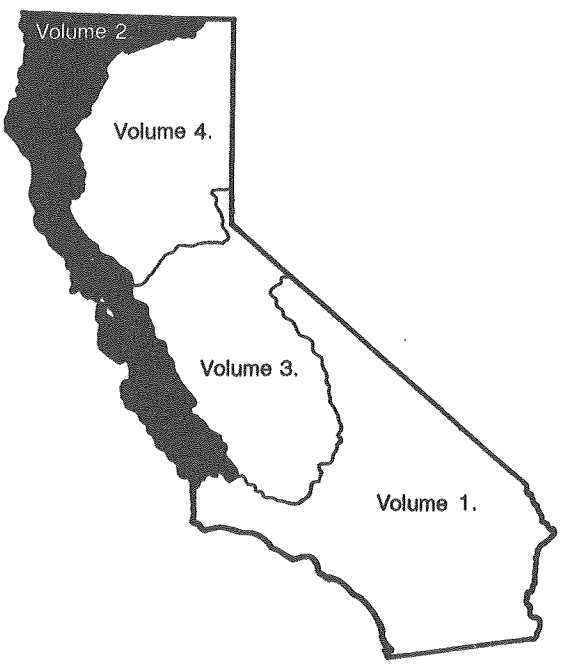
Water Resources Data California Water Year 1992

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-92-2
Prepared in cooperation with the California Department of Water Resources and with other agencies

CALENDAR FOR WATER YEAR 1992

1991

OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1992

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

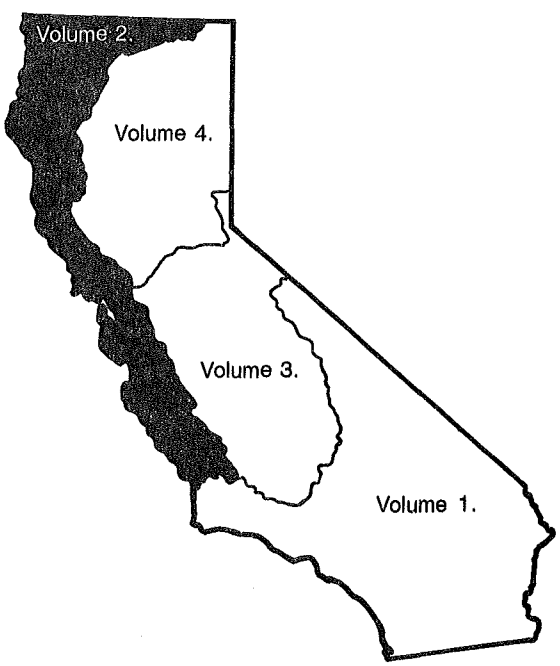
SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Water Resources Data California Water Year 1992

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

by K.L. Markham, J.R. Palmer, M.F. Friebel, and L.F. Trujillo



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-92-2
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

Dallas L. Peck, *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, CA 95825

1993

PREFACE

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

Volume 5. Ground-water data

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 John M. Klein, District Chief, California.

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-93/ 302	2.	3. Recipient's Accession No.

4. Title and Subtitle
Water Resources Data--California, Water Year 1992, Volume 2 Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley

5. Report Date
August 1993

6.

7. Author(s)
K.L. Markham, J.R. Palmer, M.F. Friebel, and L.F. Trujillo

8. Performing Organization Rept. No.
USGS-WRD-CA-92-2

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
California District
2800 Cottage Way, Room W-2233
Sacramento, CA 95825

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
California District
2800 Cottage Way, Room W-2233
Sacramento, CA 95825

13. Type of Report & Period Covered
Annual--Oct. 1, 1991 to Sept. 30, 1992

14.

15. Supplementary Notes
Prepared in cooperation with the California Department of Water Resources and with other agencies.

16. Abstract (Limit: 200 words)
Water resources data for the 1992 water year for California consist of records of stage, discharge, and water quality of streams; stage and contents in lakes and reservoirs; and water levels and water quality in wells. Volume 2 contains discharge records for 124 streamflow-gaging stations, 1 low-flow partial-record streamflow station, and 6 miscellaneous measurement stations; stage and contents records for 9 lakes and reservoirs; precipitation records for 3 stations; and water-quality records for 32 streamflow-gaging stations and 1 water-quality partial-record station. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and with other agencies.

17. Document Analysis a. Descriptors
*California, *Hydrologic data, *Surface water, Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperatures, Sampling sites

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement: No restriction on distribution. This report may be purchased from National Technical Information Service Springfield, VA 22161	19. Security Class (This Report) Unclassified	21. No. of Pages 424
	20. Security Class (This Page) Unclassified	22. Price

(See ANSI-Z39.18) *See Instructions on Reverse* OPTIONAL FORM 272 (4-77) (Formerly NTIS-35) Department of Commerce

WATER RESOURCES DIVISION

Anthony Buono, Assistant District Chief, South
Steven J. Deverel, Assistant District Chief, North
James C. Bowers, Chief, Southern California Operations
Kenneth W. Lee, Chief, Northern California Operations

Steven W. Anderson, Supervisory Hydrologic Technician
Wendell W. Ayers, Hydrologic Technician
James B. Baker, Lead Editorial Assistant
Paul A. Buchanan, Hydrologic Technician
Carol L. Donovan, Editor
Trudy L. Dorsey, Hydrologic Technician
Patrick L. Dugle, Hydrologic Technician
Jeffery P. Ennis, Hydrologic Aid
Laureen J. Fong-Frydendal, Hydrologic Technician
Lawrence A. Freeman, Hydrologic Technician
James J. Gibbons, Hydrologic Technician
Terry B. Gordon, Hydrologic Technician
Scott N. Hamlin, Hydrologist
Thomas A. Hankins, Hydrologic Technician
Stuart A. Hill, Hydrologic Technician
Ernest R. Houston, Hydrologic Technician
Joel D. Johnson, Hydrologist
Willie B. Kinsey, Hydrologic Technician
Gavin M. Kistinger, Hydrologic Aid
Jon C. McNulty, Hydrologic Technician
Allan C. Mlodnosky, Hydrologic Technician
Christine S. O'Neil, Hydrologic Technician
Carlyle T. Peck, Hydrologic Technician
Lee A. Price, Hydrologic Technician
Robert V. Reyes, Hydrologic Aid
M. Kathy Shay, Computer Technician
David M. Sparks, Hydrologic Technician
Kathleen L. St. Clair, Hydrologic Technician
Gregory F. Susich, Hydrologic Technician
Michael D. Webster, Hydrologic Technician
Kathy L. Wells, Hydrologic Clerk
Kevin S. Wright, Hydrologic Technician
George S. Yamamoto, Scientific Illustrator
George E. Zink, Hydrologic Technician

Ronald P. Fogelman, Supervisory Hydrologist
Richard A. Hunrichs, Hydrologist
Rick T. Iwatsubo, Biologist
James M. Knott, Hydrologist
Robert W. Meyer, Hydrologist
Robert G. Simpson, Hydrologist

CONTENTS

ILLUSTRATIONS

TABLES

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

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

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
11141150	Arroyo Grande above Phoenix Creek, near Arroyo Grande	13.4	1967-92
11141160	Wittenberg Creek near Arroyo Grande	3.11	1967-75
11141300	Arroyo Grande near Arroyo Grande	68.3	1958-66
11141400	Tar Spring Creek near Arroyo Grande	18.2	1968-79
11141500	Arroyo Grande at Arroyo Grande	102	1940-86
11141600	Los Berros Creek near Nipomo	15	1968-78
11142080	Morro Creek at Morro Bay	24	1971-78
11142100	Toro Creek near Morro Bay	18	1971-78
11142200	Santa Rosa Creek near Cambria	12.5	1957-72
11142240	Perry Creek at Cambria	22.9	1988-89
11142300	San Simeon Creek near Cambria	26.3	1988-89
11142500	Arroyo de la Cruz near San Simeon	41.2	1951-79
11142550	San Carpoforo Creek near San Simeon	34.6	1978
11142800	Rat Creek near Lucia	.82	1961-63
11143300	Arroyo del Rey at Del Rey Oaks	13.8	1967-78
11143500	Salinas River near Pozo	70.3	1943-83
11144000	Toro Creek near Pozo	9.56	1961-69, 1972-83
11144200	Salsipuedes Creek near Pozo	5.91	1970-83
11144600	Salinas River below Salinas Dam, near Pozo	112	1974-86
11145000	Salinas River above Pilitas Creek, near Santa Margarita	114	1942-75
11145500	Salinas River near Santa Margarita	149	1922, 1932-49
11147000	Jack Creek near Templeton	25.3	1950-78
11147040	Santa Rita Creek tributary near Templeton	2.95	1967-72
11147600	Huerhuero Creek near Creston	101	1959-72
11147700	Cholame Creek tributary near Cholame	9.26	1959-65
11147800	Cholame Creek near Shandon	227	1959-72
11148000	Estrella Creek near Paso Robles	787	1940-41
11148800	Nacimiento River near Bryson	147	1958-71
11149500	Nacimiento River near San Miguel	349	1940-57
11149650	Sulphur Springs Canyon near Jolon	5.16	1968-69
11150800	Cow Creek near San Ardo	4.8	1961-64
11151000	San Lorenzo Creek near King City	210	1940-42
11151500	San Lorenzo Creek at King City	259	1943-45
11151870	Arroyo Seco near Greenfield	113	1961-86
11152570	Alisal Creek near Salinas	14.2	1971-74
11152650	Reclamation Ditch near Salinas	53.2	1971-86
11152900	Cedar Creek near Bell Station	12.8	1962-82
11153000	Pacheco Creek near Dunneville	146	1940-82
11153040	Pacheco Creek at Dunneville	154	1982-85
11153470	Llagas Creek above Chesbro Reservoir, near Morgan Hill	9.63	1972-82
11153500	Llagas Creek near Morgan Hill	19.6	1952-71
11153700	Pajaro River near Gilroy	399	1959-82
11153790	Uvas Creek at Sveadal	2.88	1973-74
11153800	Alec Canyon near Morgan Hill	.91	1970-72
11153900	Uvas Creek above Uvas Reservoir, near Morgan Hill	21	1961-82
11154000	Uvas Creek near Morgan Hill	30.4	1931-57
11154100	Bodfish Creek near Gilroy	7.40	1960-82
11154200	Uvas Creek near Gilroy	71.2	1959-92
11154500	Pajaro River at Sargent	505	1941
11156000	San Benito River below McCoy Creek, near Hernandez	108	1950-53, 1960-63
11156450	Willow Creek tributary near San Benito	1.24	1964-69
11156700	Pescadero Creek near Paicines	38.3	1959-70
11157500	Tres Pinos Creek near Tres Pinos	206	1941-83
11158500	San Benito River near Hollister	586	1950-83
11158900	Pescadero Creek near Chittenden	10.2	1970-81
11159150	Corralitos Creek near Corralitos	10.6	1958-72
11159400	Green Valley Creek near Corralitos	7.05	1964-67
11159500	Pajaro River at Watsonville	1,272	1912-13, 1972-73
11159690	Aptos Creek near Aptos	10.2	1972-85
11159700	Aptos Creek at Aptos	12.2	1959-72
11159800	West Branch Soquel Creek near Soquel	12.2	1959-72
11159940	Soquel Creek near Soquel	32.0	1969-72
11160200	Newell Creek at Ben Lomond	8.98	1958-60
11161500	Branciforte Creek at Santa Cruz	17.3	1940-43, 1952-68
11161570	Majors Creek near Santa Cruz	3.77	1970-76
11161590	Laguna Creek near Davenport	3.07	1970-76
11161800	San Vicente Creek near Davenport	6.07	1970-85
11161900	Scott Creek above Little Creek, near Davenport	25.1	1959-73
11162000	Scott Creek near Davenport	27.3	1937, 1939-41
11162540	Butano Creek near Pescadero	18.3	1962-74
11162600	Purisima Creek near Half Moon Bay	4.83	1959-69
11162722	Spruce Branch at South San Francisco	.70	1965-69

