.5°C, Aug. 3; minimum recorded, 6.5°C, Dec. 11.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1350	1220	1140	1090	1410	1370	1490	1470	850	740	1940	1890
2	1260	1100	1090	1010	1400	1360	1480	1450	970	850	1900	1880
3	1200	1050	1070	1010	1400	1180	1460	1410	1090	970	1890	1860
4	1330	1150	1090	1040	1380	1200	1430	1210	1180	1090	1860	1800
5	1390	1110	1140	1090	1360	1320	1290	1180	1260	1180	1800	1640
6	1150	1000	1230	1100	1380	1290	1330	1290	1360	1260	1660	1600
7	1040	940	1310	1110	1320	1280	1300	1120	1440	1360	1690	1650
8	1180	1020	1300	1250	1340	1290	1160	780	1530	1440	1690	1640
9	1260	1160	1320	1290	1400	1320	910	800	1620	1530	1700	1660
10	1260	1080	1330	1290	1430	1350	920	670	1720	1620	1680	720
11	1130	1050	1350	1300	1480	1390	850	670	1820	1720	720	640
12	1130	970	1360	1310	1410	1350	850	670	1880	1820	640	370
13	1010	880	1350	1270	1370	1350	690	480	1850	1810	430	390
14	1060	950	1320	1290	1420	1350	620	490	1890	1810	450	420
15	950	390	1380	1320	1470	1400	680	620	1970	1890	420	300
16	390	320	1390	1290	1520	1420	680	610	1950	1910	310	290
17	420	320	1330	1310	1510	1450	610	550	1910	1850	360	310
18	500	420	1350	1300	1540	1450	630	550	1920	1840	400	360
19	560	430	1350	1310	1600	1490	740	630	2020	1920	430	400
20	660	560	1380	1310	1570	1490	880	740	2060	2020	440	420
21	730	650	1420	1330	1560	1490	990	880	2040	2000	430	420
22	780	700	1440	1350	1520	1460	1070	990	2070	2000	450	430
23	820	690	1480	1430	1520	1480	1130	1060	2090	2040	480	450
24	870	780	1460	1400	1540	1480	1100	850	2070	2030	470	450
25	1050	860	1470	1400	1520	1480	880	730	2040	2020	460	440
26	1120	1050	1440	1400	1500	1450	880	530	2030	1820	440	360
27	1130	1060	1470	1410	1510	1400	530	500	1950	1860	360	330
28	1100	1030	1460	1360	1540	1480	550	500	1960	1930	340	330
29	1200	1060	1450	1370	1530	1470	550	510	---	---	340	330
30	1200	1130	1430	1380	1520	1470	620	540	---	---	350	340
31	1140	1100	---	---	1500	1430	740	620	---	---	370	350
MONTH	1390	320	1480	1010	1600	1180	1490	480	2090	740	1940	290

SAN JOAQUIN RIVER BASIN

11274570 SAN JOAQUIN RIVER AT PATTERSON BRIDGE, NEAR PATTERSON, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	350	330	230	220	180	170	600	450	850	750	860	800
2	340	330	220	210	170	160	470	260	750	590	920	820
3	330	320	210	180	170	160	360	260	590	510	960	850
4	330	300	200	170	160	150	270	210	510	430	860	790
5	320	300	190	180	180	150	210	210	600	440	830	780
6	310	290	190	170	210	180	220	210	730	600	820	740
7	290	270	180	170	220	200	240	220	810	730	780	750
8	280	270	180	170	200	200	230	220	900	810	820	770
9	280	260	180	170	210	200	220	200	930	840	870	820
10	260	250	180	170	240	210	220	200	840	800	830	750
11	270	250	180	170	280	240	210	200	850	800	750	660
12	260	260	180	160	280	270	200	200	960	840	760	690
13	260	260	170	160	280	270	210	200	960	850	850	740
14	260	250	170	160	280	280	200	200	880	830	780	750
15	270	250	170	160	290	280	200	200	860	790	760	670
16	280	260	170	160	290	270	210	200	790	730	670	440
17	290	270	180	170	280	270	240	210	770	720	450	420
18	280	270	180	170	290	260	280	240	820	770	450	360
19	280	260	170	160	290	270	330	280	840	810	430	370
20	260	250	160	150	290	280	350	330	820	810	430	400
21	260	250	160	150	290	280	350	310	850	800	410	360
22	260	250	160	140	290	280	310	290	810	780	360	340
23	270	250	160	150	310	280	340	290	790	720	340	300
24	260	230	160	140	410	310	400	340	790	730	330	300
25	250	220	160	140	530	410	480	400	810	770	380	290
26	230	220	150	140	620	530	570	480	860	780	480	380
27	220	210	150	140	680	620	630	570	880	860	540	480
28	220	210	160	150	670	560	730	630	880	790	570	540
29	230	210	150	140	590	560	830	730	830	790	580	510
30	230	220	170	140	600	570	860	820	850	830	530	510
31	---	---	180	160	---	---	860	830	870	830	---	---
MONTH	350	210	230	140	680	150	860	200	960	430	960	290

11274570 SAN JOAQUIN RIVER AT PATTERSON BRIDGE, NEAR PATTERSON, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	22.5	20.0	16.0	14.0	9.0	8.5	9.0	7.5	13.5	13.0	16.0	14.5
2	23.0	20.5	15.0	13.0	9.5	8.5	9.0	8.5	14.0	13.5	16.5	15.5
3	22.0	20.5	13.0	11.5	10.0	9.5	10.0	8.5	14.0	13.5	17.0	15.5
4	21.0	19.0	12.0	10.5	10.5	10.0	10.0	9.5	14.0	13.5	15.5	14.5
5	20.0	18.0	13.0	11.5	11.0	10.0	10.5	9.5	13.5	13.0	15.0	14.0
6	20.5	18.5	14.5	13.0	11.0	10.0	10.0	10.0	13.0	12.5	14.5	13.0
7	21.5	18.5	15.0	14.0	10.0	9.0	10.5	9.5	12.5	12.0	15.0	13.0
8	22.0	19.0	14.5	13.0	9.0	7.5	10.5	10.0	12.5	12.0	15.0	14.5
9	22.0	19.5	13.5	12.5	8.5	7.0	12.0	10.5	13.0	11.5	14.5	13.5
10	22.0	20.0	13.5	12.0	7.5	7.0	13.5	12.0	13.0	12.0	14.0	13.0
11	21.0	19.0	13.0	11.0	8.0	6.5	13.0	12.5	13.0	12.5	13.5	13.0
12	20.0	18.5	13.0	11.5	9.0	8.0	12.5	12.0	13.5	12.5	14.0	13.5
13	19.0	17.5	12.0	10.5	9.5	8.5	13.0	12.5	13.0	12.5	14.5	14.0
14	18.5	16.5	12.0	10.0	9.0	8.5	13.5	13.0	12.5	11.5	16.0	14.5
15	18.0	15.5	11.0	10.0	9.5	8.5	13.5	13.0	12.5	10.5	16.0	15.0
16	15.5	14.0	11.5	10.0	9.0	8.5	13.0	12.0	12.0	10.5	15.5	14.5
17	16.0	14.5	11.5	10.5	9.0	8.5	12.0	10.5	13.0	11.0	15.5	15.0
18	16.0	14.5	10.5	8.0	10.0	9.0	10.5	10.0	13.5	11.5	15.5	15.0
19	16.5	15.0	9.0	7.5	10.5	9.5	10.0	9.5	14.5	12.5	15.5	14.5
20	17.0	15.0	9.5	7.5	10.0	9.5	9.5	9.5	15.0	13.0	15.5	14.5
21	17.0	15.0	10.0	8.5	9.5	9.0	9.5	9.0	15.5	14.0	14.5	14.0
22	17.5	15.5	10.5	8.5	9.0	8.5	10.0	9.5	14.5	14.0	14.0	12.5
23	17.5	15.5	10.5	8.5	9.0	8.5	10.5	10.0	15.0	14.0	12.5	11.5
24	18.0	16.5	10.5	9.0	9.0	8.5	11.0	10.5	14.5	14.0	12.5	11.5
25	18.5	16.5	11.0	10.0	9.0	7.5	11.5	11.0	14.5	14.0	13.0	11.5
26	18.0	16.0	11.0	9.5	9.5	8.0	11.5	11.0	15.0	14.0	13.0	11.5
27	19.0	16.5	9.5	9.0	9.0	8.0	11.5	11.0	15.0	14.0	14.0	12.5
28	19.0	17.0	10.0	9.0	10.5	8.5	12.0	11.0	15.5	14.5	14.5	13.0
29	18.0	16.0	10.0	8.5	9.5	8.5	12.0	11.5	---	---	15.5	13.5
30	16.0	14.5	9.5	8.5	8.5	7.5	12.5	12.0	---	---	16.0	14.5
31	16.0	14.0	---	---	8.0	7.0	13.0	12.0	---	---	16.5	15.0
MONTH	23.0	14.0	16.0	7.5	11.0	6.5	13.5	7.5	15.5	10.5	17.0	11.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	17.0	16.0	18.5	17.5	23.5	22.5	22.5	21.5	26.0	24.5	24.0	22.0
2	17.0	15.5	19.5	18.0	22.5	21.5	22.0	20.5	27.0	25.5	23.5	22.0
3	17.0	15.5	20.0	18.5	22.0	21.0	22.5	21.0	27.5	26.0	23.5	22.0
4	18.0	16.0	20.5	18.5	22.0	20.5	23.0	22.0	27.0	26.0	23.0	21.5
5	18.5	17.0	19.5	17.5	21.5	20.5	24.0	22.5	27.0	25.5	23.0	21.5
6	18.5	17.5	17.5	16.5	20.5	18.5	24.0	23.0	27.0	25.5	23.5	21.5
7	18.0	17.0	18.0	16.0	18.5	17.5	23.5	22.5	26.5	25.5	24.5	22.5
8	17.0	16.0	18.5	16.5	19.0	17.5	23.0	22.0	25.5	24.0	24.5	23.0
9	16.0	14.5	18.5	17.5	20.0	18.5	22.5	21.5	25.5	23.5	24.0	23.0
10	14.5	13.5	18.5	17.0	20.5	19.0	22.0	21.0	25.5	24.0	23.5	22.5
11	16.0	14.0	19.0	17.5	20.5	19.5	21.5	20.5	24.5	23.5	23.5	22.0
12	17.0	15.5	18.5	17.5	20.5	19.5	21.0	20.0	24.5	23.0	23.0	22.0
13	17.0	16.5	17.5	17.0	20.5	19.5	21.0	20.0	25.0	23.0	23.0	22.0
14	16.5	15.5	17.5	16.0	19.5	18.5	22.0	20.5	26.0	24.0	23.0	21.5
15	15.5	14.5	18.5	17.0	18.5	17.0	23.5	21.5	26.5	24.5	22.5	21.5
16	14.5	13.5	19.5	17.5	17.0	16.5	25.0	23.0	26.0	24.5	22.5	21.5
17	14.5	14.0	20.5	18.5	18.0	16.5	24.5	23.5	24.5	23.5	22.0	21.0
18	14.5	14.0	21.5	19.5	18.5	17.5	24.5	23.0	23.5	22.5	22.5	21.0
19	14.5	13.5	22.5	20.0	18.5	17.5	25.0	24.0	24.0	22.5	23.0	21.5
20	15.0	14.0	22.5	21.0	19.0	18.0	25.5	24.5	25.0	23.0	23.0	22.0
21	15.0	14.0	22.0	20.5	19.5	18.0	25.0	24.0	25.5	24.0	23.0	22.0
22	16.0	14.0	21.0	19.5	20.0	19.0	24.5	23.5	26.0	24.5	22.5	21.5
23	17.5	15.5	21.5	19.5	21.5	20.0	24.0	23.5	26.0	24.5	21.5	20.5
24	19.0	17.0	21.5	20.0	22.5	21.0	24.5	23.5	25.5	24.5	21.0	20.0
25	20.0	18.5	21.0	19.5	24.0	21.5	24.5	23.5	24.5	23.5	20.5	19.5
26	19.5	18.5	21.5	20.0	25.0	23.5	24.5	23.0	24.0	22.5	21.0	19.5
27	19.5	18.5	22.0	20.0	25.0	24.0	25.0	23.5	24.0	22.0	21.5	20.0
28	18.5	17.5	22.5	20.5	24.5	23.0	26.0	24.5	23.0	22.0	21.5	20.0
29	18.0	17.5	23.0	21.0	23.0	21.5	26.0	24.5	23.5	21.5	20.5	19.5
30	18.0	17.0	23.5	22.0	23.0	21.5	25.5	24.0	23.5	22.0	20.5	19.0
31	---	---	24.0	22.5	---	---	25.5	24.0	24.0	22.0	---	---
MONTH	20.0	13.5	24.0	16.0	25.0	16.5	26.0	20.0	27.5	21.5	24.5	19.0

SAN JOAQUIN RIVER BASIN

11274630 DEL PUERTO CREEK NEAR PATTERSON, CA

LOCATION.--Lat 37°29'12", long 121°12'29", in SE 1/4 NW 1/4 sec.21, T.5 S., R.7 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 1.0 mi upstream from California Aqueduct crossing and 4.4 mi west of Patterson.

DRAINAGE AREA.--72.6 mi².

PERIOD OF RECORD.--October 1958 to May 1965 (maximums only), June 1965 to current year.

REVISED RECORDS.--WSP 1930: 1959-60(M), drainage area.

GAGE.--Water-stage recorder and concrete control. 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.--No estimated daily discharges. Records good except those below 0.1 ft³/s, which are poor. Some stock ponds and small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, Mar. 10, 1995, gage height, 11.62, from rating curve extended above 690 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0330	819	5.63	Mar. 10	1345	*3,400	*11.62
Jan. 24	1215	885	5.84	Mar. 23	0145	878	5.82

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	35	7.8	47	18	6.2	2.1	.36	.01
2	.00	.00	.00	.00	30	8.5	43	17	5.7	2.2	.30	.01
3	.00	.00	.00	.00	28	8.6	40	15	5.6	2.2	.25	.02
4	.00	.00	.00	1.2	25	8.1	38	14	5.2	2.2	.21	.02
5	.00	.00	.00	10	23	8.6	36	13	4.7	2.2	.21	.02
6	.00	.00	.00	3.1	22	7.7	35	13	3.9	2.1	.21	.01
7	.00	.00	.00	4.2	20	6.7	34	13	3.7	1.7	.20	.01
8	.00	.00	.00	6.5	19	6.4	32	13	3.7	1.6	.12	.02
9	.00	.00	.00	48	18	14	30	12	3.6	1.6	.10	.02
10	.00	.00	.00	565	16	1230	29	12	3.4	1.5	.12	.02
11	.00	.00	.00	136	15	510	28	12	3.4	1.5	.14	.02
12	.00	.00	.00	63	15	210	26	12	3.1	1.6	.16	.03
13	.00	.00	.00	48	14	126	26	12	2.7	1.4	.15	.03
14	.00	.00	.00	37	16	93	25	13	2.7	1.3	.11	.03
15	.00	.00	.00	55	13	73	24	13	3.5	1.1	.12	.03
16	.00	.00	.00	42	11	63	24	14	3.6	.95	.08	.03
17	.00	.00	.00	31	11	56	23	11	3.3	.83	.10	.03
18	.00	.00	.00	25	10	50	22	10	3.2	.83	.11	.02
19	.00	.00	.00	21	9.8	46	22	9.2	3.1	.78	.11	.02
20	.00	.00	.00	19	8.7	47	21	8.6	2.7	.56	.11	.02
21	.00	.00	.00	22	8.5	52	20	8.2	2.4	.56	.10	.02
22	.00	.00	.00	22	8.2	288	18	8.2	2.3	.56	.07	.02
23	.00	.00	.00	93	8.2	466	18	7.6	2.2	.71	.08	.02
24	.00	.00	.00	427	7.8	175	17	7.2	2.2	.68	.06	.01
25	.00	.00	.00	186	7.8	113	17	7.0	2.1	.64	.07	.01
26	.00	.00	.00	87	7.5	88	17	6.9	2.0	.56	.06	.02
27	.00	.00	.00	79	7.4	75	17	6.6	2.0	.56	.04	.03
28	.00	.00	.00	80	7.3	66	16	6.6	2.0	.56	.02	.02
29	.00	.00	.00	58	---	59	16	6.3	1.9	.56	.01	.02
30	.00	.00	.00	46	---	54	18	6.3	2.1	.58	.03	.02
31	.00	---	.00	41	---	50	---	6.3	---	.49	.01	---
TOTAL	0.00	0.00	0.00	2256.00	422.2	4066.4	779	332.0	98.2	36.71	3.82	0.61
MEAN	.000	.000	.000	72.8	15.1	131	26.0	10.7	3.27	1.18	.12	.020
MAX	.00	.00	.00	565	35	1230	47	18	6.2	2.2	.36	.03
MIN	.00	.00	.00	.00	7.3	6.4	16	6.3	1.9	.49	.01	.01
AC-FT	.00	.00	.00	4470	837	8070	1550	659	195	73	7.6	1.2

SAN JOAQUIN RIVER BASIN

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11274630 DEL PUERTO CREEK NEAR PATTERSON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.096	.96	3.02	16.6	25.5	25.4	9.11	3.79	1.82	.29	.072	.19
MAX	2.15	9.38	31.8	99.6	122	218	54.1	31.5	31.3	5.56	2.06	4.48
(WY)	1984	1983	1984	1983	1986	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1965 - 1995			
ANNUAL TOTAL	319.29				7994.94							
ANNUAL MEAN	.87				21.9				7.14			
HIGHEST ANNUAL MEAN									47.7			
LOWEST ANNUAL MEAN									.030			
HIGHEST DAILY MEAN	29 Feb 20				1230 Mar 10				1230 Mar 10 1995			
LOWEST DAILY MEAN	.00 Jun 11				.00 Oct 1				.00 Jul 1 1965			
ANNUAL SEVEN-DAY MINIMUM	.00 Jun 11				.00 Oct 1				.00 Jul 1 1965			
INSTANTANEOUS PEAK FLOW					3400 Mar 10				3400 Mar 10 1995			
INSTANTANEOUS PEAK STAGE					11.62 Mar 10				11.62 Mar 10 1995			
ANNUAL RUNOFF (AC-FT)	633				15860				5180			
10 PERCENT EXCEEDS	2.2				46				12			
50 PERCENT EXCEEDS	.00				1.9				.06			
90 PERCENT EXCEEDS	.00				.00				.00			

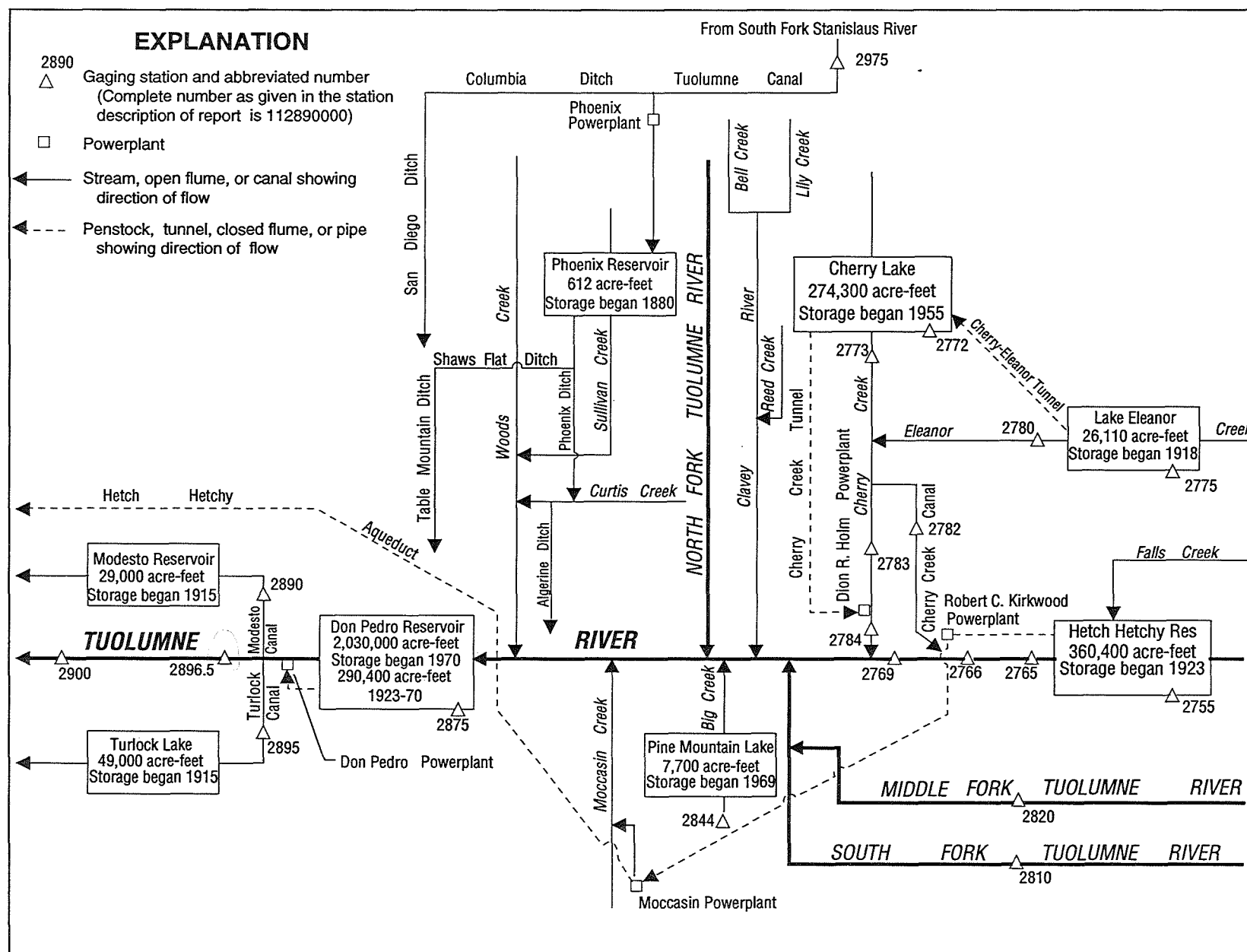


Figure 29. Diversions and storage in Tuolumne River basin.

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 mi².

PERIOD OF RECORD.--May 1923 to current year. Prior to October 1930 monthend contents published in WSP 1315-A. REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 1.84 ft 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. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 0800 hours.

COOPERATION.--Records for October 1, 1994 to March 30, 1995 were provided by city and county of San Francisco.

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, 363,700 acre-ft, July 9, gage height, 3,807.7 ft; minimum, 123,600 acre-ft, May 19, gage height, 3,662.9 ft.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264700	232800	219900	e196000	176200	140000	146000	168700	140100	340300	360100	356100
2	263400	231700	219600	195300	175200	138900	145500	174900	150500	343200	359300	356000
3	262400	230500	219100	194300	173800	138100	144700	174500	155200	345900	360400	355800
4	261300	229500	218600	193400	172900	137700	144300	172800	160800	348200	361800	355800
5	260800	228500	218300	193000	172000	136900	144500	170200	169400	349800	362900	355900
6	260100	230300	217600	192400	170900	136100	145100	167000	174500	353700	363100	356000
7	259400	233000	216800	192300	169500	135400	145600	163000	174200	360000	362200	356000
8	258500	233500	216500	191800	168200	133900	146500	158600	171000	361900	362100	355700
9	257700	233200	215700	191800	166900	132700	146400	154900	166400	363700	361600	355300
10	256800	233300	214500	194200	165200	138800	145800	151600	164000	362500	361100	355000
11	256100	232800	213600	197500	163600	147900	145300	149500	166500	357400	360800	354700
12	255200	233300	212700	197500	162000	149300	145200	147500	173200	351000	360300	354200
13	254400	231800	211800	197300	160200	150100	145600	144800	181400	342800	359500	353600
14	253300	231000	210800	197500	158800	150400	146500	140900	192600	334000	358500	352800
15	252300	230500	210000	199200	157300	150700	146500	137300	202300	326200	357800	351900
16	251200	229700	209200	198900	155600	151000	146100	132700	207800	321800	357100	351200
17	250200	228800	208400	198100	153900	150800	145700	128000	209500	325400	357400	350600
18	249200	228500	207600	196700	151900	150400	144700	124500	210300	333800	357700	349800
19	247800	227800	206800	194900	150100	151500	143800	123600	213100	342100	357900	348900
20	246800	227200	206000	193500	148900	151900	142300	124900	217300	349100	358100	348000
21	245700	226500	205100	191800	146100	153500	141600	127600	223400	353400	358300	347200
22	244700	225800	204400	189900	144700	153900	140600	130800	231200	357100	358300	346500
23	243700	225200	203300	188500	143600	153800	139500	131300	241600	359600	359200	345800
24	242300	e224500	202400	187200	143500	153300	138700	130600	255400	360200	359800	345200
25	240800	223800	e201700	185900	143600	152400	139300	128200	270700	360300	360000	344800
26	239900	223400	e200900	184700	142800	151400	141100	125700	290900	360200	359800	344200
27	238900	222700	200200	183200	142100	150700	143100	124900	307100	359900	359200	343300
28	237900	221900	199400	181700	141200	149700	146700	126000	318700	360300	358400	342500
29	236500	221100	198700	180200	---	148400	150400	128500	328900	361500	357800	341900
30	235200	220600	197900	178800	---	147600	159700	132400	336000	363300	357200	341200
31	234200	---	196800	177300	---	146700	---	137000	---	361700	356600	---
MAX	264700	233500	219900	199200	176200	153900	159700	174900	336000	363700	363100	356100
MIN	234200	220600	196800	177300	141200	132700	138700	123600	140100	321800	356600	341200
a	3737.2	3729.0	3714.2	3701.5	3676.3	3680.33	3689.65	3673.20	3793.52	3806.70	3804.07	3796.18
b	-31300	-13600	-23800	-19500	-36100	+5500	+13000	-22700	+199000	+25700	-5100	-15400

CAL YR 1994 b -61600
WTR YR 1995 b +75700

e Estimated.

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°56'15", long 119°47'50", in SW 1/4 SE 1/4 sec.17, T.1 N., R.20 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, on left bank 0.9 mi downstream from O'Shaughnessy Dam at Hetch Hetchy and 2.5 mi downstream from Falls Creek.

DRAINAGE AREA.--457 mi².

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. 30, 1968, water-stage recorder, at same site and datum. Oct. 1, 1968, to May 4, 1970, nonrecording gage at site 0.5 mi upstream at different datum.

REMARKS.--Records good. Flow regulated by Hetch Hetchy Reservoir (station 11275500) 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, 13,600 ft³/s, July 9, 1995, gage height, 14.37 ft; no flow at times in 1968-70.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,600 ft³/s, July 9, gage height, 14.37 ft; minimum daily, 34 ft³/s, Oct. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	39	38	36	128	146	158	831	3610	5940	2370	96
2	39	40	38	e45	128	145	164	2100	3740	5980	1380	91
3	38	39	38	e63	128	154	164	2540	3830	6050	751	91
4	39	37	37	e50	126	163	164	2680	3930	6080	921	91
5	39	37	38	e60	124	157	164	2680	4060	6110	1280	91
6	38	37	38	e55	130	150	164	2580	4110	6190	1470	90
7	38	37	38	e67	139	148	166	2500	4100	7380	1240	89
8	38	37	38	e56	139	147	167	2480	4050	8740	1030	89
9	38	37	38	e65	139	173	167	2540	3710	11300	773	89
10	38	38	38	e88	139	237	166	2530	3370	11400	598	90
11	38	38	38	e123	139	206	165	2600	3380	9850	480	98
12	38	37	38	123	139	187	165	2700	3470	9100	391	98
13	38	37	38	135	138	177	172	2630	2610	8950	384	92
14	38	37	38	142	138	175	170	2600	1650	8720	330	90
15	37	37	37	147	138	173	167	2640	1690	7970	295	75
16	36	37	37	132	138	161	166	2670	1700	5040	240	69
17	36	37	37	126	137	151	165	2660	1700	1800	202	69
18	36	37	37	127	138	152	165	2590	1710	405	201	68
19	36	37	37	133	138	154	162	2570	1720	332	199	67
20	36	37	36	133	138	162	162	2610	1190	922	192	71
21	36	37	36	133	138	172	162	2670	297	1910	190	73
22	36	37	36	133	138	164	160	3040	222	1940	153	72
23	36	37	36	132	138	169	160	e3340	228	2210	129	71
24	36	37	37	135	165	161	164	e3290	236	2520	127	73
25	37	39	38	144	142	158	164	e3240	245	2520	125	77
26	35	39	38	138	141	162	164	3190	519	2520	123	77
27	38	38	37	139	140	153	168	3170	2150	2520	123	73
28	38	38	36	138	139	149	174	3210	3850	2530	121	69
29	35	38	36	134	---	148	198	3270	4850	2920	120	69
30	34	38	36	132	---	148	213	3360	5850	3750	120	70
31	38	---	36	128	---	147	---	3460	---	3100	119	---
TOTAL	1160	1127	1154	3392	3842	5049	5030	84971	77777	156699	16177	2428
MEAN	37.4	37.6	37.2	109	137	163	168	2741	2593	5055	522	80.9
MAX	47	40	38	147	165	237	213	3460	5850	11400	2370	98
MIN	34	37	36	36	124	145	158	831	222	332	119	67
AC-FT	2300	2240	2290	6730	7620	10010	9980	168500	154300	310800	32090	4820

e Estimated.

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	48.8	63.1	62.8	62.6	66.6	71.9	240	1031	1742	887	170	72.8
MAX	164	561	555	319	305	489	1371	3327	5885	5149	1263	125
(WY)	1987	1987	1983	1974	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1968 - 1995

ANNUAL TOTAL	18312	358806	
ANNUAL MEAN	50.2	983	
HIGHEST ANNUAL MEAN			377
LOWEST ANNUAL MEAN			1433
HIGHEST DAILY MEAN	113	Jul 14	49.5
LOWEST DAILY MEAN	32	Mar 8	11400
ANNUAL SEVEN-DAY MINIMUM	34	Mar 21	Jul 10 1995
INSTANTANEOUS PEAK FLOW			.00
INSTANTANEOUS PEAK STAGE			Oct 30 1968
ANNUAL RUNOFF (AC-FT)	36320	711700	.00
10 PERCENT EXCEEDS	76	3280	Feb 20 1970
50 PERCENT EXCEEDS	40	139	Jul 9 1995
90 PERCENT EXCEEDS	34	37	Jul 9 1995

SAN JOAQUIN RIVER BASIN

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1987 to current year.

INSTRUMENTATION.--Temperature recorder since August 1987.

REMARKS.--Temperature recorder installed Aug. 13, 1987, located 0.6 mi upstream from gaging station on left bank at road bridge. Interruption in record was due to malfunction of the recording instrument. Water temperature can be affected by releases from O'Shaughnessy Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 16.5°C, July 9, 1994; minimum recorded, 4.0°C, Mar. 25, 1991.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 16.0°C, Aug. 5; minimum recorded, 5.5°C, minimum recorded Jan. 26, 27, several days in February, and Mar. 23.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	10.0	11.0	10.0	10.5	8.5	9.0	6.0	6.5	6.0	6.5	6.5
2	13.0	10.0	11.0	9.5	10.0	9.0	8.0	6.0	6.5	6.0	6.5	6.5
3	12.5	10.0	11.0	9.0	9.5	9.0	7.5	7.0	7.0	6.0	6.5	6.0
4	10.5	10.0	10.5	8.5	9.5	9.0	7.0	7.0	6.5	6.0	6.5	6.0
5	11.0	9.5	10.5	10.0	9.5	9.0	7.0	6.5	6.5	6.0	7.0	6.5
6	12.0	9.5	11.0	10.5	9.0	8.5	7.0	6.5	6.5	6.0	7.0	6.5
7	12.5	9.5	11.0	10.5	10.0	7.5	7.5	6.5	6.5	5.5	7.0	6.0
8	12.5	9.5	12.0	10.0	9.5	7.5	7.5	7.0	6.0	6.0	6.5	6.5
9	12.5	9.5	10.5	9.0	10.0	7.5	7.5	7.5	6.5	5.5	7.0	6.5
10	12.5	9.5	11.0	9.0	10.0	7.5	7.5	7.0	6.5	5.5	7.0	6.5
11	12.5	9.5	11.0	9.0	9.0	7.5	7.0	7.0	6.5	5.5	6.5	6.0
12	12.0	9.5	10.0	9.5	8.5	8.0	7.0	7.0	6.0	6.0	6.5	6.5
13	12.0	9.0	11.0	9.0	8.5	7.5	7.0	7.0	6.0	5.5	7.0	6.5
14	11.0	9.5	11.5	9.0	8.0	7.0	7.0	6.5	6.0	5.5	7.0	6.5
15	11.0	9.0	10.0	9.0	9.0	7.5	6.5	6.0	6.0	5.5	7.0	6.5
16	11.5	9.0	10.0	9.0	10.0	7.5	6.5	6.0	6.5	6.0	7.5	6.5
17	11.5	9.0	9.5	8.0	10.0	7.5	6.5	6.0	6.5	6.0	7.0	6.0
18	12.0	9.0	10.0	8.5	10.0	7.5	6.5	6.0	6.5	6.0	7.0	6.5
19	12.0	9.5	10.5	8.0	9.5	7.0	6.5	6.0	6.5	6.0	7.5	6.5
20	12.0	9.5	10.5	9.0	10.0	7.0	6.5	6.5	7.0	6.0	7.0	6.0
21	12.0	9.5	11.0	9.0	10.0	7.0	6.5	6.0	7.0	6.0	6.5	6.0
22	12.5	9.5	11.0	8.5	10.0	7.0	6.5	6.0	6.5	6.0	6.5	6.0
23	12.0	10.0	11.0	8.5	10.0	7.0	6.5	6.0	7.0	6.0	6.5	5.5
24	12.0	10.0	10.0	9.0	7.5	6.5	6.5	6.0	7.0	6.0	6.5	6.0
25	12.5	10.0	9.5	8.5	9.0	7.0	6.0	6.0	7.0	6.5	6.5	6.0
26	---	9.5	10.0	7.5	9.0	7.0	6.0	5.5	7.0	6.0	7.0	6.0
27	12.0	10.0	9.5	8.0	8.5	7.0	6.0	5.5	7.0	6.0	7.0	6.0
28	11.5	9.5	10.5	8.5	7.5	6.5	6.5	6.0	6.5	6.5	7.0	6.0
29	---	9.0	10.5	8.5	8.5	6.5	6.5	6.0	---	---	7.0	6.5
30	12.0	8.0	11.0	8.5	9.0	6.5	6.5	6.0	---	---	7.0	6.0
31	12.0	9.5	---	---	8.0	6.0	6.5	6.0	---	---	7.0	6.0
MONTH	---	8.0	12.0	7.5	10.5	6.0	9.0	5.5	7.0	5.5	7.5	5.5

SAN JOAQUIN RIVER BASIN

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11276500 TUOLUMNE RIVER NEAR HETCH-HETCHY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.0	8.5	8.0	9.5	8.5	8.5	8.0	11.0	10.5	15.0	12.0
2	7.5	6.5	8.0	7.5	9.0	8.0	8.5	8.0	11.0	10.5	15.0	13.5
3	7.5	6.5	8.0	7.5	8.5	8.0	8.5	8.0	14.0	11.0	15.0	13.5
4	8.0	6.5	8.0	7.5	8.5	8.0	8.5	8.5	15.5	14.0	14.5	13.0
5	8.0	6.5	8.0	7.5	8.5	8.0	8.5	8.5	16.0	15.0	14.5	12.5
6	7.5	7.0	8.0	7.5	8.5	8.0	9.0	8.5	---	15.0	14.5	13.0
7	7.5	7.0	8.0	7.5	8.5	8.0	9.0	8.5	15.5	14.5	14.5	13.0
8	7.5	6.5	8.0	7.5	8.0	8.0	9.5	9.0	15.5	14.5	14.5	13.0
9	7.5	6.5	8.0	7.5	8.0	8.0	9.5	9.0	15.0	14.0	14.5	13.0
10	7.5	7.0	8.0	8.0	8.0	8.0	9.0	9.0	14.0	12.5	14.0	13.0
11	8.0	7.0	8.5	8.0	8.5	8.0	9.5	9.0	13.0	11.5	14.0	13.0
12	8.0	7.0	8.0	8.0	8.5	8.0	9.5	9.0	12.0	11.0	14.0	12.5
13	7.5	6.5	8.0	8.0	8.5	8.0	9.5	9.0	12.5	11.0	14.5	12.5
14	8.0	7.0	8.0	8.0	8.5	8.0	9.5	9.5	---	---	14.0	13.0
15	7.5	7.0	8.5	8.0	8.0	7.5	9.5	9.5	---	---	15.0	12.5
16	7.5	6.5	8.5	8.0	8.0	7.5	10.0	9.5	---	---	15.0	13.5
17	7.5	7.0	8.5	8.0	8.0	7.5	10.0	10.0	---	---	14.5	13.0
18	7.5	7.0	8.5	8.0	8.0	7.5	10.5	9.5	12.0	---	14.5	13.0
19	7.5	7.0	9.0	8.0	8.0	7.5	11.0	10.0	12.5	11.5	14.5	13.0
20	7.5	7.0	9.0	8.5	8.5	7.5	10.5	10.0	12.5	12.0	14.0	13.0
21	8.0	6.5	9.0	8.5	9.0	7.5	10.5	10.0	13.0	12.0	14.0	12.5
22	8.5	7.5	9.0	8.5	9.0	8.0	10.5	10.0	14.0	12.0	13.5	12.5
23	8.0	7.5	8.5	8.0	9.5	8.0	10.5	10.0	14.0	13.0	13.5	12.0
24	8.5	7.5	9.0	8.0	9.0	8.0	10.5	10.0	14.0	13.0	13.0	12.0
25	8.5	7.5	8.5	8.0	9.5	8.0	10.5	10.0	13.5	12.0	13.0	11.5
26	8.5	7.5	8.5	8.0	9.0	8.5	10.5	10.0	13.5	12.0	13.0	11.0
27	8.0	7.5	8.5	8.5	8.5	8.0	10.5	10.0	13.5	12.0	12.5	11.0
28	8.0	7.5	9.0	8.5	8.5	8.0	11.0	10.5	13.5	12.0	12.5	11.0
29	8.5	8.0	9.0	8.5	8.5	8.0	11.5	10.5	13.5	11.5	12.0	10.5
30	8.5	8.0	9.0	8.5	8.5	8.0	12.5	11.5	13.5	12.0	12.0	10.0
31	---	---	9.0	8.5	---	---	11.5	10.5	13.5	12.0	---	---
MONTH	8.5	6.0	9.0	7.5	9.5	7.5	12.5	8.0	---	---	15.0	10.0

SAN JOAQUIN RIVER BASIN

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA

LOCATION.--Lat 37°52'46", long 119°56'46", in SE 1/4 SW 1/4 sec.1, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 0.5 mi upstream from Early Intake, 2.4 mi upstream from Cherry Creek, and 5.0 mi west of Mather.

DRAINAGE AREA.--484 mi².

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.--No estimated daily discharges. 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, 13,400 ft³/s, July 9, 1995, gage height, 22.23 ft; minimum daily, 25 ft³/s, Oct. 11, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1943, reached a stage of 22.1 ft, discharge, 12,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,400 ft³/s, July 9, gage height, 22.23 ft; minimum daily, 38 ft³/s, Oct. 27, 30, 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	42	54	56	230	178	289	1050	3820	6460	2630	115
2	44	43	52	54	218	181	294	2240	4000	6520	1620	92
3	39	42	53	73	206	289	280	2750	4100	6520	804	93
4	50	40	59	81	197	296	275	2870	4240	6610	809	92
5	55	50	57	195	191	242	270	2930	4400	6670	1210	92
6	42	66	57	145	186	215	260	2810	4530	6730	1460	92
7	40	46	63	313	197	203	319	2670	4520	7760	1270	92
8	39	44	56	189	196	196	313	2630	4480	9440	1030	91
9	39	42	52	246	193	472	273	2660	4150	11400	791	91
10	39	58	50	612	188	1460	255	2670	3720	11900	600	91
11	39	52	49	446	184	1060	245	2700	3730	10600	483	96
12	39	46	50	285	181	625	238	2830	3850	9760	389	103
13	39	45	54	391	180	450	286	2810	3150	9670	367	98
14	39	43	53	407	206	404	310	2730	1720	9380	342	95
15	39	43	54	561	189	344	284	2820	1810	8780	285	91
16	39	43	52	329	184	308	266	2790	1840	6100	272	73
17	39	49	52	259	181	271	260	2800	1830	2310	195	71
18	39	53	51	227	184	282	267	2710	1820	494	200	70
19	39	48	50	224	183	308	255	2680	1840	337	200	69
20	39	47	49	211	181	349	261	2700	1520	629	192	67
21	39	47	48	201	178	520	256	2770	402	2010	191	74
22	39	47	48	200	177	414	241	3050	248	2050	178	73
23	39	46	47	243	174	510	233	3520	250	2260	135	72
24	39	45	57	318	191	407	234	3550	252	2670	128	70
25	39	53	69	420	176	357	230	3450	257	2670	127	77
26	39	71	64	331	171	333	227	3370	360	2670	127	79
27	38	61	60	347	169	324	239	3350	1780	2670	125	77
28	41	57	64	328	168	311	316	3380	4290	2670	124	71
29	41	55	68	271	---	297	481	3450	5080	3020	123	69
30	38	55	62	250	---	289	743	3530	6390	3950	123	70
31	38	---	58	239	---	286	---	3660	---	3430	121	---
TOTAL	1262	1479	1712	8452	5259	12181	8700	89930	84379	168140	16651	2506
MEAN	40.7	49.3	55.2	273	188	393	290	2901	2813	5424	537	83.5
MAX	55	71	69	612	230	1460	743	3660	6390	11900	2630	115
MIN	38	40	47	54	168	178	227	1050	248	337	121	67
AC-FT	2500	2930	3400	16760	10430	24160	17260	178400	167400	333500	33030	4970

SAN JOAQUIN RIVER BASIN

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11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	51.0	76.4	91.2	112	130	152	292	1018	1724	916	184	81.0
MAX	142	552	708	376	341	814	1564	3339	6142	5424	1319	132
(WY)	1987	1987	1983	1974	1974	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1971 - 1995
ANNUAL TOTAL	21583	400651	
ANNUAL MEAN	59.1	1098	403
HIGHEST ANNUAL MEAN			1584
LOWEST ANNUAL MEAN			53.5
HIGHEST DAILY MEAN	103	Jul 14	11900
LOWEST DAILY MEAN	38	Jan 2	38
ANNUAL SEVEN-DAY MINIMUM	39	Oct 21	39
INSTANTANEOUS PEAK FLOW			13400
INSTANTANEOUS PEAK STAGE			22.23
ANNUAL RUNOFF (AC-FT)	42810	794700	291800
10 PERCENT EXCEEDS	83	3480	975
50 PERCENT EXCEEDS	55	230	81
90 PERCENT EXCEEDS	40	44	40

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1987 to current year.

INSTRUMENTATION.--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. Interruptions in record were due to malfunction of recording instrument.

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, 20.5°C, Sept. 5, 6; minimum recorded, 3.0°C, Nov. 22, 23.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

11276600 TUOLUMNE RIVER ABOVE EARLY INTAKE, NEAR MATHER, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

SAN JOAQUIN RIVER BASIN

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CA

LOCATION.--Lat 37°52'54", long 119°58'09", in NW 1/4 SW 1/4 sec.2, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 0.6 mi upstream from Cherry Creek, 0.7 mi downstream from Robert C. Kirkwood Powerplant and Hetch Hetchy Aqueduct, and 6.3 mi west of Mather.

DRAINAGE AREA.--487 mi².

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

GAGE.--Water-stage recorder 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, 13,800 ft³/s, July 9, 1995, gage height, 11.33 ft; minimum daily, 12 ft³/s, Nov. 28-30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,800 ft³/s, July 9, gage height, 11.33 ft; minimum daily, 32 ft³/s, Oct. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	35	125	58	914	791	956	1630	4210	6400	2940	129
2	55	37	48	76	903	743	956	2860	4180	6400	2160	101
3	e49	37	73	94	886	858	951	3350	4390	6470	1490	122
4	e70	37	70	108	883	764	903	3480	4460	6530	1480	155
5	60	38	109	245	877	495	865	3560	4590	6580	1830	125
6	43	53	138	206	877	634	859	3420	4670	6620	2040	92
7	39	45	110	626	829	622	920	3290	4700	7530	1890	94
8	38	43	115	523	809	722	938	3260	4660	8820	1690	96
9	38	41	102	429	789	1030	875	3250	4400	11100	1500	92
10	38	42	116	711	785	2040	858	3260	3970	11600	1350	90
11	37	46	122	659	792	1600	833	3270	3970	10000	1250	100
12	37	44	113	931	790	1090	852	3390	4060	9060	1160	110
13	40	42	113	1040	794	1020	908	3370	3470	8900	1150	105
14	51	41	106	1030	811	998	934	3310	2260	8560	1120	97
15	50	40	92	1190	804	984	907	3360	2360	8010	1070	93
16	37	42	96	961	816	955	895	3340	2390	5370	560	75
17	37	42	111	882	849	900	895	3320	2400	2410	463	69
18	38	46	110	863	879	917	911	3220	2400	1120	497	69
19	33	45	110	875	886	941	905	3180	2430	1030	295	72
20	32	42	140	849	883	991	910	3200	2170	1250	256	66
21	33	41	135	857	868	1180	903	3250	1080	2480	351	72
22	34	44	105	861	851	1070	886	3560	920	2480	268	73
23	35	43	78	909	850	1170	880	4150	958	2630	232	72
24	36	48	114	978	864	1070	874	4140	927	2990	435	69
25	37	46	170	1080	857	959	850	3970	901	3030	421	74
26	36	69	151	996	809	944	834	3820	1040	3030	426	78
27	36	64	170	1000	833	938	830	3770	2340	3010	416	78
28	36	70	139	993	795	965	895	3780	4410	3020	345	72
29	37	53	121	929	---	915	1070	3820	5070	3270	156	68
30	37	103	98	913	---	905	1350	4000	6280	4080	153	69
31	35	---	97	912	---	935	---	4010	---	3570	163	---
TOTAL	1273	1419	3497	22784	23583	30146	27403	106590	96066	167350	29557	2677
MEAN	41.1	47.3	113	735	842	972	913	3438	3202	5398	953	89.2
MAX	70	103	170	1190	914	2040	1350	4150	6280	11600	2940	155
MIN	32	35	48	58	785	495	830	1630	901	1030	153	66
AC-FT	2520	2810	6940	45190	46780	59790	54350	211400	190500	331900	58630	5310

e Estimated.

SAN JOAQUIN RIVER BASIN

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11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	86.3	110	137	189	225	300	435	1215	1925	1007	251	125
MAX	247	313	876	735	842	972	1694	3727	6260	5530	1726	370
(WY)	1984	1984	1983	1995	1995	1995	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1968 - 1995			
ANNUAL TOTAL	53318				512345							
ANNUAL MEAN	146				1404				501			
HIGHEST ANNUAL MEAN									1778			
LOWEST ANNUAL MEAN									49.2			
HIGHEST DAILY MEAN	830				Jun 6				11600			
LOWEST DAILY MEAN	32				Oct 20				12			
ANNUAL SEVEN-DAY MINIMUM	34				Oct 19				13			
INSTANTANEOUS PEAK FLOW					13800				Jul 9			
INSTANTANEOUS PEAK STAGE					11.33				Jul 9			
ANNUAL RUNOFF (AC-FT)	105800				1016000				362900			
10 PERCENT EXCEEDS	611				3970				1240			
50 PERCENT EXCEEDS	70				859				132			
90 PERCENT EXCEEDS	40				42				43			

11277200 CHERRY LAKE NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'33", long 119°54'47", in SE 1/4 NW 1/4 sec.5, T.1 N., R.19 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on upstream face of Cherry Valley Dam on Cherry Creek, 4.2 mi upstream from Eleanor Creek, 7 mi north of Early Intake, and 7.3 mi northwest of Hetch Hetchy.

DRAINAGE AREA.--117 mi².

PERIOD OF RECORD.--August 1956 to current year. Prior to October 1959, published as Lake Lloyd near Hetch Hetchy.

GAGE.--Water-stage recorder. Datum of gage is 2.42 ft 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. See schematic diagram of Tuolumne River basin. Records, including extremes, represent contents at 2400 hours.

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, 273,900 acre-ft, July 5, gage height, 4,702.78 ft; minimum, 151,700 acre-ft, Feb. 28, gage height, 4,628.02 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234100	227900	209000	e169200	164400	152100	181000	203300	227400	272300	271500	268900
2	234000	227100	207400	e169400	164000	152600	180700	205600	228400	271700	271300	268800
3	233700	226800	205900	e169700	163700	154300	180500	206400	229100	271700	271100	268700
4	234200	226100	204600	e169700	163300	155900	180700	207100	230300	272600	271000	268600
5	234600	227300	203200	e169800	163000	157300	181000	207400	231700	273900	271100	268400
6	234800	231400	201700	e169700	162600	157900	181500	206900	231100	273500	271100	268300
7	235000	232200	200300	e169700	162100	158200	182700	206200	229700	272700	270900	268000
8	235300	232100	198600	e168000	161600	158700	183000	205400	228800	272400	270700	267700
9	235400	231900	197000	e167300	161100	165200	182900	205000	228100	273500	270100	267900
10	235400	231900	196400	e169400	160400	172600	182700	204900	229200	272700	269500	267900
11	235200	231500	196400	e171900	159800	176400	182700	205400	231400	272000	268900	267600
12	235000	231400	196000	171700	159200	179000	183100	205600	234100	271800	268600	267200
13	234800	231200	194500	171800	158600	180200	184100	205500	237500	271800	268300	267000
14	234800	230500	192900	174500	158000	180700	184300	204900	240700	271900	267600	266700
15	234800	230000	191200	174000	157300	181000	184200	204100	242600	272300	267100	266600
16	234800	229000	189600	172900	156600	181300	183800	203200	242900	273500	266600	266500
17	234800	227900	188000	171900	155800	181300	183400	202700	242700	272500	266200	266700
18	234800	226800	186300	171900	155100	181900	182800	203000	243300	271300	265800	265800
19	234700	225800	184600	171200	154600	182300	182100	204300	245000	271400	266400	265000
20	234400	225200	183000	170500	154200	183200	181600	206300	246600	272000	266800	264300
21	234300	224200	181400	169700	153800	183700	181000	208300	248200	272900	266200	263700
22	234200	222700	179700	169100	153500	183800	180300	209500	250600	273500	266700	263500
23	234200	221100	178100	168600	153300	183700	179900	211300	254000	273300	267100	263500
24	234000	219400	e177600	168100	153000	183600	180100	211800	258400	273100	267400	263300
25	233100	218000	e176100	167800	152700	183400	180900	212400	263300	273000	267900	263000
26	232300	216600	e174700	167100	152400	183300	181900	213500	267000	273000	268100	262700
27	231300	215200	e173300	166600	152100	183000	183800	215600	269700	273300	268400	261800
28	230500	213700	e170800	166000	151700	182500	186400	218000	272200	273800	268500	261100
29	229900	212000	e170000	165300	---	181900	191700	220600	273000	273600	268700	259400
30	229600	e211400	e168900	164900	---	181500	195900	223300	273000	272900	268800	258800
31	228800	---	e169100	164600	---	181200	---	225500	---	271800	268900	---
MAX	235400	232200	209000	174500	164400	183800	195900	225500	273000	273900	271500	268900
MIN	228800	211400	168900	164600	151700	152100	179900	202700	227400	271300	265800	258800
a	4676.83	4666.34	4639.62	4636.63	4628.02	4647.40	4656.74	4674.86	4702.28	4701.67	4700.04	4694.31
b	-5400	-17400	-42300	-4500	-12900	+29500	+14700	+29600	+47500	-1200	-2900	-10100

CAL YR 1994 b -94200
WTR YR 1995 b +24600

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 mi².

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.--No estimated daily discharges. 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, 4,210 ft³/s, July 10, 1974, gage height, 10.53 ft; minimum daily, 0.77 ft³/s, Dec. 1-4, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,080 ft³/s, July 7, gage height, 9.79 ft; minimum daily, 4.7 ft³/s, Oct. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	5.2	5.2	4.8	7.3	5.9	9.3	24	1000	2120	86	14
2	4.8	5.2	5.2	4.8	8.1	5.9	9.1	16	1230	1890	18	14
3	4.8	5.2	5.5	4.9	9.0	9.6	8.9	14	1470	1460	18	14
4	5.7	5.2	5.6	5.3	9.0	7.8	9.0	13	1460	866	18	14
5	5.2	6.4	5.5	5.6	8.8	7.4	8.7	16	1460	950	18	14
6	4.8	5.9	5.6	5.3	8.4	6.9	8.3	13	1470	2270	18	14
7	4.8	5.5	5.5	8.0	8.2	6.5	12	12	1060	2830	18	14
8	4.8	5.3	5.4	7.0	8.0	6.5	9.3	11	526	2380	17	14
9	4.7	5.3	5.2	9.5	7.8	15	8.3	10	526	1880	17	14
10	4.7	5.5	5.2	24	7.9	30	8.3	9.8	526	2410	17	14
11	4.9	5.5	5.2	11	7.9	26	7.9	9.3	526	1820	17	14
12	5.3	5.4	5.3	11	7.6	16	7.6	9.2	526	1010	17	14
13	5.5	5.2	5.2	14	7.8	12	8.6	12	195	458	17	14
14	5.5	5.2	5.2	30	8.2	10	8.0	9.9	5.6	458	17	14
15	5.5	5.2	5.2	18	7.6	8.7	7.6	9.8	6.0	458	17	14
16	5.5	5.2	5.2	11	7.6	8.0	7.4	9.1	5.6	458	17	14
17	5.5	5.5	5.1	9.1	7.6	7.5	7.3	8.5	5.4	1610	16	14
18	5.5	5.3	5.0	8.1	7.6	8.8	7.2	8.2	5.2	1100	14	14
19	5.2	5.2	4.9	7.6	7.6	7.6	7.3	7.8	5.2	459	14	14
20	4.8	5.2	4.8	7.4	7.6	11	7.5	7.5	5.2	176	14	14
21	4.8	5.2	4.8	6.3	7.6	10	7.1	7.3	5.2	12	14	14
22	4.8	5.2	4.8	6.3	7.5	9.9	6.9	7.3	5.2	79	14	14
23	4.9	5.2	4.8	7.7	7.6	10	6.7	7.2	4.9	304	14	14
24	5.2	5.2	5.2	10	7.6	8.8	6.4	7.4	4.8	199	14	14
25	5.2	5.4	5.0	11	7.6	8.9	6.2	7.1	4.8	102	14	14
26	5.2	5.3	4.9	8.6	7.6	8.9	6.2	6.6	86	66	14	14
27	5.2	5.2	4.9	9.4	6.5	9.0	7.2	6.5	485	14	14	14
28	5.2	5.2	5.1	8.4	5.5	9.1	9.1	6.3	866	55	14	14
29	5.2	5.2	4.9	7.7	---	9.1	19	6.2	1570	599	14	14
30	5.2	5.2	4.8	7.6	---	9.0	18	82	2100	776	14	14
31	5.2	---	4.8	7.4	---	9.2	---	618	---	490	14	---
TOTAL	162.7	159.9	159.0	296.8	217.1	319.0	260.4	992.0	17145.1	29759	559	420
MEAN	5.25	5.33	5.13	9.57	7.75	10.3	8.68	32.0	572	960	18.0	14.0
MAX	9.1	6.4	5.6	30	9.0	30	19	618	2100	2830	86	14
MIN	4.7	5.2	4.8	4.8	5.5	5.9	6.2	6.2	4.8	12	14	14
AC-FT	323	317	315	589	431	633	517	1970	34010	59030	1110	833

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.5	13.0	11.8	12.1	11.8	16.1	14.7	35.2	141	108	29.7	22.7
MAX	166	135	155	155	134	171	167	359	1198	993	176	139
(WY)	1978	1977	1977	1977	1977	1969	1969	1978	1983	1983	1977	1977
MIN	4.61	3.99	4.82	4.71	4.51	4.45	4.58	4.40	4.46	10.9	12.0	10.6
(WY)	1973	1970	1970	1961	1961	1972	1990	1973	1973	1978	1961	1976

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1961 - 1995			
ANNUAL TOTAL	2760.3				50450.0							
ANNUAL MEAN	7.56				138				35.6			
HIGHEST ANNUAL MEAN									195			
LOWEST ANNUAL MEAN									7.08			
HIGHEST DAILY MEAN	16				2830				2830			
LOWEST DAILY MEAN	4.6				4.7				.77			
ANNUAL SEVEN-DAY MINIMUM	4.7				4.8				.79			
INSTANTANEOUS PEAK FLOW					3080				4210			
INSTANTANEOUS PEAK STAGE					9.79				10.53			
ANNUAL RUNOFF (AC-FT)	5480				100100				25760			
10 PERCENT EXCEEDS	16				458				17			
50 PERCENT EXCEEDS	5.2				8.3				7.2			
90 PERCENT EXCEEDS	4.8				5.2				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 mi².

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 0800 hours. See schematic diagram of Tuolumne River basin.