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11162900	Sharon Creek near Menlo Park	0.38	1959-69
11162940	San Francisquito Creek below Ladera dam site, near Stanford University	28.5	1962-70
11162950	San Francisquito Creek tributary near Stanford University	.24	1959-64
11163000	Los Trancos Canal near Stanford University	--	1931-41
11163200	Los Trancos Creek tributary near Stanford University	.42	1959-66
11163500	Los Trancos Creek at Stanford University	7.46	1931-41
11164000	Lagunita Canal at Stanford University	--	1931-41
11165500	San Francisquito Creek at Palo Alto	40.8	1931-41
11166000	Matadero Creek at Palo Alto	7.26	1952-91
11166500	Stevens Creek near Cupertino	18.1	1931-59
11166575	Permanente Creek near Monte Vista	3.86	1984-87
11166578	West Fork Permanente Creek near Monte Vista	2.98	1984-87
11167000	Alamitos Creek near Edenvale	34.5	1930-58
11167660	Ross Creek at San Jose	5.70	1962-70
11167700	Ross Creek below Jarvis Road, at San Jose	7.71	1972-74
11168500	Los Gatos Creek below Los Gatos	42.6	1945-53
11169800	Coyote Creek near Gilroy	109	1961-82
11170000	Coyote Creek near Madrone	196	1903-12, 1917-87
11170500	Coyote Creek at Coyote	204	1917-23
11171500	Coyote Creek near Edenvale	229	1917-62
11172000	Coyote Creek at San Jose	238	1917
11172100	Upper Penitencia Creek at San Jose	21.5	1962-87
11172500	Laguna Creek at Irvington	12.5	1917-19
11173000	Alameda Creek near Sunol	37.5	1912-30
11173200	Arroyo Hondo near San Jose	77.1	1969-81
11173500	Calaveras Creek near Sunol	98.7	1898-1908, 1911-30
11174000	San Antonio Creek near Sunol	37.0	1912-30, 1961-65
11174500	Alamo Creek at Dublin	38.7	1915-20
11174600	Alamo Canal near Pleasanton	40.8	1978-83
11175000	Tassajero Creek near Pleasanton	26.8	1915-19, 1922-30
11176090	Arroyo Mocho at Livermore	50.8	1984-86
11176100	Arroyo Las Positas above Livermore	7.82	1972-74
11176140	Altamont Creek near Livermore	13.4	1979-80
11176145	Arroyo Las Positas at Livermore	53.3	1980-86
11176150	Arroyo Las Positas near Livermore	64.6	1912-19, 1922, 1924-30
11176180	Arroyo Las Positas at El Charro Road, near Pleasanton	75.0	1978-83
11176200	Arroyo Mocho near Pleasanton	142	1962-86
11176300	Tassajara Creek near Pleasanton	26.8	1979-83
11176600	Arroyo Valle at Pleasanton	171	1958-86
11179500	Crandal Slough near Centerville	--	1917-18
11180000	Alameda Creek near Sunol	639	1917-19
11180750	Alameda Creek at Union City	653	1959-73
11181000	San Lorenzo Creek at Hayward	37.5	1940, 1947-83
11181004	Castro Valley Creek at Castro Valley	.98	1979-80
11181300	Peralta Creek at Oakland	1.67	1973
11181335	Caldecott Creek at Lake Temescal, at Oakland	.83	1980-81
11181400	Wildcat Creek at Richmond	8.67	1964-75
11182030	Rhem Creek at San Pablo	1.49	1961-90
11182100	Pinole Creek at Pinole	10.0	1939-70, 1972-77
11182400	Arroyo del Hambre at Martinez	15.1	1965-82
11182800	San Ramon Creek near Walnut Creek	47.9	1973-92
11183000	San Ramon Creek at Walnut Creek	50.8	1953-73
11183500	Walnut Creek at Walnut Creek	79.2	1953-68
11183600	Walnut Creek at Concord	85.2	1968-92
11183700	Little Pine Creek near Alamo	1.22	1975-89
11184000	Galindo Creek at Concord	7.74	1955-58
11184500	Pine Creek at Concord	28.3	1953-60
11455900	Napa River at Calistoga	21.9	1976-83
11455950	Sulphur Creek near St. Helena	4.50	1966-67
11456500	Conn Creek near Oakville	55.4	1930-59, 1971-75
11457000	Dry Creek near Napa	17.4	1951-66
11457500	Dry Creek near Yountville	18.7	1941
11458100	Milliken Creek near Napa	17.3	1971-83
11458200	Redwood Creek near Napa	9.79	1958-73
11458300	Napa Creek at Napa	14.9	1971-83
11458350	Tulucay Creek at Napa	12.6	1972-83
11458500	Sonoma Creek at Agua Caliente	58.4	1955-81
11459000	Petaluma River at Petaluma	30.9	1949-63
11459300	San Antonio Creek near Petaluma	28.9	1975-81
11459800	San Rafael Creek at San Rafael (REVISED RECORDS IN WDR CA-91-2)	1.24	1972-76
11459830	Irwin Creek at San Rafael	--	1972-76
11460100	Arroyo Corte Madera del Presidio at Mill Valley	4.69	1966-73, 1975-86
11460160	Morses Creek at Bolinas	.70	1967-69
11460500	Nicasio Creek at Point Reyes Station	36.6	1954-60

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11460800	Walker Creek near Tomales	40.1	1959-84
11460920	Salmon Creek at Bodega	15.7	1962-75
11460940	Russian River near Redwood Valley	14.1	1963-68
11461400	East Fork Russian River tributary near Potter Valley	.15	1959-61
11462700	Feliz Creek near Hopland	31.3	1958-66
11463160	Big Sulphur Creek near Middletown	2.89	1978-79
11463500	Russian River at Geyserville	655	1911-13
11463900	Maacama Creek near Kellogg	43.4	1961-81
11463940	Franz Creek near Kellogg	15.7	1964-68
11464050	Dry Creek tributary near Hopland	1.19	1968-69
11464400	Dry Creek near Yorkville	56.0	1974-83
11464860	Warm Springs Creek near Asti	12.2	1973-83
11465050	Dutcher Creek near Asti	2.24	1973
11465150	Pena Creek near Geyserville	22.3	1979-90
11465800	Santa Rosa Creek near Santa Rosa	12.5	1959-70
11466200	Santa Rosa Creek at Santa Rosa	56.6	1940-41
11467200	Austin Creek near Cazadero	63.1	1959-66
11467510	South Fork Gualala River near the Sea Ranch	161	1991-92
11467600	Garcia River near Point Arena	98.5	1962-83
11467800	Rancheria Creek near Boonville	65.6	1959-68
11467850	Soda Creek tributary near Boonville	1.53	1965-68
11468010	Albion River near Comptche	14.4	1961-69
11468070	South Fork Big River near Comptche	36.2	1960-71
11468150	Warner Creek near Fort Bragg	.61	1969
11468540	Pudding Creek near Fort Bragg	12.5	1964-71
11468850	Dunn Creek near Rockport	1.88	1961-64
11468990	Honeydew Creek near Honeydew	14.9	1973-77
11469500	North Fork Mattole River at Petrolia	37.6	1951-57
11469800	Cold Creek tributary near Elk Creek	.81	1970
11471099	Potter Valley Powerhouse tailrace near Potter Valley	--	1976-83, 1987-89
11471105	Potter Valley irrigation canal E5 near Potter Valley	--	1976-83, 1988-89
11471106	Potter Valley irrigation canal E6 near Potter Valley	--	1976-83, 1988-89
11471800	Tomki Creek near Willits	43.4	1963-70
11472000	Eel River at Hearst	466	1911-13
11472500	Eel River above Dos Rios	705	1951-65
11472800	Middle Fork Eel River above Black Butte River, near Covelo	204	1968-70
11472900	Black Butte River near Covelo	162	1959-75
11473000	Middle Fork Eel River below Black Butte River, near Covelo	367	1952-67
11473100	Williams Creek near Covelo	30.4	1962-69
11473500	Middle Fork Eel River near Covelo	406	1912-18, 1920-22
11473530	Mill Creek below Alder Creek, near Covelo	17.1	1962-65
11473600	Short Creek near Covelo	15.2	1959-69
11473700	Mill Creek near Covelo	95.6	1956-71
11473800	Elk Creek near Hearst	84.1	1964-73
11473980	Goforth Creek at Dos Rios	3.83	1966-68
11474000	Eel River below Dos Rios	1,484	1912-13, 1952-66
11474400	Hulls Creek near Covelo	25.9	1962-64
11475500	South Fork Eel River near Branscomb	43.9	1947-70
11475700	Tenmile Creek near Laytonville	50.3	1958-74
11475940	East Branch South Fork Eel River near Garberville	74.3	1966-72
11476000	South Fork Eel River at Garberville	468	1912-13, 1940
11476700	Larabee Creek near Holmes	84.1	1960-65
11477500	Van Duzen River near Dinsmore	85.2	1954-58, 1964-74
11477700	Little Van Duzen River near Bridgeville	36.2	1958-67
11478000	Van Duzen River at Bridgeville	202	1912-13, 1940-51
11478400	Van Duzen River tributary near Bridgeville	.71	1969
11479000	Yager Creek near Carlotta	127	1954-55, 1957-60, 1966-72
11479500	Yager Creek at Carlotta	134	1912-13
11479700	Elk River near Falk	44.2	1958-67
11480000	Jacoby Creek near Freshwater	5.80	1955-64
11480750	Mad River near Kneeland	351	1966-74
11480800	North Fork Mad River near Korbel	40.4	1958-64, 1973-74
11482000	Redwood Creek near Korbel	83.0	1912-13
11482110	Lacks Creek near Orick	16.9	1980-91
11482120	Redwood Creek above Panther Creek, near Orick	150	1981-89
11482125	Panther Creek near Orick	6.07	1979-91
11482130	Coyote Creek near Orick	7.78	1980-82, 1984-89
11482200	Redwood Creek at south park boundary, near Orick	185	1971-81
11482468	Little Lost Man Creek at site no. 2, near Orick	3.46	1974-82, 1985-89
11488700	Dry Lake tributary at Perez	1.74	1963-66
11489500	Antelope Creek near Tennant	18.6	1953-79
11490000	Antelope Creek near Macdoel	30	1922
11490500	Butte Creek near Macdoel	178	1922, 1952-60
11512000	Fall Creek at Copco	14.6	1933-59
11512500	Klamath River below Fall Creek, near Copco	4,317	1924-61