COOPERATION.--Periodic observations of gage height were provided by city and county of San Francisco.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,000 acre-ft, Dec. 11, 1937, from capacity table then in use, gage height, 4,663.4 ft; no usable contents at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,700 acre-ft, May 1, gage height, 4,661.60 ft; minimum, 0 acre-ft, gage height, 4,605.00 ft., many days in October through January.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	12600	6370	22400	27700	26300	25900	27600	19200
2	0	0	0	0	12000	6160	22500	27100	26200	25800	27300	19100
3	0	0	0	0	12200	6570	22500	26500	26200	25800	27100	18900
4	0	0	0	0	12400	7130	22600	25900	26200	25800	27000	18800
5	0	0	0	0	11900	7130	23100	26100	26400	25800	26800	17900
6	0	8710	0	0	12000	7130	23600	25700	26100	25700	26200	17900
7	0	12700	0	0	11900	7060	24100	25800	25800	26100	26300	17900
8	0	3010	0	0	11700	6850	25000	25600	25300	26200	26300	17400
9	0	1480	0	0	11000	7130	25100	25500	25100	26800	26200	17400
10	0	1870	0	3010	10800	12800	24900	24900	25100	27000	26200	17000
11	0	906	0	4700	10400	17400	24800	25200	25800	27000	26100	16700
12	0	1090	0	5820	10100	19700	24900	25500	26100	26800	25900	16600
13	0	122	0	7680	9660	20400	25100	25600	26100	26500	25800	16100
14	0	39	0	9660	9340	20500	25400	25300	26100	26100	25400	15800
15	0	0	0	13100	8790	21000	25200	24900	26100	26000	25100	15300
16	0	0	0	14600	8570	21500	25100	24800	25700	26000	24900	15200
17	0	0	0	15000	8290	22100	24900	24700	25500	26000	24800	14900
18	0	0	0	15000	7810	22100	24800	24600	25100	26000	24400	14500
19	0	0	0	14900	7470	23000	24500	25100	25000	25800	24000	14200
20	0	0	0	14700	7190	23400	24300	25800	25200	25900	23900	14100
21	0	0	0	14400	7060	24300	24200	26100	25300	25700	23500	13500
22	0	0	0	14100	6990	24000	24000	26100	25400	25700	23300	13000
23	0	0	0	13900	6780	23800	23900	26100	26100	25200	23000	13100
24	0	0	0	13700	6710	23500	24000	25900	25900	25500	22600	12700
25	0	0	0	13500	6710	23400	24500	25800	26100	25500	22300	12400
26	0	0	0	13300	6640	23400	25200	25700	26100	25400	22100	12200
27	0	0	0	13200	6570	23200	25700	25800	26100	25800	21600	11900
28	0	0	0	12800	6440	23000	26400	26000	26100	26100	21200	11600
29	0	0	0	12400	---	22800	26600	26100	26000	26700	21100	11300
30	0	0	0	12400	---	22900	27200	26100	26000	27200	20600	10900
31	0	---	0	12600	---	22400	---	26200	---	27400	20100	---
MAX	0	12700	0	15000	12600	24300	27200	27700	26400	27400	27600	19200
MIN	0	0	0	0	6440	6160	22400	24600	25000	25200	20100	10900
a	4605.0	4607.0	4614.0	4644.9	4636.7	4656.0	4661.1	4660.1	4659.8	4661.3	4653.5	4642.8
b	0	0	0	+12600	-6160	+15960	+4800	-1000	-200	+1400	-7300	-9200

CAL YR 1994 b -19200

WTR YR 1995 b +10900

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CA

LOCATION.--Lat 37°58'09", long 119°52'52", in NW 1/4 SW 1/4 sec.3, T.1 N., R.19 E., Tuolumne County, Hydrologic Unit 18040009, Yosemite National Park, on right bank 0.5 mi downstream from Lake Eleanor Dam, 1.1 mi upstream from Miguel Creek, and 5.5 mi northwest of Hetch Hetchy.

DRAINAGE AREA.--78.4 mi².

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Sequoia" 1910-18.

REVISED RECORDS.--WSP 1315-A: 1923(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder and concrete control. 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.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Lake Eleanor (station 11277500) 0.5 mi upstream beginning in 1918. Diversion from Lake Eleanor to Cherry Lake (station 11277200) began in March 1960. See schematic diagram of Tuolumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s, Nov. 19, 1950, gage height, 14.95 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurements at gage heights 9.94 and 12.24 ft; no flow at times in 1910, 1930-31, 1933, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,120 ft³/s, May 1, gage height, 8.09 ft; minimum daily, 4.7 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	7.3	119	113	5.9	6.7	e23	3510	1500	935	315	22
2	5.3	7.8	122	107	7.3	6.2	e23	2280	1410	841	300	22
3	4.7	7.4	130	102	8.3	10	e24	1360	1330	788	182	21
4	9.4	7.2	150	103	8.1	6.5	e17	1100	1360	752	109	21
5	29	8.9	167	117	8.1	6.1	e18	997	1470	765	103	21
6	39	254	175	121	7.1	5.9	e29	833	1210	716	96	22
7	45	357	170	163	6.3	5.7	e71	686	873	661	88	22
8	51	360	152	201	6.3	5.6	e129	616	690	682	81	22
9	53	348	134	278	6.3	18	e149	601	615	725	72	22
10	53	330	130	398	6.3	25	e98	600	650	801	65	22
11	34	288	130	267	6.3	14	e88	667	886	762	57	22
12	28	226	123	9.5	6.3	10	e102	777	1150	703	49	22
13	23	180	121	7.9	6.4	8.6	248	792	1240	675	41	22
14	9.8	213	117	10	6.5	7.9	300	689	1230	650	36	21
15	7.6	121	115	7.1	6.5	7.0	204	635	1070	564	32	15
16	7.6	173	112	7.0	6.6	6.7	126	606	895	521	27	11
17	7.6	136	111	6.4	6.6	6.7	89	592	705	524	26	11
18	7.6	131	113	6.3	6.0	11	79	590	612	524	23	11
19	7.6	128	113	6.3	5.9	28	70	664	615	520	22	11
20	7.6	125	112	6.0	6.3	117	61	1030	669	514	21	11
21	7.6	67	112	5.9	6.3	331	50	1220	694	474	21	11
22	7.6	15	112	6.3	6.3	229	41	1200	725	449	21	11
23	7.6	16	111	7.6	6.1	149	37	1050	836	376	21	11
24	7.6	18	115	9.0	6.3	81	44	1010	1020	327	22	11
25	7.5	23	123	9.5	5.9	47	66	860	1180	327	22	11
26	7.7	138	127	7.3	6.3	43	201	852	1210	156	22	11
27	7.5	141	130	7.9	6.3	e33	514	995	1070	49	22	11
28	7.4	131	130	7.3	6.4	e26	1410	1180	1070	70	22	11
29	7.3	124	128	6.7	---	e21	2240	1260	1020	99	22	11
30	7.1	119	124	6.3	---	e17	2520	1300	1010	177	22	11
31	6.9	---	118	6.3	---	e13	---	1360	---	271	22	---
TOTAL	517.2	4200.6	3946	2116.6	183.3	1302.6	9071	31912	30015	16398	1984	484
MEAN	16.7	140	127	68.3	6.55	42.0	302	1029	1000	529	64.0	16.1
MAX	53	360	175	398	8.3	331	2520	3510	1500	935	315	22
MIN	4.7	7.2	111	5.9	5.9	5.6	17	590	612	49	21	11
AC-FT	1030	8330	7830	4200	364	2580	17990	63300	59530	32530	3940	960

e Estimated.

SAN JOAQUIN RIVER BASIN

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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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.8	40.4	32.5	39.9	45.0	18.8	65.9	253	330	115	26.5	26.9
MAX	333	565	314	459	586	198	916	1029	1605	677	176	137
(WY)	1983	1984	1984	1970	1986	1986	1982	1995	1983	1983	1983	1982
MIN	.15	2.54	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1961 - 1995

ANNUAL TOTAL	20094.5	102130.3	
ANNUAL MEAN	55.1	280	84.4
HIGHEST ANNUAL MEAN			320
LOWEST ANNUAL MEAN			4.73
HIGHEST DAILY MEAN	360	Nov 8	3510
LOWEST DAILY MEAN	4.6	Jan 29	4.7
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 27	6.2
INSTANTANEOUS PEAK FLOW			4120
INSTANTANEOUS PEAK STAGE			8.09
ANNUAL RUNOFF (AC-FT)	39860	202600	61110
10 PERCENT EXCEEDS	132	911	235
50 PERCENT EXCEEDS	22	71	7.3
90 PERCENT EXCEEDS	6.3	6.5	4.6

SAN JOAQUIN RIVER BASIN

11278200 CHERRY CREEK CANAL NEAR EARLY INTAKE, CA

LOCATION.--Lat 37°53'36", long 119°57'17", in SW 1/4 SW 1/4 sec.36, T.1 N., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 1.3 mi northeast of Early Intake and 10 mi southwest of Hetch Hetchy Reservoir.

PERIOD OF RECORD.--April 1956 to May 1971, July 1987 to current year.

GAGE.--Water-stage recorder and concrete canal. Elevation of gage is 2,700 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Canal diverts from left bank of Cherry Creek in NW 1/4 SW 1/4 sec.31, T.1 N., R.19 E., to supplement Tuolumne River flows exported to city of San Francisco via the Hetch Hetchy Aqueduct. No diversions for export have been made since September 1988. Canal was originally constructed in 1915 to provide flow for domestic use and power development at Early Intake Powerplant during initial construction of Hetch Hetchy project facilities. See schematic diagram of Tuolumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 194 ft³/s, July 30, 1959; no flow at times in 1964, 1969, 1971, 1988-95.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
4	.01	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.05	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
10	.00	.02	.00	.13	.00	.18	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
24	.00	.00	.03	.01	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.03	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.02	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.01	0.12	0.03	0.38	0.00	0.42	0.05	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.004	.001	.012	.000	.014	.002	.000	.000	.000	.000	.000
MAX	.01	.05	.03	.13	.00	.18	.03	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.02	.2	.06	.8	.00	.8	.1	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1995, BY WATER YEAR (WY)

	32.7	33.7	29.2	28.7	33.8	34.7	41.9	48.5	51.1	55.4	44.6	41.0
MEAN	182	189	186	177	180	181	183	184	189	190	182	182
MAX	1959	1959	1959	1958	1959	1959	1959	1959	1959	1959	1958	1958
(WY)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MIN	1989	1991	1990	1991	1988	1990	1989	1989	1989	1989	1989	1990
(WY)												

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1956 - 1995

ANNUAL TOTAL	0.20	1.01	
ANNUAL MEAN	.001	.003	37.3
HIGHEST ANNUAL MEAN			179
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	.05 Nov 5	.18 Mar 10	194 Jul 30 1959
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jun 19 1964
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 5	.00 May 25 1971
ANNUAL RUNOFF (AC-FT)	.4	2.0	26990
10 PERCENT EXCEEDS	.00	.00	177
50 PERCENT EXCEEDS	.00	.00	7.0
90 PERCENT EXCEEDS	.00	.00	.00

11278300 CHERRY CREEK NEAR EARLY INTAKE, CA

LOCATION.--Lat 37°53'40", long 119°57'42", in NW 1/4 SE 1/4 sec.35, T.1 N., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on right bank 1.2 mi upstream from mouth, 1.3 mi north of Early Intake, and 10.3 mi southwest of Hetch Hetchy.

DRAINAGE AREA.--226 mi².

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,272.00 ft above sea level (levels by city and county of San Francisco).

REMARKS.--No estimated daily discharges. 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, 16,500 ft³/s, Feb. 1, 1963, gage height, 14.50 ft, from rating curve extended above 4,600 ft³/s; minimum daily, 0.30 ft³/s, Apr. 5, 6, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,960 ft³/s, May 1, gage height, 10.43 ft; minimum daily, 11 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	13	130	128	131	55	222	4200	2660	3020	464	41
2	13	15	131	121	124	60	216	2800	2730	2780	362	41
3	11	14	142	116	115	169	203	1690	2880	2350	256	41
4	17	14	167	125	108	160	193	1350	2890	1800	151	40
5	30	22	184	165	101	103	184	1270	3040	1710	143	40
6	40	211	198	152	95	85	181	1070	2760	2950	136	40
7	46	389	193	249	89	72	297	874	2080	3320	127	40
8	52	392	171	281	86	66	337	777	1310	3000	118	40
9	55	383	151	402	81	255	311	747	1210	2550	109	40
10	56	371	139	742	76	745	249	738	1240	3080	100	39
11	49	327	144	570	72	630	223	798	1510	2630	90	39
12	31	250	138	178	69	409	227	928	1820	1850	81	39
13	33	198	135	290	67	315	368	973	1650	1220	72	39
14	22	241	128	334	76	277	455	852	1390	1190	65	38
15	15	145	126	311	67	220	372	787	1230	1100	62	37
16	14	176	122	167	64	186	283	746	1050	1030	54	28
17	14	162	122	122	62	164	235	721	822	1960	53	28
18	14	144	124	101	61	171	226	712	709	1730	47	28
19	14	138	125	91	61	204	211	772	701	1030	45	27
20	14	135	124	82	62	275	203	1180	757	798	43	27
21	13	110	124	75	63	550	186	1420	787	539	42	27
22	13	24	124	72	61	441	169	1400	819	540	42	27
23	13	23	123	107	59	375	156	1240	936	718	42	27
24	13	24	136	150	57	283	151	1200	1150	597	42	27
25	13	33	139	198	55	224	163	1020	1330	468	42	27
26	13	119	144	159	53	209	266	989	1430	331	42	27
27	13	157	150	152	51	204	584	1140	1640	81	42	27
28	13	146	154	154	48	199	1650	1360	2040	129	42	27
29	13	136	149	130	---	191	2780	1450	2520	631	42	27
30	13	131	142	126	---	193	3160	1540	3060	945	41	27
31	13	---	135	129	---	203	---	2100	---	830	41	---
TOTAL	705	4643	4414	6179	2114	7693	14461	38844	50151	46907	3038	1002
MEAN	22.7	155	142	199	75.5	248	482	1253	1672	1513	98.0	33.4
MAX	56	392	198	742	131	745	3160	4200	3060	3320	464	41
MIN	11	13	122	72	48	55	151	712	701	81	41	27
AC-FT	1400	9210	8760	12260	4190	15260	28680	77050	99470	93040	6030	1990

SAN JOAQUIN RIVER BASIN

11278300 CHERRY CREEK NEAR EARLY INTAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.6	54.8	59.0	93.6	116	105	138	311	472	214	41.8	38.8
MAX	341	610	390	591	922	399	1298	1342	2845	1699	229	164
(WY)	1983	1984	1965	1970	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 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1961 - 1995		
ANNUAL TOTAL	24745			180151					
ANNUAL MEAN	67.8			494			139		
HIGHEST ANNUAL MEAN							634		
LOWEST ANNUAL MEAN							8.08		
HIGHEST DAILY MEAN	392			Nov 8			4200		
LOWEST DAILY MEAN	11			Oct 3			May 1		
ANNUAL SEVEN-DAY MINIMUM	12			Jan 29			Oct 3		
INSTANTANEOUS PEAK FLOW							13		
INSTANTANEOUS PEAK STAGE							Oct 21		
ANNUAL RUNOFF (AC-FT)	49080			357300			May 1		
10 PERCENT EXCEEDS	151			1470			16500		
50 PERCENT EXCEEDS	33			151			14.50		
90 PERCENT EXCEEDS	14			27			100600		

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 mi².

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, 16,300 ft³/s, Apr. 11, 1982, gage height, 15.36 ft, from rating curve extended above 4,400 ft³/s on basis of combined peak flow for Cherry Creek near Early Intake (station 11278300) and Dion R. Holm Powerplant; minimum daily, 1.6 ft³/s, June 4, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,670 ft³/s, May 1, gage height, 12.39 ft; maximum gage height, 12.66 ft, July 10 (backwater from the Tuolumne River); minimum daily, 20 ft³/s, Oct. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e143	414	1040	e169	1070	673	1180	5520	3710	4200	1450	185
2	e78	408	1040	e123	1070	636	1170	3840	3790	3920	1330	195
3	e85	e415	1050	e117	1050	701	1160	2670	3920	3390	1220	183
4	e116	e424	1080	e237	1040	182	1160	2370	4000	2850	1100	186
5	158	238	1110	e439	1020	124	1140	2310	4160	2770	1010	204
6	125	e436	1120	e410	1040	419	1130	2090	3810	4100	1080	181
7	64	e861	1090	e1170	1030	463	1210	1880	3040	4340	998	305
8	63	e1040	1100	e1200	1030	400	1320	1760	2340	3920	1070	328
9	177	831	1040	e1150	1010	730	1280	1730	2240	4400	1060	182
10	e189	e1050	611	e1260	1010	1360	1220	1720	2140	5330	1050	179
11	186	e803	e149	e1050	1010	809	1190	1780	2480	4080	1050	345
12	e175	e588	e603	e1090	1010	486	1180	1910	2760	3030	772	418
13	48	e527	1010	e1210	1020	957	1260	1980	2620	2480	758	303
14	31	e774	995	e1250	1020	1210	1450	1850	2400	2380	859	359
15	23	e642	1010	e1230	1010	1150	1340	1780	2260	2210	745	312
16	21	e838	1010	e1080	1010	1110	1230	1730	2070	2120	735	168
17	21	e868	1010	e1030	1000	1080	1200	1700	1820	2920	732	160
18	22	802	1020	e727	1000	1090	1200	1690	1690	2690	730	616
19	e131	737	1000	e980	1010	1120	1190	1760	1680	2010	222	550
20	e144	591	1020	e954	1010	1220	1180	2190	1730	1790	217	504
21	e121	749	1020	e962	1010	1550	1160	2420	1760	1530	723	496
22	29	912	1020	e970	1010	1420	1140	2410	1800	1530	216	371
23	21	924	979	e997	1010	1340	1130	2250	1930	1710	225	121
24	20	927	1020	e1050	1000	1230	1120	2230	2130	1590	214	267
25	e453	929	962	e1100	1010	1070	1130	2040	2320	1460	218	323
26	e443	964	989	1050	1020	953	1220	2000	2410	1310	183	293
27	e429	1040	1030	1090	1010	1130	1540	2170	2590	1040	187	632
28	e412	1040	1050	1100	1000	1160	2650	2380	2960	1080	238	556
29	e296	1040	1050	1070	---	1150	3770	2470	3560	1600	213	946
30	e160	1040	e235	1050	---	1150	4250	2520	4250	1940	251	503
31	e441	---	e255	1050	---	1160	---	3050	---	1820	215	---
TOTAL	4825	22852	28718	28365	28540	29233	43500	70200	80370	81540	21071	10371
MEAN	156	762	926	915	1019	943	1450	2265	2679	2630	680	346
MAX	453	1050	1120	1260	1070	1550	4250	5520	4250	5330	1450	946
MIN	20	238	149	117	1000	124	1120	1690	1680	1040	183	121
AC-FT	9570	45330	56960	56260	56610	57980	86280	139200	159400	161700	41790	20570

e Estimated.

11278400 CHERRY CREEK BELOW DION R. HOLM POWERPLANT, NEAR MATHER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	421	467	467	596	605	660	757	995	1144	760	522	469
MAX	962	1445	1394	1335	1528	1303	2199	2265	3728	2643	1161	753
(WY)	1983	1984	1984	1970	1986	1983	1982	1995	1983	1983	1983	1968
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1963 - 1995			
ANNUAL TOTAL	191444				449585							
ANNUAL MEAN	525				1232				655			
HIGHEST ANNUAL MEAN									1437			
LOWEST ANNUAL MEAN									47.9			
HIGHEST DAILY MEAN	1350				5520				9790			
LOWEST DAILY MEAN	11				20				1.6			
ANNUAL SEVEN-DAY MINIMUM	13				42				2.1			
INSTANTANEOUS PEAK FLOW					6670				16300			
INSTANTANEOUS PEAK STAGE					12.66				15.36			
ANNUAL RUNOFF (AC-FT)	379700				891800				474300			
10 PERCENT EXCEEDS	1080				2480				1160			
50 PERCENT EXCEEDS	441				1040				614			
90 PERCENT EXCEEDS	33				183				79			

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 mi².

PERIOD OF RECORD.--March 1923 to current year.

REVISED RECORDS.--WSP 1445: 1923, 1925(M), 1926-28, 1929-30(M), 1932(M), 1935-36(M), 1937-38, 1943(M), 1945(M).
WSP 1930: Drainage area.

GAGE.--Water-stage recorder. 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.--No estimated daily discharges. 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 ft³/s, Dec. 23, 1955, gage height, 11.9 ft, from floodmarks, present datum, from rating curve extended above 3,300 ft³/s on basis of slope-area measurements at gage heights 9.08 and 11.9 ft; minimum daily, 0.4 ft³/s, Aug. 22, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	2200	1,920	7.83	Apr. 30	0400	2,300	8.22
Mar. 10	2215	*6,350	*10.64				

Minimum daily, 5.1 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	7.9	21	25	183	145	397	1590	672	348	64	31
2	5.6	10	22	23	179	142	388	1190	620	326	61	30
3	5.1	8.7	25	24	168	404	382	844	593	308	56	29
4	20	8.3	32	45	161	326	403	785	633	292	56	29
5	50	14	35	146	155	241	424	784	625	297	54	28
6	20	66	36	65	151	207	422	683	514	296	53	28
7	13	37	35	229	146	182	508	572	429	271	51	26
8	11	25	24	150	142	170	483	525	364	260	49	26
9	10	21	22	257	132	1300	414	499	337	250	48	25
10	9.5	29	21	1120	125	3560	376	491	407	228	46	26
11	10	20	21	582	121	2350	365	502	492	207	45	26
12	10	18	24	281	117	1170	379	505	536	191	44	25
13	9.4	18	23	325	120	806	453	535	537	172	43	25
14	9.3	16	20	620	145	703	432	469	520	162	42	24
15	9.0	16	22	608	118	588	399	448	501	157	41	24
16	8.3	16	20	298	111	522	366	420	419	151	40	23
17	8.1	18	20	207	106	464	346	402	354	148	40	22
18	8.1	18	21	166	104	476	339	411	332	144	40	22
19	8.0	13	21	142	106	538	321	466	350	129	39	23
20	7.9	17	21	127	113	671	324	544	357	121	37	22
21	7.8	17	21	114	119	786	307	575	357	114	36	22
22	7.8	16	21	117	124	606	297	527	393	108	36	22
23	7.8	16	21	206	127	656	301	516	437	101	36	21
24	7.6	16	37	403	129	495	321	539	475	96	35	22
25	7.6	25	37	453	132	439	353	478	476	92	35	22
26	7.6	24	32	309	132	409	374	470	424	86	35	21
27	7.7	20	30	289	128	400	439	510	417	82	35	22
28	7.7	21	32	258	126	393	637	531	427	79	34	22
29	7.6	19	30	210	---	380	952	540	400	76	34	22
30	7.4	20	27	190	---	376	1640	596	376	73	33	22
31	7.3	---	24	181	---	384	---	632	---	68	32	---
TOTAL	322.8	590.9	798	8170	3720	20289	13542	18579	13774	5433	1330	732
MEAN	10.4	19.7	25.7	264	133	654	451	599	459	175	42.9	24.4
MAX	50	66	37	1120	183	3560	1640	1590	672	348	64	31
MIN	5.1	7.9	20	23	104	142	297	402	332	68	32	21
AC-FT	640	1170	1580	16210	7380	40240	26860	36850	27320	10780	2640	1450

SAN JOAQUIN RIVER BASIN

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.5	31.3	62.9	90.7	131	163	224	254	129	33.9	13.0	9.74
MAX	50.6	229	516	652	725	750	730	760	656	242	57.9	32.9
(WY)	1983	1951	1956	1969	1986	1983	1982	1969	1983	1983	1983	1983
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1923 - 1995

ANNUAL TOTAL	10486.9	87280.7	
ANNUAL MEAN	28.7	239	95.7
HIGHEST ANNUAL MEAN			330
LOWEST ANNUAL MEAN			9.25
HIGHEST DAILY MEAN	117	May 12	3560
LOWEST DAILY MEAN	2.3	Aug 17	5.1
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 27	7.6
INSTANTANEOUS PEAK FLOW			6350
INSTANTANEOUS PEAK STAGE			10.64
ANNUAL RUNOFF (AC-FT)	20800	173100	69330
10 PERCENT EXCEEDS	68	538	258
50 PERCENT EXCEEDS	19	124	30
90 PERCENT EXCEEDS	2.8	16	6.0

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CA

LOCATION.--Lat 37°49'42", long 120°00'38", in SW 1/4 NW 1/4 sec.28, T.1 S., R.18 E., Tuolumne County, Hydrologic Unit 18040009, Stanislaus National Forest, on left bank 1,000 ft downstream from Oakland Recreation Camp, 0.8 mi upstream from South Fork Tuolumne River, and 2.7 mi east of Buck Meadows Post Office.

DRAINAGE AREA.--73.5 mi².

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for October and November 1916, published in WSP 1315-A. Published as Middle Fork of Tuolumne River near Buck Meadows 1917-32 and as "near Buck Meadows" 1933-40.

REVISED RECORDS.--WSP 1395: 1919(M), 1938(M), 1951(P). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,800 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges which are fair. 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 ft³/s, Dec. 23, 1955, gage height, 11.75 ft from flood profile, 11.05 ft from floodmarks inside gage well, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0415	866	5.72	Mar. 20	2130	760	5.41
Jan. 15	0115	440	4.32	Apr. 30	0300	1,850	7.84
Mar. 10	2200	*3,430	*10.10	June 5	0200	1,090	6.30

Minimum daily, 1.2 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.1	8.5	9.9	72	e64	224	1330	884	592	75	14
2	1.6	2.9	8.8	8.6	71	e63	215	1050	887	567	69	14
3	1.2	2.7	9.5	9.8	67	e179	209	761	839	545	64	13
4	2.4	2.7	11	25	64	e145	221	691	878	516	60	13
5	e15	e6.7	12	68	61	e107	238	656	914	519	56	12
6	e6.3	e31	13	e28	60	e92	248	566	763	536	53	11
7	e4.8	e17	13	e98	59	e81	307	503	617	498	49	11
8	3.5	e12	8.1	e64	58	e75	310	471	512	472	46	10
9	3.0	e10	8.2	e110	55	e610	260	461	469	460	44	9.9
10	3.0	e13	8.3	508	54	e1670	233	465	559	415	41	9.6
11	3.3	e9.6	8.6	236	53	e1120	231	498	698	369	38	9.4
12	3.5	e8.6	9.9	122	51	558	248	505	775	334	37	9.1
13	3.5	e8.1	9.1	131	54	412	310	501	800	289	35	8.6
14	3.2	e7.2	7.7	231	65	380	299	442	786	270	34	8.2
15	2.9	6.9	9.0	251	51	339	268	419	702	268	32	7.9
16	2.7	6.9	8.2	123	49	310	243	399	564	253	31	7.7
17	2.5	7.2	8.1	87	46	273	227	388	487	247	30	7.4
18	2.5	6.8	8.3	71	46	279	222	415	469	236	29	7.2
19	2.4	5.1	8.3	61	48	382	208	485	519	206	28	7.0
20	2.3	7.2	8.3	56	50	449	209	580	535	192	26	6.8
21	2.2	7.6	8.1	51	54	495	196	635	523	179	25	6.6
22	2.2	6.7	8.3	51	e55	420	188	608	572	165	23	6.4
23	2.2	6.5	8.2	80	e56	431	195	586	656	150	23	6.3
24	2.2	6.6	16	155	e57	331	218	616	730	140	22	6.3
25	2.1	8.8	13	192	e59	283	255	543	755	130	21	6.2
26	2.1	8.8	11	122	e59	256	288	522	713	118	20	6.2
27	2.4	7.8	10	140	e57	245	345	585	730	109	19	6.2
28	2.1	8.8	11	111	e56	237	511	639	740	105	17	6.4
29	2.3	8.3	11	87	---	228	707	689	700	98	17	6.3
30	2.0	8.3	9.8	78	---	222	1390	748	652	91	16	6.4
31	1.9	---	8.9	74	---	221	---	791	---	82	15	---
TOTAL	95.3	251.9	301.2	3439.3	1587	10957	9223	18548	20428	9151	1095	260.1
MEAN	3.07	8.40	9.72	111	56.7	353	307	598	681	295	35.3	8.67
MAX	15	31	16	508	72	1670	1390	1330	914	592	75	14
MIN	1.2	2.1	7.7	8.6	46	63	188	388	469	82	15	6.2
AC-FT	189	500	597	6820	3150	21730	18290	36790	40520	18150	2170	516

e Estimated.

SAN JOAQUIN RIVER BASIN

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.22	15.3	32.3	42.9	64.8	85.7	154	292	187	36.7	6.71	3.30
MAX	36.9	181	318	248	345	353	476	747	875	361	60.7	23.5
(WY)	1983	1951	1951	1956	1986	1995	1982	1969	1983	1983	1983	1983
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 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1917 - 1995		
ANNUAL TOTAL	7234.85			75336.8					
ANNUAL MEAN	19.8			206			77.1		
HIGHEST ANNUAL MEAN							246		
LOWEST ANNUAL MEAN							6.49		
HIGHEST DAILY MEAN	148			May 12			1670		
LOWEST DAILY MEAN	.00			Aug 15			1.2		
ANNUAL SEVEN-DAY MINIMUM	.00			Aug 24			2.1		
INSTANTANEOUS PEAK FLOW							3430		
INSTANTANEOUS PEAK STAGE							10.10		
INSTANTANEOUS LOW FLOW							1.2		
ANNUAL RUNOFF (AC-FT)	14350			149400			55850		
10 PERCENT EXCEEDS	64			609			234		
50 PERCENT EXCEEDS	8.2			63			18		
90 PERCENT EXCEEDS	.00			6.2			1.6		

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CA

LOCATION.--Lat 37°50'31", long 120°11'02", in SW 1/4 NE 1/4 sec.23, T.1 S., R.16 E., Tuolumne County, Hydrologic Unit 18040009, on right bank 500 ft upstream from Whites Gulch and 2.5 mi east of Groveland.

DRAINAGE AREA.--16.4 mi².

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

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.--No estimated daily discharges. Records good except flows below 1 ft³/s, which are fair and flows below 0.10 ft³/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 ft³/s, Feb. 17, 1986, gage height, 7.03 ft, from rating curve extended above 1,100 ft³/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 December 1964 reached a stage of 6.4 ft from floodmarks, discharge, 1,850 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	2130	541	4.74	Mar. 10	1845	*1,510	*6.09
Jan. 14	1500	702	5.00	Mar. 22	2400	459	4.52
Jan. 24	1830	434	4.45	Apr. 30	0245	158	3.57

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.01	.70	14	3.0	16	75	5.1	1.7	.40	.00
2	.00	.00	.01	.64	10	3.5	14	49	5.0	1.6	.35	.00
3	.00	.00	.02	.66	8.5	11	12	32	4.8	1.5	.31	.00
4	.00	.00	.02	14	7.1	9.9	11	24	4.5	1.5	.28	.00
5	.00	.00	.02	121	6.2	7.2	9.9	33	4.3	1.4	.26	.00
6	.00	.00	.02	35	5.7	5.7	9.2	32	4.2	1.3	.23	.00
7	.00	.00	.03	26	5.1	4.6	14	23	4.2	1.3	.23	.00
8	.00	.00	.03	20	4.9	4.5	11	19	4.2	1.3	.16	.00
9	.00	.00	.03	30	4.5	184	9.1	17	3.9	1.4	.14	.00
10	.00	.00	.03	233	4.1	741	8.0	15	3.7	1.3	.13	.00
11	.00	.00	.03	113	3.9	504	7.3	13	3.6	1.2	.08	.00
12	.00	.00	.04	44	3.7	149	6.8	12	3.4	1.2	.05	.00
13	.00	.00	.04	77	4.4	68	15	54	3.1	1.2	.04	.00
14	.00	.00	.09	252	17	44	17	35	3.1	1.1	.04	.00
15	.00	.00	.13	172	6.5	30	11	31	14	1.1	.03	.00
16	.00	.00	.10	69	5.0	22	12	27	12	.97	.03	.00
17	.00	.00	.11	32	4.2	18	9.4	20	5.5	.98	.03	.00
18	.00	.00	.24	19	3.9	17	9.9	17	4.5	1.1	.02	.00
19	.00	.00	.21	13	3.6	15	8.4	15	4.1	1.0	.02	.00
20	.00	.00	.18	9.2	3.4	70	11	13	3.7	.91	.01	.00
21	.00	.00	.16	7.1	3.2	131	11	11	3.3	.84	.01	.00
22	.00	.00	.14	6.8	3.0	160	8.3	11	2.9	.80	.01	.00
23	.00	.00	.13	32	2.8	255	7.3	9.9	2.8	.79	.01	.00
24	.00	.00	5.6	183	2.7	128	6.7	10	2.5	.79	.01	.00
25	.00	.03	7.9	239	2.6	87	6.2	12	2.4	.72	.00	.00
26	.00	.02	2.4	98	2.6	58	5.8	9.0	2.3	.69	.00	.00
27	.00	.02	1.4	210	2.5	42	7.3	7.5	2.1	.67	.00	.00
28	.00	.02	1.3	102	2.5	33	8.6	6.7	2.0	.66	.00	.00
29	.00	.02	1.1	45	---	26	45	6.2	1.9	.56	.00	.00
30	.00	.02	.94	27	---	21	93	5.7	1.8	.49	.00	.00
31	.00	---	.79	19	---	18	---	5.3	---	.45	.00	---
TOTAL	0.00	0.13	23.25	2250.10	147.6	2870.4	421.2	650.3	124.9	32.52	2.88	0.00
MEAN	.000	.004	.75	72.6	5.27	92.6	14.0	21.0	4.16	1.05	.093	.000
MAX	.00	.03	7.9	252	17	741	93	75	14	1.7	.40	.00
MIN	.00	.00	.01	.64	2.5	3.0	5.8	5.3	1.8	.45	.00	.00
AC-FT	.00	.3	46	4460	293	5690	835	1290	248	65	5.7	.00

SAN JOAQUIN RIVER BASIN

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.092	3.65	8.18	23.0	29.2	25.4	10.7	3.69	.98	.23	.037	.019
MAX	1.05	43.2	80.3	84.8	173	126	74.1	26.2	6.41	2.42	.82	.42
(WY)	1983	1983	1984	1980	1986	1983	1982	1983	1983	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1969 - 1995	
ANNUAL TOTAL	458.14		6523.28			
ANNUAL MEAN	1.26		17.9		8.66	
HIGHEST ANNUAL MEAN					38.2	1983
LOWEST ANNUAL MEAN					.011	1977
HIGHEST DAILY MEAN	75	Feb 8	741	Mar 10	1340	Feb 17 1986
LOWEST DAILY MEAN	.00	Jun 25	.00	Oct 1	.00	Aug 27 1969
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 25	.00	Oct 1	.00	Aug 27 1969
INSTANTANEOUS PEAK FLOW			1510	Mar 10	2620	Feb 17 1986
INSTANTANEOUS PEAK STAGE			6.09	Mar 10	7.03	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	909		12940		6270	
10 PERCENT EXCEEDS	2.0		33		14	
50 PERCENT EXCEEDS	.04		1.6		.28	
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 mi².

PERIOD OF RECORD.--September 1923 to current year. Year-end contents only 1923-24 and October 1924 to September 1930 monthend contents, published in WSP 1315-A.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 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, 2,026,000 acre-ft, July 30, 1995, elevation, 829.71 ft; minimum, 29,200 acre-ft, Sept. 1-3, 5, 1934; minimum elevation, 475.0 ft, Sept. 1, 2, 1934. Minimum since reservoir first filled, 302,600 acre-ft, Oct. 14, 15, 1977, elevation, 598.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,026,000 acre-ft, July 30, elevation, 829.71 ft; minimum, 1,255,000 acre-ft, several days in October, Nov. 1, 2, elevation 758.77.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270000	1255000	1321000	1412000	1670000	1624000	1809000	1698000	1733000	1830000	2023000	1940000
2	1270000	1255000	1325000	1413000	1669000	1628000	1804000	1716000	1734000	1846000	2022000	1934000
3	1269000	1256000	1328000	1415000	1667000	1636000	1796000	1725000	1734000	1862000	2020000	1928000
4	1269000	1257000	1331000	1417000	1666000	1641000	1788000	1730000	1735000	1875000	2017000	1922000
5	1269000	1259000	1334000	1427000	1664000	1643000	1781000	1738000	1737000	1887000	2015000	1916000
6	1269000	1261000	1338000	1432000	1661000	1645000	1776000	1743000	1739000	1904000	2014000	1911000
7	1269000	1264000	1341000	1438000	1659000	1646000	1772000	1745000	1739000	1918000	2012000	1904000
8	1268000	1266000	1344000	1445000	1657000	1647000	1768000	1745000	1738000	1931000	2012000	1899000
9	1268000	1269000	1347000	1454000	1655000	1663000	1763000	1745000	1738000	1945000	2014000	1893000
10	1267000	1270000	1349000	1480000	1652000	1730000	1758000	1744000	1737000	1958000	2016000	1887000
11	1267000	1273000	1351000	1496000	1649000	1782000	1751000	1740000	1737000	1967000	2017000	1881000
12	1267000	1274000	1353000	1507000	1646000	1802000	1744000	1737000	1740000	1970000	2016000	1876000
13	1267000	1276000	1356000	1519000	1643000	1810000	1740000	1738000	1743000	1972000	2016000	1870000
14	1266000	1277000	1359000	1540000	1642000	1815000	1735000	1738000	1744000	1979000	2015000	1865000
15	1264000	1279000	1362000	1562000	1639000	1820000	1730000	1739000	1747000	1987000	2013000	1859000
16	1260000	1280000	1365000	1574000	1635000	1822000	1724000	1739000	1748000	1991000	2010000	1853000
17	1260000	1284000	1368000	1582000	1631000	1820000	1717000	1738000	1749000	1995000	2008000	1846000
18	1259000	1286000	1371000	1589000	1630000	1814000	1711000	1737000	1750000	1996000	2005000	1840000
19	1257000	1288000	1374000	1594000	1629000	1811000	1704000	1736000	1753000	1996000	2000000	1835000
20	1256000	1290000	1377000	1599000	1628000	1812000	1695000	1735000	1756000	1998000	1995000	1829000
21	1255000	1292000	1379000	1603000	1627000	1824000	1686000	1735000	1757000	2002000	1991000	1820000
22	1255000	1295000	1383000	1607000	1625000	1838000	1676000	1736000	1757000	2004000	1987000	1812000
23	1256000	1297000	1386000	1613000	1624000	1858000	1666000	1736000	1757000	2008000	1982000	1809000
24	1256000	1300000	1391000	1624000	1624000	1862000	1658000	1737000	1760000	2013000	1979000	1805000
25	1255000	1303000	1394000	1639000	1623000	1859000	1651000	1738000	1763000	2017000	1974000	1799000
26	1255000	1307000	1397000	1649000	1623000	1853000	1645000	1737000	1767000	2020000	1970000	1793000
27	1255000	1309000	1400000	1663000	1622000	1848000	1643000	1735000	1774000	2021000	1966000	1787000
28	1255000	1312000	1405000	1669000	1622000	1843000	1646000	1734000	1787000	2022000	1961000	1781000
29	1255000	1315000	1408000	1672000	---	1834000	1656000	1732000	1798000	2024000	1957000	1777000
30	1255000	1318000	1410000	1672000	---	1825000	1674000	1731000	1810000	2026000	1952000	1772000
31	1255000	---	1412000	1671000	---	1812000	---	1731000	---	2024000	1947000	---
MAX	1270000	1318000	1412000	1672000	1670000	1862000	1809000	1745000	1810000	2026000	2023000	1940000
MIN	1255000	1255000	1321000	1412000	1622000	1624000	1643000	1698000	1733000	1830000	1947000	1772000
a	758.70	765.67	775.43	800.14	795.77	813.00	800.12	805.47	812.58	829.55	823.45	808.99
b	-15000	+63000	+94000	+259000	-49000	+190000	-138000	+57000	+79000	+214000	-77000	-175000

CAL YR 1994 b -180000
WTR YR 1995 b +502000

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

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.--No estimated daily discharges. 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 ft³/s, July 1, 1935; no flow at times most years.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	43	.00	6.4	.19	133	422	460	520	1390	1460	998
2	120	12	.00	.17	.19	3.4	422	360	776	820	1250	910
3	132	4.3	.00	24	.19	3.2	422	295	1000	528	627	930
4	100	.06	.00	266	.19	3.1	421	462	995	529	300	988
5	82	.03	56	21	.19	3.1	420	458	985	591	541	920
6	83	.01	9.3	.19	.17	51	412	460	1010	745	685	1000
7	96	.06	.14	.18	.16	135	413	460	796	1020	488	1010
8	83	.05	1.0	6.5	.16	138	418	460	1000	1430	586	981
9	81	.05	.11	.09	24	142	419	460	998	1000	203	1010
10	82	.07	102	98	64	73	416	459	999	818	106	1070
11	82	.03	57	32	64	8.5	425	458	1000	666	200	1040
12	84	.01	18	466	102	4.0	410	458	1000	650	492	853
13	86	.00	44	538	144	3.9	412	459	1000	861	729	675
14	87	.00	70	98	113	3.9	413	458	721	897	902	585
15	86	.00	26	.62	101	3.9	413	457	499	904	955	642
16	85	.00	32	92	83	3.8	413	455	498	910	791	232
17	83	.07	55	25	83	3.7	414	453	497	918	802	335
18	87	.05	.29	10	83	3.7	416	454	497	1020	885	331
19	133	.01	.28	.15	82	3.7	416	454	500	1250	935	368
20	88	.00	50	.26	81	3.8	418	456	709	1240	977	268
21	134	.00	.32	.27	81	3.7	417	457	1020	1220	594	237
22	59	.00	.27	.27	81	126	410	455	1340	1500	639	273
23	77	.00	.22	.26	81	820	405	457	1420	1060	723	244
24	527	.00	.29	.42	259	461	406	456	1300	699	522	344
25	575	.00	.20	.35	367	447	414	455	1160	764	595	339
26	510	.05	.22	.31	367	442	415	456	1080	704	640	346
27	404	.03	.21	.40	368	442	416	460	983	818	724	364
28	413	.01	.22	.28	368	436	444	459	1300	454	709	370
29	628	.00	.20	.24	---	427	459	459	1590	505	922	408
30	850	.00	.19	.23	---	423	461	457	1440	1150	900	726
31	334	---	114	.22	---	423	---	458	---	1410	921	---
TOTAL	6393	59.89	637.46	1687.81	2997.44	5178.4	12582	13925	28633	28471	21803	18797
MEAN	206	2.00	20.6	54.4	107	167	419	449	954	918	703	627
MAX	850	43	114	538	368	820	461	462	1590	1500	1460	1070
MIN	59	.00	.00	.09	.16	3.1	405	295	497	454	106	232
AC-FT	12680	119	1260	3350	5950	10270	24960	27620	56790	56470	43250	37280

MEAN	234	105	77.9	51.3	87.1	300	662	832	896	784	631	426
MAX	633	579	416	465	407	799	1198	1349	1244	1194	977	901
(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

ANNUAL TOTAL	143761.12		141165.00					
ANNUAL MEAN	394		387		427			
HIGHEST ANNUAL MEAN					570			1980
LOWEST ANNUAL MEAN					198			1910
HIGHEST DAILY MEAN	1530	Sep 19	1590	Jun 29	1820	Jul 1	1935	
LOWEST DAILY MEAN	.00	Jan 9	.00	Nov 13	.00	Feb 8	1909	
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 9	.00	Nov 19	.00	Feb 8	1909	
ANNUAL RUNOFF (AC-FT)	285200		280000		309000			
10 PERCENT EXCEEDS	955		998		1010			
50 PERCENT EXCEEDS	299		370		376			
90 PERCENT EXCEEDS	.00		.16		.00			

SAN JOAQUIN RIVER BASIN

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11289500 TURLOCK CANAL NEAR LA GRANGE, CA

LOCATION.--Lat 37°39'49", long 120°26'23", in NW 1/4 NW 1/4 sec.21, T.3 S., R.14 E., Stanislaus County, Hydrologic Unit 18040002, on right bank 0.7 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.--Electromagnetic flow meter and concrete control. Datum of gage is 274.98 ft above sea level (levels by Turlock Irrigation District). See WSP 1930 for history of changes prior to Apr. 17, 1924. Prior to May 17, 1984, water-stage recorder at site 0.2 mi upstream at datum 2.72 ft higher.

REMARKS.--Records good except for periods of estimated daily discharges, which are fair. 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 0.3 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 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	112	35	194	25	187	1600	564	1460	2420	825	919
2	49	152	36	224	1040	348	1630	135	1890	2550	760	923
3	83	18	53	67	1470	596	1620	199	1920	2710	1210	803
4	181	56	81	99	518	676	1630	161	1760	2810	2560	995
5	269	.00	131	2.1	500	862	1300	78	1690	2650	2790	1050
6	367	1.9	192	44	496	874	793	505	2280	1370	2800	988
7	320	12	82	135	499	990	825	722	2240	1920	2700	1120
8	180	13	84	101	511	871	812	676	1890	1800	1390	895
9	184	48	91	88	512	397	803	786	1450	1870	1630	980
10	360	55	29	130	511	62	881	1900	1470	1400	1080	804
11	214	51	33	58	483	79	942	2540	1470	1170	738	965
12	103	25	51	25	467	13	953	2490	1440	2390	692	1110
13	120	47	63	134	478	9.4	1110	2450	1290	2600	899	1340
14	227	84	208	244	515	140	1180	1450	831	1600	1460	1580
15	567	319	33	273	353	62	908	723	961	2030	1940	1390
16	802	119	122	361	e178	45	835	646	1310	1830	1570	1300
17	193	104	14	401	e390	92	862	793	790	1250	1470	1430
18	524	93	44	373	572	39	827	825	786	1860	1860	993
19	629	53	75	549	610	231	759	605	689	2070	2100	689
20	317	48	200	175	678	e320	754	380	538	1190	1860	520
21	83	153	81	33	655	e500	670	287	750	1240	2170	169
22	.00	6.3	34	7.5	519	e783	687	294	1030	1680	1980	26
23	.67	36	2.2	36	507	890	717	329	1090	1770	1750	25
24	.00	54	68	97	478	758	754	327	993	2090	1380	26
25	.00	34	2.8	7.8	465	466	1150	323	1390	2070	1890	50
26	.00	118	8.7	7.5	557	460	1820	758	1680	2030	1740	278
27	.00	206	72	6.5	562	506	1570	1330	1290	2480	1950	537
28	.00	50	58	3.2	501	638	1520	1520	1730	1610	1330	492
29	.00	101	84	3.3	---	632	1400	1530	2940	996	428	481
30	.00	62	241	89	---	844	600	1560	2750	1680	426	327
31	.00	---	59	27	---	1060	---	1550	---	2390	799	---
TOTAL	5845.67	2231.20	2367.7	3994.9	15050	14430.4	31912	28436	43798	59526	48177	23205
MEAN	189	74.4	76.4	129	537	465	1064	917	1460	1920	1554	773
MAX	802	319	241	549	1470	1060	1820	2540	2940	2810	2800	1580
MIN	.00	.00	2.2	2.1	25	9.4	600	78	538	996	426	25
AC-FT	11590	4430	4700	7920	29850	28620	63300	56400	86870	118100	95560	46030

e Estimated.

SAN JOAQUIN RIVER BASIN

11289500 TURLOCK CANAL NEAR LA GRANGE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	284	151	135	69.6	120	457	1018	1248	1338	1257	1049	683
MAX	867	1008	1210	467	855	1350	1874	1829	1883	2098	1991	1604
(WY)	1987	1976	1984	1971	1976	1972	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1899 - 1995			
ANNUAL TOTAL	285054.57				278973.87							
ANNUAL MEAN	781				764				656			
HIGHEST ANNUAL MEAN									1082			
LOWEST ANNUAL MEAN									54.3			
HIGHEST DAILY MEAN	2460				2940				3400			
LOWEST DAILY MEAN	.00				.00				.00			
ANNUAL SEVEN-DAY MINIMUM	.00				.00				.00			
ANNUAL RUNOFF (AC-FT)	565400				553300				475100			
10 PERCENT EXCEEDS	1940				1880				1650			
50 PERCENT EXCEEDS	489				549				438			
90 PERCENT EXCEEDS	36				28				.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 mi².

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 257 ft³/s was diverted during the current year. See schematic diagram of Tuolumne River basin. For records of combined discharge of river and Modesto and Turlock Canals, see station 11289651.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 10,400 ft³/s, Apr. 24, 1983, gage height, 15.09 ft; no flow for several days during September and October 1977.
Combined flow, maximum daily discharge, 13,800 ft³/s, May 26, 1983; minimum daily, 0.45 ft³/s, Nov. 2, 1970.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 9,260 ft³/s, May 26, gage height, 14.20 ft; minimum daily, 21 ft³/s, Oct. 1, 3, 4.
Combined flow, maximum daily discharge, 11,600 ft³/s, June 3, July 12; minimum daily, 171 ft³/s, Nov. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	167	174	174	4890	1700	7230	4780	8650	614	3830	1630
2	22	167	176	182	3880	1150	7310	5600	8640	669	3310	1630
3	e21	168	172	186	3490	1160	7440	7250	8670	783	2860	1680
4	e21	169	179	175	4390	1260	7380	7730	8650	1240	1620	1540
5	24	171	183	174	4510	1270	7070	7640	8530	1590	1220	1440
6	22	172	210	174	4670	1220	7050	7630	7880	1940	1100	1330
7	26	174	182	178	4600	1270	7070	7660	7620	3100	1130	1340
8	24	175	184	174	4420	1240	7060	7740	7330	4610	690	1320
9	24	173	185	182	4440	1830	7120	7720	6940	5720	609	1310
10	23	174	177	178	4510	3310	7030	7840	6530	8040	601	1370
11	23	171	176	181	4450	3610	6980	7730	6520	8640	1320	1360
12	22	175	175	177	4170	2340	7010	7760	6400	8590	2000	1310
13	35	179	177	178	4590	3670	6840	7780	5990	8030	632	1370
14	189	181	183	174	4050	4290	6810	7700	5890	6620	508	1270
15	178	176	181	175	4480	5460	7050	7700	5230	4860	513	1480
16	178	170	180	176	4830	5750	7000	7770	4900	4610	454	1860
17	176	171	175	179	4190	6790	7110	7740	4580	3380	455	1820
18	177	170	179	179	3380	8290	7120	8000	4220	1870	455	2370
19	176	170	182	911	3260	8190	7160	8430	3960	803	454	2660
20	186	170	184	1060	3080	7200	7880	8590	3700	677	453	2690
21	181	169	179	1300	3180	5190	8460	8640	3150	565	484	3150
22	181	177	176	1340	3830	5260	8410	8700	2780	515	524	3290
23	179	173	181	1230	3180	2190	8380	8710	2390	525	525	3350
24	177	173	184	2460	2960	6010	7720	8660	2120	803	525	3190
25	177	174	180	2490	2860	8240	6880	8680	1760	836	525	3330
26	177	175	176	2600	2760	8270	5700	8670	1340	1230	529	2950
27	167	173	173	3280	2810	8250	5000	8690	1050	1680	527	2750
28	168	173	174	3990	2600	8240	4750	8600	793	2560	1070	2560
29	169	174	173	4100	---	8420	4780	8640	672	3110	1840	2460
30	171	174	173	4900	---	8230	4790	8600	665	3610	1900	2190
31	169	---	175	4930	---	7960	---	8620	---	4410	1640	---
TOTAL	3484	5179	5558	37787	108460	147260	207590	246000	147550	96230	34303	62000
MEAN	112	173	179	1219	3874	4750	6920	7935	4918	3104	1107	2067
MAX	189	181	210	4930	4890	8420	8460	8710	8670	8640	3830	3350
MIN	21	167	172	174	2600	1150	4750	4780	665	515	453	1270
AC-FT	6910	10270	11020	74950	215100	292100	411800	487900	292700	190900	68040	123000

e Estimated.

SAN JOAQUIN RIVER BASIN

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	706	386	862	1300	1428	1553	1467	1342	659	397	203	525
MAX	4187	905	4327	5563	5265	6636	8900	9744	5161	3808	1747	3491
(WY)	1984	1984	1983	1984	1983	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 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1971 - 1995		
ANNUAL TOTAL	72692			1101401					
ANNUAL MEAN	199			3018			900		
HIGHEST ANNUAL MEAN							4786		
LOWEST ANNUAL MEAN							84.3		
HIGHEST DAILY MEAN	1260			Apr 24			8710		
LOWEST DAILY MEAN	17			Jun 28			May 23		
ANNUAL SEVEN-DAY MINIMUM	18			Jun 28			Oct 1		
INSTANTANEOUS PEAK FLOW							21		
INSTANTANEOUS PEAK STAGE							22		
ANNUAL RUNOFF (AC-FT)	144200			2185000			May 26		
10 PERCENT EXCEEDS	338			7880			10400		
50 PERCENT EXCEEDS	175			1760			.00		
90 PERCENT EXCEEDS	21			173			.00		
							15.09		
							Apr 24 1983		
							Apr 25 1983		
							Sep 26 1977		
							Oct 12 1977		
							Apr 24 1983		
							Apr 24 1983		
							652000		
							2910		
							205		
							12		

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,
COMBINED DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	322	209	374	4910	2020	9250	5800	10600	4420	6110	3550
2	191	331	212	406	4920	1500	9360	6090	11300	4040	5320	3460
3	236	191	225	277	4960	1760	9480	7740	11600	4020	4700	3410
4	302	225	260	540	4910	1940	9430	8350	11400	4580	4480	3520
5	375	171	370	197	5010	2130	8790	8180	11200	4830	4550	3410
6	472	174	411	218	5170	2140	8250	8590	11200	4050	4580	3320
7	442	186	264	313	5100	2390	8310	8840	10700	6040	4320	3470
8	287	188	269	281	4930	2250	8290	8880	10200	7840	2670	3200
9	289	221	276	270	4980	2370	8340	8970	9390	8590	2440	3300
10	465	229	308	406	5080	3440	8330	10200	9000	10300	1790	3240
11	319	222	266	271	5000	3700	8350	10700	8990	10500	2260	3360
12	209	200	244	668	4740	2360	8370	10700	8840	11600	3180	3270
13	241	226	284	850	5210	3680	8360	10700	8280	11500	2260	3380
14	503	265	461	516	4680	4430	8400	9610	7440	9120	2870	3430
15	831	495	240	449	4930	5530	8370	8880	6690	7790	3400	3510
16	1060	289	334	629	5090	5800	8250	8870	6710	7350	2810	3390
17	452	275	244	605	4660	6890	8390	8990	5870	5550	2720	3580
18	788	263	223	562	4030	8330	8360	9280	5500	4750	3190	3690
19	938	223	257	1460	3950	8420	8330	9490	5150	4120	3480	3720
20	591	218	434	1230	3840	7520	9050	9430	4950	3110	3290	3480
21	398	322	260	1330	3920	5690	9550	9380	4920	3020	3240	3560
22	240	183	210	1350	4430	6170	9510	9450	5150	3690	3140	3590
23	257	209	183	1270	3770	3900	9500	9500	4900	3350	2990	3620
24	704	227	252	2560	3700	7230	8880	9440	4410	3590	2420	3560
25	752	208	183	2500	3690	9150	8440	9460	4310	3670	3000	3720
26	687	293	185	2610	3680	9170	7930	9880	4100	3960	2910	3570
27	571	379	245	3290	3740	9200	6990	10500	3320	4980	3200	3650
28	581	223	232	3990	3470	9310	6710	10600	3820	4620	3110	3420
29	797	275	257	4100	---	9480	6640	10600	5200	4610	3190	3350
30	1020	236	414	4990	---	9500	5850	10600	4850	6440	3230	3240
31	503	---	348	4960	---	9440	---	10600	---	8210	3360	---
TOTAL	15717	7469	8560	43472	126500	166840	252060	288300	219990	184240	104210	103970
MEAN	507	249	276	1402	4518	5382	8402	9300	7333	5943	3362	3466
MAX	1060	495	461	4990	5210	9500	9550	10700	11600	11600	6110	3720
MIN	191	171	183	197	3470	1500	5850	5800	3320	3020	1790	3200
AC-FT	31170	14810	16980	86230	250900	330900	500000	571800	436400	365400	206700	208200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1995, BY WATER YEAR (WY)

MEAN	1293	888	1303	1453	1600	2332	3107	3192	2875	2969	2464	1789
MAX	4693	2383	5327	5968	5292	6677	9873	11840	7644	6670	4715	5429
(WY)	1984	1983	1983	1984	1983	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1971 - 1995	
ANNUAL TOTAL	501298		1521328			
ANNUAL MEAN	1373		4168		2116	
HIGHEST ANNUAL MEAN					6186	
LOWEST ANNUAL MEAN					442	
HIGHEST DAILY MEAN	3570	Aug 15	11600	Jun 3	13800	May 26 1983
LOWEST DAILY MEAN	171	Nov 5	171	Nov 5	.45	Nov 2 1970
ANNUAL SEVEN-DAY MINIMUM	194	Nov 3	194	Nov 3	.61	Oct 29 1970
ANNUAL RUNOFF (AC-FT)	994300		3018000		1533000	
10 PERCENT EXCEEDS	2870		9430		4490	
50 PERCENT EXCEEDS	1130		3580		1770	
90 PERCENT EXCEEDS	241		241		224	

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1970 to current year.