DISCONTINUED GAGING STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Period of record
11516600	Cottonwood Creek at Hornbrook	89.8	1965-71
11516900	Little Shasta River near Montague	48.2	1958-78
11517000	Shasta River near Montague	673	1912-13, 1917-21, 1924-33
11517800	Beaver Creek near Klamath River	106	1960-65
11517900	East Fork Scott River below Houston Creek, Near Callahan	19.7	1970-73
11517950	East Fork Scott River above Kangaroo Creek, near Callahan	49.5	1970-73
11518000	East Fork Scott River near Callahan	57.5	1911
11518050	East Fork Scott River at Callahan	110	1960-74
11518200	South Fork Scott River near Callahan	41.5	1959-60
11518300	Sugar Creek near Callahan	12.0	1957-60
11518310	Cedar Gulch near Callahan	.99	1966-73
11518600	Moffett Creek near Fort Jones	69.8	1959-67
11519000	Shackleford Creek near Mugginsville	17.7	1957-60
11520000	Scott River near Scott Bar	804	1912-13
11521000	Klamath River near Happy Camp	7,024	1912
11522200	Elk Creek near Happy Camp	90.4	1957-64
11522260	Ti Creek near Somes Bar	9.46	1961-64
11522300	South Fork Salmon River near forks of Salmon	252	1957-65
11522400	North Fork Salmon River near forks of Salmon	203	1959-64
11523030	Red Cap Creek near Orleans	56.1	1958-65
11523050	Bluff Creek near Weitchpec	74.6	1959-65
11523700	Coffee Creek near Trinity Center	107	1911-13, 1958-66
11524000	Trinity River near Trinity Center	300	1911-13
11525655	Trinity River below Limekiln Gulch, near Douglas City	812	1981-91
11525800	Weaver Creek near Douglas City	48.4	1959-69
11525900	Browns Creek near Douglas City	71.6	1957-67
11526000	Trinity River near Douglas City	1,014	1944-51
11527400	New River at Denny	173	1928-29, 1959-69
11528000	Trinity River near China Flat	1,733	1912-13
11528100	South Fork Trinity River at Forest Glen	208	1960-65
11528200	South Fork Trinity River near Hyampom	342	1956-65
11528400	Hayfork Creek near Hayfork	86.7	1957-65
11528440	Big Creek near Hayfork	27.1	1961, 1963-67
11529500	South Fork Trinity River near China Flat	932	1912-13
11529800	Willow Creek near Willow Creek	40.9	1959-74
11530150	Mareep Creek near Weitchpec	3.56	1967-69
11531000	Middle Fork Smith River at Gasquet	131	1912-17, 1959-65
11531500	North Fork Smith River at Gasquet	158	1912-13
11532700	Rowdy Creek at Smith River	33.3	1957-62
11533000	Lopez Creek near Smith River	.92	1962-66

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
11144500	Santa Margarita Lake near Pozo	112	1945-86
11166740	Calero Reservoir near New Almaden	6.93	1936-85
11461800	Lake Mendocino near Ukiah	105	1966-90
11464900	Lake Sonoma near Geyserville	130	1984-90

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
11141150	Arroyo Grande above Phoenix Creek, near Arroyo Grande	13.4	WQ,S,T	1967-73, 1977, 1990

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11141280	Lopez Creek near Arroyo Grande	20.9	S	1968-72
11142200	Santa Rosa Creek near Cambria	12.5	WQ	1988-89
11142240	Perry Creek at Cambria	22.9	WQ	1988-89
11142300	San Simeon Creek near Cambria	26.3	WQ	1988-89
11143000	Big Sur River near Big Sur	46.5	WQ,T	1966-79
11143250	Carmel River near Carmel	246	WQ,S	1954-66, 1990
11147040	Santa Rita Creek tributary near Templeton	2.95	T	1968-72
11147070	Santa Rita Creek near Templeton	18.2	S	1968-72
11147500	Salinas River at Paso Robles	390	WQ,S	1963-66, 1990
11148500	Estrella River near Estrella	922	S	1990
11148800	Nacimiento River near Bryson	147	T,S	1959, 1961-71
11149400	Nacimiento River below Nacimento Dam, near Bradley	329	WQ	1963-66
11149700	San Antonio River at Sam Jones Bridge	204	T,S	1959, 1961-62, 1964-65
11150000	San Antonio River at Pleyto	277	T,S	1962, 1965
11150500	Salinas River near Bradley	2,535	WQ,S	1950, 1958, 1962-66, 1972-75, 1977, 1980-81, 1990
11151700	Salinas River at Soledad	3,563	WQ,S	1972-75, 1977, 1990, 1992
11151870	Arroyo Seco near Greenfield	113	S	1963-75, 1978-84
11152500	Salinas River near Spreckels	4,156	WQ,B,C, T,S	1950-54, 1958-79, 1986, 1990
11152540	El Toro Creek near Spreckels	31.9	S	1986, 1990
11153470	Llagas Creek above Chesbro Reservoir, near Morgan Hill	9.63	T	1972-78
11153500	Llagas Creek near Norgan Hill	19.6	WQ,S	1979-91
11153555	Llagas Creek at San Martin	28.2	WQ,S	1980-87, 1989-91
11153900	Uvas Creek above Uvas Reservoir, near Morgan Hill	21	T,S	1966-76
11159000	Pajaro River at Chittenden	1,186	WQ,B,C T,S	1952-92
11160020	San Lorenzo River near Boulder Creek	6.17	C,S	1973-77, 1980-81
11160070	Boulder Creek at Boulder Creek	11.3	WQ,S	1973-77
11160300	Zayante Creek at Zayante	11.1	S	1970-73
11160500	San Lorenzo River at Big Trees	106	S	1973-82
11162500	Pesadero Creek near Pesadero	45.9	S	1980
11162630	Pilarcitos Creek at Half Moon Bay	27.1	S	1990
11162720	Colma Creek at South San Francisco	10.8	S	1966-76
11162722	Spruce Branch at South San Francisco	1.68	S	1965-69
11166575	Permanente Creek near Monte Vista	3.86	T,S	1984-87
11166578	West Fork Permanente Creek near Monte Vista	2.98	T,S	1985-86
11166710	Arroyo Calero above Calero Reservoir, near New Almaden	3.14	WQ	1986-90
11166900	Alamitos Creek near New Almaden	31.8	WQ,S	1985-91
11167500	Guadalupe Creek at Guadalupe	12.8	WQ,S	1980-91
11168000	Los Gatos Creek at Los Gatos	39.0	WQ	1952-66, 1980-87, 1989-91
11168800	Los Gatos Creek at Lincoln Avenue, at San Jose	48.4	WQ	1980-87, 1989-91
11169000	Guadalupe River at San Jose	146	WQ,S	1979-91
11169580	Calabazas Creek tributary no. 1 at Mt. Eden Road	.37	T	1973-77
11169600	Prospect Creek above Saratoga Golf Course, near Saratoga	.27	T	1973-75
11169616	Calabazas Creek at Rainbow Drive, near Cupertino	3.98	T	1974-77
11169800	Coyote Creek near Gilroy	109	T,S	1965-76
11169970	Coyote Creek below Leroy Anderson dam, near Madrone	195	WQ,S	1980-88, 1990-91
11171500	Coyote Creek near Edenvale	229	WQ,S	1979-88, 1990-91
11174600	Alamo Canal near Pleasanton	40.8	C	1979-83
11176000	Arroyo Mocho near Livermore	38.2	C	1979-83
11176140	Altamont Creek near Livermore	13.4	C	1979-80
11176145	Arroyo Las Positas at Livermore	53.3	C	1980-83
11176180	Arroyo Las Positas at El Charro, near Pleasanton	75.0	C	1980-83
11176200	Arroyo Mocho near Pleasanton	142	C	1980-84
11176300	Tassajara Creek near Pleasanton	26.8	C	1979-83
11176350	Arroyo de La Laguna above Arroyo Valle, near Pleasanton	224	T,S	1975-79
11176400	Arroyo Valle below Lang Canal, near Livermore	130	S	1963, 1965
11176500	Arroyo Valle near Livermore	147	S	1966-67
11176600	Arroyo Valle at Pleasanton	171	T,S	1975-79
11176900	Arroyo de La Laguna above bridge, near Pleasanton	--	T	1960-63
11177000	Arroyo de La Laguna near Pleasanton	405	C	1979-83
11177200	Vallecitos Creek at Sunol	7.48	C	1975-86
11179000	Alameda Creek near Niles	633	S	1960-73
11180940	Cull Creek tributary No. 4 above Cull Creek Reservoir, near Castro Valley	.45	S	1981, 1986, 1989 1992
11180965	Cull Creek below Cull Creek Dam, near Castro Valley	6.37	T,S	1979
11181390	Wildcat Creek at Vale Road, at Richmond	7.79	S	1978-80
11456000	Napa River near St. Helena	81.4	S	1961-62
11458000	Napa River near Napa	218	C,S	1978-81
11460000	Corte Madera Creek at Ross	18.1	S	1978-80