INSTRUMENTATION.--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, 15.5°C, Oct. 2, 3; minimum recorded, 9.0°C, several days in January, Feb. 14, 15, and several days in March.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	13.0	11.5	10.5	10.5	10.0	9.5	9.0	10.0	9.5	10.0	9.5
2	15.5	13.0	11.5	10.5	10.5	10.0	9.5	9.0	10.0	9.5	10.0	9.5
3	15.5	13.0	11.0	10.0	10.5	10.5	9.5	9.0	10.0	9.5	9.5	9.5
4	14.0	13.0	11.0	10.0	11.0	10.5	9.5	9.0	10.0	9.5	9.5	9.0
5	15.0	12.5	11.0	10.5	10.5	10.5	9.5	9.0	10.0	9.5	9.5	9.5
6	15.0	12.5	11.5	10.5	10.5	10.0	9.5	9.0	10.0	9.5	10.0	9.0
7	15.0	12.5	11.0	11.0	10.5	10.0	9.5	9.5	10.0	9.5	10.0	9.0
8	15.0	12.5	11.5	11.0	10.0	9.5	9.5	9.0	10.0	10.0	9.5	9.5
9	15.0	12.5	11.0	10.5	10.0	9.5	9.5	9.0	10.0	10.0	9.5	9.5
10	15.0	12.5	11.0	10.0	10.0	9.5	9.5	9.0	10.0	9.5	10.5	9.5
11	15.0	12.0	11.0	10.0	10.0	9.5	9.5	9.0	9.5	9.5	10.5	9.5
12	14.5	12.0	11.0	10.0	10.5	10.0	9.5	9.0	9.5	9.5	10.0	9.5
13	14.0	11.5	11.0	10.0	10.5	10.0	10.0	9.5	9.5	9.5	10.0	9.5
14	11.5	10.5	11.0	10.0	10.0	10.0	9.5	9.5	9.5	9.0	10.0	9.5
15	11.5	10.5	10.5	10.0	10.5	10.0	9.5	9.5	9.5	9.0	10.0	9.5
16	11.5	10.5	10.5	10.0	10.0	10.0	9.5	9.5	9.5	9.5	10.0	9.5
17	11.5	10.5	10.5	10.0	10.0	10.0	9.5	9.5	9.5	9.5	10.0	9.5
18	11.5	10.5	10.5	10.0	10.5	10.0	9.5	9.5	9.5	9.5	9.5	9.5
19	11.5	10.5	10.5	9.5	10.0	10.0	9.5	9.5	10.0	9.5	9.5	9.5
20	12.0	10.5	10.0	9.5	10.0	10.0	9.5	9.5	10.0	9.5	9.5	9.5
21	11.5	10.5	10.5	10.0	10.0	10.0	10.0	9.5	9.5	9.5	9.5	9.0
22	12.0	11.0	10.5	10.0	10.0	10.0	10.0	9.5	9.5	9.5	9.5	9.0
23	11.5	11.0	10.5	9.5	10.0	10.0	10.0	9.5	9.5	9.5	9.5	9.0
24	12.0	11.0	10.5	10.0	10.0	10.0	10.0	9.5	9.5	9.5	9.5	9.0
25	11.5	10.5	10.5	10.0	10.0	10.0	10.0	9.5	9.5	9.5	9.5	9.5
26	11.5	10.5	11.0	10.0	10.5	9.5	10.0	9.5	9.5	9.5	9.5	9.5
27	11.5	10.5	10.5	10.0	10.0	9.5	10.0	9.5	9.5	9.5	9.5	9.5
28	12.0	11.0	11.0	10.0	10.5	10.0	10.0	9.5	9.5	9.5	9.5	9.5
29	11.5	10.5	10.5	10.0	10.5	10.0	10.0	9.5	---	---	9.5	9.5
30	11.5	10.5	10.5	9.5	10.5	9.5	10.0	9.5	---	---	9.5	9.5
31	11.5	10.5	---	---	10.0	9.5	10.0	9.5	---	---	9.5	9.5
MONTH	15.5	10.5	11.5	9.5	11.0	9.5	10.0	9.0	10.0	9.0	10.5	9.0

11289650 TUOLUMNE RIVER BELOW LA GRANGE DAM, NEAR LA GRANGE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	9.5	10.0	10.0	11.0	10.5	12.0	11.0	12.5	12.0	12.5	12.0
2	9.5	9.5	10.0	9.5	11.0	10.5	12.0	11.0	12.5	11.5	12.5	12.0
3	9.5	9.5	10.0	10.0	11.0	10.5	12.0	11.0	12.5	11.5	12.5	12.0
4	9.5	9.5	10.0	10.0	11.0	11.0	12.0	11.0	12.5	11.5	12.5	12.0
5	9.5	9.5	10.0	10.0	11.0	10.5	12.0	11.0	12.5	11.5	13.0	12.0
6	9.5	9.5	10.0	10.0	11.0	10.5	12.0	11.0	12.5	11.5	13.0	12.0
7	9.5	9.5	10.0	10.0	11.0	10.5	11.5	11.0	13.0	11.5	12.5	12.0
8	9.5	9.5	10.0	10.0	11.0	10.5	11.5	11.0	13.0	11.5	12.5	12.0
9	10.0	9.5	10.0	10.0	11.0	11.0	11.5	11.0	13.0	11.5	12.5	12.0
10	10.0	9.5	10.5	10.0	11.5	11.0	11.5	11.0	13.0	11.5	12.5	12.0
11	10.0	9.5	10.5	10.0	11.5	11.0	11.5	11.5	12.5	11.5	12.5	12.0
12	10.0	9.5	10.0	10.0	11.0	11.0	11.5	11.5	12.5	11.5	12.5	12.0
13	9.5	9.5	10.0	10.0	11.5	11.0	12.0	11.5	13.0	11.5	12.5	12.0
14	10.0	9.5	10.5	10.0	11.0	11.0	12.0	11.5	12.5	11.5	12.5	12.0
15	10.0	9.5	10.5	10.0	11.0	11.0	12.0	11.5	13.0	11.5	12.5	12.0
16	10.0	9.5	10.5	10.0	11.5	11.0	12.0	11.5	13.0	11.5	12.5	12.0
17	10.0	9.5	10.5	10.0	11.5	11.0	12.0	11.5	13.0	11.5	12.5	12.0
18	10.0	9.5	10.5	10.0	11.5	11.0	12.5	11.5	13.0	11.5	12.5	12.0
19	10.0	9.5	10.5	10.0	11.5	11.0	13.0	11.5	13.0	11.5	12.5	12.0
20	10.0	9.5	10.5	10.5	11.5	11.0	13.0	11.5	13.0	11.5	12.5	12.0
21	10.0	9.5	10.5	10.0	11.5	11.0	13.0	11.5	13.0	12.0	12.5	12.0
22	10.0	9.5	10.5	10.0	11.5	11.0	12.5	11.5	13.0	12.0	12.5	12.0
23	10.0	9.5	10.5	10.0	12.0	11.0	12.5	11.5	13.0	12.0	12.5	12.0
24	10.0	9.5	10.5	10.5	12.0	11.0	12.5	11.5	13.0	11.5	12.5	12.0
25	10.0	9.5	10.5	10.5	12.0	11.0	12.5	11.5	13.0	11.5	12.5	12.0
26	10.0	9.5	10.5	10.5	12.0	11.0	12.5	11.5	13.0	11.5	12.5	12.0
27	10.0	9.5	10.5	10.5	12.0	11.0	12.5	11.5	13.0	11.5	12.5	12.0
28	10.0	9.5	11.0	10.5	12.0	11.0	12.0	11.5	13.0	11.5	12.5	12.0
29	10.0	10.0	11.0	10.5	12.0	11.0	12.0	11.5	12.5	11.5	12.5	12.0
30	10.0	9.5	11.0	10.5	12.0	11.0	12.5	11.5	12.5	11.5	12.5	12.0
31	---	---	11.0	10.5	---	---	12.0	11.5	12.5	11.5	---	---
MONTH	10.0	9.5	11.0	9.5	12.0	10.5	13.0	11.0	13.0	11.5	13.0	12.0

SAN JOAQUIN RIVER BASIN

11290000 TUOLUMNE RIVER AT MODESTO, CA

LOCATION.--Lat 37°37'38", long 120°59'11", in SE 1/4 SW 1/4 sec.33, T.3 S., R.9 E., Stanislaus County, Hydrologic Unit 18040002, on left bank at bridge on Ninth Street in Modesto and 0.2 mi downstream from Dry Creek.

DRAINAGE AREA.--1,884 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1878-84, 1891-94, 1897 (gage heights only), January 1895 to December 1896, April 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder, 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 good except for period of estimated daily discharges which is 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, 1941-95).--Maximum discharge observed, 57,000 ft³/s, Dec. 9, 1950, elevation, 69.19 ft; minimum daily, 56 ft³/s, Aug. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft³/s, Mar. 12, elevation, 56.64 ft; minimum daily, 106 ft³/s, Oct. 11, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	230	240	247	4890	e2770	8560	5220	8620	1020	4490	1790
2	119	263	240	248	4870	e1800	8200	5260	8690	948	4080	1760
3	113	224	248	275	4090	1640	7990	6020	8710	953	3600	1790
4	115	235	246	305	3900	1450	7910	7270	8690	1040	3090	1830
5	135	230	242	292	4640	1560	7880	7740	8700	1460	1960	1680
6	117	224	250	377	4870	1480	7540	7790	8600	2090	1510	1500
7	122	229	255	410	4990	1380	7370	7860	8210	2280	1440	1410
8	121	231	254	328	4970	1370	7340	7860	7960	3620	1330	1420
9	124	253	249	317	4860	1430	7320	7660	7510	4750	1040	1400
10	114	258	251	484	4860	3120	7270	7630	7060	5950	1100	1460
11	106	235	249	1680	4910	7960	7000	7730	6770	7890	1060	1570
12	111	231	252	1060	4840	8880	6780	7670	6710	8510	1560	1530
13	110	230	253	536	4700	4740	6810	7710	6490	8580	2120	1430
14	106	234	255	546	4920	4780	6690	7830	6310	8270	941	1440
15	125	245	252	694	4660	5410	6650	7880	6040	6790	765	1370
16	204	244	248	1430	4920	6230	6910	7940	5570	5230	741	1590
17	220	236	249	764	5120	6450	6940	8020	5210	4950	724	2020
18	196	235	244	446	4660	7390	7020	7980	4930	3730	735	2030
19	202	233	245	364	e3950	8400	7030	8090	4570	2390	724	2660
20	212	231	248	575	e3650	8480	7090	8300	4410	1310	705	2880
21	225	230	252	773	e3320	8060	7830	8430	4090	1100	692	3050
22	220	232	252	1070	e3350	6740	8300	8500	3740	965	695	3560
23	257	237	249	1150	e3850	7750	8350	8580	3410	906	719	3800
24	246	240	258	1550	e3470	6120	8330	8590	2990	889	732	3990
25	239	239	265	4500	e3150	7260	7770	8610	2710	1160	746	3970
26	233	252	261	4900	e3030	8670	6880	8600	2330	1130	770	4050
27	227	243	253	3880	e2850	8800	5800	8590	1780	1610	749	3720
28	221	238	251	6180	e2900	8790	5160	8600	1460	1940	719	3540
29	228	238	250	4900	---	8760	5060	8570	1160	3060	1140	3440
30	229	239	247	4220	---	8870	5110	8600	992	3460	1890	3280
31	232	---	248	4650	---	8770	---	8580	---	4040	1980	---
TOTAL	5368	7119	7756	49151	119190	175310	214890	243710	164422	102021	44547	70960
MEAN	173	237	250	1586	4257	5655	7163	7862	5481	3291	1437	2365
MAX	257	263	265	6180	5120	8880	8560	8610	8710	8580	4490	4050
MIN	106	224	240	247	2850	1370	5060	5220	992	889	692	1370
AC-FT	10650	14120	15380	97490	236400	347700	426200	483400	326100	202400	88360	140700

e Estimated.

SAN JOAQUIN RIVER BASIN

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11290000 TUOLUMNE RIVER AT MODESTO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	862	1042	1566	1762	1879	1921	1864	1902	1614	624	351	551
MAX	4760	4124	8677	8054	7606	7658	9268	10420	7665	4244	2225	4041
(WY)	1984	1951	1951	1956	1969	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 1994 CALENDAR YEAR					FOR 1995 WATER YEAR				WATER YEARS 1940 - 1995		
ANNUAL TOTAL	105963					1204444						
ANNUAL MEAN	290					3300				1317		
HIGHEST ANNUAL MEAN										5518		
LOWEST ANNUAL MEAN										185		
HIGHEST DAILY MEAN	1150					8880				43800		
LOWEST DAILY MEAN	92					106				56		
ANNUAL SEVEN-DAY MINIMUM	102					113				62		
INSTANTANEOUS PEAK FLOW						11100				57000		
INSTANTANEOUS PEAK STAGE						56.64				69.19		
ANNUAL RUNOFF (AC-FT)	210200					2389000				954400		
10 PERCENT EXCEEDS	538					8130				3460		
50 PERCENT EXCEEDS	240					1960				606		
90 PERCENT EXCEEDS	116					232				176		

SAN JOAQUIN RIVER BASIN
11290000 TUOLUMNE RIVER AT MODESTO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1989 to March 31, 1995 (discontinued). 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 files of the U.S. Geological Survey.
 CHEMICAL DATA: Water year 1993 to March 1995 (discontinued).
 SPECIFIC CONDUCTANCE: Water year 1989 to March 31, 1995 (discontinued).
 WATER TEMPERATURE: Water year 1989 to March 31, 1995 (discontinued).
 SEDIMENT DATA: Water year 1993 to March 1995 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to March 31, 1995 (discontinued).
 WATER TEMPERATURE: October 1988 to March 31, 1995 (discontinued).

INSTRUMENTATION.--Water-quality monitor since October 1985.

REMARKS.--Large variations between daily maximums and minimums may be caused by irrigation-return flow or urban runoff.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 587 microsiemens, Mar. 12, 1993; minimum recorded, 35 microsiemens, Apr. 29, 1989.
 WATER TEMPERATURE: Maximum recorded, 34.5°C, July 3-5, 1991; minimum recorded, 3.5°C, several days during December 1990.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 349 microsiemens, Oct. 8; minimum recorded, 43 microsiemens, Feb. 14, 15.
 WATER TEMPERATURE: Maximum recorded, 26.0°C, Oct. 2; minimum recorded, 8.5°C, Nov. 19, Dec. 10, 11, 14, 31.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT										
27...	0940	222	149	7.5	--	766	7.4	--	48	11
NOV										
30...	0940	237	168	7.2	9.5	767	9.6	84	55	13
DEC										
29...	0910	249	--	7.6	9.0	764	10.4	90	51	12
JAN										
24...	1030	1280	139	6.3	11.0	755	10.0	91	21	5.0
MAR										
02...	1615	1970	68	7.0	--	758	9.9	--	22	5.1
21...	1130	8050	52	7.0	11.0	758	10.7	97	18	4.1
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
27...	4.9	11	32	0.7	1.7	51	0	42	4.7	12
NOV										
30...	5.5	12	31	0.7	1.7	56	0	46	5.5	14
DEC										
29...	5.2	11	31	0.7	1.7	59	0	48	5.7	14
JAN										
24...	2.1	2.9	22	0.3	1.0	24	0	20	1.6	2.9
MAR										
02...	2.2	3.0	22	0.3	1.0	10	0	8	2.3	2.2
21...	1.9	2.3	21	0.2	0.90	20	0	16	3.6	1.7

SAN JOAQUIN RIVER BASIN
11290000 TUOLUMNE RIVER AT MODESTO, CA--Continued

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT 27...	<0.10	18	92	91	0.13	<0.010	0.500	0.040	0.20	<0.20
NOV 30...	<0.10	17	110	100	0.15	0.020	0.710	0.020	0.20	<0.20
DEC 29...	<0.10	18	112	101	0.15	0.020	0.840	0.040	0.50	<0.20
JAN 24...	<0.10	10	40	39	0.05	<0.010	0.250	0.030	0.20	<0.20
MAR 02...	<0.10	10	46	32	0.06	<0.010	0.180	0.040	0.20	<0.20
21...	<0.10	9.1	40	34	0.05	<0.010	0.160	0.020	<0.20	<0.20

DATE	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 27...	0.050	0.020	<0.010	20	62	23	<1	<1	2.3	--
NOV 30...	0.080	0.060	0.020	20	70	21	--	<1	1.6	0.3
DEC 29...	0.110	0.020	0.020	20	77	15	<1	<1	1.6	0.5
JAN 24...	0.070	0.020	0.020	10	48	11	<1	<1	2.3	0.5
MAR 02...	0.050	0.030	0.030	<10	82	23	1	<1	4.0	0.5
21...	0.030	0.020	0.020	<10	63	9	<1	<1	3.6	0.5

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 27...N	0940	222	--	18	11
NOV 30...N	0940	237	9.5	7	4.5
DEC 29...N	0910	249	9.0	176	118
JAN 24...N	1030	1280	11.0	17	59
MAR 02...N	1615	1970	--	19	101
21...N	1130	8050	11.0	26	565

11290000 TUOLUMNE RIVER AT MODESTO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	342	321	158	156	172	169	167	162	49	46	61	58
2	331	316	158	143	176	171	163	160	49	46	73	61
3	337	330	150	146	177	174	162	142	57	49	79	73
4	342	322	151	149	175	173	154	129	59	56	89	78
5	329	318	152	150	177	174	147	137	58	52	92	88
6	328	311	154	152	180	177	159	147	52	48	90	86
7	336	325	154	152	178	173	171	159	48	46	89	85
8	349	328	153	150	174	168	179	170	47	46	85	82
9	341	328	152	148	172	170	191	178	47	47	83	79
10	328	303	148	142	170	165	205	190	48	47	96	71
11	337	318	150	146	165	163	215	205	49	46	99	81
12	343	321	155	150	167	165	220	215	48	46	88	78
13	332	321	157	154	171	167	220	216	48	46	80	78
14	343	329	158	156	175	170	217	213	48	43	79	71
15	341	307	158	155	180	174	216	210	48	43	80	62
16	315	264	156	153	181	179	210	204	51	45	69	53
17	269	238	156	154	187	181	204	193	51	49	53	50
18	251	240	156	155	187	182	194	187	51	49	52	50
19	243	208	156	154	182	178	188	182	51	50	52	52
20	208	182	157	155	178	171	186	179	51	50	52	51
21	182	166	159	157	171	168	180	151	50	48	67	51
22	168	166	160	158	169	167	152	149	48	46	65	56
23	166	154	162	159	169	165	149	141	46	45	66	56
24	154	148	162	160	166	165	141	139	46	44	69	65
25	153	150	163	161	166	163	141	136	50	46	69	58
26	154	151	163	161	163	157	137	134	52	50	58	54
27	158	153	164	161	222	160	136	133	54	52	55	53
28	159	157	167	164	219	203	134	82	58	54	53	51
29	160	156	169	166	216	178	83	61	---	---	52	50
30	159	155	170	168	178	172	61	53	---	---	50	49
31	159	156	---	---	173	167	53	48	---	---	50	48
MONTH	349	148	170	142	222	157	220	48	59	43	99	48

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.0	19.5	16.5	14.5	10.5	10.0	11.0	9.0	12.0	11.5	11.5	11.0
2	26.0	19.5	15.5	13.0	11.0	10.0	10.0	9.5	11.5	11.5	12.5	11.5
3	24.0	19.5	14.5	12.0	11.0	10.5	10.5	9.0	12.0	11.0	12.5	12.0
4	21.5	19.0	13.5	11.5	11.5	10.5	10.0	10.0	11.5	11.0	12.0	11.0
5	22.5	18.0	13.5	12.5	12.0	10.5	11.0	10.0	11.0	10.5	12.0	11.0
6	24.0	17.5	14.5	13.5	12.0	10.5	10.5	9.5	11.0	10.5	12.0	10.5
7	24.0	18.0	15.0	13.0	12.0	10.0	11.0	9.5	11.0	10.5	12.0	10.5
8	24.5	18.0	15.0	12.5	11.0	9.5	11.0	10.5	11.0	10.5	11.5	11.0
9	24.0	18.0	13.5	13.0	11.0	9.0	13.0	11.0	11.5	10.5	11.5	11.5
10	25.0	18.5	14.0	12.5	9.5	8.5	13.5	12.5	11.0	10.5	12.5	11.5
11	24.5	17.5	14.5	12.0	10.5	8.5	13.0	12.0	11.0	10.5	13.0	12.5
12	23.0	17.5	13.5	12.0	10.0	9.5	12.5	12.0	11.0	10.5	13.0	12.5
13	22.0	16.0	13.5	11.0	10.5	9.0	13.0	12.5	11.0	10.5	13.0	12.5
14	21.0	16.0	13.0	10.5	9.5	8.5	14.0	13.0	11.0	10.0	12.5	12.0
15	20.0	15.5	11.0	11.0	10.5	9.0	13.5	12.5	10.5	10.0	12.5	11.5
16	18.5	15.0	13.0	11.0	10.0	9.5	13.0	11.0	10.5	9.5	12.5	11.5
17	18.5	16.0	12.0	10.5	10.0	9.5	11.5	11.0	11.0	10.0	12.0	11.0
18	19.5	15.5	11.5	9.0	11.0	9.5	11.5	10.5	11.0	10.0	11.5	11.0
19	19.0	15.5	11.0	8.5	11.0	10.0	11.0	10.0	11.5	10.0	11.5	11.0
20	18.5	15.0	11.0	9.0	10.5	10.0	10.5	10.0	11.5	10.5	12.0	11.0
21	18.0	15.0	12.0	10.0	10.5	10.0	10.5	9.5	12.0	10.5	12.0	11.0
22	18.0	15.0	11.5	9.5	10.0	9.5	10.5	10.0	11.5	11.0	11.5	10.5
23	17.5	15.5	11.5	9.0	10.5	9.5	11.0	10.5	11.0	10.5	11.0	10.5
24	18.5	16.0	11.0	10.0	10.0	9.5	11.5	11.0	11.5	11.0	12.0	10.5
25	18.5	16.0	12.0	10.5	11.0	9.0	11.5	11.0	11.0	11.0	12.0	11.0
26	18.5	15.5	12.0	10.0	10.5	9.0	11.0	10.5	11.0	10.5	11.5	11.0
27	19.0	16.0	10.5	10.0	10.5	9.0	11.5	11.0	11.0	10.5	12.0	11.0
28	19.5	16.5	12.0	10.0	11.5	9.5	11.5	11.0	11.5	10.5	12.0	11.0
29	18.0	15.5	11.5	9.5	11.0	9.0	11.5	11.0	---	---	12.0	11.0
30	17.5	14.5	11.5	9.5	10.5	9.0	11.5	11.0	---	---	12.0	11.5
31	17.5	14.5	---	---	10.0	8.5	11.5	11.0	---	---	12.5	11.5
MONTH	26.0	14.5	16.5	8.5	12.0	8.5	14.0	9.0	12.0	9.5	13.0	10.5

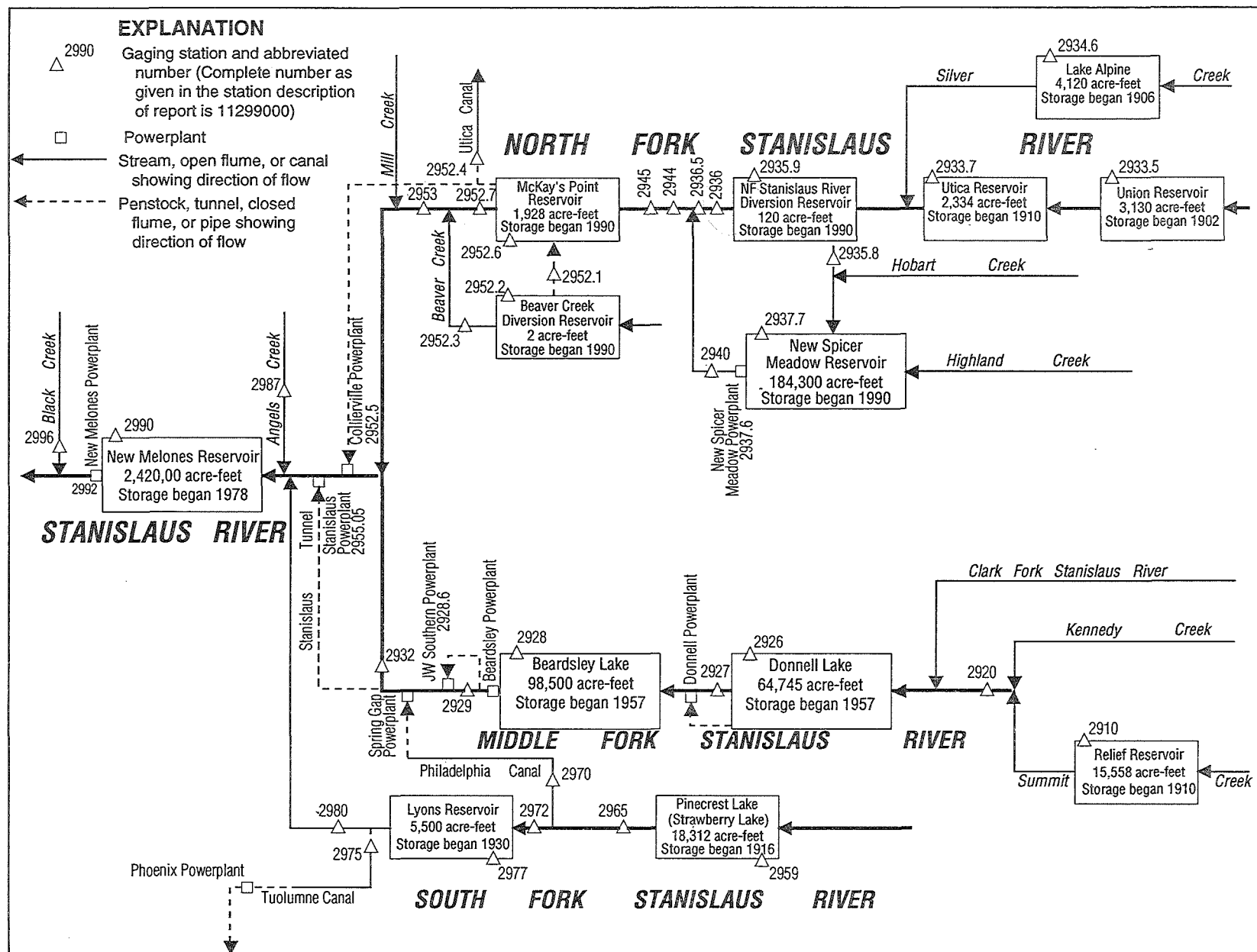


Figure 30. Diversions and storage in Stanislaus River basin.

SAN JOAQUIN 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 mi².

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.--No record for the winter months. 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, 15,622 acre-ft, July 25, 1993, gage height, 138.31 ft; minimum observed, 33 acre-ft, Jan. 12, 1987, gage height, 6.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,493 acre-ft, July 29, gage height, 137.70 ft; minimum observed, 1,464 acre-ft, Nov. 28, gage height, 48.43 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	1920	---	---	---	---	---	---	e14931	14935	15410	15012
2	1856	1867	---	---	---	---	---	---	e14870	14927	15429	14994
3	1843	1814	---	---	---	---	---	e6454	e14828	14919	15429	15014
4	1864	1763	---	---	---	---	---	e6651	e14866	14895	15435	15035
5	1914	1788	---	---	---	---	---	e6840	e14943	14953	15442	14895
6	1973	2022	---	---	---	---	---	e6987	e14824	15069	15431	14662
7	2025	2059	---	---	---	---	---	e7091	e14682	15039	15442	14401
8	2086	2058	---	---	---	---	---	e7180	e14558	15078	15381	14136
9	2150	2044	---	---	---	---	---	e7316	e14433	15076	15381	13874
10	2202	2027	---	---	---	---	---	e7497	e14431	14943	15372	13626
11	2240	2007	---	---	---	---	---	e7695	e14774	14844	15334	13376
12	2269	1979	---	---	---	---	---	e7883	e14872	14724	15276	13117
13	2280	1950	---	---	---	---	---	e8071	e14889	14676	15205	12848
14	2285	1921	---	---	---	---	---	e8258	e14887	14698	15237	12566
15	2293	1888	---	---	---	---	---	e8446	e14786	14762	15332	12273
16	2292	1859	---	---	---	---	---	e8481	e14643	14792	15414	11969
17	2291	1831	---	---	---	---	---	e8608	e14501	14744	15440	11734
18	2288	1800	---	---	---	---	---	e8809	e14396	14794	15393	11504
19	2284	1768	---	---	---	---	---	e9194	e14517	14933	15379	11264
20	2279	1732	---	---	---	---	---	e9744	e14637	14943	15385	11000
21	2274	1700	---	---	---	---	---	e10379	e14676	14951	15408	10719
22	2267	1662	---	---	---	---	---	e11097	e14734	14893	15425	10428
23	2260	1624	---	---	---	---	---	e11588	e14792	14858	15423	10088
24	2254	1592	---	---	---	---	---	e12048	e14889	14856	15404	9779
25	2249	1561	---	---	---	---	---	e12315	e14967	14884	15377	9509
26	2244	1527	---	---	---	---	---	e12598	14969	14895	15335	9238
27	2204	1496	---	---	---	---	---	e13133	15012	14992	15301	8954
28	2146	1464	---	---	---	---	---	e13580	14982	15218	15257	8670
29	2089	---	---	---	---	---	---	e14121	14982	15493	15201	8378
30	2032	---	---	---	---	---	---	e14655	14972	15397	15129	8073
31	1974	---	---	---	---	---	---	e14933	---	15345	15072	---
MAX	2293	---	---	---	---	---	---	---	15012	15493	15442	15035
MIN	1843	---	---	---	---	---	---	---	14396	14676	15072	8073
a	53.96	---	---	---	---	---	---	---	135.00	136.92	135.51	99.89
b	-78	---	---	---	---	---	---	---	+39	+373	-273	-6999

WTR YR 1995 b +6021

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 mi².

PERIOD OF RECORD.--October 1938 to current year. Records for water year 1946 incomplete, yearly estimate published in WSP 1315-A. Prior to October 1960, published as "at Kennedy Meadows."

REVISED RECORDS.--WSP 1315-A: 1939(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,326.3 ft above sea level.

REMARKS.--No estimated daily discharges. 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, 1,700 ft³/s, Nov. 20, 1950, gage height, 6.66 ft; maximum gage height, 6.67 ft, May 29, 1983; minimum daily, 7.1 ft³/s, Jan. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft³/s, July 9, gage height, 6.56 ft; minimum daily, 18 ft³/s, Jan. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	48	52	22	75	78	59	291	993	1050	449	155
2	55	49	52	20	78	65	59	238	978	980	449	158
3	22	48	52	20	76	53	61	187	905	937	453	177
4	28	47	52	20	75	51	73	173	976	903	442	199
5	30	60	52	21	75	49	81	156	1160	908	462	221
6	28	88	51	20	75	47	85	138	832	1110	466	251
7	28	69	50	24	74	45	88	124	575	1280	433	240
8	29	62	48	23	73	45	84	123	470	1290	430	233
9	30	57	48	31	72	127	76	135	449	1450	359	227
10	30	56	48	48	70	161	72	147	475	1250	360	223
11	30	54	48	29	70	101	78	164	625	962	345	221
12	29	55	49	24	69	76	88	162	950	757	309	219
13	29	52	49	24	69	79	100	145	1020	595	295	218
14	28	51	47	38	68	91	92	130	984	557	245	216
15	28	52	36	30	67	91	84	121	755	606	201	214
16	27	52	20	24	65	84	78	116	550	672	219	213
17	26	51	20	22	64	77	73	119	473	703	277	213
18	26	50	20	20	64	80	70	138	467	629	278	209
19	26	49	20	19	65	84	67	191	491	557	224	205
20	26	51	20	18	69	89	65	254	501	598	214	203
21	25	50	20	43	74	85	63	292	534	603	228	202
22	25	49	20	55	75	74	61	299	608	601	244	201
23	25	49	21	36	76	65	66	262	727	535	258	200
24	25	49	21	28	78	69	84	252	943	496	256	198
25	25	48	21	25	80	65	111	255	1210	480	230	194
26	25	48	21	23	81	61	129	303	1320	475	193	192
27	37	50	21	23	80	58	144	353	1180	480	174	188
28	48	49	21	23	79	56	154	384	1180	519	166	186
29	48	49	21	23	---	55	170	428	1110	592	161	183
30	48	51	22	23	---	54	206	473	1090	661	158	180
31	48	---	24	45	---	56	---	738	---	532	154	---
TOTAL	1020	1593	1067	844	2036	2271	2721	7291	24531	23768	9132	6139
MEAN	32.9	53.1	34.4	27.2	72.7	73.3	90.7	235	818	767	295	205
MAX	86	88	52	55	81	161	206	738	1320	1450	466	251
MIN	22	47	20	18	64	45	59	116	449	475	154	155
AC-FT	2020	3160	2120	1670	4040	4500	5400	14460	48660	47140	18110	12180

11292000 MIDDLE FORK STANISLAUS RIVER AT KENNEDY MEADOWS, NEAR DARDANELLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	78.4	47.5	39.8	29.8	29.3	42.9	92.1	308	438	241	121	127
MAX	226	372	266	85.0	89.0	155	247	626	949	767	328	272
(WY)	1983	1951	1951	1951	1982	1980	1943	1969	1983	1985	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1939 - 1995			
ANNUAL TOTAL	26235				82413							
ANNUAL MEAN	71.9				226				133			
HIGHEST ANNUAL MEAN									256			
LOWEST ANNUAL MEAN									36.4			
HIGHEST DAILY MEAN	475				May 31				1450			
LOWEST DAILY MEAN	12				Jan 13				7.1			
ANNUAL SEVEN-DAY MINIMUM	12				Jan 13				7.5			
INSTANTANEOUS PEAK FLOW									1540			
INSTANTANEOUS PEAK STAGE									6.56			
ANNUAL RUNOFF (AC-FT)	52040				163500				Jul 9			
10 PERCENT EXCEEDS	136				615				1700			
50 PERCENT EXCEEDS	50				80				6.67			
90 PERCENT EXCEEDS	15				24				96480			

11292600 DONNELL LAKE NEAR DARDANELLE, CA

LOCATION.--Lat 38°19'46", long 119°57'37", unsurveyed, T.6 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank in hoist house of Donnell Dam on Middle Fork Stanislaus River, 1.2 mi downstream from Niagara Creek, and 6.9 mi west of Dardanelle.

DRAINAGE AREA.--230 mi².

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1960, published as Donnell's Reservoir near Dardanelle.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4.84 ft 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, 64,200 acre-ft, July 6, 27, Aug. 5, 10, 11, maximum gage height, 4,915.81 ft, July 6; minimum, 5,320 acre-ft, Jan. 23, gage height, 4,737.74 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26400	14700	8730	7920	5930	16100	26000	48800	63800	62500	63400	60900
2	26600	14900	8960	8060	6110	16900	25700	53100	63200	62400	63600	58600
3	26100	15000	9230	8080	6060	17600	25500	55900	62700	62800	64000	60100
4	25500	15100	9490	7780	6100	17000	25500	58200	63300	63200	64100	59800
5	25000	15500	9770	7250	6440	16300	25800	59600	63000	63600	64200	59300
6	24400	16100	10000	7420	6220	15500	26200	60200	61800	64200	64100	59000
7	23900	16200	10300	7710	6090	14700	27000	60300	61100	63800	64100	58600
8	24000	15900	10400	7950	6140	13900	27400	60500	61000	63900	64100	58500
9	24000	15500	10400	7800	6120	16100	27500	60900	61200	63900	64100	58700
10	23500	15000	10500	8830	5810	20000	27500	61400	62200	63300	64200	58800
11	22900	14600	10800	9460	6260	21600	27600	62000	63400	62800	64200	58900
12	22400	14300	10500	9720	6760	22100	27900	62300	63200	62600	64000	59000
13	21900	14200	9990	10100	6340	22400	28600	62100	63200	62400	64100	59100
14	21300	13700	9230	11500	5970	22900	28800	61700	63000	62600	64100	59300
15	21400	13300	8570	12200	6060	23400	28900	61400	63100	62900	63900	59400
16	21500	12800	8570	11400	6230	23900	28800	61300	62500	63700	63700	59500
17	20900	12300	8340	10600	6730	24100	28700	61400	62500	63400	63900	59700
18	20200	11800	8280	10000	7240	24600	28400	61800	63000	63500	64100	59800
19	19600	11200	7730	8950	7790	25300	28100	62300	62900	63400	64000	59900
20	19000	11200	7370	7850	8430	26100	27800	62400	62600	63600	63700	60100
21	18300	10700	7410	7080	9180	26500	27400	62600	62400	63900	63700	60200
22	18400	10100	7400	6220	9990	27200	27000	62600	62800	63700	63700	60300
23	18400	9350	7550	5320	10800	28300	26700	62200	63200	63400	63800	60400
24	17800	9520	7730	5560	11700	29100	26800	61900	63200	63300	63800	60700
25	17200	9330	7890	5950	12600	28800	27500	61700	63400	63600	63600	60700
26	16500	9140	8050	6190	13600	28500	28400	62100	63100	63700	63400	60800
27	15800	7930	8210	5800	14400	28100	29900	62500	63000	64200	63100	60800
28	15200	8130	7880	6140	15300	27600	32400	62900	63300	63800	62900	60800
29	15000	8310	7810	6510	---	27100	36600	63100	63100	63900	62300	60900
30	15100	8520	7620	6220	---	26700	40600	63300	62600	63900	61800	60900
31	14600	---	7750	6050	---	26300	---	63800	---	63400	61400	---
MAX	26600	16200	10800	12200	15300	29100	40600	63800	63800	64200	64200	60900
MIN	14600	7930	7370	5320	5810	13900	25500	48800	61000	62400	61400	58500
a	4774.22	4751.20	4748.09	4740.96	4776.64	4813.39	4855.29	4914.85	4911.93	4913.91	4908.91	4907.89
b	-11600	-6080	-770	-1700	+9250	+11000	+14300	+23200	-1200	+800	-2000	-500

CAL YR 1994 b -5150

WTR YR 1995 b +34700

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CA

LOCATION.--Lat 38°14'50", long 120°02'01", in NW 1/4 NE 1/4 sec.31, T.5 N., R.18 E., Tuolumne County, Hydrologic Unit 18040010, on left bank 200 ft upstream from Donnell Powerplant, 800 ft downstream from Hells Half Acre bridge, 1.1 mi upstream from Cow Creek, and 4.7 mi northwest of Pinecrest.

DRAINAGE AREA.--287 mi².

PERIOD OF RECORD.--February 1956 to current year. Prior to October 1965, published as Middle Fork Stanislaus River at Hells Half Acre bridge.

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.--Records good. Flow regulated by Relief Reservoir (station 11291000), Donnell Lake (station 11292600) since April 1957, and diversion around station through Donnell Powerplant. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s, Dec. 24, 1964, gage height, 13.64 ft in gage well, 14.2 ft outside, from floodmarks, from rating curve extended above 5,200 ft³/s on basis of slope-area measurement at gage height 12.20 ft; minimum daily, 3.3 ft³/s, Nov. 9, 10, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1905, 23 ft, Dec. 23, 1955, from floodmarks, at present site, discharge, 26,600 ft³/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft³/s, June 2, gage height, 10.86 ft; minimum daily, 21 ft³/s, Oct. 29-31, Nov. 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	22	32	40	253	248	344	3480	4600	3390	682	34
2	25	22	34	39	265	264	342	1800	4840	3080	434	36
3	25	21	42	39	250	488	359	1120	4410	2790	329	45
4	33	21	51	42	247	366	416	961	4230	2690	369	45
5	31	41	50	50	245	309	455	966	4590	2740	443	45
6	27	89	50	45	244	281	482	1070	3870	3000	508	45
7	26	46	44	84	235	254	870	1020	2640	3790	425	44
8	25	39	40	86	233	237	787	980	1850	3540	309	44
9	25	34	38	151	216	1440	561	988	1620	3740	241	44
10	25	38	37	590	206	2440	476	1020	1760	3400	168	44
11	25	33	36	e365	200	1490	475	1190	2440	2770	151	44
12	24	31	38	e259	196	913	508	1280	3730	2150	141	44
13	24	30	38	e700	192	788	571	1220	3830	1590	63	43
14	24	29	35	e1300	186	862	471	1130	3650	1370	43	43
15	24	29	35	e607	171	819	417	955	3070	1390	42	43
16	24	30	34	e352	167	709	374	819	2330	1450	42	43
17	24	32	36	e265	160	608	347	836	1760	2530	41	43
18	24	30	37	e230	157	744	336	887	1600	2100	41	43
19	23	29	37	e205	163	764	318	1400	2060	2100	40	42
20	23	28	36	179	185	778	313	2130	2260	1740	39	42
21	23	29	36	164	210	670	292	2790	2200	1140	39	42
22	22	28	37	158	223	546	294	3140	2230	1270	39	42
23	22	28	37	163	231	480	324	3060	2730	1210	38	42
24	22	28	41	179	238	417	382	3000	3640	973	38	42
25	22	32	41	194	246	376	453	2740	4120	765	37	43
26	22	32	41	182	246	351	488	2690	4370	706	37	43
27	22	30	41	182	236	335	652	2790	3990	707	37	42
28	22	29	45	185	235	321	1270	2480	3850	1180	36	43
29	21	29	43	191	---	310	2090	2850	3840	1100	36	43
30	21	31	41	193	---	308	1690	3150	3680	1090	35	42
31	21	---	40	218	---	324	---	3520	---	998	34	---
TOTAL	746	970	1223	7637	6036	19240	17157	57462	95790	62489	4957	1280
MEAN	24.1	32.3	39.5	246	216	621	572	1854	3193	2016	160	42.7
MAX	33	89	51	1300	265	2440	2090	3520	4840	3790	682	45
MIN	21	21	32	39	157	237	292	819	1600	706	34	34
AC-FT	1480	1920	2430	15150	11970	38160	34030	114000	190000	123900	9830	2540

e Estimated.

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.4	46.2	82.1	123	151	204	287	831	972	278	46.9	34.5
MAX	184	305	814	630	986	738	808	3144	4512	2016	320	72.8
(WY)	1983	1984	1965	1980	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1958 - 1995	
ANNUAL TOTAL	20388		274987			
ANNUAL MEAN	55.9		753		258	
HIGHEST ANNUAL MEAN					868	
LOWEST ANNUAL MEAN					18.4	
HIGHEST DAILY MEAN	178		4840		7410	
LOWEST DAILY MEAN	21		21		3.3	
ANNUAL SEVEN-DAY MINIMUM	21		21		3.7	
INSTANTANEOUS PEAK FLOW			5170		10200	
INSTANTANEOUS PEAK STAGE			10.86		13.64	
ANNUAL RUNOFF (AC-FT)	40440		545400		186600	
10 PERCENT EXCEEDS	127		2740		598	
50 PERCENT EXCEEDS	34		233		46	
90 PERCENT EXCEEDS	24		28		20	

SAN JOAQUIN RIVER BASIN

11292800 BEARDSLEY LAKE NEAR STRAWBERRY, CA

LOCATION.--Lat 36°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 mi².

PERIOD OF RECORD.--June 1957 to current year. Prior to October 1960, published as Lake Hartley near Strawberry.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.84 ft 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, and diverted again at Spring Gap Powerplant 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, Aug. 21, gage height, 3,396.83 ft; minimum, 20,200 acre-ft, Dec. 27, gage height, 3,261.67 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29100	28700	33100	20700	38800	33100	79200	96800	96700	96100	97300	97300
2	29000	28700	32300	20600	39000	32700	80100	95300	96800	96000	97400	97300
3	29200	28600	31500	20800	39300	33300	81100	94800	96400	96100	97500	97300
4	29400	28500	30700	21300	39400	34600	82300	94800	96400	96400	97400	97200
5	29400	28600	29800	22000	39400	35800	83600	94800	96500	96900	97400	97300
6	29500	28700	29000	22000	39900	36900	84900	94900	95800	97400	97500	97300
7	29400	28900	28300	22200	40200	38000	87400	95000	94900	97200	97500	97300
8	29100	29500	27400	22300	40300	38900	89000	95000	94700	97200	97400	97000
9	29100	30100	26700	23100	40400	42400	90300	95000	94700	97300	97400	96500
10	29200	30700	26000	24800	40700	48300	91800	95100	95100	97000	97400	95900
11	29200	31300	25100	25200	40300	52000	93100	95400	95600	96800	97500	95400
12	29200	31700	24800	25600	39800	54400	94400	95500	96400	96600	97500	94800
13	29100	32000	24700	27200	40200	57300	95700	95700	96600	96400	97500	94200
14	29200	32600	24800	30000	40600	59700	96300	95600	96600	96500	97500	93600
15	28900	33200	24800	31300	40300	61700	96500	95600	96300	96800	97600	92900
16	28800	33900	24100	32900	40000	63700	96600	95600	95900	97000	97600	92200
17	28900	34700	23600	34000	39300	65400	96800	95700	95400	97100	97600	91600
18	28800	35400	23000	34900	38600	67400	96800	95800	95400	96600	97500	90900
19	28600	36100	22900	36100	38000	69200	96900	96200	96000	96600	97500	90200
20	28500	36200	22500	37200	37400	71300	96900	96500	96400	96900	97600	89500
21	28800	36800	21700	37900	36800	73000	96900	96300	96600	96800	97700	88700
22	28400	37300	21000	38800	36300	74100	97000	96500	96700	97100	97600	88000
23	28200	37800	20500	39600	35800	75000	97100	96500	97000	97300	97500	87300
24	28200	36900	20500	39500	35300	75600	97100	96300	97000	97400	97500	86400
25	28100	36500	20300	39200	34900	76800	97200	95900	97000	97400	97600	85600
26	28000	36100	20300	39100	34400	77800	97300	95800	97100	97500	97500	84800
27	27900	36600	20200	39300	34000	78400	97600	96100	96800	97400	97400	84100
28	28100	35700	20500	38700	33400	78500	97400	96100	96800	97400	97300	83400
29	28300	34800	20600	38200	---	78500	97300	96100	96700	97200	97400	82700
30	28300	34000	20800	38300	---	78500	95300	96100	96400	97300	97400	81900
31	28800	---	20700	38400	---	78500	---	96200	---	97300	97400	---
MAX	29500	37800	33100	39600	40700	78500	97600	96800	97100	97500	97700	97300
MIN	27900	28500	20200	20600	33400	32700	79200	94800	94700	96000	97300	81900
a	3280.83	3291.69	3262.90	3300.58	3290.52	3368.98	3393.55	3394.82	3394.99	3396.37	3396.41	3374.09
b	-600	+5200	-13300	+17700	-5000	+45100	+16800	+900	+200	+900	+100	-15500
CAL YR 1994	b	-25200										
WTR YR 1995	b	+52500										

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CA

LOCATION.--Lat 38°11'36", long 120°05'53", in NW 1/4 NW 1/4 sec.22, T.4 N., R.17 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on right bank 0.5 mi downstream from Beardsley Afterbay Dam, 1.5 mi downstream from Beardsley Dam, and 5.7 mi west of Pinecrest.

DRAINAGE AREA.--316 mi².

PERIOD OF RECORD.--December 1956 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,044.7 ft above sea level (river-profile survey).

REMARKS.--No estimated daily discharges. Records good. 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 of diversion to J.W. Southern Powerplant provided by Oakdale-South San Joaquin Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft³/s, May 30, 1983, gage height, 12.30 ft; minimum daily, 3.0 ft³/s, Oct. 10, 11, 1958.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 5,610 ft³/s, June 2, gage height, 10.51 ft; minimum daily, 38 ft³/s, Jan. 22, 23.

Combined flow, maximum daily discharge, 5,720 ft³/s, June 2, minimum daily, 52 ft³/s, Oct. 30, Nov. 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	53	54	54	108	148	340	3430	4670	3490	800	154
2	62	53	53	54	149	148	138	3090	5130	3140	501	155
3	65	52	55	54	148	148	136	1710	4810	2730	427	154
4	63	52	53	53	148	148	151	1330	4290	2470	523	152
5	59	54	54	54	147	147	139	1320	4670	2450	539	151
6	60	55	54	54	147	146	142	1320	4360	2760	564	153
7	60	53	53	55	148	146	151	1320	3140	3900	569	153
8	60	53	51	54	146	146	149	1260	2070	3470	452	155
9	60	53	51	56	146	145	158	1210	1690	3660	393	153
10	58	55	51	65	147	154	162	1220	1670	3550	287	151
11	58	55	53	57	146	154	147	1330	2200	2840	213	152
12	59	54	55	56	146	137	143	1430	3320	2230	251	150
13	58	56	56	56	146	131	249	1450	3770	1700	152	150
14	58	55	56	59	146	138	491	1440	3720	1370	149	150
15	58	55	55	55	146	144	597	1230	3310	1300	145	150
16	59	56	54	55	146	144	597	1060	2940	1340	146	151
17	59	55	53	57	146	147	597	1060	2000	2330	147	150
18	58	55	52	55	148	147	593	1060	1690	1790	147	150
19	57	58	53	55	148	147	589	1390	1820	1360	148	151
20	56	57	55	50	148	150	580	2190	2050	1220	146	151
21	55	56	55	41	148	152	559	2630	2150	1200	146	148
22	55	56	53	38	147	152	534	2640	2180	1190	147	149
23	54	55	56	38	148	160	558	2670	2600	1150	148	151
24	53	57	54	40	148	152	649	2660	3650	1010	148	151
25	53	54	55	43	148	144	693	2470	4110	791	147	150
26	53	56	56	55	148	138	732	2180	4320	785	147	148
27	53	56	56	57	148	354	806	2300	4100	809	147	148
28	53	55	55	55	148	578	1660	2640	3860	1290	146	62
29	54	55	54	56	---	594	2610	3020	3860	1250	148	149
30	52	55	54	57	---	594	3150	3380	3840	1130	150	150
31	54	---	53	57	---	610	---	3710	---	1040	153	---
TOTAL	1777	1644	1672	1645	4083	6543	18200	61150	97990	60745	8326	4442
MEAN	57.3	54.8	53.9	53.1	146	211	607	1973	3266	1960	269	148
MAX	65	58	56	65	149	610	3150	3710	5130	3900	800	155
MIN	52	52	51	38	108	131	136	1060	1670	785	145	62
AC-FT	3520	3260	3320	3260	8100	12980	36100	121300	194400	120500	16510	8810

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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	93.6	97.6	97.0	96.2	120	145	206	500	643	329	113	96.8
MAX	145	158	154	154	158	211	607	1973	3266	1960	269	148
(WY)	1994	1994	1990	1990	1990	1995	1995	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1987 - 1995

ANNUAL TOTAL	31470	268217	
ANNUAL MEAN	86.2	735	212
HIGHEST ANNUAL MEAN			735
LOWEST ANNUAL MEAN			76.6
HIGHEST DAILY MEAN	158	Jan 1	5130
LOWEST DAILY MEAN	51	Dec 8	38
ANNUAL SEVEN-DAY MINIMUM	52	Dec 4	44
INSTANTANEOUS PEAK FLOW			5610
INSTANTANEOUS PEAK STAGE			10.51
ANNUAL RUNOFF (AC-FT)	62420	532000	153200
10 PERCENT EXCEEDS	148	2650	160
50 PERCENT EXCEEDS	58	148	138
90 PERCENT EXCEEDS	54	54	56

SAN JOAQUIN RIVER BASIN

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11292901 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CA--Continued

MIDDLE FORK STANISLAUS RIVER AND J.W. SOUTHERN POWERPLANT BELOW BEARDSLEY DAM,
COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	53	518	54	588	547	932	4030	5260	4090	1390	620
2	62	53	512	54	594	553	680	3680	5720	3230	1090	610
3	222	52	489	54	597	566	702	2300	5400	3330	1020	624
4	348	52	499	53	597	568	708	1910	4880	3070	1120	623
5	318	54	505	54	595	569	733	1910	5260	3050	1140	635
6	356	55	492	54	595	547	736	1910	4950	3360	1170	624
7	357	53	420	55	597	581	748	1910	3730	4500	1170	627
8	162	53	506	54	596	578	742	1800	2660	4030	1050	620
9	60	53	504	124	596	436	747	1800	2280	4260	995	609
10	270	55	485	141	598	458	754	1810	2260	4150	890	626
11	355	55	509	380	596	769	744	1920	2790	3440	816	642
12	357	54	514	383	594	727	738	2020	3910	2830	853	631
13	355	56	493	405	593	714	844	2040	4360	2300	749	636
14	337	55	518	342	588	709	1090	2030	4310	1970	721	633
15	178	55	508	326	588	704	1190	1790	3550	1900	696	632
16	59	56	338	409	586	700	1190	1650	3210	1780	689	629
17	310	55	510	431	584	698	1190	1570	2580	2360	653	642
18	453	55	507	429	582	703	1190	1650	2280	2290	622	640
19	456	58	461	430	578	705	1180	1980	2420	1960	612	654
20	452	57	484	450	577	720	1170	2780	2650	1820	624	653
21	320	56	519	462	573	726	1160	3220	2750	1800	637	366
22	153	56	517	456	571	538	1130	3230	2780	1790	625	664
23	151	285	311	457	551	268	1160	3220	3200	1750	624	673
24	376	490	136	459	567	409	1250	3210	4250	1580	622	681
25	450	518	55	463	565	712	1290	3020	4710	1380	627	687
26	452	441	56	456	562	716	1330	2770	4920	1370	609	688
27	453	485	96	553	561	894	1390	2890	4700	1230	624	686
28	338	484	151	594	559	1120	2240	3230	4460	1810	638	638
29	54	502	170	592	---	1190	3200	3610	4460	1840	621	681
30	52	517	98	572	---	1190	3750	3970	4440	1720	624	685
31	54	---	53	590	---	1200	---	4300	---	1630	623	---
TOTAL	8468	4923	11934	10336	16328	21515	35908	79160	115130	77620	24944	19059
MEAN	273	164	385	333	583	694	1197	2554	3838	2504	805	635
MAX	456	518	519	594	598	1200	3750	4300	5720	4500	1390	688
MIN	52	52	53	53	551	268	680	1570	2260	1230	609	366
AC-FT	16800	9760	23670	20500	32390	42670	71220	157000	228400	154000	49480	37800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1995, BY WATER YEAR (WY)

MEAN	288	220	337	233	300	424	544	911	1172	779	555	449
MAX	519	538	500	499	939	1560	1448	2554	3838	2504	805	635
(WY)	1994	1987	1986	1994	1986	1986	1986	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1986 - 1995	
ANNUAL TOTAL	120117		425325		518	
ANNUAL MEAN	329		1165		1165	
HIGHEST ANNUAL MEAN					1995	
LOWEST ANNUAL MEAN					221	
HIGHEST DAILY MEAN	586	Jul 6	5720	Jun 2	5720	Jun 2 1995
LOWEST DAILY MEAN	52	Oct 30	52	Oct 30	25	Oct 23 1986
ANNUAL SEVEN-DAY MINIMUM	53	Oct 29	53	Oct 29	27	Nov 12 1985
ANNUAL RUNOFF (AC-FT)	238300		843600		375600	
10 PERCENT EXCEEDS	531		3220		896	
50 PERCENT EXCEEDS	338		625		461	
90 PERCENT EXCEEDS	60		59		59	

SAN JOAQUIN RIVER BASIN

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 mi².

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 estimated daily discharges. No records computed above 70 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	---	32	28	---	---	---	---	---	---	---	---
2	55	---	33	28	---	---	---	---	---	---	---	---
3	55	---	34	28	---	---	---	---	---	---	---	---
4	53	---	28	28	---	---	---	---	---	---	---	---
5	53	---	28	29	---	---	---	---	---	---	---	---
6	53	---	29	28	---	---	---	---	---	---	---	---
7	53	---	28	31	---	---	---	---	---	---	---	---
8	53	---	31	30	---	---	---	---	---	---	---	---
9	53	---	33	30	---	---	---	---	---	---	---	---
10	54	---	32	---	---	---	---	---	---	---	---	---
11	53	---	31	32	---	---	---	---	---	---	---	---
12	52	---	34	30	---	---	---	---	---	---	---	---
13	53	---	30	41	---	---	---	---	---	---	---	---
14	53	---	30	---	---	---	---	---	---	---	---	---
15	53	---	31	31	---	---	---	---	---	---	---	---
16	53	---	32	31	---	---	---	---	---	---	---	---
17	53	---	31	30	---	---	---	---	---	---	---	---
18	---	---	32	29	---	---	---	---	---	---	---	---
19	53	50	32	29	---	---	---	---	---	---	---	---
20	52	50	28	29	---	---	---	---	---	---	---	---
21	52	50	28	29	---	---	---	---	---	---	---	---
22	52	39	28	29	---	---	---	---	---	---	---	---
23	53	30	29	32	---	---	---	---	---	---	---	---
24	53	32	29	44	---	---	---	---	---	---	---	---
25	52	32	30	---	---	---	---	---	---	---	---	---
26	53	29	30	---	---	---	---	---	---	---	---	---
27	52	33	31	---	---	---	---	---	---	---	---	---
28	---	32	32	---	---	---	---	---	---	---	---	---
29	---	32	32	---	---	---	---	---	---	---	---	---
30	---	34	29	---	---	---	---	---	---	---	---	---
31	---	---	28	---	---	---	---	---	---	---	---	---
TOTAL	---	---	945	---	---	---	---	---	---	---	---	---
MEAN	---	---	30.5	---	---	---	---	---	---	---	---	---
MAX	---	---	34	---	---	---	---	---	---	---	---	---
MIN	---	---	28	---	---	---	---	---	---	---	---	---
AC-FT	---	---	1870	---	---	---	---	---	---	---	---	---
a	13600	7860	24060	22980	28340	30030	30350	28750	29700	31270	30900	26760

CAL YR 1994 a 223900

WTR YR 1995 a 304600

a Diversion, in acre-feet, through Stanislaus Powerplant, provided by Pacific Gas & Electric Co.

395

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.

PERIOD OF RECORD.--October 1986 to current year. Unpublished records for water years 1981-86 available in files of the U.S. Geological Survey.

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.

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		

[illegible]

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.

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 approximately weekly except during winter months. 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. Reservoir observed to be spilling on Apr. 5, 19, May 3, 17, June 2, 14, 28, and July 12. 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.

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 1994 TO SEPTEMBER 1995
DAILY INSTANTANEOUS VALUES[illegible]

397

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.

PERIOD OF RECORD.--October 1986 to current year. Unpublished records for water years 1981-86 available in files of the U.S. Geological Survey.

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.

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

[illegible]

SAN JOAQUIN RIVER BASIN

11293580 NORTH FORK STANISLAUS RIVER DIVERSION TUNNEL AT DIVERSION DAM, NEAR BIG MEADOWS, CA

LOCATION.--Lat 38°26'17", long 120°00'59", unsurveyed, T.7 N., R.18 E., Alpine County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank 50 ft upstream from diversion dam, at diversion tunnel entrance, and 5.6 mi southeast of Big Meadows.

PERIOD OF RECORD.--January 1989 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of tunnel invert is 6,684 ft above sea level (levels by Calaveras County Water District).

REMARKS.--No estimated daily discharges. Records good. Flow diverted from North Fork Stanislaus River Diversion Dam to New Spicer Meadow Reservoir (station 11293770) beginning Oct. 21, 1987. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 814 ft³/s, May 1, 1995; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	17	7.7	.00	21	65	76	814	774	516	37	17
2	5.1	17	9.1	.00	22	59	72	668	752	487	34	17
3	3.7	16	9.6	.00	18	84	84	509	724	467	29	17
4	6.1	16	7.9	.00	16	53	161	428	744	433	25	17
5	6.8	31	7.2	.00	15	43	215	295	693	446	23	17
6	4.7	59	6.9	.00	14	37	245	217	535	496	20	17
7	5.3	31	5.9	.00	10	35	272	198	339	483	17	17
8	7.7	22	5.4	1.3	11	33	195	251	295	451	15	17
9	7.7	.45	5.0	10	8.7	466	108	353	392	398	12	17
10	7.5	.04	4.6	74	8.4	763	83	397	547	395	9.6	17
11	7.6	.04	4.5	42	8.9	366	116	426	660	329	7.8	12
12	7.4	.02	5.0	24	9.6	188	226	355	642	282	5.9	.02
13	9.5	.04	4.5	36	8.3	121	338	268	646	220	2.2	.01
14	15	.06	4.3	116	12	133	181	191	645	246	.71	.01
15	15	.05	4.2	56	25	209	115	156	464	259	.01	.01
16	15	.06	4.4	27	22	194	87	180	321	250	.02	.01
17	15	.09	5.7	12	20	150	73	260	306	243	.02	.01
18	15	.04	6.7	8.4	21	195	68	380	399	223	.02	.02
19	15	.10	5.8	6.1	28	253	61	420	486	186	.02	.02
20	14	.10	4.0	4.2	42	231	64	521	457	174	.03	1.2
21	14	.10	.02	2.8	64	164	56	671	442	157	.04	20
22	15	.07	.00	1.9	80	127	56	621	523	135	.04	22
23	14	.10	.00	1.4	91	110	95	573	589	104	16	22
24	14	.10	.00	.97	96	76	244	565	607	90	17	22
25	14	.05	.00	.53	101	60	399	464	574	85	18	22
26	13	.04	.00	.10	98	53	409	549	591	75	18	22
27	8.6	.02	.00	.00	84	49	456	619	654	67	18	22
28	.08	.04	.00	.00	73	45	510	613	642	72	18	22
29	.03	.06	.00	1.0	---	43	679	641	613	77	18	22
30	.02	2.0	.00	2.0	---	44	745	650	565	66	18	22
31	5.3	---	.00	7.1	---	57	---	702	---	44	17	---
TOTAL	286.53	212.67	118.42	434.80	1027.9	4506	6489	13955	16621	7956	396.41	401.31
MEAN	9.24	7.09	3.82	14.0	36.7	145	216	450	554	257	12.8	13.4
MAX	15	59	9.6	116	101	763	745	814	774	516	37	22
MIN	.02	.02	.00	.00	8.3	33	56	156	295	44	.01	.01
AC-FT	568	422	235	862	2040	8940	12870	27680	32970	15780	786	796

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995
MEAN	7.60	2.77	1.44	7.25	7.35	57.6	169
MAX	14.2	7.09	4.22	27.5	36.7	145	301
(WY)	1992	1995	1990	1995	1995	1995	1995
MIN	.33	.14	.002	.000	.001	7.28	39.3
(WY)	1990	1991	1994	1994	1994	1991	1991

SUMMARY STATISTICS FOR 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1989 - 1995

	1994 CALENDAR YEAR	1995 WATER YEAR	1989 - 1995
ANNUAL TOTAL	9442.60	52405.04	
ANNUAL MEAN	25.9	144	57.1
HIGHEST ANNUAL MEAN			144
LOWEST ANNUAL MEAN			22.0
HIGHEST DAILY MEAN	281 Apr 19	814 May 1	814 May 1 1995
LOWEST DAILY MEAN	.00 Jan 1	.00 Dec 22	.00 Dec 15 1988
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Dec 22	.00 Dec 15 1988
ANNUAL RUNOFF (AC-FT)	18730	103900	41350
10 PERCENT EXCEEDS	97	518	186
50 PERCENT EXCEEDS	3.7	22	6.1
90 PERCENT EXCEEDS	.00	.03	.01

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-feet 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 Calaveras County Water District, 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, 144 acre-ft, May 1, 1995, elevation, 6,696.2 ft; minimum observed, 5 acre-ft, Feb. 1, 28, Mar. 1, 1990, elevation, 6,676.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 144 acre-ft, May 1, elevation, 6,696.2 ft; minimum, 11 acre-ft, Sept. 16, 17, 19.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	33	30	18	33	39	42	144	134	107	39	33
2	29	32	30	18	32	41	42	118	131	104	38	33
3	29	33	30	17	31	40	48	109	136	103	37	33
4	30	33	30	18	32	37	55	82	142	98	36	33
5	30	43	30	17	32	36	57	67	122	110	35	33
6	29	37	30	19	31	35	56	61	94	117	35	33
7	30	39	29	29	31	35	60	63	78	109	33	33
8	30	29	29	28	31	35	50	82	82	98	33	33
9	30	25	29	38	30	117	44	90	103	103	31	33
10	30	21	29	40	30	98	45	120	133	91	30	33
11	30	20	29	34	31	60	53	114	140	79	30	24
12	30	18	29	33	30	48	60	90	139	64	29	16
13	32	16	29	41	30	49	59	70	130	64	28	13
14	32	14	29	43	33	52	50	61	95	65	27	12
15	32	13	29	35	33	55	46	61	92	68	25	12
16	32	13	29	32	32	51	43	74	79	64	22	11
17	32	13	30	30	32	49	42	92	79	65	19	11
18	32	14	30	30	33	61	41	126	106	58	18	12
19	32	15	30	29	36	54	40	134	108	57	16	11
20	32	15	28	29	39	56	40	126	105	55	14	32
21	32	15	28	28	41	48	39	125	112	53	13	33
22	32	15	27	28	43	50	42	114	127	50	29	34
23	32	16	26	28	44	44	52	124	135	48	32	34
24	32	16	24	28	45	40	67	103	141	47	32	34
25	32	15	23	28	45	39	78	113	136	46	33	35
26	32	16	22	28	43	38	81	127	122	45	33	35
27	28	16	21	27	41	37	88	124	128	44	33	35
28	27	16	21	28	40	37	88	131	125	46	33	35
29	26	18	20	28	---	36	139	135	119	46	33	36
30	26	30	19	29	---	38	132	135	113	42	33	36
31	32	---	19	31	---	42	---	139	---	40	33	---
MAX	32	43	30	43	45	117	139	144	142	117	39	36
MIN	26	13	19	17	30	35	39	61	78	40	13	11
a	6685.0	6684.6	6681.6	6684.9	6686.2	6686.5	6695.6	6696.0	6694.4	6686.3	6685.2	6685.6
b	+3	-2	-11	+12	+9	+2	+90	+7	-26	-73	-7	+3

CAL YR 1994 b +8

WTR YR 1995 b +7

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

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 mi².

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.--Records good. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s, May 1, 1995, gage height 6.18 ft, from rating curve extended above 120 ft³/s on basis of computation of peak flow over diversion dam; minimum daily, 2.3 ft³/s, Oct. 18-20, 22, 23, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft³/s, May 1, gage height, 6.18 ft; minimum daily, 7.6 ft³/s, Sept. 18, 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	15	11	17	18	23	938	224	27	19	19
2	16	17	15	10	16	18	23	189	179	27	19	19
3	16	17	15	10	16	19	23	34	157	27	19	19
4	18	17	15	10	16	18	25	31	260	26	18	19
5	18	19	15	10	16	17	26	28	179	26	18	20
6	17	20	15	10	16	17	26	26	52	26	18	20
7	17	19	15	13	15	17	27	26	30	26	18	20
8	17	18	15	15	16	17	26	31	29	26	18	20
9	17	15	15	17	16	36	24	33	30	26	18	20
10	17	13	15	21	16	37	23	35	65	25	17	20
11	17	12	15	18	15	31	24	39	185	24	17	19
12	17	12	15	17	15	27	25	35	240	23	17	14
13	17	10	15	18	15	25	27	32	175	23	16	10
14	18	9.1	15	20	16	26	24	29	71	23	16	8.9
15	18	8.3	15	18	17	27	23	26	28	23	16	8.1
16	18	7.9	15	17	16	27	22	26	26	23	15	8.0
17	18	8.2	15	17	16	26	22	31	25	23	13	7.7
18	18	9.1	15	16	16	27	22	47	26	22	12	7.6
19	18	10	15	16	16	28	21	132	28	22	12	7.6
20	18	9.9	15	16	17	28	21	177	27	21	10	8.0
21	18	9.1	14	16	17	27	21	82	27	21	9.5	8.18
22	18	8.6	14	15	18	26	21	56	39	21	11	18
23	18	8.7	14	15	18	32	22	57	111	20	19	17
24	18	8.8	13	15	18	25	25	51	196	20	19	17
25	18	8.9	13	15	18	22	26	34	235	20	19	17
26	18	9.2	12	16	18	22	27	64	132	20	19	17
27	17	9.3	12	15	18	21	28	99	50	20	19	17
28	16	9.0	12	15	18	21	29	109	62	20	19	17
29	16	9.0	11	15	---	21	159	165	44	20	18	17
30	15	14	11	15	---	21	278	214	29	20	19	17
31	16	---	11	16	---	22	---	260	---	19	19	---
TOTAL	534	363.1	437	468	462	746	1113	3136	2961	710	516.5	466.9
MEAN	17.2	12.1	14.1	15.1	16.5	24.1	37.1	101	98.7	22.9	16.7	15.6
MAX	18	20	15	21	18	37	278	938	260	27	19	20
MIN	15	7.9	11	10	15	17	21	26	25	19	9.5	7.6
AC-FT	1060	720	867	928	916	1480	2210	6220	5870	1410	1020	926

e Estimated.

SAN JOAQUIN RIVER BASIN

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11293600 NORTH FORK STANISLAUS RIVER BELOW DIVERSION DAM, NEAR BIG MEADOWS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.6	16.6	11.5	13.6	15.2	22.3	35.2	40.0	27.2	16.5	14.9	16.6
MAX	20.2	42.2	14.8	18.0	24.8	42.5	99.6	101	98.7	28.1	22.8	26.5
(WY)	1989	1990	1992	1990	1988	1988	1988	1995	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1988 - 1995
ANNUAL TOTAL	5333.9	11913.5	
ANNUAL MEAN	14.6	32.6	20.4
HIGHEST ANNUAL MEAN			32.6 1995
LOWEST ANNUAL MEAN			13.0 1991
HIGHEST DAILY MEAN	24 Apr 18	938 May 1	938 May 1 1995
LOWEST DAILY MEAN	5.5 Jul 6	7.6 Sep 18	2.3 Oct 18 1992
ANNUAL SEVEN-DAY MINIMUM	6.0 Jun 30	8.0 Sep 14	2.3 Oct 17 1992
INSTANTANEOUS PEAK FLOW		1450 May 1	1450 May 1 1995
INSTANTANEOUS PEAK STAGE		6.18 May 1	6.18 May 1 1995
ANNUAL RUNOFF (AC-FT)	10580	23630	14800
10 PERCENT EXCEEDS	20	39	27
50 PERCENT EXCEEDS	16	18	17
90 PERCENT EXCEEDS	7.8	11	6.8

SAN JOAQUIN RIVER BASIN

11293650 NORTH FORK STANISLAUS RIVER AT CAMP WOLFEBORO, NEAR BIG MEADOWS, CA

LOCATION.--Lat 38°24'38", long 120°04'38", unsurveyed, T.7 N., R.17 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank 1.6 mi downstream from Bloods Creek and 2.1 mi east of Big Meadows.

DRAINAGE AREA.--47.4 mi².

PERIOD OF RECORD.--October 1993 to current year.

REVISED RECORDS.--WDR CA-95-3: 1994(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 5,790 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Low and medium flow regulated by Union and Utica Reservoirs, Lake Alpine, and North Fork Stanislaus Diversion Reservoir (stations 11293350, 11293370, 11293460, and 11293590). See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s, May 1, 1995, gage height, 6.91 ft; minimum daily, 6.4 ft³/s, July 7, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft³/s, May 1, gage height, 6.91 ft; minimum daily, 8.4 ft³/s, Sept. 18.

REVISIONS.--The maximum discharge for water year 1994 has been revised to 250 ft³/s, superseding figure published in report for 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	19	23	19	93	102	123	1620	660	230	27	20
2	18	19	25	19	99	100	123	624	603	214	25	20
3	18	19	25	19	94	114	143	356	549	199	24	20
4	25	19	25	19	88	91	186	314	655	183	23	20
5	23	38	26	19	88	84	205	240	547	179	22	20
6	19	51	25	20	86	82	211	190	354	173	23	20
7	19	34	23	38	80	78	261	175	250	155	22	20
8	19	26	22	32	79	75	222	199	219	155	21	19
9	18	22	21	92	71	631	156	237	263	139	21	19
10	18	20	21	315	70	650	136	278	365	125	20	19
11	18	18	21	121	69	326	164	312	541	112	20	19
12	18	18	21	86	69	208	198	259	614	97	19	16
13	18	16	21	168	65	173	222	190	557	86	18	12
14	19	14	21	343	61	197	161	153	408	81	18	10
15	19	13	21	155	57	229	133	144	306	78	18	9.2
16	19	13	21	100	55	210	117	162	252	75	17	8.7
17	19	12	22	76	54	181	105	199	234	77	16	8.6
18	19	13	22	67	56	241	99	274	257	72	15	8.4
19	19	14	22	60	67	250	94	423	280	66	15	8.7
20	19	14	23	56	85	216	94	541	272	64	14	9.0
21	19	14	23	53	102	176	88	467	267	55	12	19
22	19	14	23	52	109	146	95	410	294	46	11	19
23	19	14	23	50	114	129	130	424	400	41	19	18
24	19	15	23	49	122	119	200	388	504	37	20	18
25	19	14	22	47	126	107	253	340	548	35	19	18
26	19	15	21	44	121	102	272	399	437	33	19	18
27	19	15	22	44	109	101	319	465	328	32	19	18
28	18	15	22	44	105	100	518	481	335	31	19	18
29	17	15	21	49	---	98	823	555	301	30	19	18
30	17	19	20	53	---	99	938	601	257	29	19	18
31	17	---	20	74	---	113	---	678	---	28	19	---
TOTAL	584	562	691	2383	2394	5528	6789	12098	11857	2957	593	488.6
MEAN	18.8	18.7	22.3	76.9	85.5	178	226	390	395	95.4	19.1	16.3
MAX	25	51	26	343	126	650	938	1620	660	230	27	20
MIN	17	12	20	19	54	75	88	144	219	28	11	8.4
AC-FT	1160	1110	1370	4730	4750	10960	13470	24000	23520	5870	1180	969

11293650 NORTH FORK STANISLAUS RIVER AT CAMP WOLFEBORO, NEAR BIG MEADOWS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.3	16.8	15.6	44.4	50.9	124	170	237	207	54.7	17.1	16.2
MAX	18.8	18.7	22.3	76.9	85.5	178	226	390	395	95.4	19.1	16.3
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	17.8	14.9	8.95	11.9	16.4	70.7	113	84.5	18.7	14.1	15.0	16.0
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994
SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR					FOR 1995 WATER YEAR				WATER YEARS 1994 - 1995		
ANNUAL TOTAL	12820.7					46924.6						
ANNUAL MEAN	35.1					129				81.1		
HIGHEST ANNUAL MEAN										129		
LOWEST ANNUAL MEAN										33.6		
HIGHEST DAILY MEAN	169					1620				1620		
LOWEST DAILY MEAN	6.4					8.4				6.4		
ANNUAL SEVEN-DAY MINIMUM	7.1					8.9				7.1		
INSTANTANEOUS PEAK FLOW						2020				2020		
INSTANTANEOUS PEAK STAGE						6.91				6.91		
ANNUAL RUNOFF (AC-FT)	25430					93070				58730		
10 PERCENT EXCEEDS	95					341				214		
50 PERCENT EXCEEDS	18					55				20		
90 PERCENT EXCEEDS	12					18				11		

SAN JOAQUIN RIVER BASIN

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 mi².

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 Calaveras County Water 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, 188,616 acre-ft, July 8, 1995, elevation, 6,613.8 ft; minimum, 30,198 acre-ft, Mar. 5, 1993, elevation, 6,491.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 188,616 acre-ft, July 8, elevation, 6,613.8 ft; minimum, 52,137 acre-ft, Mar. 7, elevation, 6,522.0 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89490	80795	77758	69436	66065	53045	60225	71766	122788	184217	177676	156504
2	89136	80604	77558	69322	65629	52501	59510	74781	126461	185081	176682	156032
3	88663	80471	77644	68970	65179	52564	58909	76984	130290	185711	175734	155678
4	88330	80319	77623	68633	65077	52862	58658	78668	134178	186238	175112	155429
5	87936	80523	77477	68536	64945	52934	58454	80041	137658	186944	174789	154610
6	87625	80931	77389	68475	64372	52517	58245	80799	139793	187602	174348	153844
7	87345	80961	77114	68519	63625	52137	58717	81082	140338	188253	173584	152984
8	87112	80822	76877	68417	62981	52370	59146	81063	140323	188616	172788	152395
9	86814	80761	76602	68303	62143	56341	59124	81690	140593	188539	171845	151885
10	86544	80635	76286	69357	61334	59863	58564	82501	142060	188570	170996	151468
11	86333	80427	76005	69606	61395	61465	58209	83722	144789	188061	170228	150579
12	86003	80348	75807	69614	61353	62308	58272	84707	147657	186792	170038	149517
13	85733	80183	75559	70503	60691	62862	59106	84941	150897	185822	169466	148523
14	85441	80004	74967	72199	59929	63775	58920	84773	153583	184934	168533	147909
15	85187	79774	74432	72795	58870	64559	58336	84680	154724	184246	167339	147780
16	84867	79745	73599	73015	57951	64897	57666	84401	155211	183437	166518	147711
17	84593	79643	73170	72595	57214	65090	56935	84364	155665	182668	165681	147665
18	84463	79481	72595	72315	57033	65048	56265	84851	156107	182380	165241	147347
19	84211	79331	72003	71830	57076	65966	55421	86773	156764	182099	164736	145784
20	83802	79172	71474	71713	56438	67071	54608	89083	157457	181797	164316	144547
21	83659	78991	71123	71665	55720	67656	53756	91777	158827	181787	163278	143658
22	83400	78801	70539	71698	55246	67669	52924	94127	160994	181606	162497	142652
23	83164	78958	70269	71178	54659	67377	52380	96537	163797	181448	161466	141911
24	82920	78484	70203	70781	54444	66678	52679	99291	166959	181096	160562	141085
25	82641	78599	70183	70221	54591	65929	53699	101452	170439	180782	160058	140236
26	82423	78546	69892	69431	54600	65347	55054	103820	173580	180682	159836	139162
27	82116	78592	69737	68806	54135	64208	56585	106375	176560	180084	159454	137931
28	81917	78353	69731	68425	53620	63315	58981	109104	179078	179304	158861	136754
29	81562	78273	69711	67876	---	62507	62661	112197	181338	179347	158339	135826
30	81174	77874	69661	67127	---	61790	66074	115361	182945	179265	157707	135483
31	80927	---	69578	66557	---	60943	---	118874	---	178709	156959	---
MAX	89490	80961	77758	73015	66065	67669	66074	118874	182945	188616	177676	156504
MIN	80927	77874	69578	66557	53620	52137	52380	71766	122788	178709	156959	135483
a	6548.9	6546.5	6539.9	6536.8	6523.5	6531.0	6536.3	6575.8	6611.0	6609.0	6598.1	6585.8
b	-8930	-3053	-8296	-3021	-12937	+7323	+5131	+52800	+64071	-4236	-21750	-21476

CAL YR 1994 b -17764

WTR YR 1995 b +45626

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

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 mi².

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.--No estimated daily discharges. Low and medium flows regulated by New Spicer Meadow Reservoir since 1988 and, prior to 1988, by Spicer Meadows Reservoir, capacity 4,060 acre-feet. Flow has been diverted to New Spicer Meadow Reservoir from North Fork Stanislaus River since October 21, 1987. Penstock diverts from New Spicer Meadow Reservoir to New Spicer Meadow Powerplant (station 11293760). 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 Calaveras County Water District, 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 ft³/s, Jan. 31, 1963, gage height, 11.88 ft, site and datum then in use, from rating curve extended above 1,200 ft³/s; no flow some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1950, reached a stage of 11.50 ft, site and datum then in use, from Pacific Gas & Electric Co. recorder chart, discharge, 8,800 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft³/s, July 9; minimum daily, 17 ft³/s, Sept. 15-17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	100	101	76	353	460	620	25	26	802	616	326
2	198	100	102	131	360	460	592	25	23	803	701	231
3	281	99	72	232	364	254	616	25	22	869	613	146
4	291	99	73	257	204	23	606	25	22	956	428	222
5	224	99	100	143	216	118	559	29	22	956	300	430
6	206	54	143	124	439	349	586	197	150	949	300	448
7	172	103	180	76	504	301	448	358	661	1040	479	461
8	151	104	180	205	458	27	189	569	791	1110	502	340
9	151	104	180	189	545	26	360	408	797	1110	507	236
10	150	104	179	22	508	21	598	354	613	1110	506	265
11	150	104	179	42	67	21	597	282	286	1110	382	463
12	149	103	179	180	94	21	473	226	209	1110	198	529
13	149	103	179	91	493	21	279	512	52	1120	270	531
14	150	103	303	20	576	21	477	601	54	1090	498	335
15	151	103	390	21	596	66	596	603	506	1040	524	17
16	151	103	389	32	593	293	601	599	601	1040	418	17
17	152	103	264	246	505	341	602	599	602	934	350	17
18	152	103	251	300	63	437	600	541	704	707	349	193
19	152	103	251	299	104	87	598	100	817	704	235	785
20	152	103	251	123	494	21	596	24	697	637	278	608
21	153	103	251	91	526	127	594	24	440	496	452	476
22	152	103	250	104	511	502	599	25	235	496	452	453
23	152	103	200	312	459	605	599	25	236	498	444	411
24	152	103	102	335	359	604	401	25	237	509	442	418
25	152	103	102	318	214	602	300	60	69	434	309	446
26	152	103	102	458	248	604	223	198	113	346	155	512
27	153	103	100	462	459	598	268	202	278	558	155	601
28	154	103	78	301	458	590	35	162	344	762	306	614
29	154	103	77	366	---	604	29	34	510	302	326	455
30	159	102	76	500	---	620	29	28	737	328	385	253
31	140	---	76	457	---	621	---	29	---	482	391	---
TOTAL	5177	3026	5360	6513	10770	9445	13670	6914	10854	24408	12271	11239
MEAN	167	101	173	210	385	305	456	223	362	787	396	375
MAX	291	104	390	500	596	621	620	603	817	1120	701	785
MIN	140	54	72	20	63	21	29	24	22	302	155	17
AC-FT	10270	6000	10630	12920	21360	18730	27110	13710	21530	48410	24340	22290
a	10270	6000	10630	12920	21360	18630	26980	13710	21530	48410	24340	22130

a Diversion, in acre-feet, through New Spicer Meadow Powerplant, provided by Calaveras County Water District.

SAN JOAQUIN RIVER BASIN

11294000 HIGHLAND CREEK BELOW NEW SPICER MEADOW RESERVOIR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	39.5	39.9	63.1	61.3	78.1	103	229	414	289	108	55.5	47.3
MAX	311	244	399	317	385	369	456	1047	1097	787	396	375
(WY)	1994	1994	1965	1980	1995	1986	1995	1969	1983	1995	1995	1995
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1953 - 1995			
ANNUAL TOTAL	42602				119647							
ANNUAL MEAN	117				328				127			
HIGHEST ANNUAL MEAN									328			
LOWEST ANNUAL MEAN									25.3			
HIGHEST DAILY MEAN	390				Dec 15				5040			
LOWEST DAILY MEAN	19				Mar 8				.00			
ANNUAL SEVEN-DAY MINIMUM	20				Mar 15				.00			
INSTANTANEOUS PEAK FLOW					1130				9860			
INSTANTANEOUS PEAK STAGE									11.88			
ANNUAL RUNOFF (AC-FT)	84500				237300				92320			
ANNUAL DIVERSION (AC-FT) a	84500				236900							
10 PERCENT EXCEEDS	198				613				367			
50 PERCENT EXCEEDS	125				268				44			
90 PERCENT EXCEEDS	20				35				2.7			

a Diversion, in acre-feet, through New Spicer Meadow Powerplant, provided by Calaveras County Water District.

11294400 NORTH FORK STANISLAUS RIVER AT SOURGRASS CAMPGROUND, NEAR DORRINGTON, CA

LOCATION.--Lat 38°19'14", long 120°13'05", in NE 1/4 NW 1/4 sec.04, T.5 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank 1.1 mi downstream from Little Rattlesnake Creek, 1.5 mi upstream from Mill Creek, and 3.3 mi east of Dorrrington.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--February 1991 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,930 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. Low and medium flows regulated by Union and Utica Reservoirs, Lake Alpine, North Fork Stanislaus River Diversion Reservoir, and New Spicer Meadow Reservoir (stations 11293350, 11293370, 11293460, 11293590, and 11293770), total combined usable capacity, 194,001 acre ft. See schematic diagram of Stanislaus River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft³/s, May 1, 1995, gage height, 16.86 ft; minimum daily, 11 ft³/s, Oct. 24, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,100 ft³/s, May 1, gage height, 16.86 ft; minimum daily, 31 ft³/s, Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	130	148	127	823	876	1050	7350	1970	1430	620	355
2	206	119	156	136	811	919	1050	3000	1890	1370	754	319
3	264	113	172	259	814	1230	1100	1570	1660	1370	695	176
4	384	111	153	387	613	573	1280	1390	1880	1450	534	180
5	289	210	202	253	594	475	1290	1190	1670	1430	346	432
6	230	316	201	211	766	706	1360	1070	1170	1400	344	472
7	213	154	254	315	879	753	1910	1180	1400	1430	463	486
8	165	162	244	340	837	408	1320	1380	1520	1530	533	432
9	164	143	239	856	840	3500	1020	1350	1600	1480	539	265
10	163	146	237	2300	896	4990	1170	1350	1710	1440	538	264
11	164	136	236	825	457	2250	1260	1450	1610	1410	494	439
12	164	137	247	721	326	1190	1290	1250	1760	1370	243	547
13	163	130	242	1520	693	965	1170	1290	1460	1340	237	542
14	165	127	300	2720	837	1060	1030	1320	1160	1310	505	502
15	165	127	470	1050	848	1090	1130	1300	1440	1230	546	75
16	166	126	473	607	840	1200	1060	1310	1430	1220	488	35
17	167	134	387	591	811	1100	1020	1440	1330	1170	382	32
18	167	129	334	662	395	1500	996	1570	1440	861	380	31
19	168	126	330	623	283	1230	961	1490	1650	839	329	727
20	169	128	329	483	735	1000	958	1610	1520	809	211	693
21	171	129	333	357	905	848	927	1490	1270	609	476	501
22	170	127	330	364	928	1050	946	1380	1040	595	475	495
23	169	127	317	541	879	1150	1040	1360	1200	586	476	437
24	170	129	191	706	852	1060	1090	1310	1380	588	473	437
25	173	139	167	640	653	1000	1090	1100	1340	559	423	470
26	170	135	165	681	643	973	1120	1320	1120	416	191	501
27	171	130	165	808	842	951	1480	1590	1140	505	184	625
28	171	130	156	576	863	928	2340	1590	1190	939	276	636
29	171	132	136	609	---	924	3680	1690	1250	402	354	567
30	172	139	129	829	---	958	3600	1790	1410	361	385	285
31	168	---	128	907	---	1010	---	1970	---	508	446	---
TOTAL	5764	4221	7571	22004	20663	37867	40738	51450	43610	31957	13340	11958
MEAN	186	141	244	710	738	1222	1358	1660	1454	1031	430	399
MAX	384	316	473	2720	928	4990	3680	7350	1970	1530	754	727
MIN	152	111	128	127	283	408	927	1070	1040	361	184	31
AC-FT	11430	8370	15020	43640	40990	75110	80800	102100	86500	63390	26460	23720

SAN JOAQUIN RIVER BASIN

11294400 NORTH FORK STANISLAUS RIVER AT SOURGRASS CAMPGROUND, NEAR DORRINGTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	215	160	215	333	324	534	677	775	544	403	266	275
MAX	344	267	367	710	738	1222	1358	1660	1454	1031	430	399
(WY)	1994	1994	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995
MIN	131	115	120	118	126	227	359	160	165	172	171	168
(WY)	1993	1993	1992	1992	1991	1994	1994	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1991 - 1995			
ANNUAL TOTAL	77042				291143							
ANNUAL MEAN	211				798				421			
HIGHEST ANNUAL MEAN									798			
LOWEST ANNUAL MEAN									188			
HIGHEST DAILY MEAN	543				7350				7350			
LOWEST DAILY MEAN	63				31				11			
ANNUAL SEVEN-DAY MINIMUM	120				128				15			
INSTANTANEOUS PEAK FLOW					9100				9100			
INSTANTANEOUS PEAK STAGE					16.86				16.86			
ANNUAL RUNOFF (AC-FT)	152800				577500				305200			
10 PERCENT EXCEEDS	352				1480				963			
50 PERCENT EXCEEDS	172				623				235			
90 PERCENT EXCEEDS	129				150				122			

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 mi².

WATER-DISCHARGE RECORDS

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.

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.--No estimated daily discharges. Records fair. Low and medium flows regulated by Union and Utica Reservoirs, Lake Alpine, North Fork Stanislaus River Diversion Reservoir beginning 1990, 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s, Jan. 31, 1963, gage height, 15.00 ft, from floodmarks, from rating curve extended above 14,000 ft³/s on basis of slope-area measurement at gage height 13.8 ft; minimum daily, 5.5 ft³/s, Dec. 6, 7, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s, May 1, gage height, 10.29 ft; minimum daily, 42 ft³/s, Sept. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	147	137	116	846	846	1270	8390	1880	1370	616	358
2	191	130	145	112	837	875	1270	3300	1810	1330	793	339
3	235	125	165	211	832	1250	1300	1710	1620	1320	738	193
4	373	123	147	345	638	621	1410	1540	1760	1380	559	185
5	295	199	185	250	597	469	1420	1360	1650	1360	352	402
6	236	328	183	193	755	692	1470	1230	1240	1340	347	470
7	226	137	226	304	865	774	1900	1310	1400	1350	448	485
8	178	158	217	310	839	410	1530	1440	1500	1430	538	455
9	176	137	213	843	831	3640	1240	1470	1540	1400	545	273
10	176	142	212	2160	888	5730	1330	1400	1640	1360	543	269
11	174	130	210	942	479	2600	1390	1490	1540	1330	517	408
12	174	129	218	750	313	1510	1420	1320	1670	1310	266	549
13	173	123	213	1480	647	1280	1350	1360	1460	1290	243	546
14	174	120	246	2620	835	1320	1200	1390	1220	1270	482	532
15	177	121	431	1150	841	1320	1310	1360	1390	1200	550	127
16	176	120	432	683	833	1390	1260	1360	1430	1190	507	46
17	177	128	362	604	817	1300	1220	1460	1340	1170	383	42
18	178	121	291	684	409	1550	1190	1580	1390	898	381	42
19	178	121	289	624	267	1440	1160	1520	1580	879	352	663
20	178	121	288	496	670	1240	1160	1640	1490	865	204	750
21	178	122	290	349	869	1130	1110	1540	1280	627	465	497
22	178	121	289	353	887	1280	1120	1430	1070	601	475	499
23	178	120	285	527	855	1360	1210	1370	1200	592	476	433
24	178	120	189	755	837	1290	1250	1410	1330	591	475	432
25	178	132	154	702	627	1240	1230	1200	1340	580	445	463
26	177	128	152	703	612	1210	1270	1360	1140	421	215	485
27	178	123	152	858	797	1180	1520	1630	1140	479	196	628
28	178	123	148	619	838	1160	2200	1580	1190	955	261	642
29	178	124	126	624	---	1150	3630	1650	1220	428	354	593
30	177	130	119	842	---	1180	3670	1730	1360	366	374	299
31	174	---	117	907	---	1230	---	1850	---	495	453	---
TOTAL	5916	4103	6831	22116	20361	43667	45010	54380	42820	31177	13553	12105
MEAN	191	137	220	713	727	1409	1500	1754	1427	1006	437	403
MAX	373	328	432	2620	888	5730	3670	8390	1880	1430	793	750
MIN	119	120	117	112	267	410	1110	1200	1070	366	196	42
AC-FT	11730	8140	13550	43870	40390	86610	89280	107900	84930	61840	26880	24010

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.6	133	222	241	324	492	978	1481	786	166	74.1	68.8
MAX	482	2103	1957	1691	2105	1785	2026	3299	3651	1231	437	403
(WY)	1983	1951	1965	1980	1986	1986	1982	1969	1983	1983	1995	1995
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1915 - 1995			
ANNUAL TOTAL	73627				302039							
ANNUAL MEAN	202				828				419			
HIGHEST ANNUAL MEAN									1019			
LOWEST ANNUAL MEAN									54.3			
HIGHEST DAILY MEAN	506				8390				23400			
LOWEST DAILY MEAN	58				42				5.5			
ANNUAL SEVEN-DAY MINIMUM	121				121				7.4			
INSTANTANEOUS PEAK FLOW					10600				36000			
INSTANTANEOUS PEAK STAGE					10.29				15.00			
ANNUAL RUNOFF (AC-FT)	146000				599100				303900			
10 PERCENT EXCEEDS	332				1500				1210			
50 PERCENT EXCEEDS	165				627				121			
90 PERCENT EXCEEDS	128				140				34			

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1990 to current year.

INSTRUMENTATION.--Temperature recorder since June 1990.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 23.0°C, July 5, 27-30, 1991; minimum recorded, 0.0°C, Nov. 26, 27, 1994.

EXTREMES FOR CURRENT YEAR.--WATER TEMPERATURE: Maximum recorded, 18.0°C, Aug. 20; minimum recorded, 0.0°C, Nov. 26, 27.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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

11295210 BEAVER CREEK DIVERSION TO MCKAY'S POINT RESERVOIR, NEAR ARNOLD, CA

LOCATION.--Lat 38°14'01", long 120°16'44", 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 Beaver Creek Diversion Dam and 4.5 mi east-southeast of Arnold.

PERIOD OF RECORD.--February 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,188.0 ft above sea level (levels by Calaveras County Water District).

REMARKS.--No estimated daily discharges. Diversion through tunnel and penstock to small turbine at McKay's Point Reservoir (station 11295260) and for further power development in Collierville Powerplant (station 11295250).

See schematic diagram of Stanislaus River basin.

COOPERATION.--Records were collected by Calaveras County Water District, 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, 232 ft³/s, Apr. 4, 1993; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	113	111	12	.00	.00	45	1.7	.00
2	.00	.00	.00	.00	118	120	55	.00	17	32	.9	.00
3	.00	.00	.00	.00	64	112	28	28	20	27	.9	.00
4	.00	.00	.00	.00	80	66	40	44	6.7	21	.9	.00
5	.00	6.1	1.4	1.2	119	113	53	81	67	26	.9	.00
6	.00	26	.00	.00	115	125	59	100	107	21	.00	.00
7	.00	.30	.00	21	106	127	71	109	53	22	.00	.00
8	.00	.00	.00	26	105	121	8.5	116	124	22	.00	.00
9	.00	.00	.00	87	103	51	78	87	119	22	.00	.00
10	.00	.00	.00	27	98	.00	85	127	85	18	.00	.00
11	.00	.00	.00	12	95	.00	90	67	54	16	.00	.00
12	.00	.00	.00	.00	66	.50	71	128	49	15	.00	.00
13	.00	.00	.00	17	89	32	120	133	75	14	.00	.00
14	.00	.00	.00	.40	78	72	115	130	136	10	.00	.00
15	.00	.00	.00	9.1	78	72	106	121	122	9.2	.00	.00
16	.00	.00	.00	80	73	74	122	105	126	9.6	.00	.00
17	.00	.00	.00	82	68	90	117	109	113	9.4	.00	.00
18	.00	.00	.00	110	52	57	135	71	101	8.8	.00	.00
19	.00	.00	.00	100	24	78	134	7.0	96	7.9	.00	.00
20	.00	.00	.00	87	81	81	130	.00	91	7.9	.00	.00
21	.00	.00	.00	79	91	101	120	9.2	98	6.7	.00	.00
22	.00	.00	1.5	77	97	104	120	136	96	5.9	.00	.00
23	.00	.00	1.1	90	105	97	135	151	98	5.1	.00	.00
24	.00	.00	.00	99	108	114	160	191	104	5.3	.00	.00
25	.00	.00	.00	106	111	84	174	187	98	5.0	.00	.00
26	.00	.00	.00	91	112	16	191	185	86	4.2	.00	.00
27	.00	.00	.00	88	106	77	192	51	85	3.3	.00	.00
28	.00	.00	.00	86	105	108	22	90	74	4.2	.00	.00
29	.00	.00	.00	83	---	111	.00	69	67	2.4	.00	.00
30	.00	.00	.00	84	---	124	.00	36	54	2.7	.00	.00
31	.00	---	.00	96	---	54	---	15	---	1.6	.00	---
TOTAL	0.00	32.40	4.00	1638.70	2560	2492.50	2743.50	2683.20	2421.70	410.2	5.30	0.00
MEAN	.0000	1.08	.13	52.9	91.4	80.4	91.4	86.6	80.7	13.2	.17	.0000
MAX	.00	26	1.5	110	119	127	192	191	136	45	1.7	.00
MIN	.00	.00	.00	.00	24	.00	.00	.00	.00	1.6	.00	.00
AC-FT	.00	64	7.9	3250	5080	4940	5440	5320	4800	814	11	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.082	.22	.53	20.5	35.3	54.9	80.6	64.8	26.2	2.47	.028	.001
MAX	.41	1.08	2.52	52.9	91.4	127	176	173	80.7	13.2	.17	.003
(WY)	1993	1995	1993	1995	1995	1993	1993	1993	1995	1995	1995	1991
MIN	.000	.000	.000	.000	.000	3.90	32.7	2.52	.000	.000	.000	.000
(WY)	1991	1991	1991	1991	1991	1991	1994	1992	1992	1990	1990	1990

SUMMARY STATISTICS FOR 1994 CALENDAR YEAR FOR 1995 WATER YEAR WATER YEARS 1990 - 1995

ANNUAL TOTAL	2497.40	14991.50	
ANNUAL MEAN	6.84	41.1	25.3
HIGHEST ANNUAL MEAN			54.6
LOWEST ANNUAL MEAN			6.74
HIGHEST DAILY MEAN	61	Apr 4	232
LOWEST DAILY MEAN	.00	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00
ANNUAL RUNOFF (AC-FT)	4950	29740	18310
10 PERCENT EXCEEDS	28	115	90
50 PERCENT EXCEEDS	.00	7.9	.00
90 PERCENT EXCEEDS	.00	.00	.00

SAN JOAQUIN RIVER BASIN

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 mi².

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, 3.5 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 Calaveras County Water 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, 14 acre-ft, at times in water years 1993 and 1995, maximum elevation, 4,194.2 ft, Mar. 10, 1995; minimum, 6.0 acre-ft, at times in water years 1994 and 1995, minimum elevation, 4,180.7 ft, Nov. 24, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14 acre-ft, for many days; maximum elevation, 4,194.2 ft, Mar. 10; minimum, 6.0 acre-ft, several days in November, elevation, 4,180.7, Nov. 24.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	10	10	10	12	12	13	14	13	12	12	7.3
2	9.9	10	10	10	12	13	13	14	13	12	12	7.3
3	9.9	9.9	11	10	13	13	13	14	13	11	12	7.3
4	11	10	12	11	12	13	13	14	13	12	12	7.3
5	10	12	11	10	12	13	13	13	13	11	12	7.3
6	10	12	12	10	12	12	13	13	13	12	12	7.1
7	10	12	10	13	12	12	14	13	12	11	12	7.1
8	10	10	10	12	12	12	13	13	12	13	12	7.1
9	10	10	10	13	12	14	13	13	12	12	12	7.1
10	9.9	10	10	14	12	14	13	13	13	12	11	7.1
11	9.9	9.9	10	13	12	14	13	13	13	12	11	7.1
12	9.9	9.8	10	13	11	14	13	13	13	12	10	7.1
13	9.9	9.3	10	14	12	14	13	13	13	12	10	8.7
14	9.9	9.4	10	14	13	14	13	13	12	13	10	10
15	9.9	9.4	10	13	12	13	13	13	13	12	10	10
16	9.9	9.4	10	13	12	13	13	13	12	12	10	10
17	9.9	9.2	10	13	12	13	13	13	12	11	10	10
18	9.9	9.6	10	12	13	14	13	13	13	12	10	10
19	9.9	10	10	12	12	13	12	14	12	12	10	10
20	9.9	9.7	10	12	12	13	12	14	12	12	10	10
21	9.9	6	10	12	12	13	12	13	12	12	10	10
22	9.9	6	9.3	12	12	13	12	13	12	11	10	10
23	9.9	9.5	10	12	12	13	12	13	12	12	10	10
24	9.9	6	10	12	12	13	13	13	13	12	10	10
25	9.9	6	10	12	12	13	13	13	13	11	10	10
26	9.9	6.6	10	12	12	13	13	13	12	12	10	10
27	9.9	8	10	12	12	13	13	13	12	12	10	10
28	9.9	9.8	10	12	12	13	14	13	12	11	10	10
29	9.9	9.9	10	12	---	13	14	13	12	12	7.3	10
30	9.9	9.9	10	12	---	13	14	13	12	12	7.3	10
31	9.9	---	10	12	---	13	---	14	---	12	7.3	---
MAX	11	12	12	14	13	14	14	14	13	13	12	10
MIN	9.9	6.0	9.3	10	11	12	12	13	12	11	7.3	7.1
a	4186.9	4186.9	4187.6	4189.7	4190.6	4192.1	4193.4	4192.5	4189.8	4190.6	4182.8	4187.3
b	+0.1	0	+0.1	+2	0	+1	+1	0	-2	0	-4.7	+2.7

CAL YR 1994 b +2.7

WTR YR 1995 b +0.2

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 mi².

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 ft³/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 ft³/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 Calaveras County Water District, 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, 2,290 ft³/s, Mar. 10, 1995; minimum daily, 1.2 ft³/s, Dec. 22, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft³/s, Mar. 10; minimum daily, 1.2 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.4	8.5	14	20	21	166	1470	344	19	18	e10
2	3.6	6.3	9.5	12	22	23	82	851	307	19	19	e9.6
3	3.3	4.9	14	13	75	311	143	531	279	19	19	e9.6
4	9.2	4.5	18	15	29	192	158	440	301	32	19	e9.6
5	18	17	19	20	18	97	130	353	200	19	19	e9.6
6	8.5	21	19	18	19	52	174	266	110	19	19	e9.6
7	6.3	20	15	21	28	21	345	220	137	20	19	e10
8	5.4	16	11	21	31	21	412	191	18	19	19	e11
9	4.9	11	9.9	21	18	820	223	206	19	20	19	e11
10	4.5	11	11	498	19	1510	178	165	80	19	19	e11
11	4.3	8.7	11	229	19	917	178	244	137	19	18	e9.2
12	4.2	8.4	10	168	40	561	204	160	155	19	18	e8.3
13	4.2	7.2	11	412	19	437	164	148	119	19	17	e9.1
14	4.2	6.7	9.0	792	48	391	127	118	30	19	17	e10
15	4.2	7.4	10	360	24	362	115	119	57	19	16	11
16	4.2	7.6	9.7	149	19	318	74	139	28	19	16	11
17	4.2	6.6	10	66	19	254	67	151	20	19	16	11
18	4.2	6.6	10	28	55	321	47	221	21	19	16	11
19	4.2	8.2	9.9	20	159	308	20	319	26	18	16	11
20	4.2	8.3	9.8	21	19	320	19	359	29	18	15	11
21	4.1	e7.4	10	20	20	244	19	348	18	18	15	10
22	4.2	e7.3	1.2	21	21	194	19	184	19	18	15	11
23	4.2	e7.1	2.7	20	21	168	19	172	23	18	15	11
24	4.1	e7.0	13	20	21	120	19	143	22	18	14	11
25	4.0	e7.4	13	20	21	129	33	82	26	18	14	11
26	4.1	e7.6	13	21	21	164	33	78	29	18	14	11
27	4.1	e7.8	13	20	21	104	109	255	18	18	14	11
28	4.0	e7.9	15	21	21	73	544	225	23	18	14	11
29	4.0	7.7	13	20	---	60	901	248	20	18	13	11
30	4.2	8.1	11	20	---	46	814	287	19	18	e12	11
31	4.1	---	14	20	---	122	---	327	---	18	e12	---
TOTAL	154.7	267.1	354.2	3121	867	8681	5536	9020	2634	591	506	312.6
MEAN	4.99	8.90	11.4	101	31.0	280	185	291	87.8	19.1	16.3	10.4
MAX	18	21	19	792	159	1510	901	1470	344	32	19	11
MIN	3.3	4.4	1.2	12	18	21	19	78	18	18	12	8.3
AC-FT	307	530	703	6190	1720	17220	10980	17890	5220	1170	1000	620

e Estimated.

SAN JOAQUIN RIVER BASIN

11295230 BEAVER CREEK BELOW DIVERSION DAM, NEAR ARNOLD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.10	6.21	7.94	34.1	17.3	79.6	56.2	67.8	26.3	9.82	6.23	4.62
MAX	7.09	8.90	11.4	101	31.0	280	185	291	87.8	19.1	16.3	10.4
(WY)	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1990 - 1995

ANNUAL TOTAL	4236.9		32044.6									
ANNUAL MEAN	11.6		87.8						29.9			
HIGHEST ANNUAL MEAN									87.8			1995
LOWEST ANNUAL MEAN									9.86			1991
HIGHEST DAILY MEAN	54	Apr 29				1510	Mar 10		1510		Mar 10	1995
LOWEST DAILY MEAN	1.2	Dec 22				1.2	Dec 22		1.2		Dec 22	1994
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 26				4.1	Oct 23		2.0		Oct 1	1991
INSTANTANEOUS PEAK FLOW						2290	Mar 10		2290		Mar 10	1995
ANNUAL RUNOFF (AC-FT)	8400					63560			21630			
10 PERCENT EXCEEDS	22					259			22			
50 PERCENT EXCEEDS	10					19			11			
90 PERCENT EXCEEDS	2.6					6.7			3.0			

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.--No estimated daily discharges. 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 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, 89 ft³/s, Oct. 17, 1989; no flow in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	50	50	51	39	64	15	5.1	47	65	78	53
2	51	50	51	61	44	48	14	5.1	45	65	63	51
3	51	50	51	66	45	21	6.1	5.1	45	65	55	51
4	51	50	51	66	46	20	3.3	8.2	45	65	55	51
5	51	50	51	32	45	30	3.3	10	45	65	55	51
6	51	50	51	25	55	37	13	10	45	68	55	51
7	51	50	51	16	60	42	31	10	45	73	55	51
8	51	50	51	13	60	40	25	10	45	75	55	51
9	51	50	51	16	60	20	25	10	48	75	55	51
10	51	50	51	2.2	63	5.5	8.3	10	50	75	55	51
11	51	50	51	2.8	64	5.4	3.1	10	50	75	55	51
12	51	50	51	5.1	64	5.4	3.1	16	50	75	55	51
13	51	50	51	5.1	59	5.3	3.1	20	50	75	55	51
14	51	50	51	5.1	55	5.5	17	20	53	75	55	27
15	51	50	51	5.2	61	5.2	25	14	38	75	55	15
16	51	50	51	5.1	79	5.4	25	10	35	75	55	15
17	51	50	51	5.2	76	14	25	14	49	75	55	15
18	51	50	51	19	41	20	25	20	55	75	55	15
19	51	50	51	35	74	9.9	30	26	55	75	55	15
20	51	50	51	40	74	5.5	35	30	55	75	55	15
21	51	50	51	40	74	5.1	35	36	55	77	55	39
22	51	50	51	40	62	5.6	35	40	55	78	55	51
23	51	50	51	40	67	5.4	35	40	58	78	55	51
24	51	50	51	28	65	5.6	41	40	60	78	55	51
25	51	48	51	15	64	5.5	51	44	60	78	55	51
26	51	48	48	15	65	11	55	50	60	78	55	51
27	51	50	51	15	65	35	54	50	60	78	55	51
28	51	50	51	15	65	12	20	50	63	78	55	51
29	51	50	51	15	---	14	15	50	65	78	55	51
30	51	50	51	21	---	14	5.1	50	65	78	55	51
31	51	---	51	31	---	15	---	50	---	78	55	---
TOTAL	1575	1496	1577	750.8	1691	537.3	681.4	763.5	1551	2298	1736	1280
MEAN	50.8	49.9	50.9	24.2	60.4	17.3	22.7	24.6	51.7	74.1	56.0	42.7
MAX	51	50	51	66	79	64	55	50	65	78	78	53
MIN	45	48	48	2.2	39	5.1	3.1	5.1	35	65	55	15
AC-FT	3120	2970	3130	1490	3350	1070	1350	1510	3080	4560	3440	2540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	50.9	51.4	58.2	53.5	57.0	57.8	55.6	69.2	69.7	53.3	41.5	39.9
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	40.4	38.1	44.8	24.2	27.4	17.3	22.7	24.6	51.7	36.2	30.4	33.9
(WY)	1993	1991	1993	1995	1990	1995	1995	1995	1995	1990	1990	1994

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR			FOR 1995 WATER YEAR			WATER YEARS 1990 - 1995		
ANNUAL TOTAL	20904.99			15937.0					
ANNUAL MEAN	57.3			43.7			54.8		
HIGHEST ANNUAL MEAN							59.8		
LOWEST ANNUAL MEAN							43.7		
HIGHEST DAILY MEAN	85			79			89		
LOWEST DAILY MEAN	.64			2.2			.00		
ANNUAL SEVEN-DAY MINIMUM	18			4.4			.00		
ANNUAL RUNOFF (AC-FT)	41470			31610			39710		
10 PERCENT EXCEEDS	79			65			80		
50 PERCENT EXCEEDS	51			51			55		
90 PERCENT EXCEEDS	34			10			30		

SAN JOAQUIN RIVER BASIN

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.--No estimated daily discharges. 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 Calaveras County Water District, 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, 1,430 ft³/s, May 12, 1995; no flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	130	157	.00	945	799	1190	399	1390	1280	581	352
2	.00	90	152	.00	939	905	990	947	1370	1280	502	76
3	254	101	.00	182	768	1050	1210	1370	1390	1370	559	53
4	203	90	.00	266	664	730	1340	1390	1390	1030	463	58
5	236	.00	280	276	575	602	1380	1390	1390	1270	257	370
6	220	201	175	266	870	928	1390	1350	1390	1130	233	475
7	234	172	205	201	832	653	1370	1330	1390	1260	367	438
8	.00	207	179	163	864	718	885	1380	1390	1400	528	419
9	.00	243	179	774	850	1090	1390	1390	1390	1390	547	.00
10	152	121	.00	1380	792	1120	1280	1380	1390	1390	400	13
11	135	79	.00	1310	346	929	1350	1360	1390	863	327	442
12	147	.00	238	890	264	1350	1380	1430	1390	1220	268	410
13	128	.00	268	1100	882	1350	1390	1390	1390	1160	248	561
14	100	220	406	1310	802	1340	1320	1390	1380	1230	576	383
15	.00	97	209	1340	777	1320	1210	1390	1390	984	427	208
16	.00	74	261	937	913	1230	1050	1370	1360	938	312	.00
17	152	81	245	707	784	1230	1220	1380	1390	1140	410	.00
18	136	88	164	714	672	1270	1060	1380	1390	786	345	242
19	118	.00	179	795	85	1390	1180	1390	1390	831	81	476
20	133	.00	356	658	271	1370	1150	1390	1390	631	42	544
21	128	84	311	187	826	1300	1080	1380	1370	726	430	632
22	.00	122	388	396	874	1230	1110	1380	1080	379	381	480
23	.00	125	273	800	930	1300	1020	1380	1150	386	475	191
24	145	.00	.00	774	927	1070	1240	1390	1230	579	338	199
25	130	.00	.00	785	460	1140	1300	1390	1260	481	390	517
26	167	.00	.00	756	591	1120	1240	1390	1140	431	.00	456
27	151	.00	196	893	907	1080	1310	1390	920	645	.00	626
28	164	162	270	631	970	1160	1390	1400	1260	619	295	529
29	.00	117	179	648	---	1220	1380	1400	1390	154	432	526
30	.00	68	148	894	---	938	1380	1400	1380	196	390	45
31	244	---	.00	931	---	1210	---	1400	---	632	391	---
TOTAL	3477.00	2672.00	5418.00	20964.00	20380	34142	37185	41496	39920	27811	10995.00	9721.00
MEAN	112	89.1	175	676	728	1101	1239	1339	1331	897	355	324
MAX	254	243	406	1380	970	1390	1390	1430	1390	1400	581	632
MIN	.00	.00	.00	.00	85	602	885	399	920	154	.00	.00
AC-FT	6900	5300	10750	41580	40420	67720	73760	82310	79180	55160	21810	19280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	130	87.2	121	234	250	453	600	572	398	279	206	203
MAX	258	198	277	676	728	1101	1239	1339	1331	897	355	324
(WY)	1994	1994	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1990 - 1995

ANNUAL TOTAL	51363.20	254181.00	
ANNUAL MEAN	141	696	316
HIGHEST ANNUAL MEAN			696
LOWEST ANNUAL MEAN			115
HIGHEST DAILY MEAN	498	Apr 4	1430
LOWEST DAILY MEAN	.00	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	17	Jan 29	47
ANNUAL RUNOFF (AC-FT)	101900	504200	228900
10 PERCENT EXCEEDS	276	1390	902
50 PERCENT EXCEEDS	136	632	170
90 PERCENT EXCEEDS	.00	44	.00

11295260 MCKAY'S 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 mi².

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 Calaveras County Water 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, 2,420 acre-ft, May 1, 1995, elevation, 3,375.3 ft; minimum, 313 acre-ft, Jan. 28, 1994, elevation, 3,279.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,420 acre-ft, May 1, elevation, 3,375.3 ft; minimum, 325 acre-ft, Feb. 18, elevation, 3,280.6 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1642	1666	1031	1084	924	1195	1155	2420	2286	1175	1331	1260
2	1872	1601	919	1178	761	1149	1502	2286	2277	1127	1641	1630
3	1695	1506	1135	1108	870	1697	1450	2266	2219	847	1770	1741
4	1899	1430	1310	1141	877	1564	1390	2259	2295	1463	1807	1819
5	1880	1688	1043	1044	1057	1488	1318	2157	2183	1484	1858	1710
6	1775	1896	970	855	852	1108	1295	1879	1770	1754	1946	1517
7	1612	1738	926	1079	963	1434	2279	1835	1554	1656	1951	1438
8	1813	1538	912	1393	927	964	2228	1970	1724	1484	1812	1335
9	1991	1243	890	1511	869	2356	1703	2057	1971	1258	1627	1712
10	1893	1189	1198	2277	1069	2404	1661	2089	2267	968	1757	2033
11	1830	1185	1501	1369	1409	2281	1640	2176	2226	1737	1970	1803
12	1730	1314	1362	997	1525	2197	1554	2066	2253	1713	1826	1894
13	1670	1441	1164	1753	1034	1801	1404	2018	2092	1735	1658	1854
14	1674	1121	726	2280	941	1556	1040	2028	1701	1550	1287	2018
15	1861	1062	1048	1785	1109	1403	1140	1952	1692	1754	1355	1799
16	2041	1047	1263	1366	842	1580	1479	1865	1837	2049	1593	1813
17	1950	1036	1388	1296	836	1570	1354	1959	1657	1866	1390	1814
18	1882	996	1555	1367	325	2000	1527	2194	1561	1830	1303	1343
19	1851	1106	1684	1130	607	1915	1379	2110	1883	1604	1697	1521
20	1807	1224	1454	903	1399	1440	1315	2218	1983	1803	1849	1748
21	1764	1184	1319	1307	1460	965	1292	2092	1684	1384	1749	1306
22	1931	1063	1080	1327	1506	949	1226	2126	1562	1657	1771	1192
23	2124	937	1057	880	1325	1000	1516	1995	1585	1890	1603	1537
24	2050	1043	1329	918	1121	1406	1442	2050	1732	1722	1724	1863
25	1998	1182	1526	872	1530	1465	1233	1671	1812	1739	1635	1586
26	1871	1303	1720	858	1646	1431	1256	1639	1699	1543	1932	1491
27	1796	1415	1535	903	1397	1515	1680	1753	2082	1001	2125	1293
28	1659	1232	1203	1014	1086	1352	2302	2113	1815	1420	1917	1325
29	1857	1146	1004	1087	---	1057	2370	2275	1307	1799	1610	1290
30	2033	1165	848	1016	---	1451	2326	2282	1115	1964	1427	1643
31	1776	---	972	1049	---	1259	---	2296	---	1491	1404	---
MAX	2120	1900	1720	2280	1650	2400	2370	2420	2290	2050	2120	2030
MIN	1610	937	726	855	325	949	1040	1640	1110	847	1290	1190
a	3355.4	3333.3	3324.8	3328.4	3330.1	3337.3	3372.4	3371.5	3331.3	3345.9	3342.8	3351.2
b	+241	-611	-193	+77	+37	+173	+1067	-30	-1181	+376	-87	+239

CAL YR 1994 b +533
WTR YR 1995 b +108

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

SAN JOAQUIN RIVER BASIN

11295270 NORTH FORK STANISLAUS RIVER BELOW MCKAY'S 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 mi².

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.--No estimated daily discharges. 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 Calaveras County Water District, 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, 8,680 ft³/s, May 1, 1995; minimum daily, 3.4 ft³/s, Nov. 25, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,680 ft³/s, May 1; minimum daily, 3.9 ft³/s, Dec. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	24	19	19	19	20	19	6480	322	19	19	22
2	25	24	19	20	19	20	18	2320	304	18	19	24
3	25	24	18	21	19	20	19	341	118	19	19	25
4	25	24	18	22	19	20	18	134	193	21	19	26
5	24	23	18	19	20	20	18	26	242	19	19	25
6	21	20	18	18	20	19	18	18	19	20	19	24
7	20	19	19	19	21	20	29	18	18	20	19	24
8	21	18	20	19	20	19	579	18	19	20	19	24
9	22	18	20	19	20	1510	18	19	19	18	19	24
10	23	19	20	467	21	3910	18	19	38	18	19	26
11	23	21	20	36	22	1740	18	19	69	20	20	26
12	24	21	22	19	22	153	18	19	161	19	19	26
13	23	21	21	22	20	21	18	19	63	19	19	26
14	23	22	20	1070	19	18	18	19	18	19	18	21
15	23	21	22	69	20	18	19	19	18	19	20	18
16	24	21	20	22	19	19	19	19	19	20	19	18
17	24	21	19	19	18	19	20	18	19	18	20	18
18	24	21	19	20	18	19	20	19	19	18	20	18
19	24	22	19	20	21	19	21	64	19	19	19	19
20	24	21	19	19	23	18	20	61	20	19	19	20
21	24	24	19	19	22	19	20	91	19	18	19	20
22	24	28	3.9	19	20	18	20	19	19	18	20	19
23	24	27	4.2	19	19	19	19	19	19	19	19	20
24	24	28	18	20	19	20	19	19	20	19	19	21
25	24	27	19	19	19	19	18	18	19	19	19	21
26	24	28	19	20	20	18	19	18	19	19	20	19
27	24	27	19	20	20	19	19	19	19	19	20	19
28	24	24	20	19	19	19	486	20	19	20	20	19
29	24	20	19	19	---	18	2030	88	18	19	19	20
30	25	19	19	19	---	20	2080	190	18	18	19	20
31	24	---	18	19	---	20	---	307	---	19	18	---
TOTAL	731	677	568.1	2171	558	7831	5675	10477	1906	589	595	652
MEAN	23.6	22.6	18.3	70.0	19.9	253	189	338	63.5	19.0	19.2	21.7
MAX	25	28	22	1070	23	3910	2080	6480	322	21	20	26
MIN	20	18	3.9	18	18	18	18	18	18	18	18	18
AC-FT	1450	1340	1130	4310	1110	15530	11260	20780	3780	1170	1180	1290

SAN JOAQUIN RIVER BASIN

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11295270 NORTH FORK STANISLAUS RIVER BELOW MCKAY'S POINT DAM, NEAR AVERY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.1	20.5	19.3	25.9	19.1	60.4	47.8	73.4	27.6	20.9	20.6	23.3
MAX	27.6	25.9	27.1	70.0	20.7	253	189	338	63.5	23.1	24.5	27.5
(WY)	1992	1994	1994	1995	1991	1995	1995	1995	1995	1994	1994	1991
MIN	20.3	6.06	5.55	7.93	17.4	15.8	18.9	18.4	19.2	19.0	10.6	18.9
(WY)	1990	1990	1990	1990	1990	1990	1990	1992	1994	1995	1989	1989

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1989 - 1995			
ANNUAL TOTAL	7708.1				32430.1							
ANNUAL MEAN	21.1				88.8				32.1			
HIGHEST ANNUAL MEAN									88.8			
LOWEST ANNUAL MEAN									16.9			
HIGHEST DAILY MEAN	29 Jan 2				6480 May 1				6480 May 1 1995			
LOWEST DAILY MEAN	3.9 Dec 22				3.9 Dec 22				3.4 Nov 25 1989			
ANNUAL SEVEN-DAY MINIMUM	15 Dec 18				15 Dec 18				4.2 Nov 15 1989			
INSTANTANEOUS PEAK FLOW					8680 May 1				8680 May 1 1995			
ANNUAL RUNOFF (AC-FT)	15290				64330				23280			
10 PERCENT EXCEEDS	26				27				26			
50 PERCENT EXCEEDS	20				19				20			
90 PERCENT EXCEEDS	19				18				18			

SAN JOAQUIN RIVER BASIN

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 mi².