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
11460015	Corte Madera Creek at College Avenue, at Kentfield	18.2	S	1988-89
11460170	Pine Creek at Bolinas	7.83	T,S	1967, 1969-70
11460600	Lagunitas Creek near Point Reyes	81.7	T,S	1989-90
11460920	Salmon Creek at Bodega	15.7	T,S	1964-75
11461000	Russian River near Ukiah	100	S	1964-68, 1990-92
11461500	East Fork Russian River near Calpella	92.2	S	1965-68
11462000	East Fork Russian River near Ukiah	105	S	1964-68
11463000	Russian River near Cloverdale	503	S	1964-68
11463160	Big Sulphur Creek near Middletown	2.89	T,S	1978-79
11463200	Big Sulphur Creek near Cloverdale	85.5	S	1967-68
11464500	Dry Creek near Cloverdale	87.8	T	1965-79
11465150	Pena Creek near Geyserville	22.3	S	1979-86
11465200	Dry Creek near Geyserville	162	S	1964-86
11467000	Russian River near Guerneville	1,338	C,S	1974-82
11467600	Garcia River near Point Arena	98.5	T	1964-78
11468600	Middle Fork Ten Mile River near Fort Bragg	32.9	T	1965-73
11471000	Potter Valley Powerhouse intake near Potter Valley	--	S	1964-68
11472150	Eel River near Dos Rios	528	S	1967-77
11472200	Outlet Creek near Longvale	161	S	1967-70
11472500	Eel River above Dos Rios	705	T,S	1959, 1962-82
11472800	Middle Fork Eel River above Black Butte River, near Covelo	204	T,S	1966, 1969-70
11472900	Black Butte River near Covelo	162	T,S	1964-66, 1968-75
11473000	Middle Fork Eel River below Black Butte River, near Covelo	367	T,S	1961-63, 1968-79
11473800	Elk Creek near Hearst	84.1	T	1965-73
11473900	Middle Fork Eel River near Dos Rios	745	C,S	1967-69
11474500	North Fork Eel River near Mina	248	T,S	1973-75
11474700	Chamise Creek near Island Mountain	22.6	T,S	1973-75
11475000	Eel River at Fort Seward	2,107	S	1966-76
11475100	Dobbyn Creek near Fort Seward	61.4	T,S	1973-76
11475500	South Fork Eel River near Branscomb	43.9	T,S	1961-70
11475560	Elder Creek near Branscomb	6.50	S	1974-75
11476500	South Fork Eel River near Miranda	537	S	1981
11476600	Bull Creek near Weott	28.1	S	1960-80
11477000	Eel River at Scotia	3,112	C,S	1979-81
11477500	Van Duzen River near Dinsmore	85.2	T	1966-74
11477700	Little Van Duzen River near Bridgeville	36.2	T	1961-65
11480700	Maple Creek near Blue Lake	12.1	T	1969
11480750	Mad River near Kneeland	351	T	1966-74
11480780	Mad River near Blue Lake	393	T	1973-76
11481000	Mad River near Arcata	485	S	1960-74
11482110	Lacks Creek near Orick	16.9	C,S	1975-76, 1978-91
11482120	Redwood Creek above Panther Creek, near Orick	150	S	1988-89
11482125	Panther Creek near Orick	6.07	T,S	1979-91
11482130	Coyote Creek near Orick	7.78	T,S	1980
11482200	Redwood Creek at south park boundary, near Orick	185	T	1974-81
11482468	Little Lost Man Creek at site no. 2, near Orick	3.46	WQ,S	1974-76, 1978-82, 1985-89
11516600	Cottonwood Creek at Hornbrook	89.8	T	1965-71
11523000	Klamath River at Orleans	8,475	S	1967-79
11525550	Grass Valley Creek near French Gulch	7.93	S	1985-89
11525655	Trinity River below Limekiln Gulch, near Douglas City	812	T,S	1981-91
11526500	North Fork Trinity River at Helena	151	T,S	1963
11528200	South Fork Trinity River near Hyampom	342	T	1961-65
11528500	Hayfork Creek near Hyampom	378	T	1961-74
11528700	South Fork Trinity River below Hyampom	764	S	1967-70, 1981-82
11529000	South Fork Trinity River near Salyer	898	T,S	1959-67, 1981-82
11530000	Trinity River at Hoopa	2,853	S	1960-79
11530020	Supply Creek at Hoopa	15.8	T,S	1982-85
11530300	Blue Creek near Klamath	120	T	1966-78
11530500	Klamath River near Klamath	12,100	C	1975-81
11532000	South Fork Smith River near Crescent City	291	T,S	1978-79
11532500	Smith River near Crescent City	609	C,S	1978-81
11532620	Mill Creek near Crescent City	28.6	T	1974-80
353339121053900	Santa Rosa Creek on Highway 1 bridge, at Cambria	46.6	WQ	1988-89
353406121061100	Santa Rosa Creek at Windson Boulevard, near Cambria	47.1	WQ	1988-89
353635121043101	San Simeon Creek at Palmer Flats, near Cambria	23.1	WQ	1988-89
371057121472501	Calero Reservoir at dam, near New Almaden	6.93	WQ,B	1978-79, 1984-91
375658122324000	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 0	--	S	1988-89
375701122324200	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 1	--	S	1988-89
375704122324200	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 2	--	S	1988-89

DISCONTINUED WATER-QUALITY STATIONS--Continued

Station No.	Station name	Drainage area (mi^2)	Type of record	Period of record
375710122324000	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 3	--	S	1990
375711122324600	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 4	--	S	1988-89
375712122325100	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 5	--	S	1988-89
375712122325200	Corte Madera Creek near College Avenue, at Kentfield, at Cross Section 6	--	S	1988-89

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

WATER RESOURCES DATA--CALIFORNIA, WATER YEAR 1992

VOLUME 2--PACIFIC SLOPE BASINS FROM ARROYO GRANDE

TO OREGON STATE LINE EXCEPT CENTRAL VALLEY

By K.L. Markham, J.R. Palmer, M.F. Friebel, and L.F. Trujillo,

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 data base 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 124 streamflow-gaging stations, 1 low-flow partial-record streamflow station, and 6 miscellaneous measurement stations; (2) stage and contents records for 9 lakes and reservoirs; (3) precipitation records for 3 stations; and (4) water-quality records for 32 streamflow-gaging stations and 1 water-quality partial-record station. 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-92-2." 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. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

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) 978-4668. A limited number of CD-ROM discs will be available for purchase from U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Box 25286, MS 517, Denver Federal Center, Denver, CO 80225.

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:

Alameda County Flood Control and Water Conservation District, Donald Labelle, Director of Public Works.
Alameda County Water District, James D. Beard, General Manager.
California Department of Boating and Waterways, William H. Ivers, Director.
California Department of Parks and Recreation, Henry R. Agonia, Director.
California Department of Water Resources, David N. Kennedy, Director.
Contra Costa County Flood Control and Water Conservation District, Milton Kubicek, Deputy Director.

Humboldt Bay Municipal Water District, Arthur Bolli, General Manager.
Marin Municipal Water District, Ronald L. Johnson, General Manager.
Mendocino County Water Agency, Dennis Jackson, Hydrologist.
Monterey County Water Resources Agency, William Hurst, General Manager.
Monterey Peninsula Water Management District, James Cofer, General Manager.
Palo Alto, city of, Phil Bobel, Manager, Water Quality Control Plant.

San Benito County Water Conservation and Flood Control District, William Rupert, District Manager.
San Francisco Water Department, John Mullane, General Manager.
San Luis Obispo County Engineering Department, Clinton Milne, County Engineer.
San Mateo County, Robert Sans, Director of Public Works.

Santa Clara Valley Water District, Ronald R. Esau, General Manager.
Santa Cruz, city of, Water Department, William Kocker, Director.
Santa Cruz County Flood Control and Water Conservation District, Planning Department, Ken Hart, Program Manager.
Scotts Valley Water District, Jon Sansing, General Manager.
Sonoma County Planning Department, Steven Sharpe, Geothermal Coordinator.
Sonoma County Water Agency, Robert F. Beach, General Manager.

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

The following organizations aided in collecting records: Pacific Gas and Electric Company; PacifiCorp, formerly Pacific Power and Light Company, STS Hydropower.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

As is common in California, streamflow varied greatly in the 1992 water year--month by month and regionally. The variations are related to differences in precipitation, temperature, topography, and geology. Runoff during the 1992 water year in the area covered by this volume was 60 percent of the 1961-90 median based on 10 representative streamflow records. Total runoff, in percent of median, at selected stations in California is shown in figure 1. Runoff ranged from 37 percent of median at Eel River at Scotia (station 11477000) to 107 percent of median at Santa Rita Creek near Templeton (station 11147070). In figure 2, monthly mean discharge in the 1992 water year is compared to the 1961-90 median, maximum, and minimum monthly mean discharge at four representative gaging stations. In addition, a comparison of monthly precipitation in the 1992 water year and the long-term average is shown in figure 2. Annual departure from 1961-90 mean discharge for four selected gaging stations is shown in figure 3. A comparison of peak discharge for the 1992 water year with peaks for period of record for selected stations is given in table 1. A comparison of low-flow data for various years is shown in table 2.

Precipitation in the area covered by this volume was below normal during the 1992 water year, extending hydrologic drought conditions into a sixth consecutive year. Precipitation, based on seven representative rain gages, was 80 percent of the long-term average. There were significant storms in February and March that produced above average precipitation throughout the region.

Table 1. Comparison of peak discharge for 1992 water year with those for period of record for selected stations

Station No.	Station name	1992 water year		Period of record	
		Date	Peak discharge (ft^3/s)	Water year	Peak discharge (ft^3/s)
11152000	Arroyo Seco near Soledad	Feb. 12	6,060	1958	28,300
11456000	Napa River near St. Helena	Feb. 20	2,890	1986	16,900
11477000	Eel River at Scotia	Feb. 20	54,200	1965	752,000
11532500	Smith River near Crescent City	Apr. 16	31,700	1965	228,000

Figure 1. Runoff, in percent of median, for the 1992 water year.

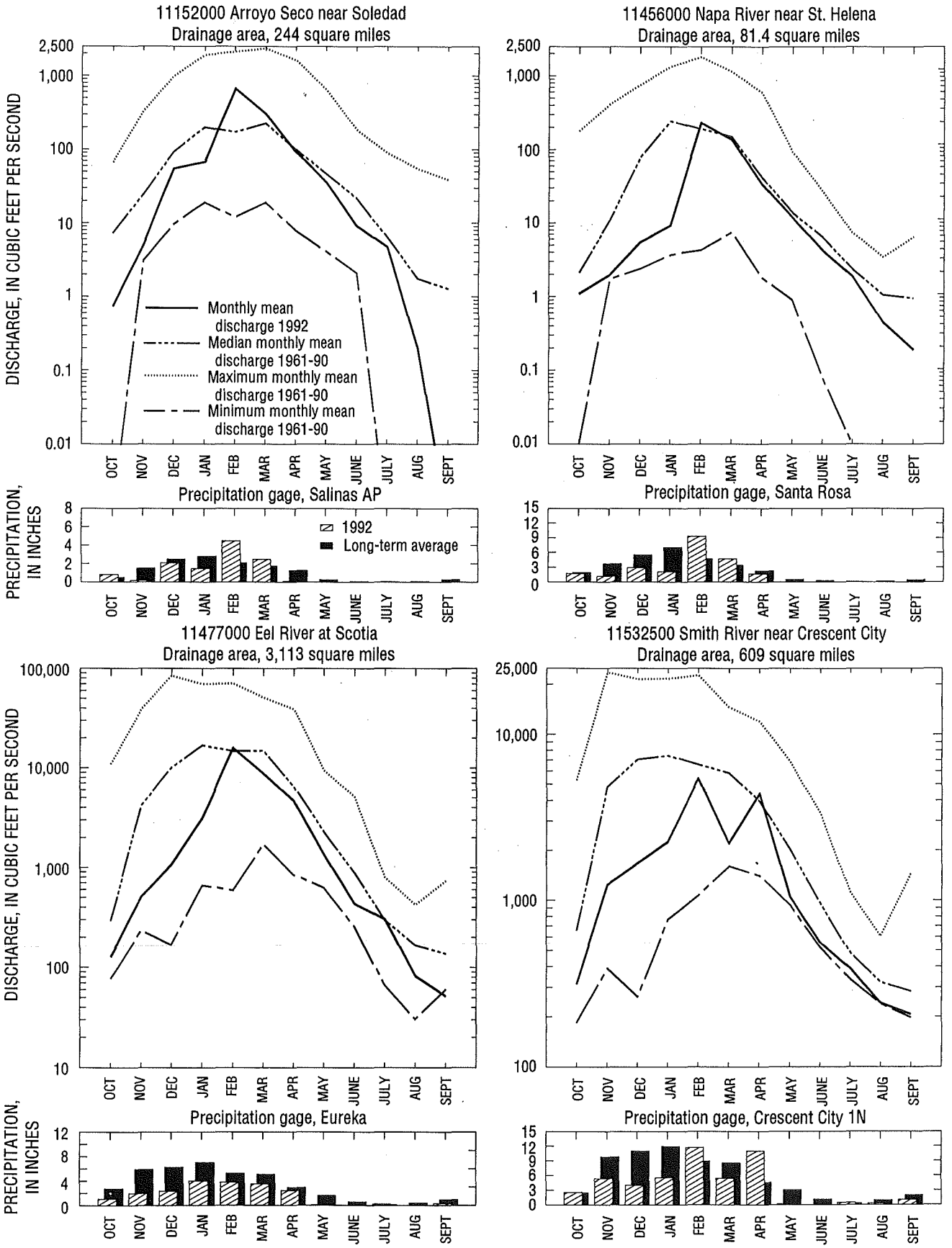


Figure 2. Discharge and precipitation during water year 1992 and long-term average at four representative gaging stations. Precipitation data from National Oceanic and Atmospheric Administration, 1992, Climatological Data, annual summary: v. 96.

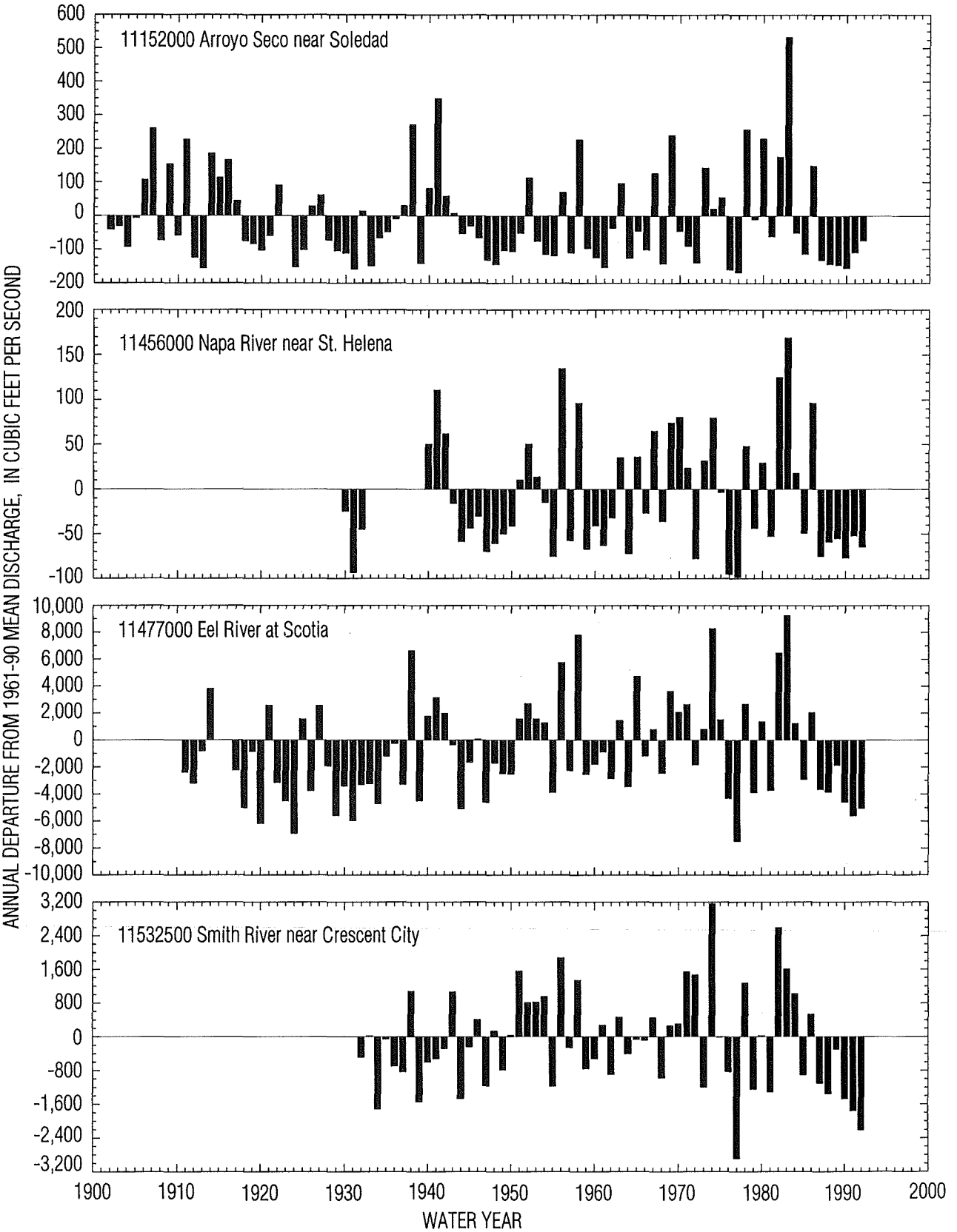


Figure 3. Annual departure from 1961-90 mean discharge for period of record at selected gaging stations.

Table 2. Comparison of 7-day and 1-day low flow for 1992 water year with 7-day, 1-day, and minimum daily flow for 30-year base period 1961-90 for selected stations

Station No.	Station name	7-day low flow (ft^3/s) 1992 water year	7-day low flow (ft^3/s) Base period 1961-90	1-day low flow (ft^3/s) 1992 water year	1-day low flow (ft^3/s) Base period 1961-90	Period of record Water year	Period of record Minimum daily (ft^3/s)
11152000	Arroyo Seco near Soledad	0	0	0	0	Several	0
11456000	Napa River near St. Helena	0.12	0	0.10	0	Several	0
11477000	Eel River at Scotia	43	25	41	25	1924	12
11532500	Smith River near Crescent City	188	163	183	160	1964	160

Water Quality

Water samples collected at seven NASQAN stations and one Hydrologic Benchmark station reported in this volume were analyzed for water-quality constituents. Dissolved-solids concentrations increased slightly from the previous year and were largest at Pajaro River near Chittenden (station 11159000), where the median concentration was 1,150 milligrams per liter. The smallest concentration was in water sampled from the Smith River near Crescent City (station 11532500), where the median concentration was 70 milligrams per liter. Figure 4 shows the monthly mean dissolved-solids concentrations during water year 1992 compared with long-term mean dissolved-solids concentrations at two selected stations. Sulfate and total dissolved-solids concentrations of water samples collected from the Pajaro River near Chittenden exceeded the water-quality criteria recommended by the U.S. Environmental Protection Agency on several occasions.

The largest densities of fecal-coliform (930 colonies per 100 milliliters) and fecal streptococcus bacteria (3,000 colonies per 100 milliliters) were in water samples collected from Russian River near Guerneville (station 11467000) and Salinas River near Chualar (station 11152300), respectively.

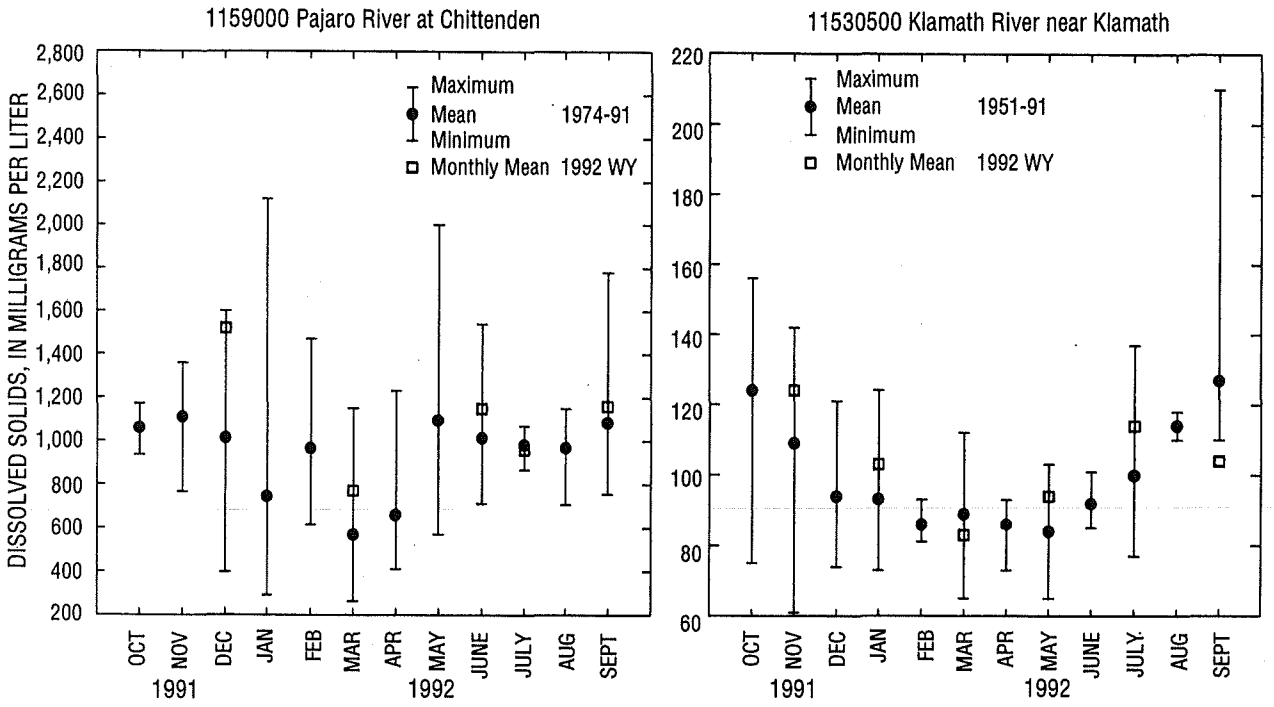


Figure 4. Comparison of monthly mean dissolved-solids concentrations during water year 1992 with long-term dissolved-solids concentrations at two selected stations.

Sediment

Suspended-sediment discharge and concentrations were monitored daily at 6 stations and periodically at 19 stations in the area included in this volume. Monthly and annual bedload discharge were estimated for all daily stations. Sediment-monitoring stations are located as far north as Crescent City and as far south as Bryson in San Luis Obispo County. Large variations in precipitation and drainage-basin characteristics result in significant differences in sediment-discharge rates.

Sediment discharge was well below normal during the 1992 water year for all the daily sediment stations included in this volume. Annual sediment discharge was 6 percent of average (1979-91) for Cull Creek above Cull Creek Reservoir, near Castro Valley (station 11180960); 2 percent (1971-91) for Redwood creek at Orick (station 11482500); and 10 percent (1976-91) for Grass Valley Creek at Fawn Lodge, near Lewiston (station 11525600).