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 Calaveras County Water District, 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, 7,950 ft³/s, May 1, 1995; minimum daily, 5.1 ft³/s, December 22, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	29	28	33	40	40	185	7950	666	37	37	e32
2	29	30	28	31	42	42	101	3170	611	37	37	e34
3	29	29	31	34	94	331	162	872	398	37	37	e34
4	34	29	37	37	48	211	176	574	494	53	38	e35
5	42	40	37	39	38	117	148	379	441	38	38	e35
6	30	41	36	36	39	72	192	284	129	39	38	e34
7	26	38	34	40	49	41	374	238	155	40	38	e35
8	27	34	31	40	51	40	991	209	37	39	37	e35
9	27	29	30	40	39	2330	241	225	39	38	37	e35
10	28	30	31	965	40	5420	197	184	118	37	38	e37
11	28	30	31	266	41	2660	196	263	206	38	38	e35
12	28	30	32	188	62	714	222	179	316	38	37	e34
13	28	29	32	434	38	458	183	167	182	38	36	e35
14	28	28	29	1860	67	409	145	137	48	37	35	e31
15	28	29	32	429	44	380	134	138	76	38	36	29
16	28	29	29	171	38	338	93	157	47	38	36	29
17	28	28	29	85	37	274	88	169	39	37	36	29
18	29	28	30	48	73	340	68	240	39	37	36	29
19	28	30	29	40	180	328	40	384	45	37	35	30
20	28	30	29	41	43	338	39	419	49	37	35	31
21	28	e31	29	40	42	263	39	439	38	37	34	30
22	29	e35	5.1	40	40	212	39	203	38	37	35	29
23	29	e34	6.9	40	40	187	38	192	42	37	33	31
24	28	e35	31	40	39	139	38	161	41	37	33	32
25	28	e35	32	40	40	148	52	101	45	37	34	32
26	28	e35	32	41	41	182	52	96	48	37	34	30
27	28	e35	32	40	40	123	128	274	38	37	34	30
28	28	e32	35	41	40	92	1030	245	42	38	33	30
29	28	28	32	39	---	79	2930	336	38	38	32	31
30	29	28	30	40	---	65	2900	477	37	37	e31	31
31	28	---	32	40	---	142	---	634	---	37	e30	---
TOTAL	892	948	922.0	5298	1425	16515	11221	19496	4542	1179	1098	964
MEAN	28.8	31.6	29.7	171	50.9	533	374	629	151	38.0	35.4	32.1
MAX	42	41	37	1860	180	5420	2930	7950	666	53	38	37
MIN	26	28	5.1	31	37	40	38	96	37	37	30	29
AC-FT	1770	1880	1830	10510	2830	32760	22260	38670	9010	2340	2180	1910

e Estimated.

11295300 NORTH FORK STANISLAUS RIVER BELOW BEAVER CREEK, NEAR HATHAWAY PINES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.8	29.5	29.9	63.6	36.4	140	104	141	53.9	30.7	28.5	28.6
MAX	33.5	32.1	33.1	171	50.9	533	374	629	151	38.0	35.4	32.1
(WY)	1992	1992	1994	1995	1995	1995	1995	1995	1995	1995	1995	1995
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1990 - 1995			
ANNUAL TOTAL	11950.0				64500.0							
ANNUAL MEAN	32.7				177				65.0			
HIGHEST ANNUAL MEAN									177			
LOWEST ANNUAL MEAN									31.7			
HIGHEST DAILY MEAN	73				Apr 29				7950			
LOWEST DAILY MEAN	5.1				Dec 22				5.1			
ANNUAL SEVEN-DAY MINIMUM	23				Dec 17				22			
ANNUAL RUNOFF (AC-FT)	23700				127900				47120			
10 PERCENT EXCEEDS	41				329				43			
50 PERCENT EXCEEDS	30				38				32			
90 PERCENT EXCEEDS	28				29				26			

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 mi².

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, 18,483 acre-ft, July 16, 1992, elevation, 5,618.06 ft; minimum observed, 3,157 acre-ft, Mar. 3, 4, 1991, elevation, 5,546.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,312 acre-ft, July 29, elevation, 5,617.50 ft; minimum, 4,240 acre-ft, Jan. 8, elevation, 5,556.01 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13323	12066	10671	4978	5595	6470	10904	17615	17749	17746	18202	17743
2	13256	11962	10547	4757	5676	6518	10964	17525	17737	17746	18188	17664
3	13186	11893	10427	4578	5735	6610	11049	17389	17751	17743	18170	17546
4	13258	11807	10296	4470	5793	6623	11214	17329	17810	17698	18158	17437
5	13284	12078	10156	4386	5843	6631	11428	17263	17720	17777	18196	17335
6	13266	12472	10018	4294	5884	6627	11622	17202	17554	17871	18228	17245
7	13235	12536	9853	4273	5909	6614	11860	17142	17404	17851	18289	17134
8	13199	12551	9696	4240	5924	6600	11982	17115	17338	17804	18286	17026
9	13163	12566	9533	4402	5930	7570	12048	17148	17425	17843	18283	16912
10	13122	12541	9370	4848	5928	8576	12094	17196	17647	17749	18266	16796
11	13081	12495	9214	4871	5930	8876	12218	17266	17788	17675	18240	16711
12	13024	12438	9065	4901	5930	9027	12407	17261	17804	17543	18196	16663
13	12965	12384	8902	5095	5934	9162	12656	17215	17790	17496	18179	16619
14	12900	12300	8743	5474	5919	9335	12771	17148	17621	17537	18144	16563
15	12833	12216	8585	5573	5900	9517	12833	17098	17525	17578	18094	16505
16	12776	12127	8423	5595	5873	9674	12869	17087	17384	17698	18046	16381
17	12735	12051	8271	5594	5847	9790	12897	17161	17311	17771	18019	16213
18	12725	11944	8126	5576	5831	9999	12915	17277	17473	17774	17965	16044
19	12715	11842	7970	5557	5840	10196	12918	17455	17554	17807	17880	15856
20	12699	11748	7789	5536	5866	10404	12933	17543	17537	17793	17849	15655
21	12684	11655	7574	5509	5953	10535	12939	17569	17583	17788	17868	15552
22	12671	11544	7322	5499	6030	10611	12952	17531	17698	17871	17889	15446
23	12656	11441	7075	5490	6107	10668	13057	17490	17804	18105	17917	15329
24	12635	11327	6844	5499	6183	10686	13287	17458	17908	18208	17923	15205
25	12607	11249	6604	5492	6259	10690	13597	17455	17883	18211	17932	15079
26	12571	11151	6367	5474	6330	10695	13908	17514	17785	18202	17917	14983
27	12548	11047	6128	5460	6383	10708	14403	17569	17851	18263	17899	14870
28	12500	10942	5900	5438	6428	10723	14875	17618	17827	18295	17883	14753
29	12428	10844	5676	5425	---	10735	15601	17655	17821	18312	17865	14625
30	12336	10752	5439	5431	---	10760	16560	17695	17777	18240	17843	14518
31	12195	---	5207	5502	---	10822	---	17782	---	18217	17810	---
MAX	13323	12566	10671	5595	6428	10822	16560	17782	17908	18312	18289	17743
MIN	12195	10752	5207	4240	5595	6470	10904	17087	17311	17496	17810	14518
a	5594.79	5589.06	5563.32	5565.18	5570.16	5589.34	5610.60	5615.69	5615.67	5617.17	5615.79	5603.67
b	-1196	-1443	-5545	+295	+926	+4394	+5738	+1222	-5	+440	-407	-3292

CAL YR 1994 MAX 18401 MIN 3206 b +332
WTR YR 1995 MAX 18312 MIN 4240 b +1127

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

SAN JOAQUIN RIVER BASIN

425

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 mi².

PERIOD OF RECORD.--October 1911 to January 1917, August 1938 to current year. Monthly discharge only for October 1913 and yearly estimates for 1912-13, published in WSP 1315-A. Published as "near Confidence" 1911-13.

REVISED RECORDS.--WSP 1215: 1945(M). WSP 1515: 1916, 1943(M). 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.--No estimated daily discharges. 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, 3,900 ft³/s, Nov. 21, 1950, gage height, 9.25 ft, from rating curve extended above 1,100 ft³/s on basis of contracted-opening measurement of peak flow at bridge 0.3 mi downstream from station; minimum daily, 1.3 ft³/s, Nov. 22, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,360 ft³/s, June 25, gage height, 5.80 ft; minimum daily, 9.2 ft³/s, Oct. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	69	75	131	68	86	115	730	1060	978	284	47
2	36	56	90	130	72	84	113	750	988	936	263	64
3	36	36	104	117	72	90	117	534	998	930	242	69
4	34	42	105	91	72	85	134	460	1050	896	223	68
5	20	52	105	81	73	82	150	389	1080	928	195	68
6	32	82	105	80	73	80	157	324	860	1020	167	66
7	36	60	104	84	73	79	165	271	581	1060	150	66
8	37	41	103	82	72	77	153	239	441	1020	150	66
9	36	38	102	88	70	144	138	242	440	1020	139	68
10	36	47	102	117	69	295	130	264	655	961	133	67
11	36	57	101	106	69	206	136	327	925	853	126	66
12	36	56	101	85	69	156	151	356	1060	733	115	66
13	36	56	101	73	69	145	165	314	1070	598	107	67
14	36	61	100	95	69	151	148	257	979	582	101	68
15	36	69	100	91	67	151	136	225	726	629	97	67
16	36	69	98	77	66	144	128	205	529	633	95	67
17	25	68	97	69	65	133	122	224	421	593	94	66
18	10	71	97	67	65	148	119	288	452	522	92	66
19	10	75	97	65	67	176	115	418	638	517	89	66
20	9.8	75	109	64	70	159	113	600	697	530	65	66
21	9.6	67	124	64	75	146	110	689	696	515	37	65
22	9.6	77	142	63	79	131	111	676	791	410	38	65
23	9.2	77	141	63	81	128	121	595	966	296	37	65
24	14	77	141	64	84	122	142	575	1100	342	36	66
25	17	77	140	64	86	116	167	521	1200	381	35	66
26	17	79	138	62	88	112	183	586	1110	363	33	65
27	17	77	138	62	87	109	211	697	1050	336	32	65
28	28	77	136	61	86	107	277	715	1120	392	31	65
29	34	76	135	62	---	105	336	818	1080	432	29	65
30	48	75	134	62	---	106	358	881	1030	395	28	64
31	70	---	133	65	---	109	---	975	---	317	28	---
TOTAL	883.2	1939	3498	2485	2056	3962	4721	15145	25793	20118	3291	1965
MEAN	28.5	64.6	113	80.2	73.4	128	157	489	860	649	106	65.5
MAX	70	82	142	131	88	295	358	975	1200	1060	284	69
MIN	9.2	36	75	61	65	77	110	205	421	296	28	47
AC-FT	1750	3850	6940	4930	4080	7860	9360	30040	51160	39900	6530	3900

SAN JOAQUIN RIVER BASIN

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.9	52.9	57.8	50.8	52.5	65.6	130	413	378	112	51.2	60.5
MAX	121	344	338	161	229	212	386	874	1066	683	127	99.2
(WY)	1983	1951	1951	1956	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1938 - 1995	
ANNUAL TOTAL	21661.0		85856.2			
ANNUAL MEAN	59.3		235		124	
HIGHEST ANNUAL MEAN					259	
LOWEST ANNUAL MEAN					26.6	
HIGHEST DAILY MEAN	333	May 25	1200	Jun 25	2470	Nov 21 1950
LOWEST DAILY MEAN	7.6	Jan 29	9.2	Oct 23	1.3	Nov 22 1946
ANNUAL SEVEN-DAY MINIMUM	7.7	Jan 29	10	Oct 18	2.3	Nov 9 1942
INSTANTANEOUS PEAK FLOW			1360	Jun 25	3900	Nov 21 1950
INSTANTANEOUS PEAK STAGE			5.80	Jun 25	9.25	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	42960		170300		89790	
10 PERCENT EXCEEDS	126		728		321	
50 PERCENT EXCEEDS	37		102		61	
90 PERCENT EXCEEDS	15		36		21	

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ANNUAL TOTAL	10566.53		17435.91				
ANNUAL MEAN	28.9		47.8			41.7	
HIGHEST ANNUAL MEAN						57.5	1983
LOWEST ANNUAL MEAN						4.78	1977
HIGHEST DAILY MEAN	59	Jun 19	61	Sep 3		66	Jun 16 1984
LOWEST DAILY MEAN	.00	Feb 12	.00	Oct 1		.00	Oct 3 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 30	.00	Oct 1		.00	May 28 1940
ANNUAL RUNOFF (AC-FT)	20960		34580			30230	
10 PERCENT EXCEEDS	57		59			60	
50 PERCENT EXCEEDS	24		55			54	
90 PERCENT EXCEEDS	.00		.00			2.6	

SAN JOAQUIN RIVER BASIN

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 mi².

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 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	18	24	---	27	43	---	---	---	---	---	e15
2	38	23	40	---	32	49	---	---	---	---	---	e8.0
3	37	23	---	---	33	---	---	---	---	---	---	e8.0
4	38	21	---	40	33	49	---	---	---	---	---	e8.0
5	18	29	---	31	35	44	---	---	---	---	---	e8.0
6	29	---	---	29	35	39	---	---	---	---	---	e8.0
7	35	27	---	38	34	35	---	---	---	---	---	e8.0
8	35	10	---	35	32	33	---	---	---	---	---	7.8
9	35	6.6	---	50	27	---	---	---	---	---	---	7.8
10	34	7.7	---	---	25	---	---	---	---	---	---	7.9
11	34	7.4	---	---	23	---	---	---	---	---	---	8.1
12	34	7.4	---	41	22	---	---	---	---	---	---	8.2
13	34	7.2	---	35	23	---	---	---	---	---	---	8.0
14	34	11	50	---	23	---	---	---	---	---	e49	7.8
15	34	19	50	---	21	---	---	---	---	---	e48	7.6
16	34	18	49	37	20	---	---	---	---	---	e49	7.5
17	26	18	49	24	20	---	---	---	---	---	e50	7.4
18	8.7	20	49	20	19	---	---	---	---	---	e50	7.5
19	8.5	24	48	18	21	---	---	---	---	---	e50	7.9
20	8.4	23	---	17	25	---	---	---	---	---	e37	21
21	8.3	20	---	15	30	---	---	---	---	---	e35	7.8
22	8.2	25	---	16	34	---	---	---	---	---	e38	7.7
23	8.1	25	---	17	37	---	---	---	---	---	e37	7.6
24	12	25	---	22	40	---	---	---	---	---	e36	7.6
25	17	26	---	24	42	---	---	---	---	---	e35	7.6
26	17	26	---	20	44	---	---	---	---	---	e33	7.6
27	17	25	---	20	41	---	---	---	---	---	e32	7.6
28	19	25	---	22	42	---	---	---	---	---	e31	7.6
29	20	24	---	22	---	---	---	---	---	---	e29	7.4
30	34	24	---	21	---	---	---	---	---	---	e25	7.3
31	41	---	---	22	---	---	---	---	---	---	e20	---
TOTAL	794.2	---	---	---	840	---	---	---	---	---	---	253.3
MEAN	25.6	---	---	---	30.0	---	---	---	---	---	---	8.44
MAX	41	---	---	---	44	---	---	---	---	---	---	21
MIN	8.1	---	---	---	19	---	---	---	---	---	---	7.3
AC-FT	1580	---	---	---	1670	---	---	---	---	---	---	502

e Estimated.

SAN JOAQUIN RIVER BASIN

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11297500 TUOLUMNE CANAL NEAR LONG BARN, CA

LOCATION.--Lat 38°05'35", long 120°10'03", in SE 1/4 SW 1/4 sec.24, T.3 N., R.16 E., Tuolumne County, Hydrologic Unit 18040010, Stanislaus National Forest, on left bank 300 ft downstream from intake, 350 ft downstream from Lyons Reservoir on South Fork Stanislaus River, 2 mi west of Long Barn, and 15 mi northeast of Sonora.

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,110.0 ft above sea level (river-profile survey). Prior to June 1938, at site 200 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Canal diverts from left bank of South Fork Stanislaus River into Tuolumne River basin for power and domestic supply in vicinity of Sonora. See schematic diagram of Stanislaus River basin.

COOPERATION.--Records 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 daily discharge, 59 ft³/s, May 11, 1975; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	15	41	42	37	41	37	36	49	44	46	44
2	31	16	40	41	37	40	37	37	46	44	45	46
3	30	16	41	40	38	41	37	35	45	45	45	46
4	26	16	41	40	39	40	38	35	46	43	48	47
5	21	16	41	41	27	40	38	35	46	44	48	47
6	21	15	42	41	20	40	40	34	44	46	47	47
7	20	15	42	41	20	40	41	34	43	46	46	47
8	20	21	42	42	20	37	41	34	42	46	46	47
9	20	25	43	41	20	34	40	34	42	46	46	47
10	18	21	43	36	20	31	40	34	44	45	46	47
11	15	16	43	32	20	24	40	34	44	42	47	47
12	15	19	36	33	20	23	40	37	45	45	47	47
13	9.2	26	36	35	25	23	40	38	44	46	47	48
14	.00	25	43	36	31	30	40	38	43	46	46	48
15	.00	25	43	28	30	35	40	38	43	46	45	48
16	.00	26	43	24	35	38	41	37	43	46	45	48
17	.00	32	43	45	40	40	41	38	43	47	46	47
18	.00	36	43	40	40	40	41	38	44	48	45	47
19	.00	36	43	40	40	38	41	39	45	47	46	47
20	1.6	37	43	40	40	32	41	41	44	48	44	47
21	35	39	44	40	40	27	41	41	44	47	45	46
22	30	38	44	40	40	27	41	41	44	46	48	46
23	26	39	42	40	40	27	43	41	44	46	46	46
24	26	40	41	41	40	27	43	41	44	46	45	46
25	26	40	40	41	41	27	42	40	44	46	42	46
26	24	40	40	40	41	27	42	42	44	46	44	46
27	20	40	41	38	41	27	42	44	45	46	44	45
28	20	40	41	37	40	27	41	45	45	45	43	45
29	20	41	41	37	---	31	35	47	46	47	44	45
30	18	41	41	37	---	34	35	46	45	46	44	45
31	15	---	42	37	---	36	---	48	---	46	44	---
TOTAL	538.80	852	1289	1186	922	1024	1199	1202	1330	1417	1410	1395
MEAN	17.4	28.4	41.6	38.3	32.9	33.0	40.0	38.8	44.3	45.7	45.5	46.5
MAX	35	41	44	45	41	41	43	48	49	48	48	48
MIN	.00	15	36	24	20	23	35	34	42	42	42	44
AC-FT	1070	1690	2560	2350	1830	2030	2380	2380	2640	2810	2800	2770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	MEAN	21.3	18.1	20.3	22.9	25.2	28.0	30.6	35.2	39.3	36.0	36.6	32.6
MAX	36.4	40.9	44.5	45.8	45.1	45.7	47.7	52.4	53.8	49.1	48.5	48.6	
(WY)	1947	1983	1974	1974	1973	1974	1973	1973	1973	1983	1983	1983	
MIN	12.2	8.41	8.15	8.16	9.86	7.98	.000	.000	20.6	18.6	20.0	20.1	
(WY)	1940	1941	1940	1948	1961	1977	1941	1938	1939	1944	1942	1941	

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1938 - 1995

ANNUAL TOTAL	9730.80	13764.80	
ANNUAL MEAN	26.7	37.7	28.9
HIGHEST ANNUAL MEAN			43.5
LOWEST ANNUAL MEAN			18.1
HIGHEST DAILY MEAN	47	May 22	59
LOWEST DAILY MEAN	.00	Oct 14	.00
ANNUAL SEVEN-DAY MINIMUM	.23	Oct 14	.23
ANNUAL RUNOFF (AC-FT)	19300	27300	20910
10 PERCENT EXCEEDS	41	46	44
50 PERCENT EXCEEDS	26	41	30
90 PERCENT EXCEEDS	13	21	12

SAN JOAQUIN RIVER BASIN

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 mi².

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, 5,504 acre-ft between gage heights 0.0 ft, invert of outlet, and 86.0 ft, top of spillway gates. Dead storage, 4 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; minimum observed, 847 acre-ft, Apr. 7, 1988, gage height, 41.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 6,244 acre-ft, Aug. 4, gage height, 90.14 ft; minimum, 1,169 acre-ft, Oct. 1, gage height, 47.80 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Pacific Gas & Electric Co. in 1930)

20	210	50	1,299	80	4,541
25	309	60	2,070	90	6,219
30	437	70	3,153	92.5	6,680
40	785				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1169	1574	1228	3017	4625	4489	4659	4993	4929	4902	5970	5546
2	1175	1589	1219	3105	4622	4550	4656	4889	4921	4888	6077	5472
3	1186	1610	1281	3178	4616	4671	4659	4825	4923	4883	6195	5401
4	1246	1626	1345	3244	4609	4628	4670	4824	4945	4869	6244	5317
5	1252	1682	1398	3313	4606	4615	4677	4813	4926	4899	6234	5232
6	1258	1795	1448	3345	4603	4604	4676	4769	4856	4932	6232	5149
7	1284	1847	1486	3599	4601	4595	4717	4746	4783	4926	6237	5066
8	1315	1838	1515	3802	4597	4588	4692	4722	4745	4908	6237	4980
9	1346	1811	1538	4180	4586	4807	4673	4717	4749	4923	6237	4897
10	1375	1792	1557	4816	4583	5086	4659	4715	4836	4883	6232	4816
11	1405	1778	1576	4677	4580	4872	4653	4732	4916	4850	6226	4728
12	1434	1757	1617	4665	4574	4782	4654	4743	4940	4800	6191	4644
13	1463	1721	1650	4679	4586	4755	4679	4740	4940	4763	6191	4562
14	1499	1682	1665	4779	4579	4726	4665	4715	4888	4763	6164	4498
15	1538	1665	1675	4689	4565	4705	4656	4700	4839	4774	6144	4480
16	1573	1649	1686	4650	4550	4686	4650	4686	4771	4813	6127	4402
17	1639	1627	1697	4627	4524	4668	4648	4689	4737	4860	6102	4319
18	1658	1587	1708	4610	4491	4686	4642	4708	4757	4916	6075	4237
19	1672	1560	1719	4601	4462	4680	4636	4757	4811	4951	6046	4154
20	1684	1531	1741	4592	4439	4731	4639	4810	4816	5096	6013	4093
21	1695	1495	1797	4583	4424	4692	4630	4825	4827	5370	5967	4004
22	1707	1466	1893	4607	4415	4696	4627	4821	4860	5610	5943	3912
23	1675	1435	1989	4615	4412	4674	4628	4796	4926	5701	5917	3817
24	1623	1399	2127	4654	4414	4659	4638	4791	4959	5890	5890	3701
25	1595	1384	2262	4660	4427	4653	4647	4774	4975	6100	5865	3618
26	1569	1363	2383	4647	4442	4650	4653	4796	4940	6234	5833	3537
27	1543	1338	2498	4656	4453	4651	4691	4824	4948	6195	5799	3456
28	1526	1308	2616	4641	4464	4650	4709	4836	4945	6239	5759	3375
29	1517	1280	2726	4631	---	4648	4786	4863	4937	6228	5722	3291
30	1508	1253	2833	4627	---	4650	4769	4886	4916	6137	5676	3210
31	1569	---	2927	4625	---	4653	---	4935	---	5997	5617	---
MAX	1707	1847	2927	4816	4625	5086	4786	4993	4975	6239	6244	5546
MIN	1169	1253	1219	3017	4412	4489	4627	4686	4737	4763	5617	3210
a	53.98	49.24	68.12	80.56	79.49	80.74	81.50	82.56	82.44	88.78	86.63	70.46
b	+407	-316	+1674	+1698	-161	+189	+116	+166	-19	+1081	-380	-2407

CAL YR 1994 MAX 6288 MIN 1098 b +1829
WTR YR 1995 MAX 6244 MIN 1169 b +2048

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 mi².

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1215: 1938(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 4,073.4 ft above sea level (river-profile survey).

REMARKS.--No estimated daily discharges. 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, 4,900 ft³/s, Nov. 21, 1950, gage height, 9.3 ft, from rating curve extended above 2,400 ft³/s, on basis of computation of peak flow over Lyons Dam; no flow at times in 1937-39, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,850 ft³/s, Mar. 10, gage height, 6.53 ft; minimum daily, 2.6 ft³/s, Oct. 13, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.8	2.9	2.8	73	9.9	146	920	1100	994	207	5.6
2	2.7	2.8	2.9	2.8	71	10	149	1110	1010	941	121	5.6
3	2.7	2.7	3.0	3.0	61	95	150	754	1010	927	92	5.6
4	2.8	2.7	3.0	3.1	52	119	170	644	1050	901	106	5.6
5	2.8	2.8	3.0	3.2	57	77	195	623	1130	894	112	5.6
6	2.7	2.8	3.0	3.1	58	58	199	510	920	1000	67	5.6
7	2.7	2.8	2.9	3.4	54	45	262	415	602	1090	58	5.6
8	2.7	2.9	2.8	3.2	50	40	266	345	413	1050	46	5.6
9	2.7	3.0	2.8	3.2	42	225	215	309	353	1020	42	5.6
10	2.7	3.0	2.9	226	36	980	173	303	526	992	36	5.6
11	2.7	3.0	3.0	339	31	1100	154	331	842	859	30	5.6
12	2.7	3.0	3.2	169	28	634	154	364	1060	726	24	5.6
13	2.6	3.0	3.3	171	23	433	191	375	1090	564	6.8	5.6
14	2.7	3.0	3.2	322	31	363	179	312	1050	506	5.8	5.3
15	2.9	2.9	3.2	319	23	297	157	266	762	555	5.6	5.3
16	3.0	3.0	3.2	160	18	246	138	232	541	546	5.8	5.3
17	2.7	3.0	3.2	83	17	195	127	224	387	526	5.7	5.3
18	2.8	3.0	3.1	59	16	184	121	261	354	419	5.4	5.3
19	2.8	3.0	3.0	42	16	234	112	349	543	422	5.6	5.3
20	2.8	2.8	3.0	31	16	238	112	544	657	382	5.4	5.3
21	2.8	2.7	3.0	22	16	282	100	669	637	295	5.4	5.1
22	2.8	2.7	3.0	22	17	226	91	673	721	239	5.6	5.0
23	2.8	2.8	3.0	59	17	218	92	594	913	161	5.6	5.0
24	2.7	2.8	3.1	89	14	178	107	565	1100	136	5.6	5.3
25	2.6	3.0	2.9	142	10	149	131	494	1240	178	5.6	5.3
26	2.7	3.0	2.8	123	9.2	136	147	523	1170	200	5.6	5.3
27	2.7	3.0	2.8	115	9.2	134	178	646	1050	266	5.6	5.5
28	2.8	3.0	2.8	114	9.8	133	290	662	1140	268	5.5	5.6
29	2.8	3.0	2.8	90	---	128	362	763	1110	334	5.6	5.7
30	2.8	2.9	2.8	79	---	127	474	855	1060	372	5.6	5.8
31	2.8	---	2.8	73	---	131	---	946	---	305	5.6	---
TOTAL	85.3	86.9	92.4	2876.8	875.2	7424.9	5342	16581	25541	18068	1048.4	163.5
MEAN	2.75	2.90	2.98	92.8	31.3	240	178	535	851	583	33.8	5.45
MAX	3.0	3.0	3.3	339	73	1100	474	1110	1240	1090	207	5.8
MIN	2.6	2.7	2.8	2.8	9.2	9.9	91	224	353	136	5.4	5.0
AC-FT	169	172	183	5710	1740	14730	10600	32890	50660	35840	2080	324

SAN JOAQUIN RIVER BASIN

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.37	11.1	24.5	30.3	36.8	52.1	97.4	350	314	59.8	3.23	2.09
MAX	14.7	324	399	258	306	291	501	875	950	583	37.7	5.45
(WY)	1983	1951	1951	1956	1982	1938	1982	1969	1983	1995	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1938 - 1995	
ANNUAL TOTAL	3524.9		78185.4			
ANNUAL MEAN	9.66		214		81.3	
HIGHEST ANNUAL MEAN					234	
LOWEST ANNUAL MEAN					1.50	
HIGHEST DAILY MEAN	289	May 25	1240	Jun 25	3370	Nov 21 1950
LOWEST DAILY MEAN	2.3	Aug 29	2.6	Oct 13	.00	Oct 1 1937
ANNUAL SEVEN-DAY MINIMUM	2.4	Aug 27	2.7	Oct 7	.00	Oct 1 1937
INSTANTANEOUS PEAK FLOW			1850	Mar 10	4900	Nov 21 1950
INSTANTANEOUS PEAK STAGE			6.53	Mar 10	9.30	Nov 21 1950
ANNUAL RUNOFF (AC-FT)	6990		155100		58880	
10 PERCENT EXCEEDS	3.3		762		282	
50 PERCENT EXCEEDS	3.0		46		2.4	
90 PERCENT EXCEEDS	2.7		2.8		1.4	

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LOCATION.--Lat 38°07'51", long 120°29'03", in NW 1/4 NW 1/4 sec.7, T.3 N., R.14 E., Calaveras County, Hydrologic Unit 18040010, on right bank 120 ft downstream from diversion dam and 1.2 mi southwest of Murphys.

GAGE.--Water-stage recorder and 90° V-notch weir. Elevation of gage is 2,040 ft above sea level, from topographic map.

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.

[illegible]

SAN JOAQUIN RIVER BASIN

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 mi².

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, 1,833,000 acre-ft, Jul. 31, Aug. 1, 2, elevation, 1036.81 ft, Aug. 1; minimum, 378,200 acre-ft, Oct. 18, elevation, 829.33 ft.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	379700	382900	395400	426000	610800	704300	1016000	1212000	1410000	1689000	1833000	1789000
2	379900	383300	395600	426600	615600	708300	1022000	1232000	1424000	1698000	1833000	1786000
3	380300	383700	397100	426000	620100	715800	1028000	1241000	1437000	1706000	1832000	1784000
4	382200	383700	398600	428100	624000	720100	1035000	1247000	1448000	1713000	1832000	1782000
5	383600	384300	400300	433300	627600	724400	1041000	1255000	1460000	1720000	1832000	1780000
6	384900	385300	400400	436200	632200	728500	1046000	1263000	1471000	1728000	1832000	1779000
7	386200	384700	402200	439000	636400	733300	1054000	1268000	1479000	1737000	1832000	1778000
8	386900	385500	403900	441900	640500	737200	1062000	1274000	1485000	1747000	1831000	1776000
9	387100	386500	403300	445600	644600	747600	1068000	1279000	1490000	1757000	1830000	1774000
10	387800	385800	404600	461200	648500	785400	1072000	1282000	1494000	1767000	1829000	1772000
11	388000	386300	406000	472100	649700	820600	1078000	1286000	1502000	1776000	1828000	1771000
12	387000	386700	407900	478500	652400	837800	1084000	1290000	1511000	1785000	1826000	1770000
13	384600	386500	407900	487100	656600	850600	1090000	1296000	1521000	1790000	1825000	1768000
14	382900	386500	409900	501700	660600	860800	1096000	1301000	1532000	1795000	1823000	1767000
15	381600	386500	411800	513400	662400	869600	1100000	1305000	1543000	1800000	1821000	1766000
16	379900	386900	412100	520400	663800	877600	1104000	1308000	1553000	1803000	1820000	1764000
17	378900	387800	413900	525500	669600	884700	1108000	1312000	1559000	1807000	1818000	1763000
18	378200	387200	415600	531000	673200	891500	1111000	1316000	1565000	1811000	1815000	1762000
19	378300	387500	415200	535200	675500	898500	1115000	1320000	1571000	1815000	1812000	1761000
20	379000	387100	417100	539100	678000	907900	1120000	1326000	1579000	1818000	1810000	1760000
21	379500	386300	419000	541700	679100	919400	1123000	1332000	1586000	1820000	1808000	1761000
22	379400	386400	421100	544600	682900	932500	1126000	1339000	1593000	1822000	1807000	1761000
23	379300	387300	421300	549100	686900	946900	1128000	1345000	1601000	1823000	1806000	1762000
24	379400	388500	422500	556300	688900	956600	1132000	1351000	1611000	1824000	1804000	1761000
25	380000	388300	423600	566000	691700	965000	1136000	1358000	1623000	1824000	1802000	1762000
26	381000	389900	424300	573000	694800	972400	1139000	1362000	1635000	1826000	1800000	1762000
27	381700	391300	423500	584200	696600	979500	1144000	1367000	1646000	1827000	1797000	1762000
28	382300	393000	424900	590600	700600	988000	1152000	1373000	1657000	1828000	1795000	1763000
29	382300	392700	426000	595400	---	995600	1167000	1380000	1668000	1829000	1794000	1763000
30	382000	393800	424900	600900	---	1002000	1184000	1389000	1680000	1830000	1792000	1763000
31	382300	---	425400	605700	---	1009000	---	1399000	---	1833000	1791000	---
MAX	388000	393800	426000	605700	700600	1009000	1184000	1399000	1680000	1833000	1833000	1789000
MIN	378200	382900	395400	426000	610800	704300	1016000	1212000	1410000	1689000	1791000	1760000
a	830.36	833.22	840.86	878.90	896.14	943.73	966.56	992.03	1021.78	1036.79	1032.72	1030.04
b	+3100	+11500	+31600	+180300	+94900	+308400	+175000	+215000	+281000	+153000	-42000	-28000
c	1492	678	444	535	757	1374	2240	3037	5705	7179	7472	5455
d	0	14840	17830	5070	11060	6130	59650	176300	157700	103100	116700	90910

CAL YR 1994 b -322100

WTR YR 1995 b +1383800

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

c 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.

SAN JOAQUIN RIVER BASIN

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11299600 BLACK CREEK NEAR COPPEROPOLIS, CA

LOCATION.--Lat 37°57'40", long 120°36'51", in SE 1/4 SE 1/4, sec.2, T.1 N., R.12 E., Calaveras County, Hydrologic Unit 18040010, on left bank 100 ft upstream from O'Byrnes Ferry Road bridge, 1,300 ft upstream from Copper Creek, and 2.1 mi southeast of Copperopolis.

DRAINAGE AREA.--14.4 mi².

PERIOD OF RECORD.--August 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.--No estimated daily discharges. 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 ft³/s, Feb. 19, 1986, gage height, 9.10 ft, from rating curve extended above 2,500 ft³/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 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	2300	539	4.21	Apr. 13	1945	62	2.98
Jan. 10	1715	1,280	4.96	May 1	1900	100	3.17
Jan. 27	0430	691	4.39	May 5	1715	193	3.48
Mar. 11	0015	1,510	5.16	May 13	1200	100	3.16
Mar. 22	1600	*2,680	*6.23				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.25	.93	27	4.4	16	38	3.0	.77	.01	.00
2	.00	.00	.23	.90	22	7.9	14	24	3.1	.76	.00	.00
3	.00	.00	.96	1.1	18	22	12	13	3.1	.79	.00	.00
4	.00	.00	1.5	.64	16	14	11	10	2.8	.80	.00	.00
5	.00	.00	.89	198	14	13	11	47	2.6	.75	.00	.00
6	.00	.00	.66	45	12	10	10	37	2.5	.64	.00	.00
7	.00	.00	.56	27	12	8.8	12	20	2.6	.61	.00	.00
8	.00	.00	.43	45	11	13	10	15	2.4	.63	.00	.00
9	.00	.00	.39	56	9.9	80	9.5	12	2.2	.67	.00	.00
10	.00	.00	.36	412	9.2	648	8.2	11	2.0	.51	.00	.00
11	.00	.00	.34	118	8.7	393	7.7	9.4	1.9	.44	.00	.00
12	.00	.00	.65	113	8.3	189	7.4	9.0	1.8	.40	.00	.00
13	.00	.00	1.0	145	10	73	21	46	1.6	.38	.00	.00
14	.00	.00	.86	192	15	46	13	18	1.8	.33	.00	.00
15	.00	.00	.97	162	8.7	27	8.8	13	6.6	.32	.00	.00
16	.00	.00	.75	81	7.8	18	8.0	11	3.7	.25	.00	.00
17	.00	.00	.67	45	7.3	13	7.4	9.5	2.2	.20	.00	.00
18	.00	.48	.61	29	6.9	12	8.5	8.3	1.9	.29	.00	.00
19	.00	.21	.55	21	6.6	9.7	7.1	7.2	1.7	.23	.00	.00
20	.00	.01	.52	18	6.3	60	8.6	6.5	1.6	.18	.00	.00
21	.00	.00	.50	15	5.8	122	7.0	6.2	1.6	.18	.00	.00
22	.00	.00	.46	17	5.5	407	6.1	6.0	1.5	.15	.00	.00
23	.00	.00	.45	24	5.2	364	5.8	5.5	1.3	.15	.00	.00
24	.00	.00	3.7	219	5.0	160	5.4	5.4	1.2	.15	.00	.00
25	.00	1.0	3.1	310	4.9	87	5.1	5.3	1.1	.13	.00	.00
26	.00	1.9	1.7	183	4.7	57	4.8	4.8	.96	.10	.00	.00
27	.00	.68	1.3	490	4.5	41	7.7	4.1	.84	.06	.00	.00
28	.00	.53	1.5	177	4.5	32	7.4	3.9	.79	.05	.00	.00
29	.00	.38	1.2	83	---	25	11	3.6	.79	.03	.00	.00
30	.00	.30	1.1	53	---	21	8.8	3.4	.77	.02	.00	.00
31	.00	---	.99	36	---	18	---	3.1	---	.02	.00	---
TOTAL	0.00	5.49	29.15	3380.93	276.8	2995.8	280.3	416.2	61.95	10.99	0.01	0.00
MEAN	.000	.18	.94	109	9.89	96.6	9.34	13.4	2.06	.35	.000	.000
MAX	.00	1.9	3.7	490	27	648	21	47	6.6	.80	.01	.00
MIN	.00	.00	.23	.90	4.5	4.4	4.8	3.1	.77	.02	.00	.00
AC-FT	.00	11	58	6710	549	5940	556	826	123	22	.02	.00

SAN JOAQUIN RIVER BASIN

11299600 BLACK CREEK NEAR COPPEROPOLIS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.19	5.77	6.29	20.3	28.9	23.8	3.71	1.83	.29	.034	.000	.009
MAX	1.80	53.1	59.4	109	170	96.6	9.34	13.4	2.06	.35	.000	.11
(WY)	1992	1984	1984	1995	1986	1995	1995	1995	1995	1995	1995	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1983 - 1995
ANNUAL TOTAL	318.93	7457.62	
ANNUAL MEAN	.87	20.4	7.48
HIGHEST ANNUAL MEAN			20.4
LOWEST ANNUAL MEAN			.32
HIGHEST DAILY MEAN	42 Feb 20	648 Mar 10	1400 Feb 17 1986
LOWEST DAILY MEAN	.00 Jun 10	.00 Oct 1	.00 Sep 16 1983
ANNUAL SEVEN-DAY MINIMUM	.00 Jun 10	.00 Oct 1	.00 Jun 28 1984
INSTANTANEOUS PEAK FLOW		2680 Mar 22	5200 Feb 19 1986
INSTANTANEOUS PEAK STAGE		6.23 Mar 22	9.10 Feb 19 1986
ANNUAL RUNOFF (AC-FT)	633	14790	5420
10 PERCENT EXCEEDS	1.8	39	10
50 PERCENT EXCEEDS	.15	1.1	.18
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 mi².

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 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, 66,200 acre-ft, June 12, maximum elevation, 509.36 ft; minimum, 53,600 acre-ft, Oct. 10, elevation, 498.43.

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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57700	56900	54900	55500	57600	55300	58900	59500	65000	64700	64900	64600
2	57200	56400	55800	54900	57200	54700	58600	59700	65200	64900	65700	65400
3	56700	55800	55300	56000	56900	54500	58600	60300	65200	64700	65500	65400
4	56400	55700	54700	55900	56600	55600	58200	61200	65400	64500	65000	65200
5	56000	55100	54200	56800	56300	55200	58500	61600	65400	64500	65100	65500
6	55500	54400	55300	56200	55800	54700	58900	61800	65700	64600	64700	65200
7	55100	55500	54800	54700	55300	54200	58300	62200	66000	65200	64300	65200
8	54600	55000	54200	54200	55000	53700	57200	61900	65800	65500	64800	65100
9	54100	54400	55800	54900	54500	55100	57400	60600	65500	65000	64900	64500
10	53600	55400	55200	57200	54200	60200	58900	61300	66100	64800	65000	64400
11	54200	54900	54600	56700	55500	61000	59200	61600	65100	66100	64500	64500
12	55900	54300	54100	56800	55000	58400	58100	62000	66200	65200	64600	64500
13	58900	54400	55700	57100	54500	56200	58700	62600	66000	65100	64300	64600
14	59500	54700	55300	57800	54200	56000	59400	62700	65300	65100	64500	64300
15	59300	54900	54800	58700	55700	55900	59700	63200	65300	64000	65000	64600
16	59100	54300	55900	58800	55900	55600	60000	63500	64200	65000	64300	64100
17	58800	54500	55300	58700	55400	55600	60300	63300	64500	65600	63900	63300
18	58600	55400	54700	58300	54900	56000	60600	62600	64300	66100	64800	63100
19	58200	54800	56200	57900	54400	56300	60400	62700	64200	66000	65200	63700
20	58100	55100	55600	57500	53900	57300	60200	62800	64100	65600	65400	64300
21	58000	56000	55000	57100	55900	58300	59800	63300	64800	65100	66000	63900
22	58000	55700	54500	56800	55400	60300	59800	63600	64800	64500	65800	63600
23	58000	55100	55600	56500	54800	60600	60900	64100	64900	64600	65200	62800
24	57900	54600	55200	58300	56000	60600	60800	64400	64800	65500	65200	61600
25	57900	56000	54600	59900	55500	60700	60300	64500	65000	65700	65200	61700
26	57900	55500	54100	59700	54900	60500	60500	64800	65300	64800	65200	61400
27	58000	55000	55500	61400	56400	60300	60000	65000	64900	65000	65000	61600
28	57900	54400	54900	59700	55800	60200	60300	65500	64600	65100	64800	61200
29	57900	55800	54300	58400	---	59900	59000	65600	64600	65300	64600	61500
30	57900	55500	56600	57800	---	59600	59600	65700	64200	65000	64800	61500
31	57500	---	56100	57900	---	59200	---	64600	---	64100	64500	---
MAX	59500	56900	56600	61400	57600	61000	60900	65700	66200	66100	66000	65500
MIN	53600	54300	54100	54200	53900	53700	57200	59500	64100	64000	63900	61200
a	502.00	500.18	500.69	502.37	500.46	503.51	503.89	508.09	507.77	507.64	508.02	505.48
b	-600	-2000	+600	+1800	-2100	+3400	+400	+5000	-400	-100	+400	-3000

CAL YR 1994 b +400
WTR YR 1995 b +3400

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

SAN JOAQUIN RIVER BASIN

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°52'34", long 120°36'15", in Rancheria del Rio Estanislao Grant, T.1 S., R.12 E., on Calaveras-Tuolumne County line, Hydrologic Unit 18040010, temperature recorder in south corner of Tulloch Powerplant at downstream side of Tulloch Dam, 5.2 mi northeast of Knights Ferry.

DRAINAGE AREA.--980 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1972 to current year.

INSTRUMENTATION.--Temperature recorder since June 1972.

REMARKS.--Water temperature is affected by regulation from Tulloch Powerplant.

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, 14.0°C, Oct. 10-12; minimum recorded, 9.0°C, many days during May and June.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	13.0	12.0	12.0	12.0	12.0	10.5	10.5	10.5	10.5	10.5	10.0
2	13.0	13.0	12.0	12.0	12.0	12.0	10.5	10.5	10.5	10.5	10.0	10.0
3	13.5	13.0	12.0	12.0	12.0	12.0	10.5	10.0	10.5	10.5	10.0	10.0
4	13.5	13.0	12.0	12.0	12.0	12.0	10.5	10.0	10.5	10.5	10.0	10.0
5	13.5	13.0	12.0	12.0	12.0	12.0	10.0	10.0	10.5	10.5	10.0	10.0
6	13.5	13.0	12.0	12.0	12.0	12.0	10.0	10.0	10.5	10.5	10.5	10.0
7	13.5	13.5	12.5	12.0	12.0	12.0	10.0	10.0	10.5	10.5	10.5	10.0
8	13.5	13.5	12.5	12.0	12.0	11.5	10.0	10.0	10.5	10.5	10.0	10.0
9	13.5	13.5	12.5	12.0	11.5	11.5	10.0	10.0	10.5	10.5	10.0	10.0
10	14.0	13.5	12.5	12.0	11.5	11.5	10.0	10.0	10.5	10.5	10.5	10.0
11	14.0	13.5	12.5	12.5	11.5	11.5	10.5	10.0	10.5	10.5	10.5	10.0
12	14.0	13.5	12.5	12.5	11.5	11.5	10.5	10.0	10.5	10.5	10.5	10.5
13	13.5	13.0	12.5	12.5	11.5	11.5	10.5	10.0	10.5	10.5	11.0	10.5
14	13.0	12.5	12.5	12.5	11.5	11.5	10.5	10.0	10.5	10.5	11.0	10.5
15	12.5	12.5	12.5	12.5	11.5	11.0	10.5	10.0	10.5	10.5	11.0	11.0
16	12.5	12.5	12.5	12.5	11.5	11.0	10.5	10.0	10.5	10.5	11.0	10.5
17	12.5	12.0	13.0	12.5	11.0	11.0	10.5	10.0	10.5	10.5	11.0	11.0
18	12.0	12.0	13.0	12.5	11.0	11.0	10.5	10.0	10.5	10.5	11.0	11.0
19	12.0	12.0	13.0	12.5	11.0	11.0	10.5	10.0	10.5	10.5	11.5	11.0
20	12.0	12.0	13.0	12.5	11.0	11.0	10.5	10.0	10.5	10.5	11.0	11.0
21	12.0	12.0	13.0	12.5	11.0	11.0	10.5	10.0	10.5	10.5	11.0	11.0
22	12.0	12.0	13.0	12.5	11.0	11.0	10.0	10.0	10.5	10.5	11.0	11.0
23	12.0	12.0	12.5	12.5	11.0	11.0	10.5	10.0	10.5	10.5	11.5	11.0
24	12.0	12.0	12.5	12.5	11.0	11.0	10.5	10.0	10.5	10.0	11.0	10.5
25	12.0	12.0	12.5	12.5	11.0	10.5	10.5	10.5	10.5	10.0	11.0	10.5
26	12.0	12.0	12.5	12.5	11.0	10.5	10.5	10.5	10.5	10.0	11.0	10.5
27	12.5	12.0	12.5	12.5	10.5	10.5	10.5	10.5	10.5	10.0	11.0	11.0
28	12.5	12.0	12.5	12.0	10.5	10.5	10.5	10.5	10.5	10.0	11.0	11.0
29	12.0	12.0	12.5	12.0	10.5	10.5	10.5	10.5	---	---	11.5	11.0
30	12.5	12.0	12.0	12.0	10.5	10.5	10.5	10.5	---	---	11.0	11.0
31	12.0	12.0	---	---	10.5	10.5	10.5	10.5	---	---	11.5	11.0
MONTH	14.0	12.0	13.0	12.0	12.0	10.5	10.5	10.0	10.5	10.0	11.5	10.0

11299997 STANISLAUS RIVER BELOW TULLOCH POWERPLANT, NEAR KNIGHTS FERRY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	11.0	10.0	9.5	9.0	9.0	10.0	9.5	10.5	10.5	11.0	10.5
2	11.5	11.0	10.0	9.5	9.0	9.0	10.0	10.0	10.5	10.5	11.0	10.5
3	11.5	11.0	9.5	9.5	9.5	9.0	10.0	10.0	11.0	10.5	11.0	10.5
4	11.5	11.0	9.5	9.5	9.5	9.0	10.0	10.0	10.5	10.5	11.0	10.5
5	11.5	11.0	9.5	9.0	9.5	9.0	10.0	10.0	10.5	10.5	10.5	10.5
6	11.5	11.0	9.5	9.0	9.5	9.0	10.0	10.0	10.5	10.5	10.5	10.5
7	11.5	11.0	9.0	9.0	9.5	9.0	10.0	10.0	10.5	10.5	10.5	10.5
8	11.5	11.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	10.5	10.5
9	11.5	11.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	10.5	10.5
10	11.5	11.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	10.5	10.5
11	11.5	11.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	11.0	10.5	10.5
12	11.5	11.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	10.5
13	11.0	11.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	10.5
14	11.0	10.5	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	10.5
15	11.0	10.5	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	10.5
16	11.0	10.5	9.0	9.0	9.5	9.5	10.0	10.0	11.0	11.0	11.0	10.5
17	11.0	10.5	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	11.0
18	10.5	10.5	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	11.0
19	10.5	10.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	11.0
20	10.5	10.0	9.0	9.0	9.5	9.5	10.0	10.0	11.0	10.5	11.0	11.0
21	10.5	10.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
22	10.5	10.0	9.0	9.0	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
23	10.5	10.0	9.0	9.0	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
24	10.0	10.0	9.0	9.0	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
25	10.0	10.0	9.0	9.0	9.5	9.5	10.5	10.5	10.5	10.5	11.0	11.0
26	10.0	10.0	9.0	9.0	9.5	9.5	10.5	10.5	10.5	10.5	11.0	11.0
27	10.0	10.0	9.0	9.0	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
28	10.0	10.0	9.0	9.0	9.5	9.5	10.5	10.5	10.5	10.5	11.0	11.0
29	10.0	10.0	9.0	9.0	10.0	9.5	10.5	10.5	10.5	10.5	11.0	11.0
30	10.0	10.0	9.0	9.0	10.0	9.5	10.5	10.5	10.5	10.5	11.0	11.0
31	---	---	9.5	9.0	---	---	10.5	10.5	11.0	10.5	---	---
MONTH	11.5	10.0	10.0	9.0	10.0	9.0	10.5	9.5	11.0	10.5	11.0	10.5

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.--Records fair except estimated period which is poor. Canal diverts from right bank of Stanislaus River at Goodwin Dam for irrigation in Oakdale and South San Joaquin Irrigation Districts.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	2.9	2.6	1.8	.76	39	4.5	e860	e1130	e1020	e1130	e1010
2	4.8	2.8	2.6	1.8	.76	.90	1.3	e953	e1130	e1010	e1130	e1000
3	4.7	3.0	2.7	1.8	.76	.88	.91	e952	e1130	e1020	e1130	e1010
4	4.6	3.1	2.4	2.2	.76	.88	.72	e955	e1130	e1020	e1130	e1010
5	4.6	1.5	2.3	2.2	.76	.88	.35	e973	e1130	e1080	e1130	e1010
6	4.1	.33	2.5	2.0	.76	.88	.10	e988	e1130	e1120	e1130	e1010
7	3.7	.34	2.4	2.0	.76	.88	.01	e989	e1130	e1120	e1130	e996
8	3.4	.33	2.3	2.2	.75	.88	.00	e1000	e1130	e1120	e1130	e991
9	3.2	.56	2.2	2.1	.76	.88	.00	e1030	e1070	e1120	e1130	e985
10	3.3	.58	2.0	2.7	.67	1.0	.00	e1040	e1050	e801	e1130	e994
11	3.0	.61	2.0	1.9	.58	3.6	.00	e1040	e1050	e2.0	e1160	e982
12	3.0	.58	2.2	.93	.58	3.4	.00	e1040	e888	e476	e1170	e982
13	2.8	.72	2.3	.88	.67	3.3	.00	e1050	e853	e856	e1170	e973
14	2.6	.62	2.3	.98	.78	3.2	.00	e1060	e859	e872	e1170	e967
15	2.6	.54	2.3	.96	.76	3.1	.00	e1090	e860	e896	e1160	e958
16	2.6	.44	2.3	.86	.76	2.3	.00	e1090	e867	e894	e1150	e947
17	2.5	.51	2.1	.76	.76	1.9	.00	e1090	e868	e894	e1150	e946
18	2.3	.58	2.0	.76	.76	1.3	.00	e1090	e866	e894	e1070	e806
19	5.3	.58	2.0	.76	.76	.96	.00	e1090	e866	e894	e1020	e738
20	9.1	.58	2.0	.77	.76	.75	.00	e1100	e866	e895	e1020	e673
21	10	.56	2.1	.76	.76	1.1	.00	e1100	e866	e1040	e1020	e639
22	7.8	.58	2.0	.81	.60	2.3	.00	e1100	e859	e1110	e1020	e651
23	5.0	2.6	2.0	.77	.59	3.0	.00	e1110	e856	e1110	e1020	e641
24	3.5	2.9	1.9	1.4	.58	3.3	.00	e1120	e862	e1120	e1020	e634
25	3.4	2.7	1.8	1.3	.58	3.3	.00	e1110	e866	e1120	e1020	e633
26	3.3	2.7	1.8	.97	.58	3.3	.00	e1130	e869	e1120	e1020	e630
27	3.3	2.6	1.8	2.2	.53	3.1	.00	e1140	e877	e1120	e1020	e615
28	3.3	2.6	1.8	.98	.44	3.1	.00	e1140	e880	e1120	e1020	e595
29	3.2	2.6	1.8	.76	---	2.9	e564	e1140	e973	e1130	e1020	e344
30	3.1	2.6	1.8	.76	---	2.2	e684	e1130	e1020	e1130	e1020	e234
31	3.0	---	1.8	.76	---	2.0	---	e1120	---	e1130	e1020	---
TOTAL	125.7	43.64	66.1	41.83	19.33	100.47	1255.89	32820	28931	30254.0	33760	24604
MEAN	4.05	1.45	2.13	1.35	.69	3.24	41.9	1059	964	976	1089	820
MAX	10	3.1	2.7	2.7	.78	39	684	1140	1130	1130	1170	1010
MIN	2.3	.33	1.8	.76	.44	.75	.00	860	853	2.0	1020	234
AC-FT	249	87	131	83	38	199	2490	65100	57380	60010	66960	48800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1995, BY WATER YEAR (WY)

	MEAN	149	46.3	25.1	77.5	128	245	686	902	935	864	745	472
MAX	490	324	238	363	456	1087	1160	1265	1259	1260	1251	1031	
(WY)	1981	1951	1969	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1914 - 1995
ANNUAL TOTAL	170387.48	152021.96	
ANNUAL MEAN	467	416	445
HIGHEST ANNUAL MEAN			684
LOWEST ANNUAL MEAN			114
HIGHEST DAILY MEAN	1040	May 28	1320
LOWEST DAILY MEAN	.00	Feb 25	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 25	.00
ANNUAL RUNOFF (AC-FT)	338000	301500	322500
10 PERCENT EXCEEDS	1010	1120	1070
50 PERCENT EXCEEDS	446	3.2	328
90 PERCENT EXCEEDS	.70	.58	.00

e Estimated.