During the 1992 water year, sediment discharge for the six daily stations ranged from 1,460 tons per year for Cull Creek above Cull Creek Reservoir, near Castro Valley (drainage area, 5.79 square miles) to 18,200 tons per year for Redwood Creek at Orick (drainage area, 277 square miles). Annual sediment yield ranged from a minimum of 42 tons per square mile for Redwood Creek near Blue Creek (station 11481500, drainage area, 67.7 square miles) to a maximum of 262 tons per square mile for San Lorenzo Creek at San Lorenzo (station 11181040, drainage area, 44.6 square miles).

HYDRODYNAMIC DATA FOR SAN FRANCISCO BAY

The U.S. Geological Survey has collected and continues to collect hydrodynamic data for San Francisco Bay. The data include 15-minute interval time-series of salinity, specific conductance, temperature, velocity, and surface water, in addition to time-series of wind velocity, air temperature, and atmospheric pressure.

The data are stored in a data base that was designed specifically for the storage and retrieval of hydrodynamics data for San Francisco Bay. The data base contains time-series data collected by the U.S. Geological Survey, as well as those collected by other agencies. Only the data collected by the U.S. Geological Survey will be described here.

The data base resides on a workstation in the U.S. Geological Survey office in Sacramento, California. Data requests for U.S. Geological Survey collected data can be obtained by contacting the California District Public Information Officer.

Station No.	Station name	Period of record
	Surface-water data	
11181360	San Pablo Strait at Point San Pablo	June 1986 to current year
11182130	Carquinez Strait at Selby	October 1986 to current year
11182450	Carquinez Strait at Martinez	June 1986 to September 1988
11185185	Suisun Bay at Mallard Island	September 1986 to September 1987
11455470	Threemile Slough at Sacramento River	March 1979 to May 1985
	Specific conductance, salinity, temperature	
11182130	Carquinez Strait at Selby (two depths)	October 1986 to current year
	Meteorological data	
SUBAY1	Suisun Bay at channel marker #13	August 1988 to April 1990
SUBAY2	Suisun Bay at channel marker #27	July 1992 to current year
SPBAY	San Pablo Bay at channel marker #11	August 1988 to current year

Velocity data

The U.S. Geological Survey has collected velocity data at numerous locations throughout the bay using *in situ* current meters and acoustic Doppler current profilers. Most of these data have been published by the U.S. Geological Survey using report series other than the annual water resources data report series.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 57 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 drainage basins nationwide. The data 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 408 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 data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1992 water year that began October 1, 1991, and ended September 30, 1992. 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 main-stream 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 11465350, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "465350." 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. 5). 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.

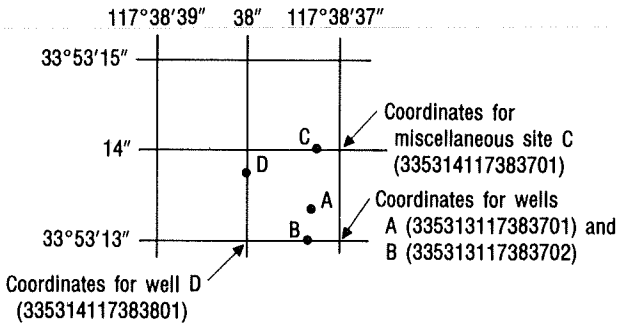


Figure 5. System for numbering miscellaneous sites (latitude and longitude).

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 partial-record stations for which data are given in this report are shown, by county, in figures 6 through 22.

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.

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

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following records, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 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 National Geodetic Vertical Datum of 1929 (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. At least 5 complete years of record must be available before this statistic is published for the designated period.

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 by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second (ft^3/s) for values less than 1 ft^3/s, to the nearest tenth between 1.0 and 10 ft^3/s, to whole numbers between 10 and 1,000 ft^3/s, and to three significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the measured discharge.

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 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 6 through 22.

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 (1992) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter (ng/L). If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter (µg/L) and could reflect contamination introduced during some phase of the procedure.

Water Temperature

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

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

Sediment

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

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

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.

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

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-section variation of water quality is essential in order to determine how many samples in a cross section are necessary to ensure a representative composite sample.

Laboratory Measurements

Sediment samples, 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 in analyzing sediment samples and computing sediment records are given in Techniques of Water-Resources Investigations, Book 5, Chapter C1; methods used by the laboratories are given in Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4.

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 includes 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 and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. 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.) A limited number of CD-ROM discs will be available for purchase from U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Box 25286, MS 517, Denver Federal Center, Denver, CO 80225.

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 ± 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 ± 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 ± 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/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

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

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

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

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 (ft^3/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 minumum 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 is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given 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 the National Geodetic Vertical Datum of 1929. This elevation is established by a system of levels from known bench marks 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 ($CaCO_3$).

Hydrologic Benchmark Network is a network of 57 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

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

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

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

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, $\mu g/g$) 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, $\mu g/L$) 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 408 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:

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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. 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^{12} 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 having a blue pigment in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

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

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 [mg C/(m^2/time) for periphyton and macrophytes and mg C/(m^3/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 that the oxygen light- and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2/time) for periphyton and macrophytes and mg O_2/(m^3/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.

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 emersed 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:

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

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

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

Tons per acre-foot 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 her[Be, 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, 1992, is called the "1992 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, Map Distribution, Box 25286, MS 306, Denver Federal Center, Denver, CO 80225. Prepayment is required. Remittance should be sent by check or money order payable to U.S. Geological Survey, Department of the Interior. 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. Scott 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 Warren 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 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, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 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, N. Yotsukura, G.W. Parker, and L.L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. Levels of streamflow gaging stations, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 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 Richard L. Cooley and Richard L. Naff: USGS--TWRI: Book 3, Chapter B4. 1990. 232 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 Eliezer 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, edited by M.J. Fishman and L.C. Friedman: 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, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. Methods for collection and analysis of aquatic biological and microbiological samples, edited by L.J. Britton and P.E. Greeson: 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. [variously paged]

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.

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.

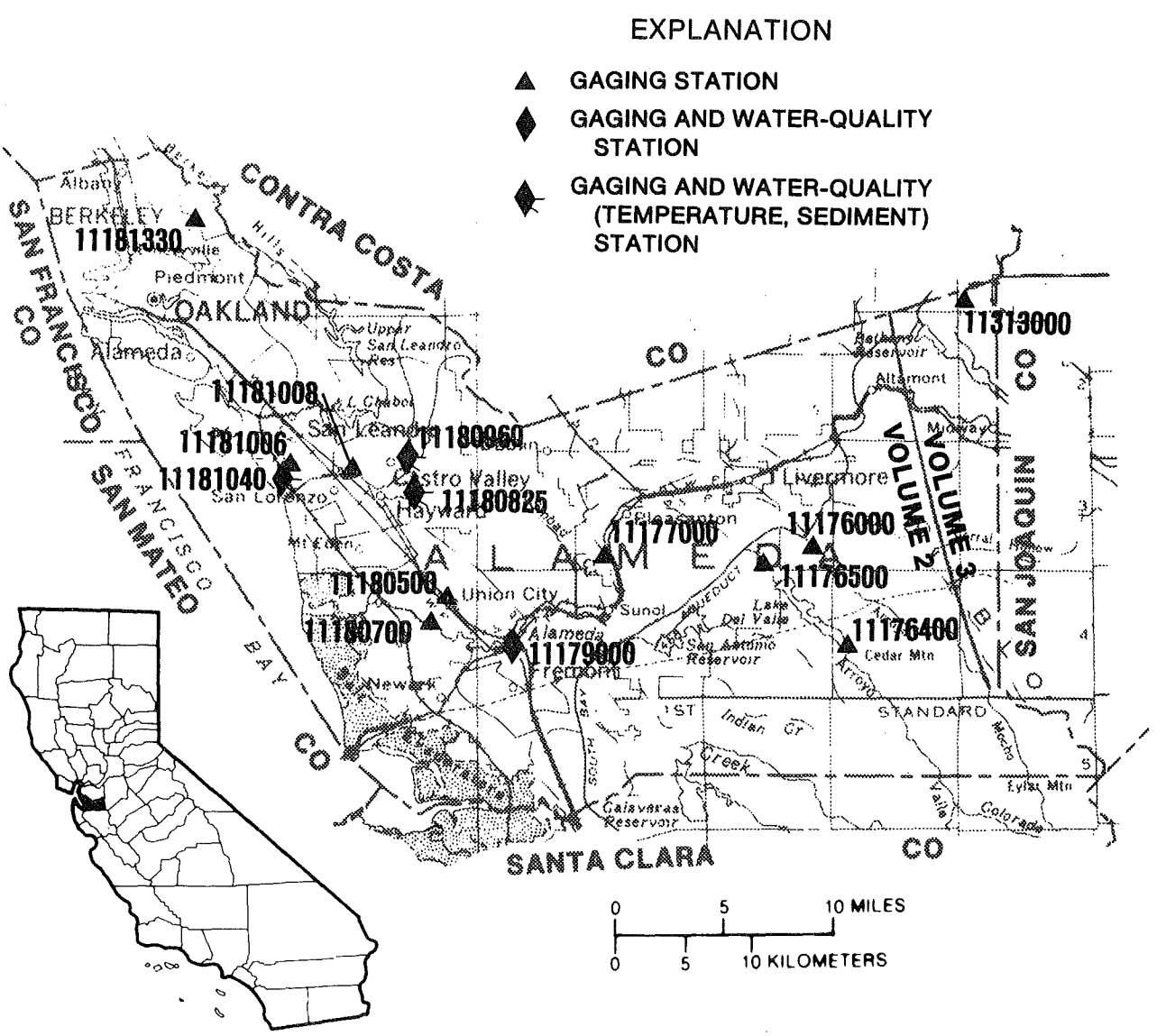


Figure 6. Location of discharge and water-quality stations in Alameda County. (NOTE: Record for station 11313000 published in volume 3.)

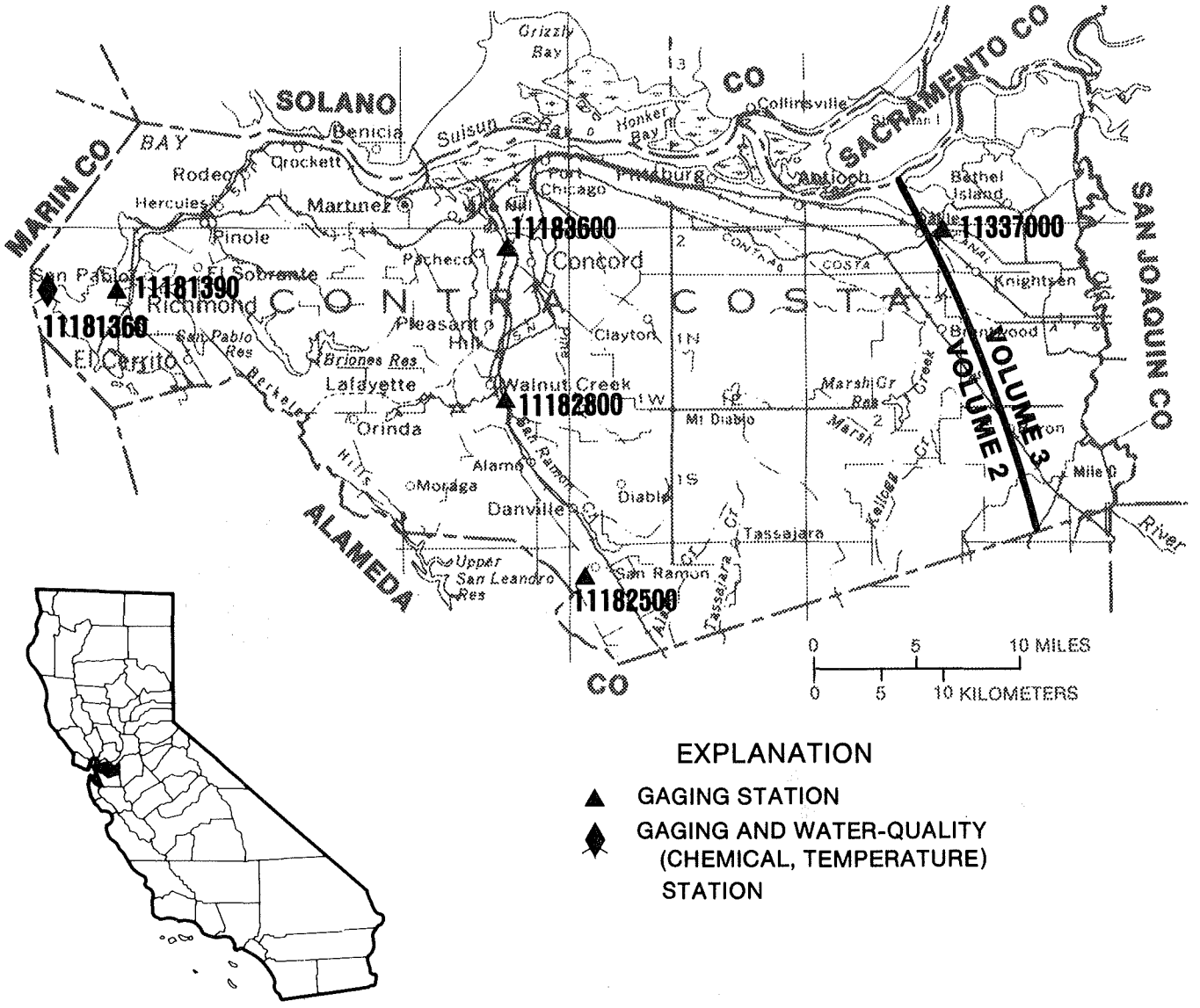


Figure 7. Location of discharge and water-quality stations in Contra Costa County. (NOTE: Record for station 11337000 published in volume 3.)

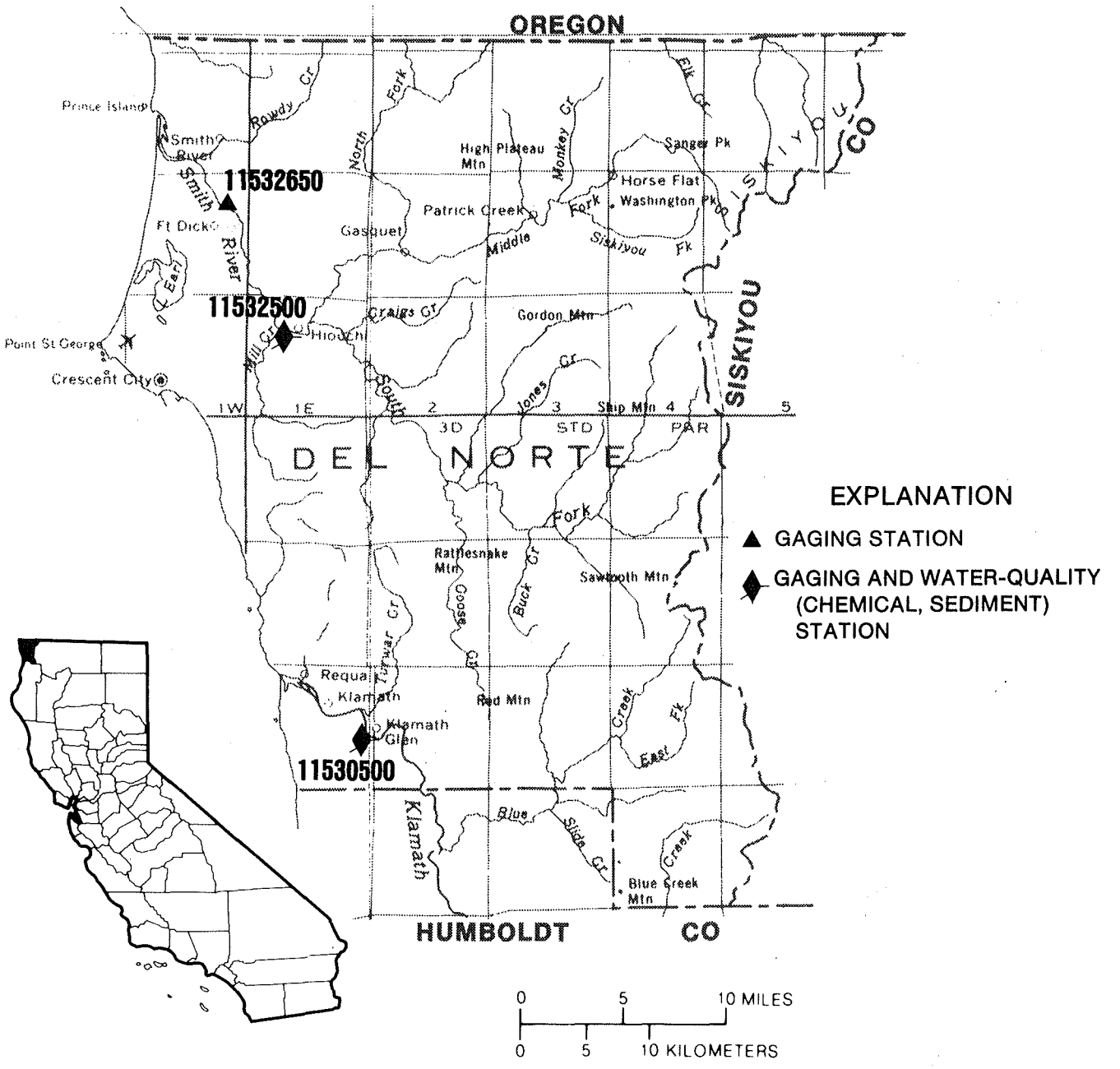


Figure 8. Location of discharge and water-quality stations in Del Norte County.

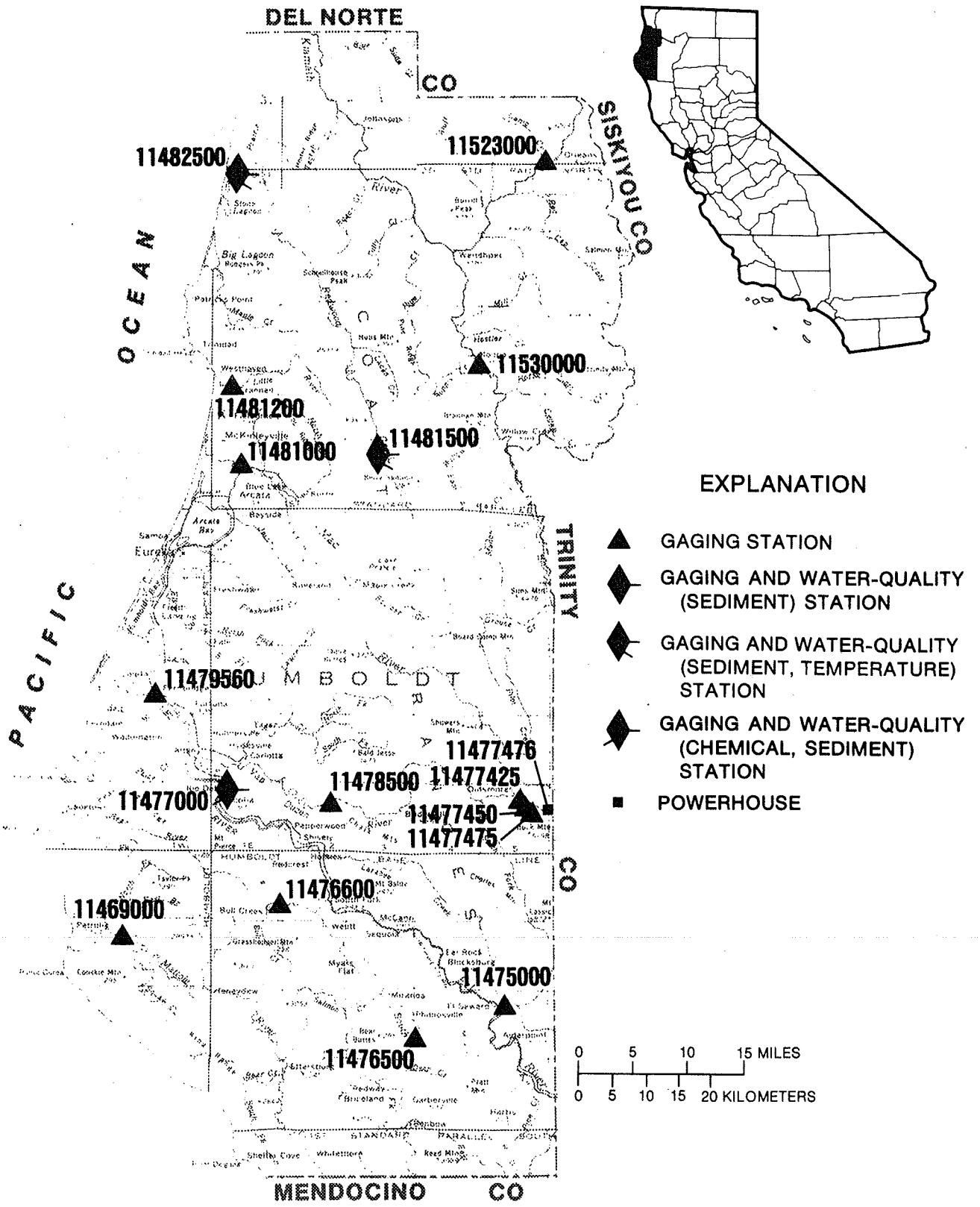


Figure 9. Location of discharge and water-quality stations in Humboldt County.