SAN JOAQUIN RIVER BASIN

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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.--No estimated daily discharges. Records good. Canal diverts water from left bank of Stanislaus River at Goodwin Dam 0.3 mi upstream for irrigation in Oakdale Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 556 ft³/s, July 8-11, 1967; maximum discharge, 595 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	331	430	457	496	465
2	.00	.00	.00	.00	.00	.00	.00	312	442	458	497	466
3	.00	.00	.00	.00	.00	.00	.00	321	460	458	497	466
4	.00	4.8	.00	.02	.00	.00	.00	334	461	458	497	466
5	.00	7.1	.00	.07	.00	.00	.00	335	461	458	497	460
6	.00	6.9	.00	.00	.00	.00	.00	334	462	461	498	457
7	.00	2.1	.00	.00	.00	.00	.00	335	448	483	498	457
8	.00	.00	.00	.00	.00	.00	.00	336	442	492	498	465
9	.00	.00	.00	.01	.00	.03	.00	349	442	492	498	468
10	.00	.00	.00	.97	.00	2.4	.00	374	442	492	498	458
11	.00	.00	.00	.31	.00	5.9	.00	391	442	491	496	437
12	.00	.00	.00	.19	.00	.73	.00	403	443	489	492	428
13	.00	.00	.00	.26	.00	.08	.00	420	443	484	492	412
14	.00	.00	.00	.92	.00	.01	.00	420	442	484	493	403
15	.00	.00	.00	1.6	.00	.00	.00	419	441	484	494	390
16	.00	.00	.00	1.0	.00	.00	.00	419	439	484	494	382
17	.00	.00	.00	.41	.00	.00	20	418	442	485	493	382
18	.00	.00	.00	.07	.00	.00	77	418	443	485	492	382
19	.00	.00	.00	.00	.00	.00	84	418	443	487	492	374
20	.00	.00	.00	.00	.00	.15	129	421	443	495	492	351
21	.00	.00	.00	.00	.00	.21	184	431	432	495	493	346
22	.00	.00	.00	.00	.00	.99	200	431	424	495	493	336
23	.00	.00	.00	.01	.00	1.5	231	431	424	495	494	332
24	.00	.00	.00	2.2	.00	.40	271	431	430	495	494	332
25	.00	.00	.00	9.2	.00	.06	303	431	443	495	494	333
26	.00	.00	.00	6.0	.00	.00	338	432	443	495	494	327
27	.00	.00	.00	9.6	.00	.00	363	432	443	495	494	323
28	.00	.00	.00	1.3	.00	.00	362	430	443	496	485	323
29	.00	.00	.00	.28	---	.00	363	429	443	495	471	328
30	.00	.00	.00	.01	---	.00	364	431	447	496	466	339
31	.00	---	.00	.00	---	.00	---	432	---	496	465	---
TOTAL	0.00	20.90	0.00	34.43	0.00	12.46	3289.00	12249	13283	15025	15247	11888
MEAN	.000	.70	.000	1.11	.000	.40	110	395	443	485	492	396
MAX	.00	7.1	.00	9.6	.00	5.9	364	432	462	496	498	468
MIN	.00	.00	.00	.00	.00	.00	.00	312	424	457	465	323
AC-FT	.00	41	.00	68	.00	25	6520	24300	26350	29800	30240	23580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1995, BY WATER YEAR (WY)

	MEAN	5.15	1.07	1.69	2.22	47.6	226	359	372	365	330	246
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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1914 - 1995			
ANNUAL TOTAL	65799.16				71048.79							
ANNUAL MEAN	180				195				174			
HIGHEST ANNUAL MEAN									277			
LOWEST ANNUAL MEAN									52.8			
HIGHEST DAILY MEAN	432				498				556			
LOWEST DAILY MEAN	.00				.00				.00			
ANNUAL SEVEN-DAY MINIMUM	.00				.00				.00			
ANNUAL RUNOFF (AC-FT)	130500				140900				125700			
10 PERCENT EXCEEDS	404				492				475			
50 PERCENT EXCEEDS	101				.97				76			
90 PERCENT EXCEEDS	.00				.00				.00			

SAN JOAQUIN RIVER BASIN

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA

LOCATION.--Lat 37°51'06", long 120°38'13", in Rancheria del Rio Estanislao Grant, Calaveras County, Hydrologic Unit 18040010, on right bank 250 ft upstream from Owl Creek, 0.9 mi downstream from Goodwin Dam, and 2.9 mi northeast of Knights Ferry.

DRAINAGE AREA.--986 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1957 to current year. Records equivalent to those published as Stanislaus River at Knights Ferry, 1903-14, and as Stanislaus River near Knights Ferry, 1915-32, if adjusted for diversions in Stanislaus and San Joaquin Water 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.--No estimated daily discharges. Records good. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,200 ft³/s, Dec. 24, 1964, gage height, 28.85 ft in gage well, 31.2 ft outside, from floodmarks; minimum daily, 0.12 ft³/s, Feb. 8, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 37.7 ft, from floodmarks, discharge, 62,900 ft³/s, by computation of flow over Goodwin Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,870 ft³/s, Mar. 12, gage height, 12.00 ft; minimum daily, 190 ft³/s, July 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	290	283	269	261	266	198	1230	1090	312	208	256
2	227	289	278	269	260	267	195	1220	812	337	240	274
3	226	287	287	269	258	271	196	1210	674	350	246	272
4	231	290	283	280	262	267	302	1210	683	337	234	271
5	230	296	282	282	258	268	307	1200	688	345	245	274
6	228	297	282	440	260	266	300	1220	687	311	246	265
7	228	297	283	883	265	265	385	1200	693	305	251	266
8	228	290	282	518	263	267	593	1400	694	317	249	271
9	228	288	282	285	266	274	586	1500	684	318	245	273
10	226	285	283	389	262	834	590	1300	687	301	268	268
11	224	282	281	605	262	1820	593	1200	689	275	276	276
12	226	283	283	282	264	2320	592	1200	696	256	272	268
13	229	287	279	279	268	1620	592	1230	700	257	255	270
14	1040	290	281	278	266	377	596	1230	693	253	278	268
15	1120	292	280	277	265	263	1180	1230	555	264	311	264
16	1120	291	279	267	265	262	1260	1240	337	265	330	240
17	1120	292	281	265	265	261	1230	1230	265	273	294	218
18	1120	291	280	263	265	262	1210	1200	243	263	241	227
19	749	291	279	262	264	266	1210	1220	243	227	240	226
20	349	291	282	262	264	311	1210	1230	246	231	242	222
21	292	289	278	261	264	465	1210	1240	251	230	257	226
22	294	289	274	264	265	422	1200	1240	277	238	279	212
23	296	285	275	268	263	1290	1190	1230	274	221	293	202
24	294	284	282	293	259	550	1200	1220	254	220	291	200
25	294	287	276	542	261	266	1360	1230	255	228	291	201
26	294	288	274	789	263	265	1510	1460	259	214	291	203
27	294	285	274	1370	263	268	1360	1560	264	196	292	205
28	294	284	278	1800	266	264	1190	1380	260	229	293	212
29	294	285	276	1350	---	266	1190	1290	275	190	271	215
30	294	286	276	508	---	267	1210	1280	295	205	271	198
31	293	---	272	261	---	264	---	1270	---	202	263	---
TOTAL	12810	8661	8665	14630	7367	15594	25945	39300	14723	8170	8263	7243
MEAN	413	289	280	472	263	503	865	1268	491	264	267	241
MAX	1120	297	287	1800	268	2320	1510	1560	1090	350	330	276
MIN	224	282	272	261	258	261	195	1200	243	190	208	198
AC-FT	25410	17180	17190	29020	14610	30930	51460	77950	29200	16210	16390	14370

SAN JOAQUIN RIVER BASIN

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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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	410	431	680	714	524	1046	714	715	534	501	473	357
MAX	1228	2246	4581	4793	1693	4905	1582	1389	1080	1314	1152	1097
(WY)	1984	1984	1984	1984	1984	1986	1986	1993	1986	1985	1985	1986
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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1984 - 1995

ANNUAL TOTAL	154588	171371	
ANNUAL MEAN	424	470	593
HIGHEST ANNUAL MEAN			1469
LOWEST ANNUAL MEAN			185
HIGHEST DAILY MEAN	1590	Apr 27	2320 Mar 12
LOWEST DAILY MEAN	155	Feb 12	190 Jul 29
ANNUAL SEVEN-DAY MINIMUM	164	Feb 10	205 Sep 24
INSTANTANEOUS PEAK FLOW			2870 Mar 12
INSTANTANEOUS PEAK STAGE			12.00 Mar 12
ANNUAL RUNOFF (AC-FT)	306600	339900	429600
10 PERCENT EXCEEDS	955	1210	1240
50 PERCENT EXCEEDS	294	280	322
90 PERCENT EXCEEDS	227	228	154

SAN JOAQUIN RIVER BASIN

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

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. Interruptions in record were due to malfunction of the recording instrument.

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, several days in October; minimum recorded, 9.5°C, several days in June.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	13.0	12.0	12.0	11.5	11.5	10.0	10.0	---	---	10.5	10.0
2	14.0	13.5	12.0	12.0	11.5	11.5	10.0	10.0	---	---	10.5	10.5
3	14.0	13.0	12.0	11.5	11.5	11.5	10.0	10.0	---	---	10.5	10.5
4	13.5	13.0	11.5	11.5	11.5	11.5	---	---	---	---	10.5	10.0
5	13.5	13.0	11.5	11.5	11.5	11.5	---	---	---	---	10.0	10.0
6	13.5	13.0	12.0	11.5	11.5	11.5	---	---	---	---	10.5	10.0
7	14.0	13.0	12.0	12.0	11.5	11.5	---	---	---	---	10.5	10.5
8	14.0	13.5	12.0	12.0	11.5	11.5	---	---	---	---	10.5	10.0
9	14.0	13.5	12.0	12.0	11.5	10.5	---	---	---	---	10.5	10.5
10	14.0	13.5	12.0	12.0	10.5	10.5	---	---	---	---	10.5	10.5
11	14.0	13.5	12.0	12.0	10.5	10.5	---	---	---	---	11.0	10.5
12	14.0	13.5	12.0	12.0	10.5	10.5	---	---	---	---	11.0	11.0
13	14.0	14.0	12.0	12.0	10.5	10.5	---	---	---	---	11.0	10.5
14	14.0	13.0	12.0	11.5	10.5	10.5	---	---	---	---	11.0	10.5
15	13.0	12.5	11.5	11.5	10.5	10.5	---	---	---	---	11.5	10.5
16	12.5	12.5	11.5	11.5	10.5	10.5	---	---	10.5	10.5	11.5	11.0
17	12.5	12.0	11.5	11.5	11.0	10.5	---	---	10.5	10.5	11.5	11.0
18	12.0	12.0	11.5	11.5	11.0	11.0	---	---	10.5	10.5	11.5	11.0
19	12.0	11.5	11.5	11.5	11.0	11.0	---	---	11.0	10.0	11.5	11.0
20	12.0	12.0	11.5	11.5	11.0	11.0	---	---	11.0	10.5	11.0	11.0
21	12.0	12.0	11.5	11.5	11.0	11.0	---	---	11.0	10.5	11.0	11.0
22	12.0	12.0	12.0	11.5	11.0	10.5	---	---	11.0	10.5	11.0	10.5
23	12.0	12.0	12.0	12.0	10.5	10.5	---	---	11.0	10.5	11.0	10.5
24	12.5	12.0	12.0	12.0	10.5	10.5	---	---	11.0	10.5	11.0	11.0
25	12.5	12.0	12.0	12.0	10.5	10.5	---	---	11.0	10.5	11.0	10.5
26	12.5	12.5	12.0	12.0	10.5	10.5	---	---	11.0	10.5	11.0	10.5
27	12.5	12.5	12.0	12.0	10.5	10.5	---	---	11.0	10.0	11.0	10.5
28	12.5	12.5	12.0	12.0	10.5	10.5	---	---	10.5	10.5	11.5	11.0
29	12.5	12.0	12.0	11.5	10.5	10.5	---	---	---	---	11.5	11.0
30	12.0	12.0	11.5	11.5	10.5	10.0	---	---	---	---	12.0	11.0
31	12.0	12.0	---	---	10.0	10.0	---	---	---	---	12.0	11.0
MONTH	14.0	11.5	12.0	11.5	11.5	10.0	---	---	---	---	12.0	10.0

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	11.5	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	10.5
2	12.5	11.5	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	10.5
3	12.5	11.5	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
4	12.5	11.0	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
5	12.5	11.0	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
6	12.5	11.5	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
7	11.5	11.5	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	11.0
8	12.0	11.5	10.5	10.5	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
9	12.0	11.5	10.5	10.5	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
10	12.0	11.5	10.5	10.5	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
11	12.0	11.5	10.5	10.5	10.0	9.5	10.0	10.0	10.5	10.5	11.0	11.0
12	12.0	11.5	10.5	10.5	9.5	9.5	10.0	10.0	10.5	10.5	11.0	11.0
13	11.5	10.5	10.5	10.5	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
14	11.5	11.0	10.5	10.5	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
15	11.5	11.0	10.5	10.5	9.5	9.5	10.5	10.0	10.5	10.5	11.0	10.5
16	11.0	11.0	10.5	10.5	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
17	11.0	10.5	10.5	10.5	9.5	9.5	10.5	10.0	10.5	10.5	11.0	11.0
18	11.0	10.5	10.5	10.5	9.5	9.5	10.5	10.5	10.5	10.5	11.0	11.0
19	---	---	10.5	10.5	9.5	9.5	10.5	10.5	11.0	10.5	11.0	11.0
20	---	---	10.5	10.5	9.5	9.5	10.5	10.0	11.0	10.5	11.0	11.0
21	---	---	10.5	10.5	9.5	9.5	10.5	10.5	11.0	10.5	11.0	11.0
22	---	---	10.5	10.0	10.0	9.5	10.5	10.5	11.0	10.5	11.0	11.0
23	---	---	10.5	10.0	10.0	9.5	10.5	10.5	11.0	10.5	11.0	11.0
24	---	---	10.5	10.0	10.0	9.5	10.5	10.5	11.0	10.5	11.0	11.0
25	---	---	10.5	10.0	10.0	9.5	10.5	10.5	11.0	10.5	11.0	11.0
26	10.5	10.5	10.0	10.0	10.0	9.5	10.5	10.5	11.0	10.5	11.0	11.0
27	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	10.5	11.0	11.0
28	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	10.5	11.0	11.0
29	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	10.5	11.0	11.0
30	10.5	10.5	10.0	10.0	10.0	10.0	10.5	10.5	11.0	10.5	11.0	11.0
31	---	---	10.0	10.0	---	---	10.5	10.5	11.0	10.5	---	---
MONTH	---	---	10.5	10.0	10.0	9.5	10.5	10.0	11.0	10.5	11.0	10.5

SAN JOAQUIN RIVER BASIN

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 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1985 to current year.

INSTRUMENTATION.--Water-temperature recorder since Aug. 28, 1985.

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, 21.0°C, July 31, Aug. 1, 2; minimum recorded, 8.5°C, Dec. 10, 30, 31.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	15.5	13.0	12.0	11.0	10.5	10.0	9.0	13.0	12.5	13.0	12.0
2	17.5	15.5	13.0	11.5	11.5	11.0	10.0	9.5	13.0	12.5	13.5	12.0
3	17.5	16.0	11.5	10.5	11.5	11.5	10.5	9.5	12.5	12.0	13.0	11.5
4	16.5	16.0	11.5	10.0	12.0	11.5	10.5	10.0	12.5	11.5	12.0	10.5
5	16.5	15.0	12.5	11.5	11.5	11.5	10.5	10.0	11.5	11.5	12.0	11.5
6	16.5	15.0	13.5	12.5	11.5	11.0	10.0	10.0	11.5	11.0	13.0	10.5
7	17.0	15.0	13.5	12.5	11.0	10.0	10.5	10.0	11.0	10.5	12.5	10.5
8	17.0	15.0	13.0	11.5	10.0	9.0	11.0	10.5	12.0	10.5	12.0	11.5
9	17.5	15.5	12.5	12.0	9.5	9.0	12.0	11.0	12.0	10.5	12.0	11.5
10	17.5	15.5	12.0	11.0	9.5	8.5	12.0	12.0	11.5	10.5	12.5	11.5
11	17.0	15.0	11.5	10.5	10.5	9.5	12.0	11.0	11.5	11.0	12.0	11.0
12	16.0	15.0	12.0	11.0	10.5	10.5	11.5	11.0	12.0	11.0	12.0	11.0
13	16.0	14.0	11.5	10.5	11.0	10.0	12.0	11.5	11.5	11.0	12.0	11.0
14	14.5	14.0	11.5	10.0	10.5	10.0	12.5	12.0	11.5	10.0	13.5	12.0
15	14.0	12.5	11.0	10.5	10.5	10.0	12.0	10.5	11.0	9.5	14.5	12.5
16	13.0	12.0	11.5	11.0	10.0	10.0	10.5	10.0	11.5	9.5	14.5	12.5
17	13.5	12.0	11.5	11.0	10.0	10.0	10.0	9.0	12.0	10.0	14.5	12.0
18	13.0	12.0	11.0	10.0	11.0	10.0	10.0	9.0	12.0	10.5	13.5	12.5
19	13.5	12.0	10.0	9.0	11.0	10.5	10.0	9.0	13.0	10.5	14.0	11.5
20	13.5	12.0	10.5	9.5	10.5	10.5	10.0	9.5	13.0	11.0	13.5	12.0
21	14.0	12.5	11.5	10.5	10.5	10.0	10.5	9.5	14.0	12.0	12.5	12.0
22	14.0	12.0	11.0	10.0	10.0	10.0	10.5	10.5	13.0	11.5	12.0	10.5
23	14.0	12.5	11.0	10.0	10.0	9.5	11.0	10.5	13.0	11.5	11.0	10.0
24	14.5	13.0	11.5	10.5	10.0	9.5	11.0	10.5	13.0	12.0	12.0	10.5
25	14.5	13.0	12.0	11.5	10.5	9.5	11.0	10.5	13.0	12.5	13.0	10.5
26	14.5	13.0	11.5	10.5	10.0	9.0	11.0	10.0	12.5	11.5	13.5	10.5
27	14.5	13.0	11.0	10.0	10.0	9.5	10.5	10.5	12.5	12.0	14.0	11.0
28	14.5	13.0	11.5	10.5	10.5	10.0	11.0	10.5	13.0	12.0	14.5	11.5
29	14.0	12.5	11.0	10.0	10.0	9.0	11.0	10.5	---	---	14.5	12.0
30	13.5	12.0	11.0	10.0	9.5	8.5	11.5	11.0	---	---	15.0	12.0
31	13.0	11.5	---	---	9.5	8.5	13.0	11.5	---	---	15.0	12.5
MONTH	17.5	11.5	13.5	9.0	12.0	8.5	13.0	9.0	14.0	9.5	15.0	10.0

SAN JOAQUIN RIVER BASIN

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11302500 STANISLAUS RIVER AT OAKDALE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	13.0	13.5	12.0	13.5	11.5	18.5	15.5	21.0	18.0	18.0	15.5
2	16.0	13.0	13.5	11.5	13.5	11.5	18.0	15.5	21.0	18.0	17.5	15.5
3	16.5	13.5	13.5	12.0	14.5	12.0	18.0	15.5	20.0	17.5	17.5	15.5
4	16.5	13.5	13.5	11.5	14.5	12.0	18.5	15.5	20.0	17.5	17.0	15.0
5	16.5	13.5	13.0	11.0	14.0	12.0	19.0	16.0	20.0	17.5	17.5	15.0
6	15.5	14.0	12.5	10.5	13.5	11.5	18.5	15.5	20.0	17.0	17.5	15.0
7	15.5	14.0	13.0	11.0	14.0	11.5	19.5	16.0	19.5	17.0	17.5	15.0
8	14.0	12.5	13.0	11.0	14.0	11.5	18.0	16.5	19.5	17.0	17.5	15.5
9	13.5	11.0	12.0	11.0	14.0	11.5	18.0	15.0	19.0	16.5	17.0	15.5
10	14.0	11.0	13.0	11.0	14.5	12.0	18.0	15.5	19.0	16.5	17.0	15.0
11	14.5	11.5	12.5	11.0	15.0	12.0	18.0	15.5	18.5	16.0	17.0	15.0
12	14.0	12.5	12.0	10.5	14.5	12.0	18.5	15.5	18.5	16.0	17.0	15.0
13	14.0	12.5	11.5	10.5	14.5	12.0	19.5	15.5	19.0	16.0	17.5	15.0
14	13.5	11.0	12.0	10.5	13.5	11.5	19.5	16.5	19.0	16.5	17.5	15.0
15	13.0	11.0	12.5	10.5	11.5	11.0	20.0	17.0	18.5	16.5	17.5	15.5
16	12.0	11.0	13.0	10.5	14.0	10.5	20.0	17.0	18.0	16.0	17.5	15.5
17	11.5	11.0	13.0	10.5	16.0	12.5	19.0	16.5	17.5	15.0	17.5	15.5
18	11.5	10.5	13.0	11.0	17.5	14.5	19.0	15.5	18.0	15.0	17.5	15.5
19	12.5	10.5	13.5	11.0	17.5	14.5	20.0	17.0	18.5	16.0	18.0	15.5
20	12.0	11.0	13.5	11.0	17.5	14.5	20.0	17.0	19.0	16.5	18.0	16.0
21	12.5	10.0	13.0	11.0	18.0	15.0	20.0	17.0	19.0	16.5	18.0	15.5
22	12.5	10.5	12.5	11.0	18.5	15.5	20.0	17.0	18.5	16.5	17.5	15.5
23	13.0	11.0	13.0	11.0	18.5	16.0	19.5	16.5	18.5	16.0	17.5	15.5
24	13.0	11.0	12.5	11.0	20.0	16.5	20.0	16.5	18.0	16.0	17.5	15.5
25	13.0	11.0	13.0	10.5	20.0	17.5	19.5	17.0	17.5	15.5	17.5	15.0
26	12.5	11.0	13.0	11.0	20.5	17.5	20.0	17.0	17.5	15.0	17.0	15.0
27	12.0	11.0	13.0	11.0	20.0	17.0	20.5	17.0	17.5	15.0	17.0	15.0
28	11.5	11.0	13.5	11.0	19.5	16.5	20.5	18.0	17.0	15.0	17.0	15.0
29	12.0	11.0	13.5	11.5	19.5	17.0	20.5	17.5	17.5	14.5	16.5	14.5
30	13.0	11.5	13.5	11.5	19.0	16.5	20.5	17.5	17.5	15.0	16.0	14.0
31	---	---	13.5	11.5	---	---	21.0	17.5	17.5	15.5	---	---
MONTH	16.5	10.0	13.5	10.5	20.5	10.5	21.0	15.0	21.0	14.5	18.0	14.0

SAN JOAQUIN RIVER BASIN

11303000 STANISLAUS RIVER AT RIPON, CA

LOCATION.--Lat 37°43'47", long 121°06'34", in NW 1/4 SE 1/4 sec.29, T.2 S., R.8 E., Stanislaus County, Hydrologic Unit 18040002, on left bank 15 ft downstream from railroad bridge, 1.1 mi southeast of Ripon, and 15 mi upstream from mouth.

DRAINAGE AREA.--1,075 mi².

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.--No estimated daily discharges. 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 ft³/s, Dec. 24, 1955, gage height, 63.25 ft; minimum daily, 0.11 ft³/s, Aug. 4-6, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 12, 1938, reached a stage of 64.4 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft³/s, Mar. 12 gage height, 46.97 ft; minimum daily, 226 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	352	322	314	527	333	479	1390	1370	397	392	387
2	235	362	322	313	463	332	453	1370	1250	402	383	362
3	246	324	326	328	429	342	364	1350	1030	432	380	396
4	226	303	340	336	406	356	311	1330	884	448	402	365
5	243	297	328	386	392	359	390	1350	854	449	421	370
6	255	303	321	426	381	348	511	1360	864	514	419	351
7	234	311	320	436	373	342	509	1380	851	499	438	337
8	243	307	320	715	370	333	487	1370	825	477	445	364
9	249	307	319	636	366	340	661	1470	821	475	388	345
10	253	327	316	523	362	423	615	1550	809	531	383	363
11	231	313	315	973	354	1550	633	1450	791	526	407	378
12	227	306	323	965	350	2450	614	1350	787	437	436	388
13	228	306	324	567	349	2220	618	1360	789	409	436	407
14	251	308	321	485	374	1760	618	1440	780	408	477	446
15	579	315	326	500	390	672	639	1460	790	392	425	403
16	841	322	322	623	357	447	981	1450	753	414	451	374
17	892	318	318	540	347	378	1180	1450	591	444	452	366
18	905	319	318	432	342	343	1230	1450	498	433	458	356
19	916	314	317	393	340	322	1240	1410	470	365	377	349
20	742	313	317	374	337	318	1280	1400	435	432	356	359
21	507	313	318	367	336	441	1270	1380	434	380	366	330
22	382	313	319	364	334	639	1260	1390	406	418	359	342
23	348	313	318	409	334	834	1290	1400	406	401	393	360
24	336	313	323	502	344	1530	1280	1390	427	433	413	334
25	339	316	331	921	334	934	1280	1390	393	405	388	320
26	347	329	324	1140	329	630	1360	1360	409	392	388	308
27	328	325	319	1120	328	564	1500	1470	449	382	383	325
28	317	318	319	1920	331	537	1460	1580	411	391	372	338
29	323	316	320	2010	---	517	1390	1510	404	398	378	345
30	334	316	316	1520	---	502	1370	1390	406	391	375	292
31	339	---	314	816	---	489	---	1380	---	411	379	---
TOTAL	12135	9499	9956	21354	10279	21585	27273	43780	20387	13286	12520	10760
MEAN	391	317	321	689	367	696	909	1412	680	429	404	359
MAX	916	362	340	2010	527	2450	1500	1580	1370	531	477	446
MIN	226	297	314	313	328	318	311	1330	393	365	356	292
AC-FT	24070	18840	19750	42360	20390	42810	54100	86840	40440	26350	24830	21340

SAN JOAQUIN RIVER BASIN

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11303000 STANISLAUS RIVER AT RIPON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	355	467	887	1162	1119	1339	1525	2064	1449	490	340	325
MAX	1775	4518	7602	5163	4802	5094	5047	7703	5531	3633	2834	2041
(WY)	1984	1951	1951	1956	1969	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1941 - 1995
ANNUAL TOTAL	158963	212814	
ANNUAL MEAN	436	583	959
HIGHEST ANNUAL MEAN			2548
LOWEST ANNUAL MEAN			44.9
HIGHEST DAILY MEAN	1320	May 22	2450
LOWEST DAILY MEAN	216	Feb 16	226
ANNUAL SEVEN-DAY MINIMUM	237	Feb 11	238
INSTANTANEOUS PEAK FLOW			2600
INSTANTANEOUS PEAK STAGE			46.97
ANNUAL RUNOFF (AC-FT)	315300	422100	694800
10 PERCENT EXCEEDS	832	1370	2610
50 PERCENT EXCEEDS	340	393	365
90 PERCENT EXCEEDS	290	315	134

11303000 STANISLAUS RIVER AT RIPON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1993 to September 1994. 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 year 1994.

SPECIFIC CONDUCTANCE: Water years 1986-89.

WATER TEMPERATURE: Water years 1986-89. October 1994 to September 30, 1995.

SEDIMENT DATA: Water year 1994.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Water years 1986-89.

WATER TEMPERATURE: Water years 1986-89. October 1994 to September 30, 1995.

INSTRUMENTATION.--Temperature recorder since October 1994.

REMARKS.--Interruption in record was due to malfunction of the recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 27.5°C, July 21, 1989; minimum recorded, 5.0°C, Feb. 7, 1989.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 25.5°C, June 26; minimum recorded, 7.5°C, Dec. 10, 11.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	18.0	---	---	10.0	9.0	9.5	8.5	13.5	12.5	15.0	13.5
2	20.5	18.0	---	---	10.5	10.0	9.5	9.0	14.0	13.5	15.0	14.0
3	19.5	18.0	---	---	11.0	10.5	10.0	9.5	14.0	13.0	15.0	14.0
4	18.5	17.5	---	---	11.5	11.0	10.0	10.0	13.0	12.5	14.0	12.5
5	19.0	17.0	---	---	11.5	11.0	11.0	10.0	12.5	12.0	13.5	12.5
6	18.5	16.5	---	---	11.5	10.5	10.5	10.0	12.0	11.5	14.0	11.5
7	19.0	16.5	---	---	10.5	10.0	10.5	10.0	11.5	11.0	14.0	12.0
8	19.0	17.0	---	---	10.0	9.0	11.0	10.5	12.5	11.5	13.5	13.0
9	19.5	17.0	---	---	9.0	8.0	12.5	11.0	12.5	11.0	13.5	13.0
10	19.5	17.5	---	---	8.5	7.5	13.0	12.5	12.0	11.5	13.5	13.0
11	19.0	16.5	---	---	9.0	7.5	13.0	12.0	12.0	11.5	13.5	13.0
12	18.0	16.0	---	---	10.0	9.0	12.0	12.0	13.0	11.5	13.0	12.5
13	17.5	15.5	---	---	10.5	9.5	12.5	12.0	12.0	11.5	13.0	12.5
14	17.0	15.5	---	---	10.0	9.0	13.0	12.5	12.0	11.0	14.0	12.5
15	16.0	14.5	10.5	10.0	10.0	9.0	13.0	12.0	11.5	10.0	15.0	13.5
16	14.5	13.0	11.5	10.0	9.5	9.0	12.0	10.5	11.5	10.0	15.5	13.5
17	14.0	12.5	11.5	10.5	9.5	9.5	10.5	10.0	12.0	10.5	15.5	14.0
18	14.0	12.5	10.5	9.5	10.0	9.5	10.5	9.5	13.0	11.0	15.0	14.5
19	14.0	12.5	9.5	8.5	10.5	10.0	10.0	9.0	13.5	11.5	15.5	13.5
20	14.0	12.5	9.5	8.5	10.5	10.0	10.0	9.5	13.5	12.0	15.0	14.0
21	14.5	13.0	10.5	9.5	10.0	10.0	10.5	9.5	14.5	12.5	14.0	13.5
22	15.0	13.0	10.5	9.0	10.0	9.5	10.5	10.0	14.0	13.5	13.5	12.0
23	15.0	13.5	10.0	9.0	9.5	9.0	11.5	10.5	14.0	13.5	12.5	11.0
24	16.0	14.0	10.5	9.5	9.5	9.0	12.0	11.0	13.5	13.0	12.0	10.5
25	16.0	14.0	11.5	10.5	10.0	9.0	12.0	11.5	14.0	13.5	13.0	11.5
26	16.0	14.5	11.0	10.0	9.5	8.5	11.5	11.0	14.0	13.5	14.0	12.0
27	---	---	10.0	9.5	9.5	8.5	11.5	11.0	14.0	13.5	14.5	13.0
28	---	---	11.0	10.0	10.5	9.5	11.5	11.0	14.0	13.5	15.5	13.5
29	---	---	10.0	9.0	10.0	9.0	11.5	11.5	---	---	15.5	14.0
30	---	---	10.0	9.0	9.0	8.0	12.0	11.5	---	---	16.5	14.5
31	---	---	---	---	8.5	8.0	12.5	11.5	---	---	16.5	15.0
MONTH	---	---	---	---	11.5	7.5	13.0	8.5	14.5	10.0	16.5	10.5

11303000 STANISLAUS RIVER AT RIPON, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	15.5	15.0	13.5	15.5	14.0	23.5	21.0	25.0	22.5	21.5	19.0
2	17.5	15.5	15.0	13.5	15.0	13.5	23.0	20.5	25.5	22.5	21.5	19.0
3	18.0	15.5	15.5	13.5	16.0	14.0	23.0	20.5	25.5	22.5	21.5	19.0
4	19.0	16.0	15.5	13.5	17.0	15.0	23.0	20.5	24.5	22.5	21.0	18.5
5	19.0	16.5	14.5	13.0	17.0	15.0	23.5	21.0	24.0	22.0	21.0	18.5
6	18.5	17.5	13.0	12.0	16.0	14.5	22.5	20.5	24.0	21.5	21.0	18.5
7	18.0	17.0	14.5	12.5	16.0	14.5	22.5	20.5	23.5	21.5	21.5	19.0
8	17.0	15.5	14.5	13.0	16.5	14.5	23.0	21.0	23.0	20.5	21.5	19.5
9	15.5	13.5	14.0	13.0	16.5	14.5	22.5	20.5	24.0	21.0	21.0	19.0
10	15.5	13.0	13.5	12.5	17.5	15.0	21.5	19.5	23.0	21.0	20.5	18.5
11	16.0	14.0	14.5	13.0	17.5	15.5	21.5	19.0	22.0	19.5	21.0	18.5
12	16.0	14.5	13.5	12.5	17.5	15.5	21.5	19.0	22.5	20.0	20.5	18.5
13	16.0	15.0	12.5	12.0	17.5	15.5	22.5	19.5	22.0	20.0	20.5	18.5
14	15.0	13.5	12.5	12.0	17.0	15.0	23.5	20.5	22.5	20.5	21.0	18.5
15	14.0	13.0	13.5	12.0	15.0	13.0	24.5	21.5	23.0	21.0	21.0	18.5
16	13.5	12.0	14.0	12.5	15.0	12.5	25.0	22.0	22.5	20.5	20.5	18.5
17	13.0	12.0	14.5	13.0	17.0	14.0	24.0	21.5	21.0	19.0	20.5	18.5
18	12.5	12.0	15.0	13.0	19.0	16.5	23.5	20.5	21.0	18.5	21.0	18.5
19	13.0	11.5	15.0	13.5	19.5	17.0	24.0	21.0	22.0	19.5	21.5	19.5
20	13.5	12.0	15.5	14.0	20.5	18.0	23.5	21.0	23.0	20.5	21.5	19.5
21	13.5	12.0	14.5	13.5	21.5	18.5	24.0	21.5	23.5	21.0	21.5	19.5
22	14.0	12.0	14.0	13.0	22.5	19.5	24.0	21.0	24.0	21.5	21.5	19.5
23	14.5	13.0	14.5	13.0	23.5	20.5	24.0	21.0	23.0	21.0	20.5	18.5
24	15.0	13.5	15.0	13.0	24.0	21.5	23.5	21.0	22.5	20.5	20.5	18.5
25	15.0	13.5	14.5	13.0	25.0	22.5	23.0	20.5	21.5	19.5	20.5	18.5
26	14.5	13.0	15.0	13.0	25.5	23.0	24.0	20.5	21.0	19.0	20.0	18.0
27	13.5	13.0	14.5	13.5	25.0	22.0	24.0	22.0	21.0	19.0	20.5	18.0
28	13.5	12.5	15.0	13.0	24.5	22.0	24.0	22.0	20.5	18.5	20.0	18.0
29	13.5	13.0	15.5	14.0	24.5	21.5	23.5	21.5	21.0	18.5	19.5	17.5
30	14.0	12.5	15.5	14.0	24.0	21.5	24.5	21.5	21.5	18.5	19.0	17.0
31	---	---	15.5	14.0	---	---	24.0	22.5	21.5	19.0	---	---
MONTH	19.0	11.5	15.5	12.0	25.5	12.5	25.0	19.0	25.5	18.5	21.5	17.0

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA
(National Stream-Quality Accounting Network Station)

LOCATION.--Lat 37°40'34", long 121°15'55", in El Pescadero Grant, San Joaquin County, Hydrologic Unit 18040003, on left bank 12 ft downstream from Durham Ferry highway bridge, 2.6 mi downstream from Stanislaus River, and 3.2 mi northeast of Vernalis.

DRAINAGE AREA.--13,536 mi², includes about 2,100 mi² in James Bypass.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1922 to current year (1922-23 and 1925-29, low-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 except for period of estimated record which is fair. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 79,000 ft³/s, Dec. 9, 1950, elevation, 32.81 ft, present datum, including flow through breaks in levee; maximum elevation, 34.55 ft, Jan. 27, 1969; minimum discharge, 19 ft³/s, Aug. 10, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,100 ft³/s, Mar. 19, 20 elevation, 26.82 ft; minimum daily, 965 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	967	1390	1250	1310	10100	4670	24700	16800	21900	6130	e6600	3690
2	1030	1420	1270	1310	9570	4400	24200	17200	21400	6330	e6700	3610
3	1000	1420	1280	1360	8890	3730	23700	17700	21100	6730	6130	3650
4	965	1370	1290	1430	7600	3240	22900	19000	20800	7250	6090	3810
5	975	1340	1300	1570	7200	3250	22300	20800	20300	7860	5940	3690
6	1050	1290	1290	1630	7320	3250	21800	21700	19800	8600	5240	3630
7	1110	1280	1280	1790	7300	3200	21500	22200	19100	9400	4530	3560
8	1120	1260	1290	2070	7210	3160	21400	22400	18200	9920	4130	3540
9	1080	1260	1290	2430	7040	3190	21400	22300	17600	11200	3780	3590
10	1030	1300	1290	3010	6830	3950	21200	22600	17100	12100	3640	3750
11	999	1310	1280	4030	6700	7830	20700	22900	16400	13300	3610	4000
12	1000	1270	1290	5070	6660	12600	20400	22900	15600	14900	3480	4150
13	1040	1270	1300	4400	6500	14100	19800	22800	14800	16200	3900	4080
14	1040	1280	1310	3960	6470	13200	19300	22900	14200	17000	3940	4160
15	1110	1290	1320	3960	6520	12500	19000	22900	13600	17600	3490	4270
16	1680	1290	1320	4520	6300	13500	18700	22800	13300	17200	3540	4280
17	2170	1280	1320	5170	6550	17200	18800	23000	12800	16100	3570	4600
18	2280	1270	1310	4770	6510	22000	18600	23200	12300	15000	3360	4940
19	2220	1260	1300	4370	6050	25200	18400	23200	12000	12800	3250	4960
20	2090	1260	1290	3980	5570	25900	18200	23100	11700	10200	3120	5280
21	1880	1250	1290	3830	5290	25100	18000	23400	11500	8170	3050	5360
22	1680	1250	1290	3680	5210	23700	18200	23400	11100	7400	3000	5680
23	1570	1250	1290	3780	5270	21900	18600	23500	10700	7260	3030	6140
24	1570	1250	1280	4150	5490	22000	18700	23500	10000	7090	2980	6510
25	1510	1250	1300	5550	5180	20600	18800	23500	9110	6520	2990	6770
26	1460	1250	1310	8150	4870	20200	18600	23200	8060	5860	2970	6570
27	1390	1260	1310	8590	4740	21400	18400	23100	7070	e5500	2940	6290
28	1380	1260	1310	9410	4720	23100	17800	23200	6450	e5300	2980	5980
29	1360	1260	1290	11500	---	24600	17100	23200	6290	e5200	2830	5790
30	1340	1240	1290	11300	---	25200	16800	23000	6060	e5900	3190	5700
31	1360	---	1310	10500	---	25100	---	22400	---	e6300	3670	---
TOTAL	42456	38630	40140	142580	183660	452970	598000	687800	420340	306320	121670	142030
MEAN	1370	1288	1295	4599	6559	14610	19930	22190	14010	9881	3925	4734
MAX	2280	1420	1320	11500	10100	25900	24700	23500	21900	17600	6700	6770
MIN	965	1240	1250	1310	4720	3160	16800	16800	6060	5200	2830	3540
AC-FT	84210	76620	79620	282800	364300	898500	1186000	1364000	833700	607600	241300	281700

e Estimated.

SAN JOAQUIN RIVER BASIN

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11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2173	2306	3578	4933	6549	7222	7124	7723	6644	2540	1350	1711
MAX	13320	10680	25130	27050	32550	40040	36450	31770	36650	19230	9035	11310
(WY)	1984	1984	1951	1956	1969	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1924 - 1995			
ANNUAL TOTAL	538644				3176596							
ANNUAL MEAN	1476				8703				4473			
HIGHEST ANNUAL MEAN									21280			
LOWEST ANNUAL MEAN									575			
HIGHEST DAILY MEAN									70000			
LOWEST DAILY MEAN									30			
ANNUAL SEVEN-DAY MINIMUM									59			
INSTANTANEOUS PEAK FLOW									79000			
INSTANTANEOUS PEAK STAGE									34.55			
ANNUAL RUNOFF (AC-FT)	1068000				6301000				3240000			
10 PERCENT EXCEEDS	2310				22300				12100			
50 PERCENT EXCEEDS	1310				5490				2000			
90 PERCENT EXCEEDS	875				1280				642			

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.

SPECIFIC CONDUCTANCE: Water years 1951-63, 1973-81, 1989 to current year.

WATER TEMPERATURE: Water years 1951 to current year.

SEDIMENT DATA: Water years 1957 to current year.

TURBIDITY: Water years 1972-84.

PERIOD OF DAILY RECORD.--

CHEMICAL DATA: March 1951 to May 1963.

SPECIFIC CONDUCTANCE: March 1951 to May 1963, January 1973 to October 1981, October 1988 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 since December 1972. 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.

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, 1,020 microsiemens, Nov. 22-25; minimum recorded, 86 microsiemens, July 14.

WATER TEMPERATURE: Maximum recorded, 25.5°C, Aug. 22, 23; minimum recorded, 6.5°C, Dec. 11.

SEDIMENT CONCENTRATION: Maximum daily mean, 1030 mg/L, Jan. 10; minimum daily mean, 18 mg/L, Nov. 20.

SEDIMENT LOAD: Maximum daily, 15,900 tons, Mar. 12; minimum daily, 61 tons, Nov. 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
27...	1600	1390	713	7.6	18.5	--	766	9.8	104	--	--
NOV											
16...	1430	1290	841	7.9	10.0	7.5	--	--	--	110	61
30...	1700	1240	866	7.8	10.0	--	766	10.3	91	--	--
DEC											
29...	1530	1280	909	7.8	10.0	--	762	10.0	89	--	--
JAN											
24...	1600	4270	634L	7.4	11.0	--	756	8.2	--	--	--
25...	1400	5560	565	8.0	12.5	140	755	10.4	99	4400	7700
MAR											
02...	1320	4420	582	7.4	14.0	--	758	9.6	94	--	--
15...	1412	12300	278	7.2	14.5	49	750	7.3	73	930	700
21...	1830	24800	314L	7.0	13.5	--	759	4.8	--	--	--
MAY											
17...	1310	23100	127	7.2	17.0	9.2	760	7.9	82	180	190
JUL											
11...	1220	13400	147	7.3	9.0	22	759	8.8	77	370	800
SEP											
14...	1210	4220	380	7.7	21.0	22	757	7.8	88	380	700

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3
OCT										
27...	160	35	17	83	53	3	2.8	116	0	95
NOV										
16...	180	39	19	98	54	3	2.4	142	0	116
30...	190	41	21	110	55	3	2.9	112	0	92
DEC										
29...	190	41	21	110	55	3	3.8	145	0	119
JAN										
24...	140	30	15	69	51	3	7.3	105	0	86
25...	130	27	15	59	48	2	8.0	113	0	92
MAR										
02...	120	28	13	66	53	3	2.4	68	0	56
15...	66	14	7.5	26	44	1	3.8	67	0	55
21...	79	19	7.7	29	43	1	3.3	61	0	50
MAY										
17...	34	8.4	3.1	11	40	0.8	1.3	32	0	26
JUL										
11...	33	8.2	3.1	11	41	0.8	1.1	32	0	26
SEP										
14...	84	19	8.8	37	48	2	1.8	71	0	58
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT										
27...	85	98	<0.10	18	413	405	0.56	0.020	1.80	0.030
NOV										
16...	100	120	<0.10	16	494	472	0.67	0.030	1.50	0.090
30...	120	130	0.10	16	534	504	0.73	0.030	1.60	0.100
DEC										
29...	120	140	<0.10	16	549	533	0.75	0.060	2.00	0.270
JAN										
24...	83	72	0.10	15	378	353	0.51	0.070	1.60	0.630
25...	76	62	0.10	15	334	326	0.45	0.060	1.40	0.680
MAR										
02...	93	74	<0.10	13	353	331	0.48	0.020	1.60	0.050
15...	30	25	<0.10	15	179	159	0.24	0.030	0.640	0.170
21...	53	24	<0.10	13	193	182	0.26	0.030	0.570	0.130
MAY										
17...	12	11	<0.10	11	81	75	0.11	0.010	0.220	0.020
JUL										
11...	16	11	0.10	10	84	78	0.11	0.020	0.330	<0.015
SEP										
14...	51	40	<0.10	14	221	212	0.30	0.020	1.10	0.020

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 27...	0.20	0.20	0.130	0.120	0.100	--	--	350	--	30
NOV 16...	0.40	--	0.140	0.070	0.070	<10	48	--	<3	36
30...	0.40	0.30	0.120	0.080	0.080	--	--	470	--	42
DEC 29...	0.80	0.50	0.260	0.160	0.160	--	--	530	--	42
JAN 24...	2.2	1.3	0.750	0.410	0.420	--	--	410	--	72
25...	1.8	--	0.520	0.390	0.410	--	--	--	--	--
MAR 02...	0.40	0.30	0.180	0.140	0.100	--	--	410	--	46
15...	1.0	--	0.370	0.220	0.180	160	34	--	<3	380
21...	0.60	0.50	0.180	0.150	0.140	--	--	190	--	71
MAY 17...	0.20	--	0.080	0.060	0.070	120	19	--	<3	150
JUL 11...	0.20	--	0.050	0.060	0.020	80	18	--	6	110
SEP 14...	0.50	--	0.170	0.100	0.090	30	34	--	<3	64

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
OCT 27...	--	24	2	--	2	--	--	--	2.9	1.1
NOV 16...	5	37	<10	1	1	<1.0	460	<6	--	--
30...	--	36	--	--	1	--	--	--	2.9	0.5
DEC 29...	--	51	3	--	2	--	--	--	3.5	1.2
JAN 24...	--	41	3	--	1	--	--	--	7.2	2.8
25...	--	--	--	--	--	--	--	--	--	--
MAR 02...	--	38	3	--	1	--	--	--	7.2	1.6
15...	<4	50	10	2	<1	<1.0	160	6	--	--
21...	--	36	2	--	<1	--	--	--	6.4	0.6
MAY 17...	4	24	<10	<1	<1	<1.0	82	<6	--	--
JUL 11...	5	15	<10	<1	<1	<1.0	83	<6	--	--
SEP 14...	5	18	10	1	1	<1.0	230	<6	--	--

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SED- IMENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR										
15...*	1345	14.0	142	273	7.2	14.5	750	7.4	73	130
15...*	1403	14.5	186	273	7.3	14.5	750	7.4	73	152
15...*	1410	17.2	228	275	7.2	14.5	750	7.3	73	178
15...*	1415	16.0	280	276	7.2	14.5	750	7.3	73	167
15...*	1423	16.0	318	277	7.2	14.5	750	7.3	73	164
SEP										
14...*	1155	15.5	143	384	7.8	21.0	757	7.8	88	84
14...*	1200	15.5	169	384	7.9	21.0	757	7.8	88	86
14...*	1205	15.0	193	376	7.9	21.5	757	7.8	89	86
14...*	1209	11.4	238	375	7.9	21.0	757	7.8	88	76
14...*	1215	8.40	297	374	7.9	21.0	757	7.8	88	75

* Instantaneous discharge at time of cross-sectional measurement: Mar. 15, 12,300 ft³/s; Sept. 14, 4,200 ft³/s.

SAN JOAQUIN RIVER BASIN

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11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
27...N	1600	1390	18.5	60	225	--
NOV						
16...	1405	1290	10.0	40	139	84
30...N	1700	1240	11.5	19	64	--
DEC						
29...N	1530	1280	10.0	56	194	--
JAN						
10...N	1100	2940	--	511	4060	95
24...N	1600	4270	11.0	224	2580	--
25...	1300	5470	12.5	374	5520	85
31...	1620	10400	12.0	146	4100	62
FEB						
06...	1510	7310	11.0	95	1880	65
15...	1000	6560	9.5	72	1280	57
MAR						
02...N	1320	4410	14.0	58	691	--
06...	1420	3240	13.0	65	569	81
15...	1230	12400	14.5	157	5260	61
17...	1400	17800	16.0	247	11900	50
21...N	1830	24800	13.5	42	2810	--
APR						
03...	1715	23500	18.0	49	3110	59
26...	1200	18700	17.5	68	3430	51
MAY						
17...	1225	22900	18.5	56	3460	54
JUL						
11...	1115	13300	19.0	174	6250	51
27...	1210	5110	24.5	122	1680	94
SEP						
14...	1035	4140	20.5	81	905	91

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	NUMBER OF SAM- PLING POINTS (COUNT)	DIS- CHARGE, INST. CUBIC FEET PER SECOND	TEMPER- ATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAR													
17... 1426	1	18000	16.0	--	--	1	23	79	96	99	100	--	--
17... 1433	1	17900	16.0	--	--	1	35	94	99	100	--	--	--
17... 1437	1	17800	16.0	--	1	10	73	99	100	--	--	--	--
17... 1439	1	17900	16.0	--	--	6	75	99	100	--	--	--	--
17... 1443	1	17900	16.0	--	--	3	39	96	100	--	--	--	--
SEP													
15... 1128	1	4320	21.0	--	2	8	30	70	88	94	98	100	--
15... 1129	1	4320	21.0	--	2	34	69	91	98	100	--	--	--
15... 1130	1	4320	21.0	1	17	90	98	100	--	--	--	--	--
15... 1131	1	4320	21.0	18	56	90	98	100	--	--	--	--	--
15... 1132	1	4320	21.0	36	58	77	92	100	--	--	--	--	--

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	922	824	769	752	878	866	893	889	357	347	572	559
2	887	813	778	764	886	873	894	889	381	357	602	572
3	864	805	784	774	902	886	893	861	397	381	650	602
4	837	810	789	780	909	900	862	808	419	397	694	650
5	863	830	790	782	912	903	808	745	432	419	737	694
6	894	813	793	788	910	888	745	689	434	430	759	698
7	823	761	813	792	891	870	689	636	432	428	729	686
8	780	737	820	810	872	842	636	589	429	423	752	726
9	780	737	825	816	846	831	589	537	428	423	752	733
10	815	766	830	821	831	823	537	514	427	426	746	594
11	863	805	838	825	833	825	536	522	433	426	594	297
12	843	812	845	833	838	827	550	536	436	429	297	226
13	836	785	852	840	840	831	570	549	438	433	254	216
14	792	731	854	846	842	834	589	570	441	415	275	253
15	801	701	851	846	854	840	605	589	447	409	277	254
16	701	407	860	834	854	848	626	603	458	447	254	233
17	407	354	908	860	862	848	639	622	458	445	262	237
18	371	348	938	907	869	857	656	637	456	445	284	258
19	399	371	957	936	874	865	670	655	465	456	290	276
20	420	379	979	956	881	871	690	669	489	465	301	290
21	485	420	1010	979	887	877	706	690	508	489	300	294
22	542	485	1020	1000	889	881	724	706	515	508	315	299
23	572	542	1020	1010	894	886	741	723	515	497	323	314
24	590	553	1020	1010	902	891	750	741	506	492	331	312
25	625	589	1020	1000	903	894	764	749	525	505	332	312
26	683	624	1000	976	899	892	771	759	545	525	312	279
27	722	681	979	952	902	893	790	771	553	545	279	256
28	742	722	952	922	909	900	805	786	561	547	256	238
29	742	719	923	888	911	904	816	805	---	---	243	239
30	739	723	888	864	908	894	817	632	---	---	248	240
31	753	737	---	---	897	889	632	350	---	---	250	244
MONTH	922	348	1020	752	912	823	894	350	561	347	759	216
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	254	245	191	178	141	137	517	496	352	305	415	387
2	244	237	191	181	140	133	513	408	344	316	417	402
3	238	233	186	179	134	128	408	240	320	259	424	401
4	236	233	180	167	132	129	316	207	262	222	445	409
5	233	226	168	160	130	123	208	183	242	216	432	406
6	227	224	164	157	137	124	184	171	402	242	454	408
7	226	219	160	156	150	137	176	162	494	402	459	429
8	220	207	159	156	152	148	185	162	505	493	456	433
9	208	204	159	155	150	148	162	131	621	503	471	445
10	205	200	162	157	157	150	131	111	644	573	492	448
11	201	194	163	158	175	157	121	100	574	549	459	403
12	205	198	163	156	189	175	105	98	576	551	404	365
13	205	198	159	154	189	184	99	90	566	457	372	356
14	206	198	156	151	186	182	95	86	533	467	382	354
15	202	195	155	151	188	183	99	95	638	533	355	341
16	205	197	157	151	199	188	108	99	654	603	355	343
17	205	198	158	154	202	198	112	107	606	563	344	286
18	204	200	160	155	208	198	147	112	581	538	287	262
19	205	199	163	160	209	200	196	147	565	543	297	238
20	201	196	160	154	220	205	261	196	593	556	256	245
21	198	186	156	148	233	220	279	261	604	571	252	238
22	186	182	149	143	240	231	270	239	615	590	242	197
23	187	183	143	141	240	233	241	226	594	550	197	179
24	189	183	142	139	279	237	286	241	550	518	183	165
25	189	180	141	138	336	279	349	286	558	519	170	162
26	182	176	138	134	414	336	414	349	565	530	191	162
27	179	172	135	130	476	414	469	414	587	535	231	191
28	175	172	133	130	538	475	447	411	616	578	243	229
29	179	172	134	130	538	480	450	399	621	574	260	242
30	180	176	134	130	511	496	399	374	574	425	261	250
31	---	---	137	130	---	---	382	352	425	387	---	---
MONTH	254	172	191	130	538	123	517	86	654	216	492	162

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	21.5	19.0	15.5	14.0	9.5	8.5	9.0	8.0	13.0	12.5	12.5	12.0
2	22.0	19.0	14.5	13.0	10.0	8.5	9.5	9.0	13.0	12.5	13.5	12.5
3	21.0	19.0	13.0	11.5	10.0	9.5	10.0	9.0	12.5	12.5	14.0	13.0
4	19.5	18.0	12.0	11.0	10.5	10.0	10.0	9.5	12.5	12.0	13.5	12.5
5	20.0	17.0	12.0	11.5	10.5	10.0	11.0	9.5	12.0	11.5	13.0	12.5
6	20.0	17.5	13.5	12.0	11.0	10.0	10.5	10.0	11.5	11.0	13.0	11.5
7	20.5	17.5	14.5	13.0	10.5	9.0	10.5	9.5	11.0	10.5	13.0	11.5
8	21.0	18.0	14.5	13.0	9.5	8.0	10.5	10.5	11.0	10.5	13.0	12.5
9	21.0	18.5	13.5	12.5	8.5	7.0	12.0	10.5	11.0	10.5	13.0	12.5
10	21.0	18.5	13.0	12.0	8.0	7.0	13.0	12.0	11.0	10.5	12.5	12.5
11	20.5	18.0	13.0	11.0	8.5	6.5	13.0	12.5	10.5	10.5	13.0	12.5
12	19.5	17.5	12.5	11.5	9.0	8.0	12.5	12.5	11.0	10.5	13.0	12.5
13	18.5	16.5	12.0	10.5	9.5	8.0	13.0	12.5	11.0	10.5	13.0	13.0
14	18.0	16.0	11.5	9.5	9.0	8.5	13.5	13.0	10.5	10.0	14.0	13.0
15	17.0	15.0	10.5	10.0	10.0	8.5	13.5	13.0	10.5	10.0	14.5	13.5
16	15.5	14.0	11.0	9.5	9.5	9.0	13.0	12.0	10.0	10.0	14.5	13.5
17	15.5	13.5	11.0	10.0	9.0	8.5	12.0	11.5	10.5	10.0	15.0	14.0
18	15.5	14.0	10.0	8.5	10.0	9.0	11.5	10.5	11.0	10.5	14.5	14.0
19	15.5	14.0	9.0	7.5	10.5	9.5	10.5	10.0	11.5	11.0	14.5	13.5
20	16.0	14.5	9.0	7.5	10.0	10.0	10.0	10.0	12.0	11.5	14.5	13.5
21	16.5	14.5	10.5	9.0	10.0	9.5	10.0	9.5	12.5	11.5	13.5	13.0
22	17.0	14.5	10.0	8.5	9.5	9.0	10.5	10.0	12.0	12.0	13.5	12.0
23	17.0	15.0	10.0	8.5	9.0	8.5	11.0	10.5	12.0	11.5	12.0	12.0
24	18.0	15.5	10.0	8.5	9.0	8.5	11.5	11.0	12.0	11.5	12.0	11.5
25	17.5	16.0	10.5	9.5	9.5	8.0	12.0	11.5	12.0	11.5	12.5	11.5
26	18.0	15.5	10.5	9.5	9.5	8.0	11.5	11.0	12.0	11.5	12.5	11.5
27	18.5	16.5	10.0	9.0	9.5	8.0	11.5	11.0	12.0	11.5	13.0	11.5
28	18.5	16.5	10.5	9.0	10.0	9.0	12.0	11.5	12.0	12.0	13.5	12.5
29	18.0	16.0	10.0	8.5	10.0	8.5	12.0	11.5	---	---	14.0	13.0
30	16.0	14.5	10.0	8.5	9.0	8.0	12.0	12.0	---	---	14.5	13.5
31	16.0	13.5	---	---	8.5	7.5	12.5	12.0	---	---	15.0	14.0
MONTH	22.0	13.5	15.5	7.5	11.0	6.5	13.5	8.0	13.0	10.0	15.0	11.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	15.5	14.5	17.5	16.5	20.5	20.0	23.0	21.5	21.0	20.0	21.5	20.0
2	15.5	14.5	18.0	16.5	20.5	19.0	22.5	21.5	21.5	20.5	21.5	20.0
3	16.0	14.5	18.5	17.0	20.0	18.5	22.0	21.5	22.0	21.0	21.0	20.0
4	16.0	15.0	18.5	17.5	19.5	18.5	23.0	22.0	22.5	22.0	21.0	19.5
5	16.5	15.5	18.0	16.5	19.5	18.0	23.5	22.5	23.5	22.5	21.0	19.5
6	17.0	16.0	17.0	16.0	18.5	17.5	23.5	22.5	24.5	23.0	21.5	19.5
7	16.5	16.0	17.0	16.0	17.5	16.5	23.5	22.5	24.5	23.0	22.0	20.0
8	16.0	15.0	17.5	16.0	18.0	16.5	22.5	22.0	24.0	22.5	22.0	20.5
9	15.5	14.0	17.0	16.5	18.5	16.5	22.0	20.5	24.0	22.0	22.0	20.5
10	14.5	13.5	17.5	16.5	19.0	17.5	20.5	19.0	23.5	22.5	21.5	20.5
11	15.0	14.0	17.5	16.5	19.0	17.5	19.5	18.5	23.5	22.0	21.5	20.0
12	15.5	14.5	17.0	16.0	19.0	17.5	19.0	17.5	24.0	22.0	21.5	20.5
13	15.5	15.0	16.5	16.0	19.0	17.5	19.5	18.0	23.5	22.0	21.5	20.5
14	15.5	14.5	16.0	15.5	18.5	17.0	20.5	18.0	23.5	21.5	21.5	20.5
15	14.5	14.0	17.0	15.5	17.5	16.0	21.5	19.5	24.5	23.0	21.5	20.5
16	14.0	13.5	18.0	16.5	16.0	15.5	23.0	21.0	24.5	23.5	21.5	20.5
17	14.0	13.5	18.5	17.0	17.0	15.5	23.0	22.0	24.0	22.0	21.0	20.0
18	13.5	13.0	19.5	18.0	17.0	16.5	23.0	21.5	23.5	22.0	20.5	19.5
19	13.5	12.5	20.0	18.5	17.5	16.5	23.5	22.5	24.0	22.0	21.0	19.5
20	14.0	13.0	20.0	19.0	18.0	17.0	24.0	23.0	24.5	23.0	20.5	19.5
21	14.0	13.0	20.0	18.5	18.5	17.5	24.0	23.5	25.0	23.5	20.0	19.5
22	15.0	13.5	19.0	18.0	19.5	18.0	24.0	23.5	25.5	23.5	19.5	19.0
23	16.0	14.0	19.0	18.0	20.5	19.0	24.0	23.0	25.5	24.0	19.0	18.5
24	17.0	15.0	19.5	18.0	21.5	20.0	23.5	23.0	25.0	23.5	18.5	18.0
25	17.5	16.0	19.5	18.0	22.0	21.0	24.0	23.0	24.0	23.0	18.5	18.0
26	17.5	16.5	19.5	18.0	23.5	22.0	24.0	23.0	23.5	22.0	18.0	17.5
27	17.5	16.5	19.5	18.0	23.5	22.0	24.5	23.0	23.5	22.0	18.0	17.5
28	17.5	16.5	20.0	18.5	23.5	22.5	24.5	23.5	23.0	21.5	18.0	17.5
29	16.5	16.0	20.5	19.0	23.0	22.5	23.5	22.0	23.0	21.0	18.0	17.0
30	17.0	16.0	21.0	19.5	23.0	22.0	22.0	21.0	22.5	21.5	18.0	17.0
31	---	---	21.0	19.5	---	---	21.5	21.0	21.5	20.0	---	---
MONTH	17.5	12.5	21.0	15.5	23.5	15.5	24.5	17.5	25.5	20.0	22.0	17.0

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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	967	83	217	1390	60	225	1250	20	68
2	1030	85	235	1420	60	229	1270	24	81
3	1000	83	225	1420	51	197	1280	35	120
4	965	78	205	1370	38	141	1290	41	144
5	975	70	183	1340	37	135	1300	43	153
6	1050	70	200	1290	43	151	1290	42	147
7	1110	75	225	1280	48	166	1280	37	128
8	1120	72	218	1260	43	146	1290	27	95
9	1080	66	193	1260	41	140	1290	27	93
10	1030	62	174	1300	47	165	1290	21	74
11	999	64	173	1310	45	160	1280	21	71
12	1000	65	176	1270	37	128	1290	30	104
13	1040	66	184	1270	31	107	1300	44	153
14	1040	56	156	1280	29	99	1310	46	164
15	1110	73	219	1290	33	114	1320	46	163
16	1680	110	505	1290	38	133	1320	44	158
17	2170	112	655	1280	40	139	1320	42	150
18	2280	88	542	1270	37	125	1310	41	144
19	2220	74	441	1260	26	88	1300	45	158
20	2090	72	404	1260	18	61	1290	49	170
21	1880	73	367	1250	21	70	1290	45	155
22	1680	81	369	1250	24	80	1290	38	132
23	1570	84	357	1250	29	96	1290	31	108
24	1570	83	353	1250	30	101	1280	28	97
25	1510	75	306	1250	30	101	1300	37	131
26	1460	69	272	1250	29	100	1310	39	140
27	1390	68	257	1260	26	90	1310	42	148
28	1380	72	268	1260	23	77	1310	49	172
29	1360	66	243	1260	20	69	1290	47	164
30	1340	58	210	1240	20	67	1290	39	137
31	1360	57	210	---	---	---	1310	33	116
TOTAL	42456	---	8742	38630	---	3700	40140	---	4038
JANUARY			FEBRUARY			MARCH			
1	1310	29	101	10100	145	3940	4670	51	639
2	1310	36	127	9570	154	3970	4400	57	676
3	1360	59	216	8890	119	2860	3730	63	630
4	1430	87	337	7600	109	2240	3240	67	584
5	1570	155	659	7200	109	2120	3250	68	597
6	1630	143	627	7320	101	1990	3250	66	582
7	1790	119	576	7300	88	1740	3200	68	591
8	2070	178	1010	7210	87	1700	3160	69	590
9	2430	457	3010	7040	91	1730	3190	96	832
10	3010	1030	8780	6830	82	1500	3950	319	3600
11	4030	944	10100	6700	84	1510	7830	728	15700
12	5070	459	6250	6660	84	1500	12600	474	15900
13	4400	366	4360	6500	80	1400	14100	282	10800
14	3960	296	3170	6470	72	1260	13200	181	6450
15	3960	273	2920	6520	72	1270	12500	156	5250
16	4520	267	3260	6300	73	1230	13500	183	6690
17	5170	259	3610	6550	77	1360	17200	209	9680
18	4770	242	3130	6510	73	1280	22000	126	7420
19	4370	213	2520	6050	65	1060	25200	79	5360
20	3980	197	2120	5570	66	995	25900	58	4030
21	3830	186	1930	5290	64	916	25100	54	3690
22	3680	165	1650	5210	71	995	23700	69	4400
23	3780	176	1800	5270	68	974	21900	98	5770
24	4150	237	2690	5490	63	936	22000	95	5650
25	5550	461	7160	5180	59	827	20600	77	4320
26	8150	517	11200	4870	54	706	20200	70	3800
27	8590	304	7060	4740	51	650	21400	58	3360
28	9410	273	6930	4720	51	651	23100	53	3320
29	11500	239	7410	---	---	---	24600	46	3040
30	11300	174	5320	---	---	---	25200	44	2990
31	10500	146	4150	---	---	---	25100	40	2710
TOTAL	142580	---	114183	183660	---	43310	452970	---	139651

SAN JOAQUIN RIVER BASIN

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11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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	24700	45	2970	16800	78	3530	21900	49	2870
2	24200	43	2810	17200	74	3450	21400	52	2980
3	23700	51	3240	17700	72	3460	21100	62	3520
4	22900	45	2750	19000	70	3600	20800	70	3930
5	22300	40	2380	20800	61	3400	20300	65	3550
6	21800	41	2400	21700	55	3220	19800	66	3500
7	21500	44	2570	22200	56	3350	19100	75	3830
8	21400	49	2840	22400	50	2990	18200	74	3630
9	21400	45	2590	22300	50	3000	17600	76	3590
10	21200	51	2900	22600	50	3030	17100	81	3750
11	20700	56	3120	22900	48	2950	16400	88	3880
12	20400	53	2910	22900	50	3100	15600	94	3970
13	19800	49	2600	22800	56	3450	14800	106	4230
14	19300	54	2810	22900	58	3590	14200	121	4640
15	19000	63	3230	22900	54	3330	13600	123	4520
16	18700	54	2720	22800	45	2740	13300	126	4530
17	18800	60	3030	23000	54	3340	12800	121	4190
18	18600	55	2760	23200	49	3070	12300	125	4130
19	18400	58	2890	23200	52	3280	12000	137	4440
20	18200	64	3160	23100	45	2840	11700	138	4340
21	18000	61	2950	23400	47	2990	11500	132	4100
22	18200	60	2940	23400	50	3140	11100	149	4490
23	18600	67	3360	23500	52	3270	10700	138	3970
24	18700	60	3040	23500	51	3270	10000	143	3880
25	18800	63	3190	23500	43	2740	9110	142	3490
26	18600	65	3300	23200	42	2620	8060	161	3490
27	18400	62	3070	23100	44	2780	7070	182	3470
28	17800	62	3000	23200	48	3020	6450	196	3420
29	17100	75	3470	23200	50	3140	6290	184	3130
30	16800	80	3630	23000	46	2850	6060	184	3010
31	---	---	---	22400	43	2610	---	---	---
TOTAL	598000	---	88630	687800	---	97150	420340	---	114470
JULY			AUGUST			SEPTEMBER			
1	6130	181	3000	e6600	108	e1920	3690	88	879
2	6330	185	3160	e6700	106	e1920	3610	85	830
3	6730	197	3580	6130	105	1740	3650	83	817
4	7250	237	4650	6090	112	1840	3810	84	862
5	7860	235	4990	5940	114	1830	3690	84	836
6	8600	235	5470	5240	109	1540	3630	84	822
7	9400	233	5910	4530	102	1250	3560	81	777
8	9920	209	5590	4130	101	1130	3540	77	737
9	11200	190	5710	3780	107	1090	3590	79	766
10	12100	170	5560	3640	111	1090	3750	87	881
11	13300	162	5810	3610	104	1010	4000	90	968
12	14900	132	5280	3480	104	979	4150	91	1010
13	16200	115	5000	3900	114	1200	4080	87	957
14	17000	105	4820	3940	100	1070	4160	86	967
15	17600	86	4080	3490	100	944	4270	86	993
16	17200	70	3220	3540	106	1010	4280	80	927
17	16100	80	3490	3570	101	973	4600	85	1060
18	15000	108	4380	3360	92	834	4940	92	1230
19	12800	131	4510	3250	88	773	4960	93	1240
20	10200	157	4310	3120	94	789	5280	98	1390
21	8170	164	3610	3050	90	739	5360	93	1350
22	7400	166	3310	3000	95	768	5680	97	1490
23	7260	167	3270	3030	105	860	6140	105	1740
24	7090	143	2750	2980	98	790	6510	102	1800
25	6520	137	2400	2990	97	786	6770	90	1640
26	5860	127	2010	2970	92	740	6570	78	1380
27	e5500	131	e1940	2940	93	737	6290	77	1310
28	e5300	127	e1820	2980	89	719	5980	73	1180
29	e5200	125	e1760	2830	99	761	5790	63	984
30	e5900	110	e1750	3190	104	894	5700	59	910
31	e6300	102	e1750	3670	100	991	---	---	---
TOTAL	306320	---	118890	121670	---	33717	142030	---	32733
YEAR	3176596		799214						

e Estimated

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.--No estimated daily discharges. Discharge computed from records of operation of pumps. Water is diverted from Sacramento-San Joaquin Delta by way of Old River and a dredged channel to the Tracy Pumping Plant where it is lifted 200 ft into canal. Water, less intermediate diversions, flows into Mendota Pool on San Joaquin River to replace water diverted at Friant Dam. The canal is a part of the Central Valley Project.

COOPERATION.--Records were provided by U.S. Bureau of Reclamation; rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,940 ft³/s, Aug. 11, 1969; no flow for many days in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3770	1040	4180	4200	4260	4220	2840	3150	3590	4430	3620	4430
2	3760	1020	3120	4230	4260	4230	2710	2880	4100	4430	3680	4440
3	3780	1010	1480	4140	4230	4230	2820	2890	4350	4480	3660	4420
4	3790	1010	856	4190	4240	4230	2820	2870	4350	4480	4570	4430
5	3780	1010	854	4100	4230	4230	2860	2900	4360	4450	4520	4460
6	3280	1020	1940	4010	4240	4230	2890	2860	4380	4440	4530	4530
7	2830	1010	3180	3960	4250	1200	2890	2840	4400	4440	4520	4470
8	2810	1010	3940	3900	4260	4220	2880	2860	4280	4450	4160	4450
9	2800	1930	4140	4050	4260	4010	2880	2260	4350	4450	4520	4440
10	2830	2880	3980	3980	4250	1740	2900	2610	4350	4460	4560	4450
11	2830	2890	3730	4260	4260	.00	2890	2610	2460	4490	4530	4450
12	2830	3390	2760	4150	4150	.00	2860	2700	1660	4490	4510	4120
13	2850	3650	2680	4160	4120	.00	3380	2740	1750	4490	4410	4450
14	2840	3410	2670	4140	4270	.00	3640	2740	3660	4490	4510	4370
15	2840	3440	3730	4160	4250	.00	3660	2790	4370	4460	4520	4360
16	2830	3410	4190	4180	4240	533	3660	2880	4360	4470	4520	4360
17	2820	3100	4070	3970	4220	1390	3670	3380	4350	4430	4440	4370
18	2840	2730	4130	4220	4200	2470	3680	3630	4340	4510	4420	4380
19	2840	2750	4160	4220	4170	2830	3650	3620	4340	4470	4540	4380
20	2840	2740	4150	4200	4170	2840	3670	3640	4330	4570	4430	4000
21	2290	2750	4140	4210	4180	2850	3660	3630	4330	4550	4530	4470
22	2020	2720	4140	4210	4190	2840	3660	2780	4350	4540	4430	4400
23	2020	2740	4130	4250	4210	1980	3660	2040	4350	4510	4430	4410
24	1400	2760	4120	4240	4200	892	3670	2720	4340	4490	4430	4400
25	1030	2770	4130	4160	4200	895	3690	3010	4330	4510	4430	4410
26	1040	2760	4110	4130	4200	897	3680	3060	4340	4530	4390	4410
27	1030	2750	4190	4120	4200	2190	3690	3040	4480	4540	4430	4340
28	1050	3300	4130	4130	4190	2860	3630	3040	4450	3810	4450	4320
29	1030	3630	4120	4130	---	2860	3590	3500	4460	4510	4420	4340
30	1080	4020	4180	4150	---	2850	3580	3520	4450	4490	4420	4330
31	1040	---	4220	4220	---	2820	---	3340	---	4510	4420	---
TOTAL	76820	74650	109550	128370	118100	70537.00	99760	92530	122010	138370	135950	131590
MEAN	2478	2488	3534	4141	4218	2275	3325	2985	4067	4464	4385	4386
MAX	3790	4020	4220	4260	4270	4230	3690	3640	4480	4570	4570	4530
MIN	1030	1010	854	3900	4120	.00	2710	2040	1660	3810	3620	4000
AC-FT	152400	148100	217300	254600	234300	139900	197900	183500	242000	274500	269700	261000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1995, BY WATER YEAR (WY)

	MEAN	2251	1648	1447	1785	2311	2596	2726	2627	2871	3635	3615	2784
	MAX	4317	4239	4162	4182	4584	4563	4400	4540	4591	4740	4703	4591
	(WY)	1994	1994	1989	1989	1976	1976	1976	1976	1973	1989	1989	1988
	MIN	368	.000	.000	.000	.000	.000	99.6	58.3	113	354	976	539
	(WY)	1952	1973	1953	1952	1952	1952	1952	1952	1951	1977	1952	1952

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1951 - 1995

ANNUAL TOTAL	891266	1298237.00	
ANNUAL MEAN	2442	3557	2546
HIGHEST ANNUAL MEAN			4144
LOWEST ANNUAL MEAN			230
HIGHEST DAILY MEAN	4630	Sep 6	4940
LOWEST DAILY MEAN	359	Mar 31	.00
ANNUAL SEVEN-DAY MINIMUM	714	Jun 4	.00
ANNUAL RUNOFF (AC-FT)	1768000	2575000	1844000
10 PERCENT EXCEEDS	4160	4470	4410
50 PERCENT EXCEEDS	2120	4120	2780
90 PERCENT EXCEEDS	920	2000	104

EXPLANATION

△ 3166 Gaging station and abbreviated number (Complete number as given in the station description of report is 11316600)

□ Powerplant

← Stream, open flume, or canal showing direction of flow

--- Penstock, tunnel, closed flume or pipe showing direction of flow

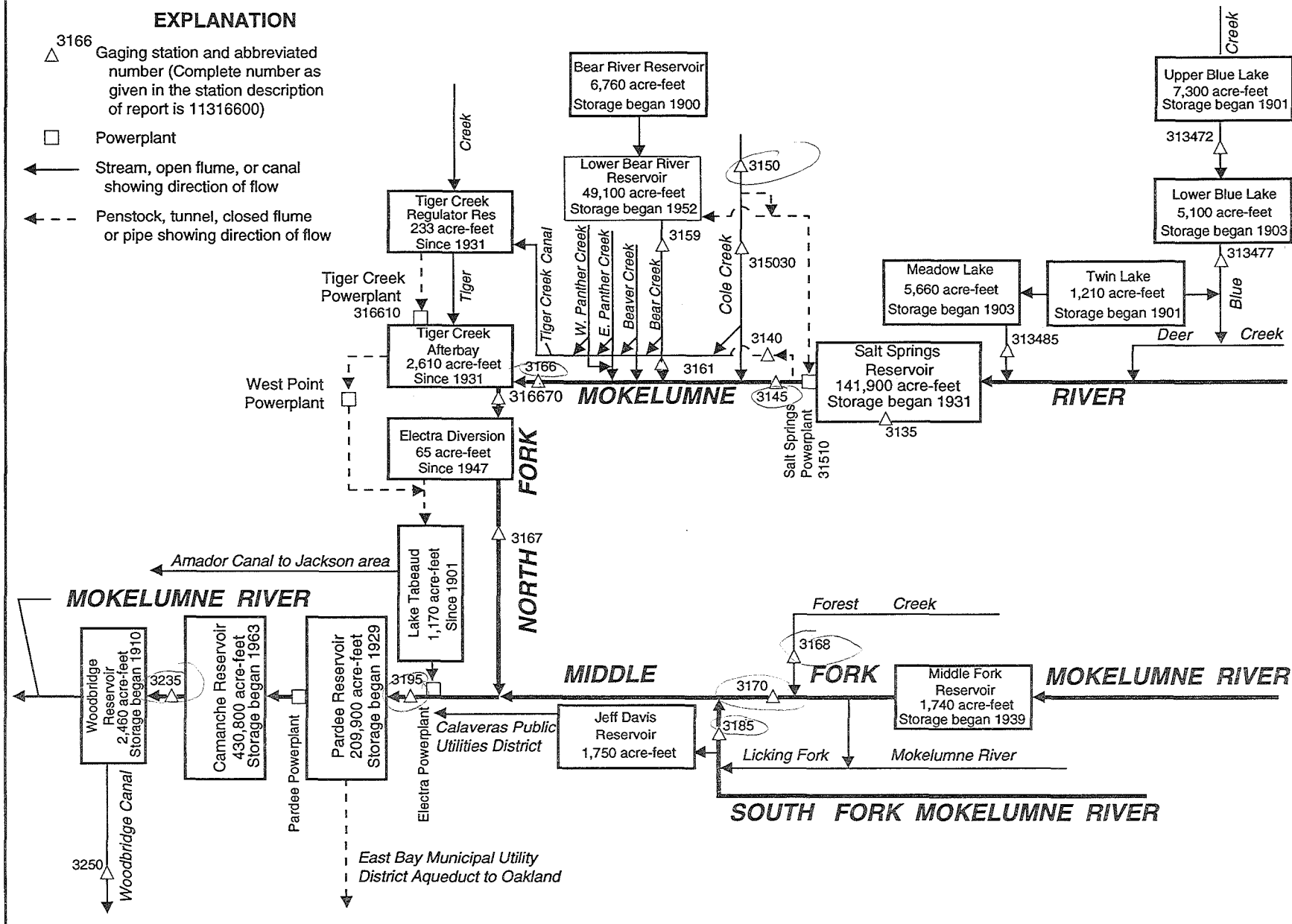


Figure 31. Diversions and storage in Mokelumne River basin.

SAN JOAQUIN 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 mi².

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. 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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.7	1.7	---	---	---	---	---	---	13	37	24
2	2.9	5.7	1.5	---	---	---	---	---	---	14	32	24
3	2.9	7.0	1.6	---	---	---	---	---	---	e30	38	24
4	3.0	6.3	1.6	---	---	---	---	---	---	e75	35	24
5	3.1	8.1	1.7	---	---	---	---	---	---	e80	25	28
6	2.9	11	1.7	---	---	---	---	---	---	e78	23	32
7	2.9	11	1.7	---	---	---	---	---	---	e75	24	32
8	2.9	9.7	1.7	---	---	---	---	---	---	e75	23	32
9	3.1	8.8	1.7	---	---	---	---	---	7.9	e74	22	31
10	3.4	9.5	1.7	---	---	---	---	---	8.7	e72	21	31
11	3.4	8.5	1.7	---	---	---	---	---	9.7	e70	19	31
12	3.4	7.8	1.7	---	---	---	---	---	10	66	18	31
13	3.3	7.1	1.7	---	---	---	---	---	10	59	17	31
14	3.3	6.5	1.7	---	---	---	---	---	9.9	56	17	31
15	3.2	6.1	---	---	---	---	---	---	9.3	56	16	31
16	3.2	6.3	---	---	---	---	---	---	8.8	58	15	31
17	3.2	6.0	---	---	---	---	---	---	8.9	58	15	32
18	3.1	6.0	---	---	---	---	---	---	9.7	34	14	31
19	3.1	5.7	---	---	---	---	---	---	10	16	13	31
20	3.0	5.3	---	---	---	---	---	---	10	20	13	31
21	7.7	5.2	---	---	---	---	---	---	10	28	13	35
22	4.7	5.5	---	---	---	---	---	---	11	36	13	40
23	2.8	3.3	---	---	---	---	---	---	11	42	18	40
24	2.8	1.1	---	---	---	---	---	---	11	42	25	40
25	2.8	1.8	---	---	---	---	---	---	12	43	25	40
26	2.8	1.9	---	---	---	---	---	---	12	43	24	40
27	2.8	1.9	---	---	---	---	---	---	12	41	24	40
28	2.8	1.9	---	---	---	---	---	---	12	43	24	39
29	2.8	1.9	---	---	---	---	---	---	12	45	24	39
30	2.8	1.9	---	---	---	---	---	---	12	45	24	39
31	2.8	---	---	---	---	---	---	---	---	41	24	---
TOTAL	99.9	171.5	---	---	---	---	---	---	---	1528	675	985
MEAN	3.22	5.72	---	---	---	---	---	---	---	49.3	21.8	32.8
MAX	7.7	11	---	---	---	---	---	---	---	80	38	40
MIN	2.8	1.1	---	---	---	---	---	---	---	13	13	24
AC-FT	198	340	---	---	---	---	---	---	---	3030	1340	1950

e Estimated.

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 mi².

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.--No estimated daily discharges. Records not computed for winter months. 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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.8	5.1	---	---	---	---	---	---	49	52	45
2	2.7	20	4.8	---	---	---	---	---	---	49	41	45
3	2.7	34	4.3	---	---	---	---	---	---	50	53	45
4	2.8	30	4.3	---	---	---	---	---	---	51	43	45
5	2.8	27	4.3	---	---	---	---	---	---	52	31	48
6	2.7	25	4.4	---	---	---	---	---	---	54	23	49
7	2.8	22	4.4	---	---	---	---	---	---	55	21	49
8	2.7	20	4.4	---	---	---	---	---	---	56	21	49
9	2.7	17	4.4	---	---	---	---	---	37	57	22	49
10	2.7	16	4.4	---	---	---	---	---	37	58	22	48
11	2.7	14	4.4	---	---	---	---	---	39	33	21	48
12	2.8	12	4.4	---	---	---	---	---	40	18	20	48
13	2.8	10	4.4	---	---	---	---	---	41	35	19	48
14	2.8	8.5	4.4	---	---	---	---	---	42	81	19	48
15	2.7	7.4	---	---	---	---	---	---	42	93	18	48
16	2.7	7.5	---	---	---	---	---	---	42	97	18	49
17	2.7	7.3	---	---	---	---	---	---	42	98	18	50
18	2.7	7.3	---	---	---	---	---	---	42	81	18	50
19	2.8	7.3	---	---	---	---	---	---	42	52	18	50
20	2.8	7.3	---	---	---	---	---	---	42	31	18	49
21	2.8	7.3	---	---	---	---	---	---	43	19	18	49
22	2.8	7.3	---	---	---	---	---	---	43	18	18	49
23	2.8	7.3	---	---	---	---	---	---	43	18	32	49
24	2.8	6.3	---	---	---	---	---	---	44	18	48	48
25	2.8	5.1	---	---	---	---	---	---	45	24	47	48
26	2.8	5.1	---	---	---	---	---	---	45	51	47	49
27	2.8	5.1	---	---	---	---	---	---	46	57	47	50
28	2.8	5.1	---	---	---	---	---	---	47	59	47	51
29	2.8	5.1	---	---	---	---	---	---	48	61	47	51
30	2.8	5.1	---	---	---	---	---	---	49	60	46	51
31	2.8	---	---	---	---	---	---	---	---	56	46	---
TOTAL	85.6	361.2	---	---	---	---	---	---	---	1591	959	1455
MEAN	2.76	12.0	---	---	---	---	---	---	---	51.3	30.9	48.5
MAX	2.8	34	---	---	---	---	---	---	---	98	53	51
MIN	2.7	2.8	---	---	---	---	---	---	---	18	18	45
AC-FT	170	716	---	---	---	---	---	---	---	3160	1900	2890

SAN JOAQUIN RIVER BASIN

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 mi².

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 40 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	e31	31	---	---	---	---	---	---	---	---	---
2	8.9	---	25	---	---	---	---	---	---	---	---	---
3	9.1	---	25	---	---	---	---	---	---	---	---	---
4	9.6	---	25	---	---	---	---	---	---	---	---	---
5	9.8	---	25	---	---	---	---	---	---	---	---	---
6	e10	---	24	---	---	---	---	---	---	---	---	---
7	e10	e40	23	---	---	---	---	---	---	---	---	---
8	e10	e37	22	---	---	---	---	---	---	---	---	---
9	e11	e35	22	---	---	---	---	---	---	---	---	---
10	e11	e32	20	---	---	---	---	28	---	---	---	---
11	e11	e30	21	---	---	---	---	29	---	---	37	---
12	e11	e27	25	---	---	---	---	29	---	---	33	---
13	e11	e25	25	---	---	---	---	29	---	---	30	---
14	e11	e22	---	---	---	---	---	29	---	---	27	---
15	e11	e20	---	---	---	---	---	28	---	---	26	---
16	e11	e17	---	---	---	---	---	28	---	---	25	---
17	e11	e15	---	---	---	---	---	28	---	---	26	---
18	e11	e12	---	---	---	---	---	28	---	---	23	---
19	e11	e10	---	---	---	---	---	29	---	---	22	---
20	e11	e10	---	---	---	---	---	31	---	---	21	---
21	e11	e10	---	---	---	---	---	33	---	25	21	---
22	e10	e10	---	---	---	---	---	34	---	25	21	---
23	e10	e10	---	---	---	---	---	34	---	29	34	---
24	e10	e10	---	---	---	---	---	36	---	---	---	---
25	e10	19	---	---	---	---	---	38	---	---	---	---
26	e10	11	---	---	---	---	---	---	---	---	---	---
27	e10	12	---	---	---	---	---	---	---	---	---	---
28	e10	13	---	---	---	---	---	---	---	---	---	---
29	e10	---	---	---	---	---	---	---	---	---	---	---
30	e11	---	---	---	---	---	---	---	---	---	---	---
31	e10	---	---	---	---	---	---	---	---	---	---	---
TOTAL	320.5	---	---	---	---	---	---	---	---	---	---	---
MEAN	10.3	---	---	---	---	---	---	---	---	---	---	---
MAX	11	---	---	---	---	---	---	---	---	---	---	---
MIN	8.9	---	---	---	---	---	---	---	---	---	---	---
AC-FT	636	---	---	---	---	---	---	---	---	---	---	---

e Estimated.

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 mi².

PERIOD OF RECORD.--March 1931 to current year. Prior to October 1964, records published as usable contents.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--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.--Recorder malfunctioned July 28 to Sept. 18. Daily readings were used during this period. 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 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, 142,091 acre-ft, July 3, 1993, elevation, 3,958.24 ft; no contents at times in 1932-33, 1945, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 141,857 acre-ft, July 29, 30, elevation, 3,958.00 ft; minimum, 9,966 acre-ft, Jan. 6, elevation, 3,750.62 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 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47117	28214	28434	13736	30801	31007	62864	95046	133430	134960	e141381	e125507
2	46507	27813	28709	12931	31260	31133	62898	105753	133589	134305	e141381	e124732
3	45855	27433	29113	12085	32012	31780	62994	109465	133589	134847	e141476	e123956
4	45390	27190	29547	11265	32291	31951	63124	112265	133645	134866	e141476	e123179
5	44864	27560	29831	10498	32529	31976	63247	113920	133551	134951	e141286	e122505
6	44260	28333	30127	9966	32742	31905	63451	115165	132347	135404	e141094	e121831
7	43742	28384	30361	10306	32841	31774	65196	116227	132565	135215	e140711	e121514
8	43106	28086	30389	10306	32836	31629	66266	117190	132593	134324	e140229	e121197
9	42580	27813	29859	10367	32727	36548	66704	118553	133458	134913	e140035	e120034
10	41989	27483	29386	10345	32565	43703	66963	119879	134277	134866	e140325	e119051
11	41406	27294	28819	17766	32418	46764	67316	121566	134448	134809	e139844	e118247
12	40803	27249	28324	18800	32234	48369	67998	121749	133224	135234	e139275	e117163
13	40225	27204	27831	20248	32072	49649	69146	123722	133998	135732	e138703	e116079
14	39659	27235	27298	22154	31879	50907	69756	125707	132923	135460	e137842	e114995
15	39048	27217	26752	24147	31594	52367	70086	126209	133337	135825	e136992	e113912
16	38493	27136	26039	26268	31317	53605	70259	126554	133701	135872	e135947	e112862
17	37912	27101	25146	28476	30960	54299	70294	127879	133046	135413	e135008	e111812
18	37297	26971	24215	29119	30676	55707	70273	129168	133046	133224	e134156	e110760
19	36705	26877	23443	29517	30324	57090	70151	131236	132791	135807	e132942	108896
20	36106	26828	22949	29642	30059	e57655	70065	132574	132857	137172	e132191	107866
21	35457	26832	22451	29560	30064	59573	69835	132650	133523	137692	e131171	106738
22	34864	26913	21991	29517	30064	60281	69692	132631	133551	138578	e130422	105664
23	34265	27020	21245	29381	30085	60736	69670	131637	133961	138597	e129687	104597
24	33623	27199	20415	29681	30295	60956	70115	132034	134894	138980	e129224	103521
25	32989	27393	19552	29862	30511	61062	71233	132631	135863	139872	e128757	102437
26	32301	27537	18688	29918	30737	61082	72576	132191	135422	139929	e129224	101417
27	31638	27714	17828	30027	30860	61042	74546	132256	135375	140903	e128209	100337
28	30913	27868	16976	30132	30955	60896	77256	132422	135366	e141286	e128209	100376
29	30261	28013	16165	30281	---	62282	81697	133421	134979	e141857	e127659	100360
30	29573	28214	15353	30421	---	62322	85324	134035	134979	e141857	e126463	100414
31	28783	---	14509	30597	---	62665	---	132970	---	e141286	e126282	---
MAX	47117	28384	30389	30597	32841	62665	85324	134035	135863	141857	141476	125507
MIN	28783	26828	14509	9966	30059	31007	62864	95046	132347	133224	126282	100337
a	3801.67	3800.43	3765.66	3805.50	3806.29	3861.95	3893.04	3948.63	3950.77			3911.82
b	-18922	-569	-13705	+16088	+358	+31710	+22659	+47646	+2009	+6307	-15004	-25868

CAL YR 1994 MAX 113912 MIN 6293 b -7120

WTR YR 1995 MAX 141857 MIN 9966 b +52709

e Estimated.

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

SAN JOAQUIN RIVER BASIN

11314000 TIGER CREEK POWERPLANT CONDUIT BELOW SALT SPRINGS DAM, CA

LOCATION.--Lat 38°29'45", long 120°13'11", in SE 1/4 SW 1/4 sec.33, T.8 N., R.16 E., Amador County, Hydrologic Unit 18040012, Eldorado National Forest, on left bank 1,000 ft downstream from Salt Springs Dam and Powerplant and 18 mi northeast of West Point.

PERIOD OF RECORD.--June 1931 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,700 ft above sea level, from topographic map. Auxiliary nonrecording gages in stilling wells upstream and downstream from control.

REMARKS.--No estimated daily discharges. Conduit conveys water of North Fork Mokelumne River from tailrace of Salt Springs Powerplant to forebay of Tiger Creek Powerplant (station 11316610). Since December 1952, flow includes Bear River and Cole Creek Diversion to Salt Springs No. 2 Powerplant (station 11313510). 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 daily discharge, 577 ft³/s, June 22, 1945; no flow at times in many years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	515	247	47	490	549	528	531	81	356	430	552	456
2	515	247	47	492	534	529	531	7.1	344	423	546	434
3	512	247	47	497	540	491	529	94	344	421	544	425
4	518	181	49	496	547	489	528	377	349	418	536	423
5	517	108	28	440	546	499	527	408	20	411	514	390
6	519	110	.14	405	547	513	525	408	9.9	406	504	7.5
7	518	241	.00	407	548	528	475	409	4.5	408	486	177
8	515	304	64	375	549	520	481	468	1.3	403	464	542
9	515	416	465	360	548	448	503	505	133	404	14	551
10	515	506	547	146	548	324	497	505	482	19	191	547
11	504	293	547	176	548	325	493	506	527	12	550	548
12	502	123	547	176	548	325	494	491	525	13	557	547
13	502	122	547	128	518	325	441	402	521	154	557	546
14	500	62	548	96	533	325	407	418	522	478	554	546
15	499	97	546	96	550	372	409	423	486	538	554	546
16	498	96	546	239	550	464	405	423	429	535	556	553
17	528	96	543	284	549	517	404	481	430	533	550	552
18	511	96	544	298	548	411	399	512	431	532	552	516
19	510	96	545	529	548	305	417	513	483	532	548	504
20	509	96	545	515	547	306	437	510	518	545	549	518
21	516	61	546	498	541	306	434	500	524	547	549	486
22	512	.00	546	498	542	306	432	483	515	552	550	468
23	512	17	546	499	538	214	429	476	509	554	548	457
24	525	57	546	501	538	28	430	457	485	544	542	445
25	540	58	534	501	538	2.6	417	438	459	553	538	437
26	545	51	531	521	538	146	400	333	446	552	508	431
27	540	48	531	503	538	437	369	385	433	549	467	421
28	541	47	512	503	526	525	288	378	415	549	502	415
29	544	47	501	526	---	520	289	370	426	550	490	9.5
30	545	47	497	542	---	526	286	366	423	549	475	8.1
31	507	---	491	547	---	530	---	360	---	549	467	---
TOTAL	16049	4217.00	12533.14	12284	15194	12084.6	13207	12487.1	11550.7	13663	15514	12906.1
MEAN	518	141	404	396	543	390	440	403	385	441	500	430
MAX	545	506	548	547	550	530	531	513	527	554	557	553
MIN	498	.00	.00	96	518	2.6	286	7.1	1.3	12	14	7.5
AC-FT	31830	8360	24860	24370	30140	23970	26200	24770	22910	27100	30770	25600
a	13070	2070	5280	9490	11650	13020	12770	12680	12930	13200	8810	10830

a Inflow, in acre-feet, through Salt Springs No. 2 Powerplant, provided by Pacific Gas & Electric Co.

SAN JOAQUIN RIVER BASIN

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11314000 TIGER CREEK POWERPLANT CONDUIT BELOW SALT SPRINGS DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1952, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	421	324	260	210	116	118	77.4	72.8	222	408	437	437
MAX	518	470	445	373	339	360	309	404	459	517	514	502
(WY)	1949	1944	1939	1951	1951	1951	1944	1940	1940	1940	1945	1944
MIN	167	118	95.9	10.3	.000	.000	.000	.000	3.03	273	267	283
(WY)	1932	1932	1932	1946	1932	1952	1952	1938	1942	1939	1932	1931

SUMMARY STATISTICS

WATER YEARS 1931 - 1952

ANNUAL MEAN	260
HIGHEST ANNUAL MEAN	353
LOWEST ANNUAL MEAN	154
HIGHEST DAILY MEAN	577
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
ANNUAL RUNOFF (AC-FT)	188700
10 PERCENT EXCEEDS	508
50 PERCENT EXCEEDS	286
90 PERCENT EXCEEDS	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	466	443	434	379	335	329	321	287	467	488	494	485
MAX	552	550	551	545	550	546	542	544	562	559	551	555
(WY)	1965	1963	1981	1984	1965	1980	1970	1986	1986	1980	1984	1964
MIN	4.29	12.2	124	25.1	56.9	25.4	36.9	118	254	257	273	268
(WY)	1978	1978	1977	1991	1977	1957	1959	1963	1976	1976	1976	1976

SUMMARY STATISTICS

FOR 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1954 - 1995

ANNUAL TOTAL	108745.85	151689.64	
ANNUAL MEAN	298	416	411
HIGHEST ANNUAL MEAN			517
LOWEST ANNUAL MEAN			191
HIGHEST DAILY MEAN	558	Sep 12	572
LOWEST DAILY MEAN	.00	May 10	.00
ANNUAL SEVEN-DAY MINIMUM	.42	May 9	.00
ANNUAL RUNOFF (AC-FT)	215700	300900	297700
ANNUAL INFLOW (AC-FT) a	58010	125800	
10 PERCENT EXCEEDS	545	548	550
50 PERCENT EXCEEDS	302	496	501
90 PERCENT EXCEEDS	47	96	101

a Inflow, in acre-feet, through Salt Springs No. 2 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 mi².

PERIOD OF RECORD.--September 1926 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Published as "above Moore Creek" 1926-30.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. 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.--No estimated daily discharges. 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, 16,000 ft³/s, Nov. 21, 1950, gage height, 17.20 ft, from rating curve extended above 3,900 ft³/s on basis of computations of flow over dam and discharge through powerplant; minimum daily, 0.3 ft³/s, Mar. 17, 23, 31, and Apr. 1, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,680 ft³/s, June 5, gage height, 11.39 ft; minimum daily, 20 ft³/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	22	21	21	20	102	216	143	4110	3600	348	207
2	21	20	22	21	20	89	217	361	4120	3420	342	314
3	21	21	22	21	20	124	220	891	3710	3320	343	421
4	22	22	21	21	20	125	223	487	4000	3210	361	430
5	21	21	26	22	20	117	227	471	4460	3190	363	407
6	21	21	26	22	20	104	232	472	3210	3610	371	55
7	21	21	21	23	35	91	286	472	2320	3790	370	129
8	21	20	22	24	75	97	282	399	1880	3640	364	324
9	21	21	21	28	82	186	265	370	1730	3450	231	303
10	21	22	21	40	81	358	272	372	2090	3600	121	267
11	21	21	21	27	81	380	279	374	3160	3000	34	271
12	21	20	21	23	79	377	282	393	3790	2270	34	299
13	21	20	20	25	97	377	346	495	3580	1910	34	314
14	21	22	21	30	80	380	375	479	3450	1640	280	292
15	21	20	22	27	72	336	375	474	2670	1670	279	276
16	21	21	21	22	75	251	375	473	1980	1790	193	281
17	21	22	20	22	74	204	377	413	1630	2310	253	291
18	20	21	21	22	72	326	379	373	1830	881	290	235
19	20	20	21	21	123	428	351	394	2320	390	274	365
20	20	20	22	20	133	434	334	1260	2300	634	265	334
21	20	23	21	20	102	439	336	2440	2120	836	267	372
22	20	22	20	21	112	443	336	2540	2480	840	267	385
23	20	23	20	20	129	543	337	2190	3020	628	115	402
24	20	21	21	21	80	741	339	2250	3800	473	34	420
25	21	21	20	21	69	763	356	1800	4170	374	34	416
26	21	21	22	20	71	600	372	2020	4200	379	34	408
27	21	20	23	21	72	305	422	2570	4090	400	84	418
28	21	21	24	23	95	226	518	2580	4250	795	173	422
29	20	21	22	22	---	225	531	2960	3840	1160	138	92
30	21	21	21	21	---	218	550	3280	3630	815	195	89
31	22	---	21	21	---	215	---	3620	---	469	201	---
TOTAL	644	632	668	713	2009	9604	10010	37816	93940	58494	6692	9239
MEAN	20.8	21.1	21.5	23.0	71.7	310	334	1220	3131	1887	216	308
MAX	22	23	26	40	133	763	550	3620	4460	3790	371	430
MIN	20	20	20	20	20	89	216	143	1630	374	34	55
AC-FT	1280	1250	1320	1410	3980	19050	19850	75010	186300	116000	13270	18330

SAN JOAQUIN RIVER BASIN

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11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	37.1	53.3	81.4	73.9	102	122	239	735	914	180	61.5	49.1
MAX	284	802	1390	537	710	969	1502	2473	3267	1887	406	330
(WY)	1966	1951	1951	1956	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 1994 CALENDAR YEAR		FOR 1995 WATER YEAR		WATER YEARS 1927 - 1995	
ANNUAL TOTAL	8079		230461			
ANNUAL MEAN	22.1		631		221	
HIGHEST ANNUAL MEAN					710	
LOWEST ANNUAL MEAN					4.27	
HIGHEST DAILY MEAN					8860	
LOWEST DAILY MEAN	34	Jan 15	4460	Jun 5	Dec 8 1950	
ANNUAL SEVEN-DAY MINIMUM	20	Jul 3	20	Oct 1	.30 Mar 17 1931	
INSTANTANEOUS PEAK FLOW	20	Oct 18	20	Oct 18	.39 Mar 19 1931	
INSTANTANEOUS PEAK STAGE			5680	Jun 5	16000 Nov 21 1950	
ANNUAL RUNOFF (AC-FT)	16020		11.39	Jun 5	17.20 Nov 21 1950	
10 PERCENT EXCEEDS	24		457100		159700	
50 PERCENT EXCEEDS	22		2500		589	
90 PERCENT EXCEEDS	21		216		18	
			21		4.3	

SAN JOAQUIN RIVER BASIN

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 mi².

PERIOD OF RECORD.--July 1927 to November 1942, October 1943 to current year. Prior to October 1958, published as Cold Creek near Mokelumne Peak. October 1958 to September 1960, published as "near Mokelumne Peak."

REVISED RECORDS.--WSP 1515: 1928, 1930-31, 1938(M), 1944, 1947. WSP 1930: Drainage area.

GAGE.--Water-stage recorder 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 ft³/s, Dec. 23, 1964, gage height, 10.21 ft, site and datum then in use, from rating curve extended above 900 ft³/s on basis of slope-area measurement at gage height 9.69 ft, site and datum then in use; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft³/s, May 1, gage height, 4.96 ft; minimum daily, 0.15 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.38	24	19	108	70	97	1650	673	408	40	e1.0
2	.17	.77	28	22	102	64	97	677	602	391	35	e.90
3	.15	.51	27	19	81	67	104	357	579	374	31	e.90
4	.79	.42	22	19	74	57	152	315	648	343	28	e.80
5	1.2	48	19	19	72	53	175	230	521	377	26	e.80
6	.62	138	18	19	71	47	173	179	342	407	24	e.70
7	.39	36	17	22	62	47	195	156	229	375	22	e.70
8	.28	23	16	28	61	46	165	157	202	335	19	e.60
9	.23	17	17	33	52	463	116	184	250	335	16	e.60
10	.23	13	18	276	50	520	101	216	421	283	14	e.50
11	.23	14	17	104	49	255	125	271	553	246	12	e.50
12	.23	13	16	70	49	146	160	216	566	201	10	e.40
13	.23	14	16	180	46	122	184	167	525	164	8.9	e.40
14	.23	13	14	302	44	144	131	137	430	171	7.6	e.30
15	.25	10	13	123	46	186	108	120	314	180	6.6	e.30
16	.28	9.3	13	72	38	183	93	129	217	172	6.1	e.30
17	.28	7.6	17	68	35	146	80	176	201	164	5.7	e.30
18	.28	8.1	22	47	35	208	73	229	288	147	4.8	e.30
19	.28	18	19	46	45	230	65	352	348	139	4.4	e.30
20	.28	15	18	39	64	177	65	433	329	132	3.5	e.30
21	.30	13	22	36	84	145	64	441	339	124	e3.2	e.30
22	.31	12	23	34	85	109	63	403	420	99	e3.1	e.30
23	.31	12	22	33	88	101	93	403	512	79	e3.0	e.30
24	.31	13	21	32	94	91	165	363	583	71	e2.9	e.30
25	.31	13	20	30	96	85	222	289	591	67	e2.8	e.30
26	.31	13	18	29	93	72	230	379	514	61	e2.7	e.30
27	.31	14	18	28	82	67	272	443	533	56	e2.1	e.30
28	.31	13	18	28	75	65	414	472	514	56	e1.7	e.30
29	.31	13	20	31	---	65	708	552	486	58	e1.5	e.30
30	.31	16	25	36	---	65	846	598	440	56	e1.2	e.30
31	.31	---	22	64	---	76	---	664	---	47	e1.1	---
TOTAL	10.24	531.08	600	1908	1881	4172	5536	11358	13170	6118	349.9	13.90
MEAN	.33	17.7	19.4	61.5	67.2	135	185	366	439	197	11.3	.46
MAX	1.2	138	28	302	108	520	846	1650	673	408	40	1.0
MIN	.15	.38	13	19	35	46	63	120	201	47	1.1	.30
AC-FT	20	1050	1190	3780	3730	8280	10980	22530	26120	12140	694	28

e Estimated.

SAN JOAQUIN RIVER BASIN

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11315000 COLE CREEK NEAR SALT SPRINGS DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.40	22.2	37.1	34.9	40.7	63.5	143	252	149	20.8	1.44	.95
MAX	88.3	368	361	239	228	212	242	509	564	263	25.2	15.6
(WY)	1983	1951	1965	1980	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 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1928 - 1995
ANNUAL TOTAL	10871.67	45648.12	
ANNUAL MEAN	29.8	125	64.2
HIGHEST ANNUAL MEAN			131
LOWEST ANNUAL MEAN			16.6
HIGHEST DAILY MEAN	227 May 11	1650 May 1	3760 Dec 23 1964
LOWEST DAILY MEAN	.06 Sep 27	.15 Oct 3	.00 Aug 1 1931
ANNUAL SEVEN-DAY MINIMUM	.07 Sep 6	.23 Oct 9	.00 Aug 1 1931
INSTANTANEOUS PEAK FLOW		1930 May 1	6140 Dec 23 1964
INSTANTANEOUS PEAK STAGE		4.96 May 1	10.21 Dec 23 1964
ANNUAL RUNOFF (AC-FT)	21560	90540	46540
10 PERCENT EXCEEDS	92	403	200
50 PERCENT EXCEEDS	9.0	47	15
90 PERCENT EXCEEDS	.10	.31	.17

SAN JOAQUIN RIVER BASIN

11315030 COLE CREEK BELOW DIVISION 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 mi².

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 estimated daily discharges. No records computed above 3.9 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

[illegible]

SAN JOAQUIN RIVER BASIN

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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 mi².

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 estimated daily discharges. No records computed above 5.9 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.9	2.8	2.6	3.9	3.5	3.8	---	---	---	---	---
2	2.6	3.0	3.0	2.6	3.6	3.5	3.8	---	---	---	---	5.5
3	2.5	2.9	3.3	2.6	3.5	3.8	3.8	---	---	---	---	5.5
4	2.4	2.9	3.5	2.7	3.5	3.8	3.7	---	---	---	---	5.5
5	2.4	5.1	3.4	2.7	3.3	3.8	3.7	---	---	---	---	---
6	2.6	4.3	3.1	2.7	3.3	3.7	3.7	---	---	---	---	---
7	2.7	3.5	2.9	3.3	3.4	3.3	5.4	---	---	---	---	---
8	2.7	3.2	2.9	3.1	3.3	3.3	4.3	---	---	---	---	5.2
9	2.7	2.8	2.9	3.8	3.3	3.7	3.8	---	---	---	---	5.2
10	2.7	2.9	2.8	4.0	3.2	---	3.6	---	---	---	---	5.2
11	2.7	2.9	2.7	4.1	3.2	---	3.6	---	---	---	---	5.2
12	2.7	2.9	2.8	4.6	3.2	4.5	3.6	---	---	---	---	5.2
13	2.7	2.9	2.7	5.5	3.1	5.1	3.6	---	---	---	---	5.2
14	2.7	2.8	2.7	---	3.2	5.4	3.6	---	---	---	---	5.2
15	2.7	2.7	2.7	---	3.2	5.3	3.6	---	---	---	---	5.2
16	2.7	2.7	2.7	4.3	3.1	4.6	3.6	---	---	---	---	5.2
17	2.7	2.8	2.7	3.3	3.1	4.2	3.6	---	---	---	---	5.1
18	2.7	2.8	2.7	3.2	3.2	4.8	3.6	---	---	---	---	5.2
19	2.7	2.7	2.7	3.2	3.2	4.4	3.9	---	---	---	---	5.1
20	2.7	2.7	2.7	3.1	3.3	4.5	4.4	---	---	---	---	5.1
21	2.7	2.7	2.7	3.1	3.3	4.6	4.5	---	---	---	---	5.0
22	2.6	2.7	2.7	3.1	3.3	4.6	4.5	---	---	---	---	5.0
23	2.6	2.7	2.7	3.2	3.3	4.6	4.6	---	---	---	5.6	5.0
24	2.6	2.7	2.6	3.3	3.3	4.6	4.6	---	---	---	5.6	5.0
25	2.6	2.8	2.6	3.2	3.4	4.5	4.6	---	---	---	5.6	5.0
26	2.6	2.8	2.6	3.1	3.3	3.5	4.5	---	---	---	5.6	5.0
27	2.6	2.8	2.6	3.0	3.3	3.5	---	---	---	---	5.6	5.0
28	2.6	2.8	2.7	3.1	3.3	3.5	---	---	---	---	5.6	---
29	2.6	2.8	2.7	3.2	---	3.5	---	---	---	---	5.6	---
30	2.6	2.8	2.6	3.6	---	3.6	---	---	---	---	5.6	---
31	2.6	---	2.6	4.2	---	3.7	---	---	---	---	---	---
TOTAL	81.6	89.0	86.8	---	92.6	---	---	---	---	---	---	---
MEAN	2.63	2.97	2.80	---	3.31	---	---	---	---	---	---	---
MAX	2.7	5.1	3.5	---	3.9	---	---	---	---	---	---	---
MIN	2.4	2.7	2.6	---	3.1	---	---	---	---	---	---	---
AC-FT	162	177	172	---	184	---	---	---	---	---	---	---

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 mi².

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 estimated daily discharges. No records computed above 10 ft³/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). 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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

[illegible]

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 mi².

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. 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, 12,900 ft³/s, Feb. 19, 1986, gage height, 8.98 ft, from rating curve extended above 7,700 ft³/s; minimum daily, 30 ft³/s, Aug. 6, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,880 ft³/s, June 5, gage height, 7.65 ft; minimum daily, 35 ft³/s, Oct. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	46	56	64	475	349	842	3080	6010	4470	587	229
2	35	56	58	61	438	349	843	2050	5860	4200	524	261
3	36	44	82	61	410	756	851	1810	5300	4020	469	430
4	43	43	122	67	396	655	944	1280	5530	3870	431	444
5	68	93	109	116	385	545	1020	1120	6260	3770	408	445
6	46	166	102	99	375	481	1030	972	4490	4220	391	188
7	42	76	81	234	362	415	1320	877	3310	4470	380	99
8	40	60	63	200	395	393	1430	1100	2720	4290	370	311
9	40	55	53	351	388	1240	1190	1320	2550	3970	361	326
10	39	76	46	1220	367	3250	1080	1310	2890	4140	326	291
11	39	68	44	742	350	3170	1070	1360	4120	3570	278	273
12	39	53	51	400	336	2100	1100	1290	4950	2720	208	303
13	40	55	49	909	338	1730	1250	1360	4930	2170	162	330
14	40	53	55	1540	363	1680	1160	1300	4850	1850	134	307
15	40	54	61	1110	287	1570	1090	1240	3880	1820	132	288
16	39	57	60	666	284	1410	1030	1220	2970	1780	154	281
17	39	65	48	497	268	1190	e960	1220	2380	2120	158	298
18	39	65	43	410	260	1270	e940	1240	2450	2290	162	246
19	39	58	43	354	286	1480	e880	1400	2930	1220	174	356
20	39	58	40	309	351	1460	e750	2080	3050	623	179	345
21	38	57	47	273	343	1450	e850	3370	2910	829	241	369
22	38	54	59	264	320	1380	e900	3530	3150	1070	273	393
23	38	50	58	312	380	1410	e830	3190	3950	1070	265	403
24	38	53	76	355	346	1430	e860	3240	5050	1050	84	429
25	38	69	79	478	313	1390	e910	2700	5660	912	76	432
26	40	68	71	434	315	1280	e930	2850	5470	768	75	416
27	39	58	70	460	307	992	e1010	3540	5340	675	74	425
28	41	58	77	467	312	829	1210	3560	5430	604	153	436
29	40	55	72	415	---	801	1620	4020	4980	806	173	224
30	39	56	67	396	---	780	2210	4600	4580	1180	185	119
31	40	---	64	425	---	793	---	5200	---	854	208	---
TOTAL	1246	1879	2006	13689	9750	38028	32110	68429	127950	71401	7795	9697
MEAN	40.2	62.6	64.7	442	348	1227	1070	2207	4265	2303	251	323
MAX	68	166	122	1540	475	3250	2210	5200	6260	4470	587	445
MIN	35	43	40	61	260	349	750	877	2380	604	74	99
AC-FT	2470	3730	3980	27150	19340	75430	63690	135700	253800	141600	15460	19230
a	33340	9220	26690	29100	33850	30060	30620	30880	25480	29020	31740	26710

e Estimated.

a Diversion, in acre-feet, to Tiger Creek Powerplant, provided by Pacific Gas & Electric Co.

SAN JOAQUIN RIVER BASIN

11316600 NORTH FORK MOKELUMNE RIVER ABOVE TIGER CREEK, NEAR WEST POINT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.1	55.5	63.2	133	281	451	455	804	913	325	96.4	96.9
MAX	236	74.3	97.0	442	1702	1855	1602	2283	4265	2303	340	323
(WY)	1994	1986	1986	1995	1986	1986	1986	1986	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1986 - 1995			
ANNUAL TOTAL	22592				383980							
ANNUAL MEAN	61.9				1052				312			
HIGHEST ANNUAL MEAN									1052			
LOWEST ANNUAL MEAN									59.9			
HIGHEST DAILY MEAN	183				May 12				8170			
LOWEST DAILY MEAN	31				Aug 8				30			
ANNUAL SEVEN-DAY MINIMUM	33				Aug 3				32			
INSTANTANEOUS PEAK FLOW					7880				12900			
INSTANTANEOUS PEAK STAGE					7.65				Jun 5			
ANNUAL RUNOFF (AC-FT)	44810				761600				225800			
ANNUAL TOTAL, DIVERSION (AC-FT) a	228200				336700							
10 PERCENT EXCEEDS	95				3430				831			
50 PERCENT EXCEEDS	56				396				65			
90 PERCENT EXCEEDS	35				46				39			

a Diversion, in acre-feet, to Tiger Creek Powerplant, provided by Pacific Gas & Electric Co.

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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.

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 estimated daily discharges. No records computed above 50 ft³/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.

[illegible]

SAN JOAQUIN RIVER BASIN

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 mi².

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 estimated daily discharges. No records computed above 30 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	11	12	---	27	---	---	---	---	---	---
2	11	11	11	12	---	---	---	---	---	---	---	---
3	11	11	11	12	---	---	---	---	---	---	---	23
4	12	11	12	12	---	---	---	---	---	---	---	24
5	12	11	12	12	---	---	---	---	---	---	---	23
6	11	11	12	11	---	---	---	---	---	---	---	29
7	11	11	12	12	---	---	---	---	---	---	---	23
8	11	11	12	11	---	---	---	---	---	---	---	23
9	11	11	12	16	---	---	---	---	---	---	23	21
10	11	11	12	---	---	---	---	---	---	---	23	20
11	11	11	12	---	---	---	---	---	---	---	24	20
12	11	11	12	---	---	---	---	---	---	---	23	21
13	11	12	12	---	---	---	---	---	---	---	22	19
14	11	12	12	---	---	---	---	---	---	---	22	20
15	11	12	12	---	---	---	---	---	---	---	26	19
16	11	11	12	---	21	---	---	---	---	---	---	18
17	11	11	12	---	30	---	---	---	---	---	19	19
18	11	11	12	---	---	---	---	---	---	---	20	20
19	11	11	12	---	---	---	---	---	---	---	22	19
20	11	11	12	---	---	---	---	---	---	---	20	20
21	11	11	12	26	---	---	---	---	---	---	20	19
22	11	11	12	12	---	---	---	---	---	---	19	19
23	11	11	12	27	---	---	---	---	---	---	20	27
24	11	11	12	---	---	---	---	---	---	---	---	26
25	11	11	12	---	---	---	---	---	---	---	---	25
26	11	11	12	---	---	---	---	---	---	---	---	24
27	11	11	12	---	---	---	---	---	---	---	---	25
28	11	11	12	---	26	---	---	---	---	---	---	22
29	11	11	12	---	---	---	---	---	---	---	---	21
30	11	11	12	---	---	---	---	---	---	---	---	20
31	11	---	12	---	---	---	---	---	---	---	---	---
TOTAL	343	333	369	---	---	---	---	---	---	---	---	---
MEAN	11.1	11.1	11.9	---	---	---	---	---	---	---	---	---
MAX	12	12	12	---	---	---	---	---	---	---	---	---
MIN	11	11	11	---	---	---	---	---	---	---	---	---
AC-FT	680	661	732	---	---	---	---	---	---	---	---	---

CAL YR 1994 TOTAL 4480 MEAN 12.3 MAX 33 MIN 11 AC-FT 8890

11316800 FOREST CREEK NEAR WILSEYVILLE, CA

LOCATION.--Lat 38°24'12", long 120°26'45", in SW 1/4 NW 1/4 sec.4, T.6 N., R.14 E., Calaveras County, Hydrologic Unit 18040012, on left bank 1.0 mi downstream from Lion Creek, 1.8 mi upstream from mouth, and 4 mi northeast of Wilseyville.

DRAINAGE AREA.--20.8 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,950 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation. Minor diversions upstream from station for irrigation and domestic use. See schematic diagram of Mokelumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s, Feb. 19, 1986, gage height, 8.12 ft, from rating curve extended above 500 ft³/s on basis of slope-area measurement at gage height 7.41 ft; minimum daily, 0.11 ft³/s, Aug. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0615	369	5.05	Mar. 10	1945	*1180	*6.70
Jan. 14	1815	377	5.07	Apr. 7	2400	222	4.43
Mar. 3	1445	166	4.37	May 1	1915	682	5.69

Minimum daily, 0.76 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.89	1.7	4.9	6.4	67	41	91	405	56	19	8.8	5.3
2	.80	2.6	5.3	5.7	65	44	90	312	54	18	8.5	5.9
3	.76	1.9	12	5.7	62	120	90	228	52	18	8.6	5.7
4	1.8	1.7	19	7.4	60	89	93	202	49	18	8.4	5.2
5	4.4	13	15	28	57	72	96	215	47	17	8.5	4.8
6	1.6	18	13	24	56	65	98	192	45	17	8.5	4.7
7	1.2	6.8	10	64	55	58	155	168	44	16	7.8	4.8
8	1.2	5.2	7.3	43	53	55	176	152	41	16	7.4	4.6
9	1.1	4.6	6.1	76	50	224	144	136	38	16	7.7	4.5
10	1.0	6.6	5.8	284	47	693	130	127	36	15	7.6	4.6
11	.98	5.0	5.4	141	45	691	122	119	34	15	7.6	4.6
12	.98	4.5	5.7	77	43	407	116	114	33	15	7.9	4.1
13	1.0	3.9	6.0	132	44	277	136	128	32	15	7.6	3.6
14	1.1	3.3	5.4	249	45	231	120	118	33	14	7.2	4.2
15	1.1	3.5	5.8	176	41	196	111	109	48	13	6.6	4.5
16	1.1	3.5	5.8	105	39	168	106	103	44	13	6.1	4.6
17	1.2	4.3	6.0	78	38	146	101	98	37	14	6.6	4.5
18	1.2	4.1	5.9	65	36	149	96	94	35	14	7.0	4.4
19	1.2	4.3	5.5	57	35	137	90	91	32	13	7.4	4.2
20	1.2	4.8	5.3	51	35	176	92	89	31	13	6.9	3.7
21	1.2	4.9	5.0	46	35	183	85	88	29	12	6.1	3.3
22	1.2	4.5	4.7	45	36	168	81	86	28	12	5.8	3.6
23	1.3	4.0	4.6	54	37	157	79	82	26	12	6.0	4.1
24	1.3	4.0	10	70	37	129	79	79	25	11	6.0	4.0
25	1.6	9.2	10	95	38	117	80	75	24	11	5.9	4.0
26	1.5	7.3	8.4	86	38	109	80	71	23	11	5.3	3.5
27	1.4	5.9	7.5	100	37	103	111	68	22	10	5.3	3.5
28	1.4	6.2	8.7	89	37	97	163	65	20	10	5.2	3.2
29	1.4	5.6	7.9	73	---	93	224	63	20	9.9	5.4	3.7
30	1.4	5.3	6.7	68	---	89	273	60	19	9.8	4.7	4.5
31	1.4	---	6.7	67	---	89	---	58	---	9.4	5.3	---
TOTAL	40.91	160.2	235.4	2468.2	1268	5373	3508	3995	1057	427.1	213.7	129.9
MEAN	1.32	5.34	7.59	79.6	45.3	173	117	129	35.2	13.8	6.89	4.33
MAX	4.4	18	19	284	67	693	273	405	56	19	8.8	5.9
MIN	.76	1.7	4.6	5.7	35	41	79	58	19	9.4	4.7	3.2
AC-FT	81	318	467	4900	2520	10660	6960	7920	2100	847	424	258

SAN JOAQUIN RIVER BASIN

11316800 FOREST CREEK NEAR WILSEYVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.03	9.21	19.6	35.4	42.8	51.6	49.5	34.8	13.1	5.92	3.64	3.10
MAX	11.9	59.5	138	144	243	209	174	129	47.4	17.1	10.5	8.36
(WY)	1983	1984	1965	1970	1986	1983	1982	1995	1967	1983	1983	1983
MIN	.63	1.80	2.17	2.40	2.35	4.58	2.96	3.92	1.58	.46	.33	.50
(WY)	1978	1993	1977	1991	1991	1977	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1961 - 1995
ANNUAL TOTAL	2030.04	18876.41	
ANNUAL MEAN	5.56	51.7	22.6
HIGHEST ANNUAL MEAN			67.9 1983
LOWEST ANNUAL MEAN			2.39 1977
HIGHEST DAILY MEAN	21 Feb 27	693 Mar 10	1250 Feb 19 1986
LOWEST DAILY MEAN	.36 Sep 2	.76 Oct 3	.11 Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	.39 Aug 28	1.0 Oct 9	.15 Aug 11 1977
INSTANTANEOUS PEAK FLOW		1180 Mar 10	2020 Feb 19 1986
INSTANTANEOUS PEAK STAGE		6.70 Mar 10	8.12 Feb 19 1986
ANNUAL RUNOFF (AC-FT)	4030	37440	16390
10 PERCENT EXCEEDS	13	131	58
50 PERCENT EXCEEDS	4.2	18	7.6
90 PERCENT EXCEEDS	.52	3.3	2.0

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CA

LOCATION.--Lat 38°23'23", long 120°31'32", in SE 1/4 NE 1/4 sec.10, T.6 N., R.13 E., Calaveras County, Hydrologic Unit 18040012, on right bank 200 ft downstream from highway bridge, 0.6 mi south of West Point, and 4.5 mi upstream from South Fork Mokelumne River.

DRAINAGE AREA.--68.4 mi².

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for October 1911, published in WSP 1315-A.

REVISED RECORDS.--WSP 1515: 1919-20, 1927-28(M), 1936(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. 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.--No estimated daily discharges. Records fair. 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 ft³/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 ft³/s; because of leakage, only 5 ft³/s may reach Licking Fork Mokelumne River. See schematic diagram of Mokelumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,920 ft³/s, Feb. 19, 1986, gage height, 9.19 ft, from rating curve extended above 3,100 ft³/s; no flow for many days in 1931 and Sept. 9, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0830	1040	5.27	May 1	2045	2010	6.41
Mar. 10	2100	*3130	*7.91				

Minimum daily, 2.5 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	5.8	13	12	181	113	223	1230	165	45	22	6.0
2	2.6	7.8	13	9.8	178	120	215	1040	159	43	23	12
3	2.5	6.4	24	10	168	331	218	695	151	41	37	14
4	4.0	6.3	43	14	162	263	228	590	146	39	48	10
5	8.5	23	33	105	157	200	243	608	143	38	47	10
6	4.9	31	25	70	151	178	246	562	128	33	46	11
7	3.9	12	18	134	147	160	406	476	125	24	34	10
8	3.8	9.7	13	88	145	150	516	418	113	24	27	10
9	3.8	10	11	175	137	525	407	370	104	23	25	14
10	3.6	16	9.7	888	132	1840	347	334	102	23	23	19
11	3.7	13	9.1	518	125	1980	315	306	101	24	23	11
12	3.8	10	12	284	121	1070	297	286	101	23	21	7.7
13	4.0	9.9	13	393	121	756	372	367	101	21	20	16
14	3.9	8.5	11	713	131	660	336	312	103	7.3	22	13
15	4.0	8.8	11	602	116	563	292	281	147	17	13	13
16	4.4	9.7	11	338	110	480	275	258	134	26	6.7	13
17	4.5	14	11	235	104	419	258	239	109	26	6.0	15
18	4.5	16	10	184	99	407	242	230	101	19	6.4	15
19	4.3	14	9.5	165	97	385	221	225	97	5.1	7.7	14
20	4.1	15	8.9	148	98	481	227	226	95	15	16	13
21	4.0	15	8.2	134	100	596	204	224	93	26	23	12
22	4.0	14	7.6	131	102	580	188	218	91	28	23	13
23	3.9	13	7.4	162	104	573	183	214	89	6.8	17	13
24	3.9	13	23	212	107	439	184	209	83	11	3.5	14
25	4.1	27	24	328	108	363	189	195	75	34	3.4	14
26	4.2	24	17	278	108	315	187	182	70	38	9.5	14
27	4.2	18	14	324	106	284	264	177	65	20	17	14
28	4.3	17	17	276	106	261	460	172	59	21	13	13
29	4.3	16	16	215	---	240	629	166	52	45	5.3	13
30	4.5	14	13	190	---	225	836	172	48	74	5.2	15
31	4.6	---	12	183	---	218	---	165	---	50	6.0	---
TOTAL	127.8	417.9	468.4	7518.8	3521	15175	9208	11147	3150	870.2	599.7	381.7
MEAN	4.12	13.9	15.1	243	126	490	307	360	105	28.1	19.3	12.7
MAX	8.5	31	43	888	181	1980	836	1230	165	74	48	19
MIN	2.5	5.8	7.4	9.8	97	113	183	165	48	5.1	3.4	6.0
AC-FT	253	829	929	14910	6980	30100	18260	22110	6250	1730	1190	757

SAN JOAQUIN RIVER BASIN

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.9	22.4	48.5	85.9	120	138	148	108	42.4	15.9	8.96	7.43
MAX	37.5	223	389	622	768	653	561	372	181	68.1	40.8	31.1
(WY)	1983	1951	1956	1914	1986	1983	1982	1983	1983	1983	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1912 - 1995			
ANNUAL TOTAL	5519.2				52585.5							
ANNUAL MEAN	15.1				144				62.7			
HIGHEST ANNUAL MEAN									218			
LOWEST ANNUAL MEAN									5.25			
HIGHEST DAILY MEAN	49				1980				3610			
LOWEST DAILY MEAN	2.3				2.5				.00			
ANNUAL SEVEN-DAY MINIMUM	2.6				3.8				.00			
INSTANTANEOUS PEAK FLOW					3130				4920			
INSTANTANEOUS PEAK STAGE					7.91				9.19			
ANNUAL RUNOFF (AC-FT)	10950				104300				45410			
10 PERCENT EXCEEDS	35				371				163			
50 PERCENT EXCEEDS	11				45				20			
90 PERCENT EXCEEDS	3.7				5.9				3.8			

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CA

LOCATION.--Lat 38°22'06", long 120°32'40", in SE 1/4 SE 1/4 sec.16, T.6 N., R.13 E., Calaveras County, Hydrologic Unit 18040012, on right bank 500 ft upstream from highway bridge, 2.4 mi southwest of West Point, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--75.1 mi².

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 1315-A: 1934(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. 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.--No estimated daily discharges. Records good except those less than 1.0 ft³/s, which are poor. The Middle Fork Ditch can divert 10 ft³/s from the Middle Fork Mokelumne River which, due to leakage, delivers about 5 ft³/s to the Licking Fork Mokelumne River. There are two pumps with a combined capacity of 8.9 ft³/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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s, Feb. 19, 1986, gage height, 12.48 ft, from rating curve extended above 2,700 ft³/s on basis of slope-area measurement of peak flow; no flow Aug. 6, 7, Aug. 12 to Sept. 26, 1934.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	0630	1560	6.90	Mar. 10	2045	*4620	*10.23
Jan. 14	1845	1420	6.70	Mar. 22	2145	1470	6.77
Jan. 25	0530	674	5.33	Apr. 08	0100	699	5.46
Mar. 03	1745	716	5.42	May 01	2015	2320	7.91

Minimum daily, 2.2 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	4.9	10	19	252	101	283	1500	183	64	30	17
2	2.3	7.2	10	17	243	114	282	1300	174	62	29	17
3	2.2	6.9	22	17	221	512	278	831	165	60	29	16
4	3.5	5.5	52	29	205	386	292	659	156	58	29	16
5	19	19	42	232	191	286	310	688	149	57	29	16
6	9.1	51	34	131	182	239	316	714	142	55	28	15
7	6.1	20	29	240	172	202	484	619	141	54	27	15
8	4.7	12	22	204	162	181	580	556	133	53	27	15
9	4.2	11	19	331	147	757	455	496	124	54	26	15
10	3.8	23	16	1270	136	2530	390	451	119	50	26	15
11	3.6	13	15	696	126	2630	359	421	114	48	27	15
12	3.8	8.5	20	353	118	1470	343	398	111	48	26	15
13	3.6	7.7	28	619	120	988	410	468	106	47	26	14
14	3.6	6.3	22	1140	136	802	374	412	107	45	25	14
15	3.6	5.9	21	922	108	660	338	389	175	43	23	14
16	3.7	9.0	18	524	98	553	320	368	150	42	23	13
17	3.8	15	16	341	90	471	299	353	125	44	23	13
18	4.2	18	16	248	84	456	281	339	116	44	22	13
19	4.0	10	15	198	82	423	262	328	109	42	22	12
20	4.0	8.4	14	165	84	558	266	319	102	40	21	12
21	4.0	8.0	14	140	88	732	243	306	97	38	20	12
22	4.0	7.5	14	134	91	884	229	294	92	38	19	12
23	4.0	6.7	13	193	95	938	227	282	86	37	19	12
24	3.8	5.7	43	327	96	603	230	272	80	37	19	11
25	4.0	22	49	575	98	479	236	257	77	37	18	13
26	3.7	27	31	454	97	402	237	240	76	36	18	16
27	3.8	17	26	542	95	356	297	228	72	35	18	16
28	3.8	14	29	449	94	326	473	218	69	34	18	16
29	3.9	12	27	330	---	302	762	210	67	33	18	17
30	3.9	11	23	274	---	285	974	200	66	32	18	16
31	4.3	---	21	256	---	279	---	189	---	32	18	---
TOTAL	138.8	393.2	731	11370	3711	19905	10830	14305	3483	1399	721	433
MEAN	4.48	13.1	23.6	367	133	642	361	461	116	45.1	23.3	14.4
MAX	19	51	52	1270	252	2630	974	1500	183	64	30	17
MIN	2.2	4.9	10	17	82	101	227	189	66	32	18	11
AC-FT	275	780	1450	22550	7360	39480	21480	28370	6910	2770	1430	859

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.6	31.2	71.9	124	167	188	183	122	45.9	21.3	12.3	10.1
MAX	41.6	270	465	661	959	825	704	461	163	62.9	36.1	31.6
(WY)	1983	1951	1956	1969	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1934 - 1995			
ANNUAL TOTAL	6228.34				67420.0							
ANNUAL MEAN	17.1				185				81.9			
HIGHEST ANNUAL MEAN									264			
LOWEST ANNUAL MEAN									6.14			
HIGHEST DAILY MEAN	73				Feb 18				5780			
LOWEST DAILY MEAN	.34				Jul 12				.00			
ANNUAL SEVEN-DAY MINIMUM	.88				Jul 6				.00			
INSTANTANEOUS PEAK FLOW					4620				7300			
INSTANTANEOUS PEAK STAGE					10.23				Mar 10			
ANNUAL RUNOFF (AC-FT)	12350				133700				12.48			
10 PERCENT EXCEEDS	41				475				59360			
50 PERCENT EXCEEDS	12				55				210			
90 PERCENT EXCEEDS	1.2				7.1				27			
									5.6			

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CA

LOCATION.--Lat 38°18'46", long 120°43'09", in SW 1/4 SW 1/4 sec.1, T.5 N., R.11 E., Calaveras County, Hydrologic Unit 18040012, on downstream side of bridge 1.2 mi northwest of Mokelumne Hill and 8 mi downstream from confluence of north and south Forks of Mokelumne River.

DRAINAGE AREA.--544 mi².

PERIOD OF RECORD.--January to June 1901, May 1903 to December 1904, October 1927 to current year. Yearly estimate only for water year 1928 (incomplete), published in WSP 1315-A. Published as "at Electra" 1901, 1903-4.

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: 1903-4, 1928(M), 1936(M), 1938(M), 1940(M), 1943(M), 1945(M). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 584.88 ft 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.--No estimated daily discharges. Records good. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft³/s, Dec. 3, 1950, gage height, 23.5 ft, present datum; minimum observed, 5 ft³/s, Aug. 13-15, 17, 18, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,400 ft³/s, Mar. 10, gage height, 18.67 ft; minimum daily, 32 ft³/s, Nov. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	468	477	130	607	1670	1210	2160	7830	6900	5220	1190	679
2	503	394	172	586	1740	1200	2110	6650	6740	4930	1050	818
3	533	114	116	578	1510	2270	2160	4780	6110	4790	981	876
4	629	221	546	580	1540	2130	2200	4150	6150	4670	989	915
5	549	209	308	1020	1420	1800	2430	4080	7010	4480	1030	892
6	516	461	218	999	1420	1630	2370	3870	5120	4820	913	244
7	587	301	179	1050	1430	1470	3070	3420	4030	5140	997	228
8	500	397	80	1070	1400	1460	3930	3220	3380	4980	955	684
9	523	450	214	1270	1370	2780	3140	3160	3110	4650	587	881
10	566	506	668	4270	1350	9580	2950	2850	3700	4520	432	835
11	450	513	616	3210	1350	11400	2640	2960	4890	4090	662	894
12	530	114	649	1750	1230	6230	2790	2880	5830	3200	778	883
13	570	172	689	2030	1250	4500	3040	3010	5820	2620	695	877
14	502	151	713	4280	1390	4120	2800	2860	5670	2530	660	880
15	408	124	639	4000	1260	3730	2600	2720	4970	2660	731	871
16	539	174	641	2310	1130	3380	2520	2660	4100	2590	928	874
17	556	143	677	1680	1130	2960	2400	2570	3330	2870	920	896
18	414	274	585	1360	1220	2860	2340	2660	3410	3360	918	886
19	633	279	513	1300	1110	3130	2190	2820	3900	2120	869	870
20	548	287	628	1340	1200	3210	1860	3480	4000	1170	903	870
21	477	161	613	1240	1170	3820	2160	4780	3940	1440	925	816
22	476	32	616	1260	1130	3870	2280	4950	4100	1770	913	792
23	535	48	608	1280	1240	4320	2090	4610	4700	1760	884	877
24	564	65	640	1460	1180	3250	2200	4660	5650	1690	609	886
25	522	102	788	2410	1190	2740	2330	4140	6350	1220	637	879
26	586	169	689	1990	1210	2550	2370	4010	6090	1150	855	886
27	504	323	665	2500	1180	2330	2660	4620	5950	1130	280	850
28	578	112	650	2360	1170	2290	3810	4660	6150	1090	594	639
29	509	43	652	1840	---	2170	4650	5100	5620	1320	738	426
30	549	39	675	1710	---	2050	6170	5610	5370	1870	658	340
31	560	---	578	1710	---	2090	---	6120	---	1620	696	---
TOTAL	16384	6855	16155	55050	36590	102530	82420	125890	152090	91470	24977	23244
MEAN	529	228	521	1776	1307	3307	2747	4061	5070	2951	806	775
MAX	633	513	788	4280	1740	11400	6170	7830	7010	5220	1190	915
MIN	408	32	80	578	1110	1200	1860	2570	3110	1090	280	228
AC-FT	32500	13600	32040	109200	72580	203400	163500	249700	301700	181400	49540	46100

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	505	577	757	865	998	1144	1360	1876	1783	727	545	521
MAX	898	3275	4375	2903	4788	3950	4114	5092	6243	3384	1117	949
(WY)	1984	1951	1951	1956	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1928 - 1995			
ANNUAL TOTAL	139876				733655							
ANNUAL MEAN	383				2010				970			
HIGHEST ANNUAL MEAN									2511			
LOWEST ANNUAL MEAN									208			
HIGHEST DAILY MEAN	813				May 5				11400			
LOWEST DAILY MEAN	15				Aug 24				32			
ANNUAL SEVEN-DAY MINIMUM	122				Nov 22				122			
INSTANTANEOUS PEAK FLOW									18400			
INSTANTANEOUS PEAK STAGE									18.67			
ANNUAL RUNOFF (AC-FT)	277400				1455000				703000			
10 PERCENT EXCEEDS	586				4730				2140			
50 PERCENT EXCEEDS	373				1240				609			
90 PERCENT EXCEEDS	153				396				233			

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CA

LOCATION.--Lat 38°13'14", long 121°02'19", in NW 1/4 NW 1/4 sec.7, T.4 N., R.9 E., San Joaquin County, Hydrologic Unit 18040005, on left bank 0.7 mi downstream from Murphy Creek, 1.0 mi downstream from Camanche Dam, and 3.4 mi northeast of Clements.

DRAINAGE AREA.--627 mi².

PERIOD OF RECORD.--October 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A and 1735. Prior to October 1961, published as "near Clements."

CHEMICAL DATA: Water years 1906-7, 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.--Water-stage recorder. Datum of gage is 82.71 ft above sea level. See WSP 1930 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good. Flow regulated by Camanche Reservoir (station 11322300) 1 mi upstream beginning December 1963, Salt Springs Reservoir (station 11313500) beginning March 1931, Pardee Reservoir (station 11320000) beginning March 1929, and several small reservoirs. East Bay Municipal Utility District aqueducts, maximum capacity 511 ft³/s with Pardee Reservoir full, are the largest of several diversions upstream from the station. See schematic diagram of Mokelumne River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,800 ft³/s, Nov. 21, 1950, gage height, 24.40 ft, site and datum then in use; no flow on several days in 1924. Maximum discharge since construction of Camanche Dam in 1963, 6,060 ft³/s, Feb. 19, 1986, gage height, 11.21 ft; minimum daily, 23 ft³/s, Oct. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,990 ft³/s, June 7, gage height, 8.86 ft; minimum daily, 113 ft³/s, several days in October.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	218	236	243	858	774	2960	2920	3450	3590	1430	1450
2	119	217	235	243	855	753	2960	2930	3450	3380	1430	1450
3	119	217	236	243	865	756	2970	2940	3430	3160	1440	1450
4	116	217	238	248	864	754	2970	2920	3430	2940	1440	1450
5	113	217	235	250	860	756	2950	2910	3560	2740	1430	1450
6	113	214	236	243	859	754	2950	2910	3820	2540	1430	1450
7	113	216	235	243	864	752	2950	2910	3960	2340	1430	1450
8	113	216	235	245	863	755	2940	2910	3950	2240	1440	1450
9	113	234	236	257	862	778	2930	2920	3950	2250	1400	1450
10	113	232	238	450	865	1010	2930	2910	3950	2260	1260	1460
11	113	228	241	278	865	2140	2940	2910	3940	2260	1210	1460
12	113	227	241	255	865	3110	2750	2900	3940	2250	1190	1450
13	113	227	240	248	867	3090	2930	2910	3930	2260	1210	1460
14	113	226	241	263	866	3050	2930	2900	3930	2250	1200	1450
15	189	228	243	266	864	2990	2930	2900	3940	2260	1220	1450
16	194	227	245	248	863	2980	2920	2900	3930	2250	1220	1450
17	193	228	239	242	862	2980	2920	3030	3930	2250	1220	1460
18	194	233	242	239	864	2960	2920	3310	3920	2260	1230	1450
19	194	231	242	239	863	2950	2910	3440	3920	2250	1230	1450
20	195	229	242	342	864	2980	2910	3430	3920	2250	1230	1450
21	196	232	242	559	865	2970	2910	3440	3930	2140	1230	1450
22	196	231	243	566	867	3060	2920	3450	3930	1950	1240	1450
23	196	233	243	573	868	3030	2920	3450	3930	1790	1240	1450
24	196	235	244	582	869	2970	2910	3460	3930	1630	1240	1450
25	194	235	243	601	869	2950	2910	3460	3920	1540	1310	1450
26	193	231	243	585	868	2940	2910	3450	3940	1470	1390	1450
27	194	232	243	821	862	2940	2910	3460	3930	1440	1440	1450
28	195	229	243	894	832	2940	2910	3460	3920	1430	1440	1450
29	195	234	243	869	---	2950	2910	3460	3920	1430	1450	1420
30	197	235	243	867	---	2950	2910	3450	3810	1430	1450	1350
31	197	---	242	860	---	2960	---	3450	---	1430	1440	---
TOTAL	4911	6809	7448	13062	24158	69732	87690	97800	115410	67660	41160	43410
MEAN	158	227	240	421	863	2249	2923	3155	3847	2183	1328	1447
MAX	197	235	245	894	869	3110	2970	3460	3960	3590	1450	1460
MIN	113	214	235	239	832	752	2750	2900	3430	1430	1190	1350
AC-FT	9740	13510	14770	25910	47920	138300	173900	194000	228900	134200	81640	86100

SAN JOAQUIN RIVER BASIN

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
LOWEST ANNUAL MEAN	221
HIGHEST DAILY MEAN	26900
LOWEST DAILY MEAN	35
ANNUAL SEVEN-DAY MINIMUM	49
INSTANTANEOUS PEAK FLOW	28800
INSTANTANEOUS PEAK STAGE	24.40
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 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	586	505	478	755	796	942	956	1065	1008	777	645	577
MAX	2061	2157	2938	2680	2814	5117	3726	3889	3847	2788	1412	1447
(WY)	1966	1984	1984	1980	1983	1986	1983	1982	1995	1983	1983	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 1994 CALENDAR YEAR

FOR 1995 WATER YEAR

WATER YEARS 1965 - 1995

ANNUAL TOTAL	87033	579250	
ANNUAL MEAN	238	1587	757
HIGHEST ANNUAL MEAN			2400
LOWEST ANNUAL MEAN			172
HIGHEST DAILY MEAN	424	Jun 13	3960
LOWEST DAILY MEAN	110	Sep 17	113
ANNUAL SEVEN-DAY MINIMUM	112	Sep 16	113
INSTANTANEOUS PEAK FLOW			3990
INSTANTANEOUS PEAK STAGE			8.86
ANNUAL RUNOFF (AC-FT)	172600	1149000	548500
10 PERCENT EXCEEDS	321	3450	1840
50 PERCENT EXCEEDS	236	1430	443
90 PERCENT EXCEEDS	142	217	107

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.--Records good. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 482 ft³/s, July 8, 1953; no flow at times in each year. Lowest daily mean, -64 ft³/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 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	83	154	248	270	218
2	.00	.00	.00	.00	.00	.00	.00	85	155	244	276	208
3	.00	.00	.00	.00	.00	.00	.00	86	158	243	286	198
4	.00	.00	.00	.00	.00	.00	.00	87	162	232	290	194
5	.00	.00	.00	.00	.00	.00	.00	93	158	217	287	195
6	.00	.00	.00	.00	.00	.00	.00	99	168	232	283	197
7	.00	.00	.00	.00	.00	.00	.00	99	183	248	282	199
8	.00	.00	.00	.00	.00	.00	.00	97	191	254	284	e190
9	.00	.00	.00	.00	.00	.00	.00	96	206	257	286	e181
10	.00	.00	.00	.00	.00	.00	.00	104	220	265	291	e171
11	.00	.00	.00	.00	.00	.00	.00	104	222	276	299	e166
12	.00	.00	.00	.00	.00	.00	e50	107	223	279	301	164
13	.00	.00	.00	.00	.00	.00	e50	109	227	281	282	167
14	.00	.00	.00	.00	.00	.00	e50	110	229	272	272	e167
15	.00	.00	.00	.00	.00	.00	50	108	230	260	268	e174
16	.00	.00	.00	.00	.00	.00	51	106	225	259	264	180
17	.00	.00	.00	.00	.00	.00	58	105	221	255	265	179
18	.00	.00	.00	.00	.00	.00	61	109	220	254	267	176
19	.00	.00	.00	.00	.00	.00	61	126	217	259	273	147
20	.00	.00	.00	.00	.00	.00	62	130	216	256	268	118
21	.00	.00	.00	.00	.00	.00	63	131	214	258	269	127
22	.00	.00	.00	.00	.00	.00	70	136	211	258	265	143
23	.00	.00	.00	.00	.00	.00	65	145	218	257	246	150
24	.00	.00	.00	.00	.00	.00	69	148	223	278	219	148
25	.00	.00	.00	.00	.00	.00	74	151	231	277	219	144
26	.00	.00	.00	.00	.00	.00	85	152	228	268	229	144
27	.00	.00	.00	.00	.00	.00	87	148	238	265	232	143
28	.00	.00	.00	.00	.00	.00	86	146	246	270	233	143
29	.00	.00	.00	.00	---	.00	86	147	248	274	219	142
30	.00	.00	.00	.00	---	.00	86	148	248	264	214	136
31	.00	---	.00	.00	---	.00	---	151	---	264	218	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	1264.00	3646	6290	8024	8157	5009
MEAN	.000	.000	.000	.000	.000	.000	42.1	118	210	259	263	167
MAX	.00	.00	.00	.00	.00	.00	87	152	248	281	301	218
MIN	.00	.00	.00	.00	.00	.00	.00	83	154	217	214	118
AC-FT	.00	.00	.00	.00	.00	.00	2510	7230	12480	15920	16180	9940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	106	25.4	4.85	.25	.20	22.9	115	211	263	274	256	182
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	-1.14	.000	.000	.000	.000	.000	76.5	95.9	63.0	66.8	5.37
(WY)	1978	1939	1927	1927	1927	1927	1927	1977	1926	1926	1926	1992

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR	FOR 1995 WATER YEAR	WATER YEARS 1926 - 1995
ANNUAL TOTAL	19842.00	32390.00	
ANNUAL MEAN	54.4	88.7	123
HIGHEST ANNUAL MEAN			206
LOWEST ANNUAL MEAN			49.2
HIGHEST DAILY MEAN	187	301	482
LOWEST DAILY MEAN	.00	.00	-64
ANNUAL SEVEN-DAY MINIMUM	.00	.00	-6.3
ANNUAL RUNOFF (AC-FT)	39360	64250	89220
10 PERCENT EXCEEDS	149	259	314
50 PERCENT EXCEEDS	.00	.00	99
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated.

11333000 CAMP CREEK NEAR SOMERSET, CA

LOCATION.--Lat 38°39'26", long 120°39'46", in SW 1/4 SW 1/4 sec.4, T.9 N., R.12 E., El Dorado County, Hydrologic Unit 18040013, on right bank 0.2 mi upstream from mouth, 1.3 mi northeast of Somerset, and 5.6 mi south of Camino.

DRAINAGE AREA.--62.6 mi².

PERIOD OF RECORD.--February to May 1924 (published as "near Pleasant Valley"), October 1954 to current year.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. 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.--No estimated daily discharges. 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, 8,680 ft³/s, Feb. 16, 1982, gage height, 14.50 ft, from rating curve extended above 5,000 ft³/s; no flow Aug. 7-18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,910 ft³/s, Mar. 10, gage height, 10.63 ft; minimum daily, 2.0 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.8	5.1	9.7	41	115	306	1350	196	75	20	8.9
2	2.3	5.7	5.6	9.2	36	127	315	1170	185	66	19	8.6
3	2.0	4.2	21	9.0	32	374	319	857	177	61	18	8.6
4	3.1	3.7	40	10	94	411	335	688	161	57	18	8.4
5	9.7	14	26	64	198	289	356	685	149	54	17	8.3
6	7.7	22	20	59	215	290	370	607	142	52	17	8.2
7	5.2	6.4	20	62	245	275	607	503	133	49	16	8.0
8	4.2	3.9	14	51	251	217	809	440	100	46	16	7.9
9	3.6	3.7	12	61	201	465	657	397	68	46	16	8.0
10	3.2	9.7	9.8	656	169	1840	534	362	88	43	16	7.8
11	3.0	5.9	8.7	322	152	2440	471	343	95	42	15	8.0
12	2.9	4.1	11	100	144	1350	430	326	110	40	15	7.9
13	2.8	4.4	13	87	146	964	504	349	115	38	14	7.9
14	2.5	3.6	12	573	169	878	447	379	117	35	14	7.8
15	2.5	3.1	11	436	140	800	392	360	161	33	13	7.6
16	2.4	4.3	10	139	127	671	357	335	153	31	13	7.5
17	2.4	12	9.6	71	124	550	329	315	126	31	13	7.4
18	2.4	13	9.9	63	112	533	309	301	120	32	13	7.3
19	2.5	6.4	9.4	43	104	502	288	297	102	31	12	7.2
20	2.5	4.7	8.5	37	104	582	318	302	81	30	12	7.0
21	2.5	4.4	8.1	32	108	744	286	301	76	29	12	6.9
22	2.5	4.2	7.6	31	107	717	258	286	67	27	11	6.9
23	2.6	3.8	7.4	36	113	727	250	276	62	26	11	6.9
24	2.3	3.4	14	40	115	524	251	272	60	25	11	6.9
25	2.3	9.7	18	74	116	425	258	248	58	24	10	7.2
26	2.3	16	13	84	115	367	259	237	53	24	10	7.6
27	2.3	9.6	11	118	111	335	301	238	39	23	10	7.5
28	2.3	7.8	16	97	106	314	463	224	41	22	9.8	7.5
29	2.3	6.3	14	72	---	299	697	222	38	21	9.6	7.7
30	2.4	5.5	12	58	---	289	835	217	36	20	9.5	7.5
31	2.4	---	11	48	---	289	---	201	---	21	9.3	---
TOTAL	95.9	208.3	408.7	3551.9	3695	18703	12311	13088	3109	1154	420.2	230.9
MEAN	3.09	6.94	13.2	115	132	603	410	422	104	37.2	13.6	7.70
MAX	9.7	22	40	656	251	2440	835	1350	196	75	20	8.9
MIN	2.0	2.8	5.1	9.0	32	115	250	201	36	20	9.3	6.9
AC-FT	190	413	811	7050	7330	37100	24420	25960	6170	2290	833	458
a	-1208	+401	+1776	+21120	+1961	+7	-33	-91	+117	-3860	-3047	-2484
b	1135	545	403	429	494	696	555	884	2387	3822	2967	2194
c	71	5	4	26	38	115	97	111	191	251	246	176

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 Evaporation, in acre-feet, from Jenkinson Lake provided by U.S. Bureau of Reclamation; not reviewed by U.S. Geological Survey.

SAN JOAQUIN RIVER BASIN

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11333000 CAMP CREEK NEAR SOMERSET, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.01	8.62	43.0	75.9	105	130	150	106	24.5	11.4	6.93	5.13
MAX	32.9	71.3	469	456	820	745	621	452	156	37.2	23.7	17.2
(WY)	1983	1984	1984	1970	1986	1983	1982	1967	1967	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1955 - 1995			
ANNUAL TOTAL	1949.99				56975.9							
ANNUAL MEAN	5.34				156				55.8			
ANNUAL MEAN ^a	22.1				201				83.8			
HIGHEST ANNUAL MEAN									215			1983
LOWEST ANNUAL MEAN									1.89			1977
HIGHEST DAILY MEAN	40 Dec 4				2440 Mar 11				5640 Feb 19 1986			
LOWEST DAILY MEAN	.81 Aug 18				2.0 Oct 3				.00 Aug 7 1977			
ANNUAL SEVEN-DAY MINIMUM	.82 Aug 17				2.3 Oct 24				.00 Aug 7 1977			
INSTANTANEOUS PEAK FLOW					3910 Mar 10				8680 Feb 16 1982			
INSTANTANEOUS PEAK STAGE					10.63 Mar 10				14.50 Feb 16 1982			
ANNUAL RUNOFF (AC-FT)	3870				113000				40410			
ANNUAL RUNOFF (AC-FT) ^a	16010				145500				60710			
10 PERCENT EXCEEDS	12				438				160			
50 PERCENT EXCEEDS	4.2				38				7.5			
90 PERCENT EXCEEDS	1.0				4.2				2.7			

^a Adjusted for change in contents, evaporation, and diversion from Jenkinson Lake.

SAN JOAQUIN RIVER BASIN

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 12 mi downstream from confluence of north and middle Forks of Cosumnes River.

DRAINAGE AREA.--536 mi².

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

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.--No estimated daily discharges. Records good except those for periods with flows below 5 ft³/s, which are poor. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,100 ft³/s, Feb. 17, 1986, gage height, 14.76 ft, from rating curve extended above 34,000 ft³/s on basis of area-velocity study 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, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 10	2030	17,700	10.25	Mar. 11	0430	*24,400	*11.57
Jan. 14	2200	11,600	8.92	Mar. 23	0115	17,200	10.30
Jan. 27	0315	5,400	7.13	May 02	0200	9,160	8.43
Mar. 03	1645	5,790	7.28				

No flow for several days in October.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	9.3	56	173	1630	696	1830	6260	1300	469	103	39
2	.00	9.9	54	160	1540	915	1830	6900	1250	458	96	37
3	.00	10	228	152	1400	4160	1780	4300	1210	430	91	37
4	.00	17	869	349	1290	3070	1790	3320	1150	410	89	37
5	.00	21	791	1340	1330	2130	1860	3100	1130	387	86	36
6	.00	90	394	1410	1300	1660	1930	3080	1020	367	81	35
7	.79	211	300	1290	1240	1530	2430	2610	938	352	80	34
8	19	99	218	1710	1370	1350	3500	2360	846	334	79	33
9	15	69	165	2880	1220	3080	2960	2160	736	331	77	33
10	14	86	137	11800	1070	10200	2510	2030	721	313	72	33
11	12	85	120	8030	986	18100	2230	1910	754	294	73	34
12	11	62	135	3290	933	10400	2090	1810	796	278	69	34
13	11	47	186	3320	895	6340	2480	2480	814	262	67	33
14	9.6	40	188	6870	1350	5680	2340	2720	811	245	67	33
15	8.9	40	172	7830	1000	5120	2030	2400	1090	229	64	33
16	9.0	36	154	4180	891	3940	1880	2120	1390	212	59	32
17	7.7	39	133	2750	821	3220	1760	1930	906	198	57	30
18	7.3	59	124	1980	759	2940	1650	1810	783	211	57	30
19	7.3	77	120	1580	718	2930	1550	1760	738	204	53	30
20	7.3	53	114	1320	699	3750	1610	1760	671	191	53	29
21	8.0	43	111	1130	710	5800	1600	1750	618	181	52	29
22	8.7	43	102	1100	715	6870	1420	1680	575	169	50	29
23	9.0	40	101	1570	719	10800	1350	1630	563	161	48	29
24	9.0	37	165	1820	727	6010	1340	1580	574	153	46	30
25	9.0	50	476	3650	736	3980	1370	1560	584	149	45	30
26	8.8	123	287	2960	739	3110	1390	1450	572	144	43	30
27	8.4	122	216	4750	717	2650	1440	1410	549	136	42	31
28	8.6	84	251	3430	697	2360	2200	1380	528	130	42	33
29	8.7	70	289	2360	---	2150	2740	1340	502	123	42	33
30	8.9	63	225	1920	---	2010	4150	1320	475	116	40	33
31	9.0	---	192	1740	---	1880	---	1290	---	111	38	---
TOTAL	235.99	1835.2	7073	88844	28202	138831	61040	73210	24594	7748	1961	979
MEAN	7.61	61.2	228	2866	1007	4478	2035	2362	820	250	63.3	32.6
MAX	19	211	869	11800	1630	18100	4150	6900	1390	468	103	39
MIN	.00	9.3	54	152	697	696	1340	1290	475	111	38	29
AC-FT	468	3640	14030	176200	55940	275400	121100	145200	48780	15370	3890	1940

SAN JOAQUIN RIVER BASIN

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11335000 COSUMNES RIVER AT MICHIGAN BAR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	30.8	142	423	886	1141	1191	1065	683	249	58.6	19.4	13.8
MAX	335	2493	3380	4181	6610	5255	3992	2362	1067	346	114	82.0
(WY)	1963	1951	1965	1911	1986	1983	1982	1995	1983	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 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1908 - 1995			
ANNUAL TOTAL	36338.28				434553.19							
ANNUAL MEAN	99.6				1191				488			
HIGHEST ANNUAL MEAN									1687			
LOWEST ANNUAL MEAN									21.8			
HIGHEST DAILY MEAN	869 Dec 4				18100 Mar 11				34400 Feb 17 1986			
LOWEST DAILY MEAN	.00 Aug 4				.00 Oct 1				.00 Jul 25 1908			
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 7				.11 Oct 1				.00 Jul 25 1908			
INSTANTANEOUS PEAK FLOW					24400 Mar 11				45100 Feb 17 1986			
INSTANTANEOUS PEAK STAGE					11.57 Mar 11				14.76 Feb 17 1986			
ANNUAL RUNOFF (AC-FT)	72080				861900				353800			
10 PERCENT EXCEEDS	251				3000				1270			
50 PERCENT EXCEEDS	54				430				100			
90 PERCENT EXCEEDS	.00				26				6.5			

SAN JOAQUIN RIVER BASIN

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.

COOPERATION.--Records of daily discharge were provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 436 ft³/s, Aug. 19, 1995; no flow, on some days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	292	237	241	180	.00	161	194	310	346	376	395
2	321	185	226	238	173	.00	147	192	302	312	317	385
3	330	276	224	243	176	129	187	178	295	321	371	390
4	337	265	222	240	176	187	220	183	296	299	371	379
5	321	254	227	222	185	197	216	185	296	289	367	375
6	296	244	219	209	179	197	214	188	310	315	349	383
7	294	240	209	197	171	183	210	193	298	307	355	379
8	294	223	206	196	184	177	196	196	309	309	349	374
9	295	194	216	188	171	152	190	191	181	311	390	360
10	291	189	218	173	167	128	199	172	320	323	396	365
11	296	187	221	133	166	143	196	201	316	339	405	377
12	296	189	219	131	171	143	189	209	313	343	396	378
13	292	197	214	144	166	148	186	202	340	334	406	383
14	293	193	201	145	165	142	210	219	333	205	416	382
15	276	198	207	156	157	147	194	230	315	354	415	362
16	245	148	214	158	171	130	175	209	300	359	422	356
17	220	198	212	164	171	130	182	244	292	380	410	329
18	247	195	200	120	168	122	156	232	258	386	419	329
19	253	197	207	140	171	115	192	254	241	388	436	313
20	306	198	199	158	179	121	142	249	242	365	429	325
21	358	198	206	179	172	122	198	242	246	354	427	329
22	366	221	211	163	179	106	196	203	225	259	383	344
23	375	214	214	162	175	104	215	249	338	364	431	345
24	365	234	216	187	182	114	204	228	246	357	433	354
25	311	234	207	194	175	116	202	248	362	352	431	352
26	323	234	209	196	196	125	194	264	354	365	433	349
27	314	241	201	203	161	122	194	267	350	379	427	334
28	304	240	205	196	.00	125	209	282	362	371	415	355
29	297	233	208	182	---	131	190	295	359	362	409	354
30	315	239	206	193	---	124	193	310	353	376	409	344
31	297	---	236	177	---	136	---	304	---	385	357	---
TOTAL	9446	6550	6617	5628	4687.00	4016.00	5757	7013	9062	10509	12350	10779
MEAN	305	218	213	182	167	130	192	226	302	339	398	359
MAX	375	292	237	243	196	197	220	310	362	388	436	395
MIN	220	148	199	120	.00	.00	142	172	181	205	317	313
AC-FT	18740	12990	13120	11160	9300	7970	11420	13910	17970	20840	24500	21380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1995, BY WATER YEAR (WY)

	MEAN	113	89.7	73.8	69.3	69.7	73.4	95.5	128	161	175	176	148
MAX	305	218	213	182	167	185	206	238	302	339	398	359	
(WY)	1995	1995	1995	1995	1995	1988	1988	1987	1995	1995	1995	1995	
MIN	36.5	33.8	21.1	18.0	15.6	17.9	23.6	32.3	46.9	56.6	59.0	59.1	
(WY)	1953	1952	1951	1951	1950	1951	1950	1951	1952	1952	1952	1950	

SUMMARY STATISTICS	FOR 1994 CALENDAR YEAR				FOR 1995 WATER YEAR				WATER YEARS 1950 - 1995			
ANNUAL TOTAL	66555.00				92414.00							
ANNUAL MEAN	182				253							
HIGHEST ANNUAL MEAN									253			
LOWEST ANNUAL MEAN									41.0			
HIGHEST DAILY MEAN	375				436				436			
LOWEST DAILY MEAN	.00				.00				.00			
ANNUAL SEVEN-DAY MINIMUM	65				94				6.7			
ANNUAL RUNOFF (AC-FT)	132000				183300				83970			
10 PERCENT EXCEEDS	241				377				211			
50 PERCENT EXCEEDS	194				228				100			
90 PERCENT EXCEEDS	101				154				43			

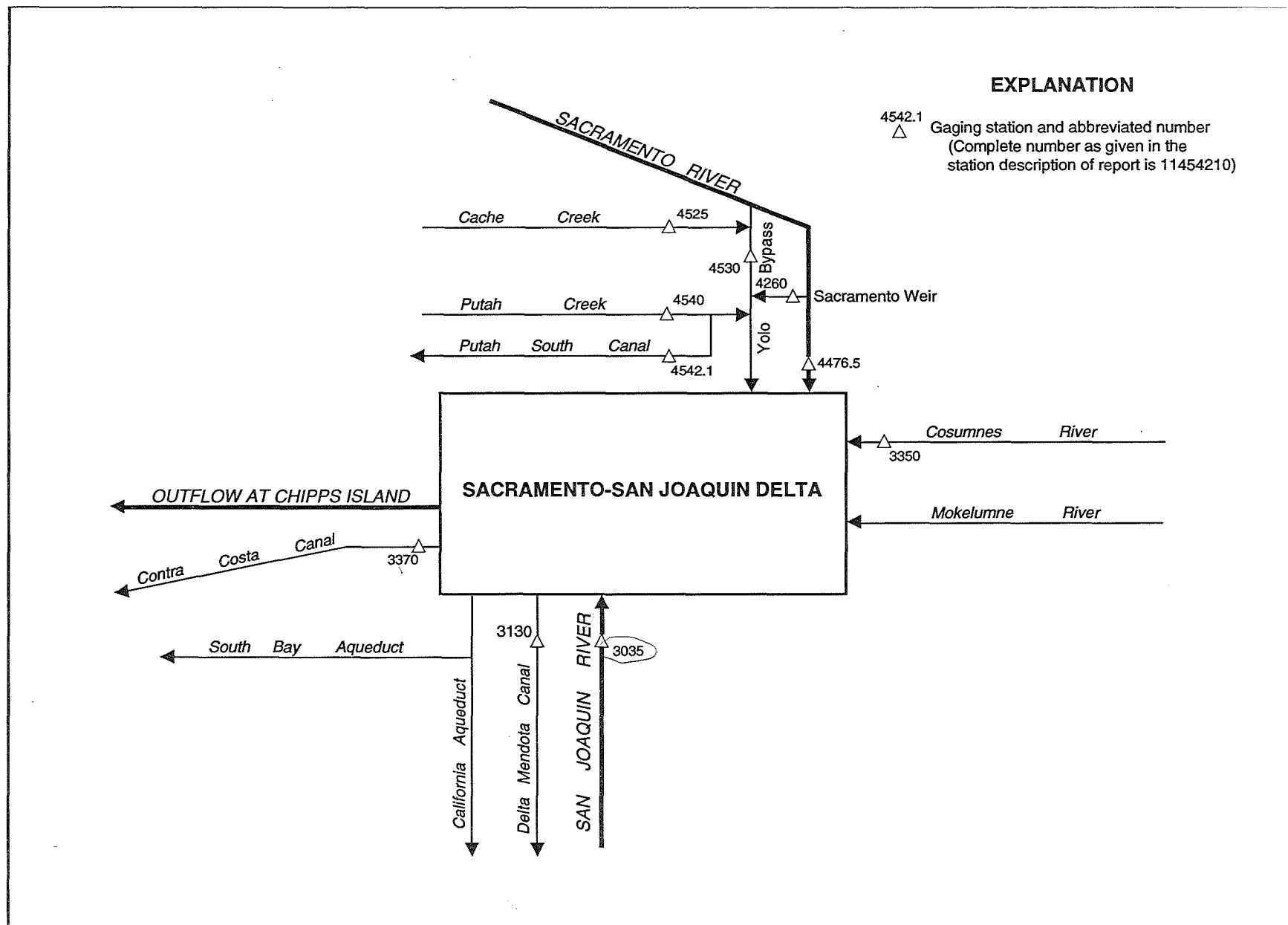


Figure 32. Principal inflows and diversions, Sacramento-San Joaquin Delta.

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-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at 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 gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current 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 1995

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum	
						Gage height (feet)	Discharge (ft ³ /s)
Tulare Lake basin							
11205690	Lewis Creek near Lindsay, CA	Lat 36°11'11", long 118°59'46", in NW 1/4 NE 1/4 sec.13, T.20 S., R.27 E., Tulare County, Hydrologic Unit 18030012, at culvert on Road 258, 0.2 mi downstream from unnamed tributary, and 7.0 mi southeast of Lindsay.	21.5	1969a, 1974-95	03-11-95	24.98	915

a Published as a miscellaneous measurement.

SAN JOAQUIN RIVER BASIN

374302119391701 MERCED RIVER AT BRIDALVEIL MORaine, NEAR YOSEMITE VILLAGE, YOSEMITE, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1995.

CHEMICAL DATA: September 1995.

SPECIFIC CONDUCTANCE: September 1995.

WATER TEMPERATURE: September 1995.

REMARKS.--Water-quality synoptic study as part of the NAWQA program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP	12... 1600	178	19	6.6	14.0	665	8.8	98	5	1.8	0.22	1.2
		SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP	12... 30	0.2	0.50	8	0	7	0.50	1.0	<0.10	6.3	21	16
		SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP	12... 0.03	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010	61	5

WATER QUALITY OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

SAN JOAQUIN RIVER BASIN

374319119381701 MERCED RIVER BELOW EL CAPITAN BRIDGE, NEAR YOSEMITE VILLAGE, YOSEMITE, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1995.
 CHEMICAL DATA: September 1995.
 SPECIFIC CONDUCTANCE: September 1995.
 WATER TEMPERATURE: September 1995.

REMARKS.--Water-quality synoptic study as part of the NAWQA program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	
SEP	12...	1210	168	17	6.6	13.5	665	8.3	91	5	1.8	0.21	1.2
DATE	SODIUM PERCENT	SODIUM RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	
SEP	12...	31	0.2	0.40	8	0	6	0.50	1.0	<0.10	5.9	18	15
DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)		
SEP	12...	0.02	<0.010	<0.050	<0.015	<0.20	<0.20	0.020	<0.010	<0.010	58	6	

SAN JOAQUIN RIVER BASIN

374340119362801 MERCED RIVER BELOW EAGLE CREEK, NEAR YOSEMITE VILLAGE, YOSEMITE, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1995.

CHEMICAL DATA: September 1995.

SPECIFIC CONDUCTANCE: September 1995.

WATER TEMPERATURE: September 1995.

REMARKS.--Water-quality synoptic study as part of the NAWQA program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP 12...	1740	172	17	6.4	14.0	665	8.7	97	5	1.7	0.19	1.2
DATE	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT FIELD MG/L AS HCO3	CAR-BONATE WATER WH IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
SEP 12...	32	0.2	0.40	7	0	6	0.50	1.1	<0.10	5.5	14	14
DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	
SEP 12...	0.02	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	0.010	<0.010	31	3	

WATER QUALITY OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

SAN JOAQUIN RIVER BASIN

374409119361301 MERCED RIVER ABOVE SENTINAL CREEK, NEAR YOSEMITE VILLAGE, YOSEMITE, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1995.

CHEMICAL DATA: September 1995.

SPECIFIC CONDUCTANCE: September 1995.

WATER TEMPERATURE: September 1995.

REMARKS.--Water-quality synoptic study as part of the NAWQA program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, (PER-CENT DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	
SEP	12...	1140	151	18	6.6	12.5	665	9.0	97	5	1.6	0.17	1.1
DATE	SODIUM PERCENT	SODIUM RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	
SEP	12...	31	0.2	0.50	7	0	5	0.30	1.1	<0.10	4.9	9	13
DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)		
SEP	12...	0.01	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	52	4	

SAN JOAQUIN RIVER BASIN

374417119334001 MERCED RIVER BELOW CLARKS BRIDGE, NEAR YOSEMITE VILLAGE, YOSEMITE, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1995.

CHEMICAL DATA: September 1995.

SPECIFIC CONDUCTANCE: September 1995.

WATER TEMPERATURE: September 1995.

REMARKS.--Water-quality synoptic study as part of the NAWQA program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM HG)	OXYGEN, (PER-DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	
SEP	13...	1000	148	12	6.9	11.5	667	9.6	101	3	1.2	0.12	0.90
DATE	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	
SEP	13...	34	0.2	0.20	7	0	6	0.30	0.90	<0.10	3.8	8	11
DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)		
SEP	13...	0.01	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	20	<1	

WATER QUALITY OF SAMPLES COLLECTED AT PARTIAL-RECORD STATIONS

SAN JOAQUIN RIVER BASIN

374421119355601 MERCED RIVER NEAR YOSEMITE LODGE, NEAR YOSEMITE VILLAGE, YOSEMITE, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1995.

CHEMICAL DATA: September 1995.

SPECIFIC CONDUCTANCE: September 1995.

WATER TEMPERATURE: September 1995.

REMARKS.--Water-quality synoptic study as part of the NAWQA program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
SEP 12...	1515	156	18	6.9	14.5	666	9.8	111	4	1.5	0.17	1.1	
DATE	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER FIELD HCO3	CAR- BONATE WATER FIELD CO3	ALKA- LINITY WAT DIS TOT IT FIELD CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	
SEP 12...	33	0.2	0.40	7	0	6	0.30	1.1	<0.10	5.0	10	13	
DATE		SOLIDS, DIS- SOLVED (TONS AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
SEP 12...		0.01	<0.010	<0.050	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010	21	4	

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey, Room W-2233
2800 Cottage Way, Federal Building
Sacramento, CA 95825