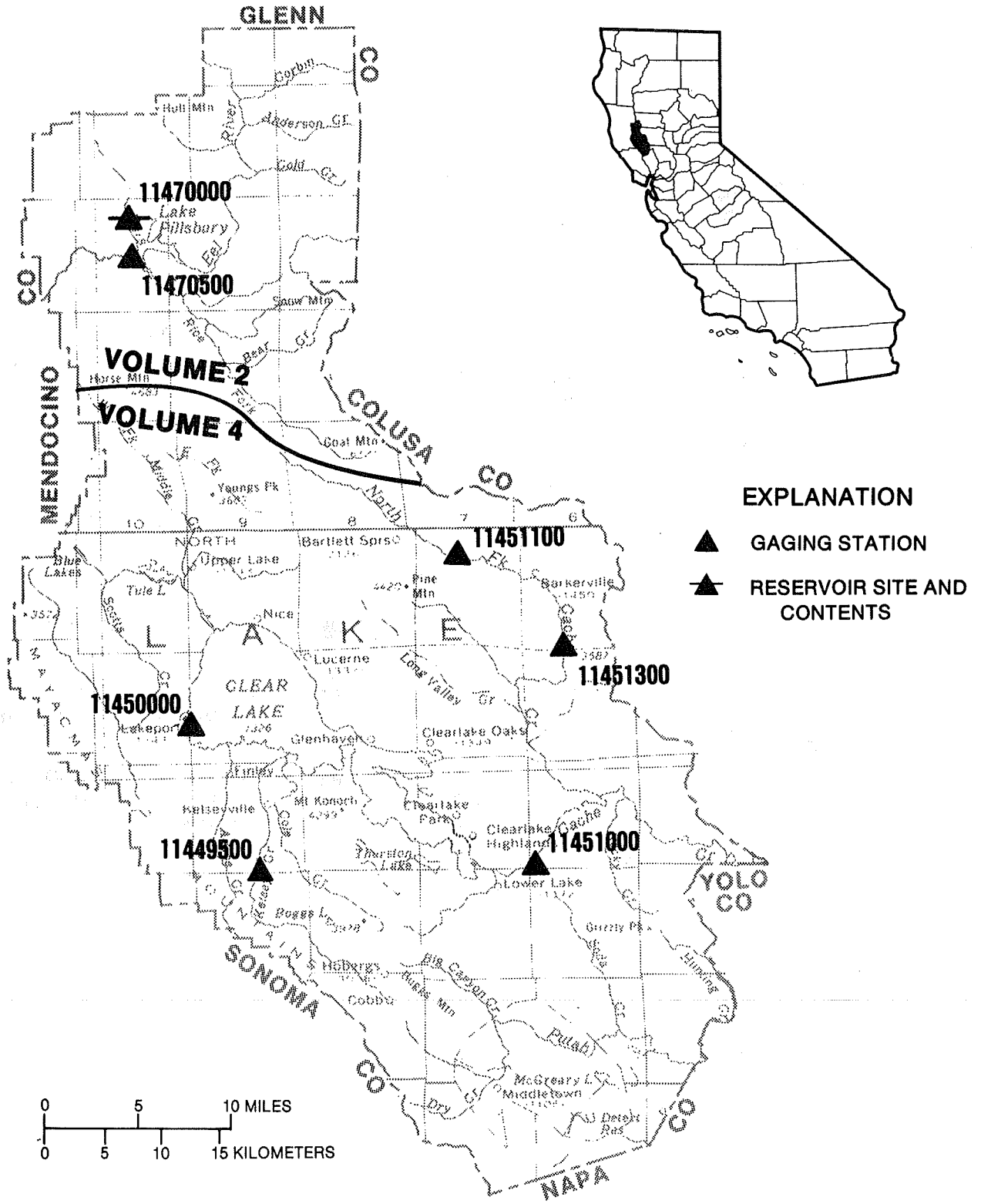


Figure 10. Location of discharge stations in Lake County. (NOTE: Records for stations 11449500 through 11451300 published in volume 4.)

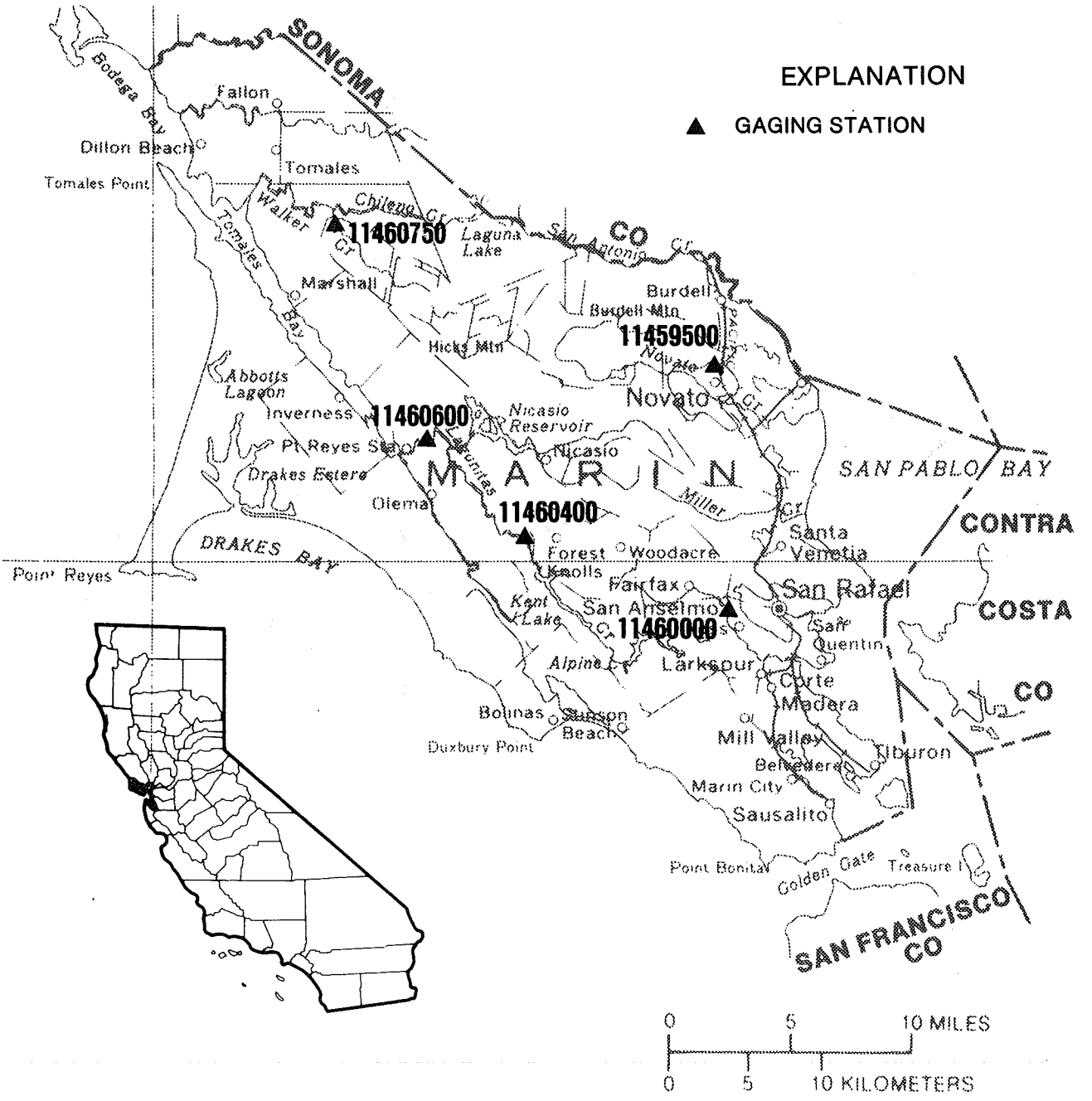


Figure 11. Location of discharge stations in Marin County.

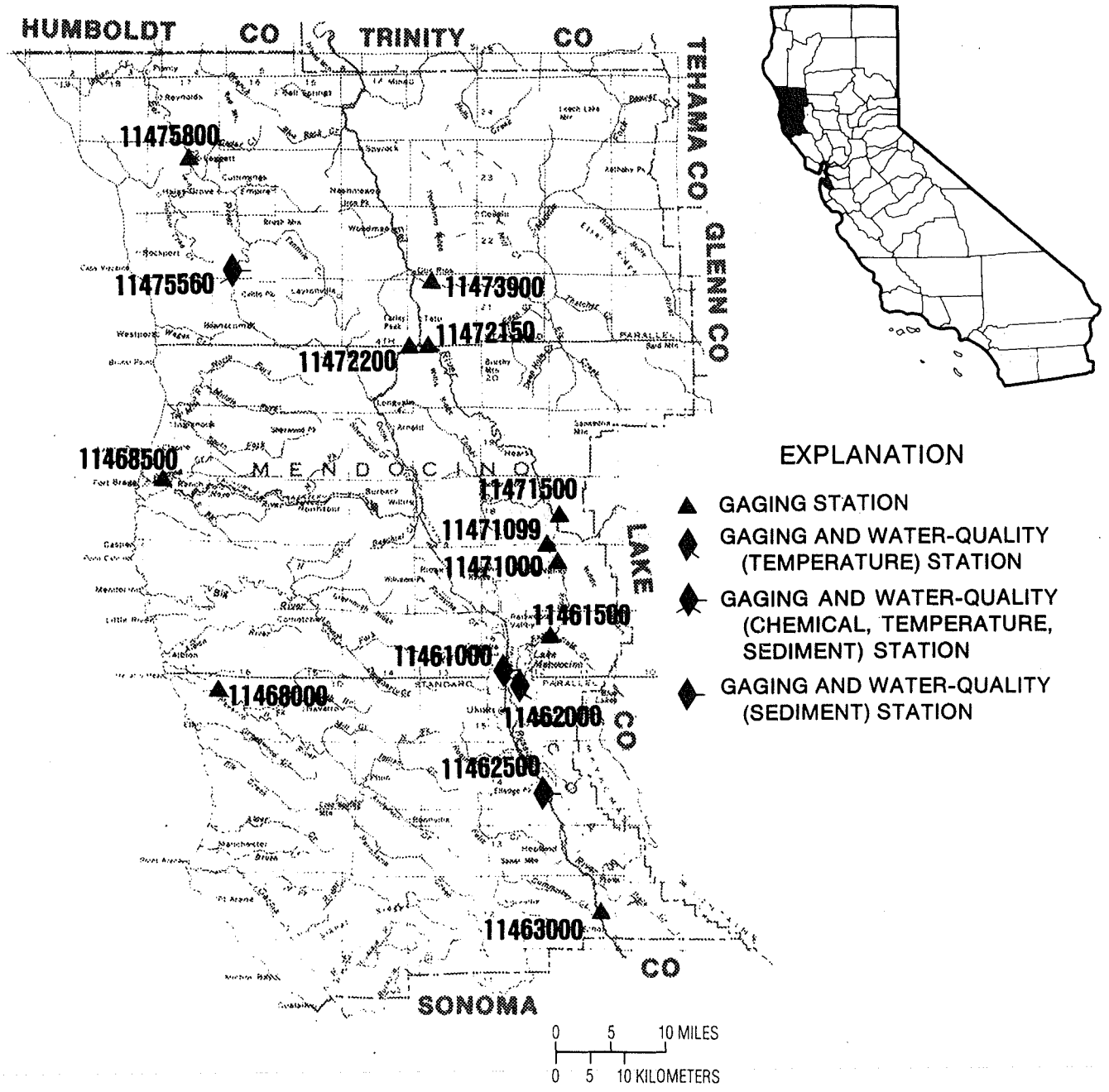


Figure 12. Location of discharge and water-quality stations in Mendocino County.

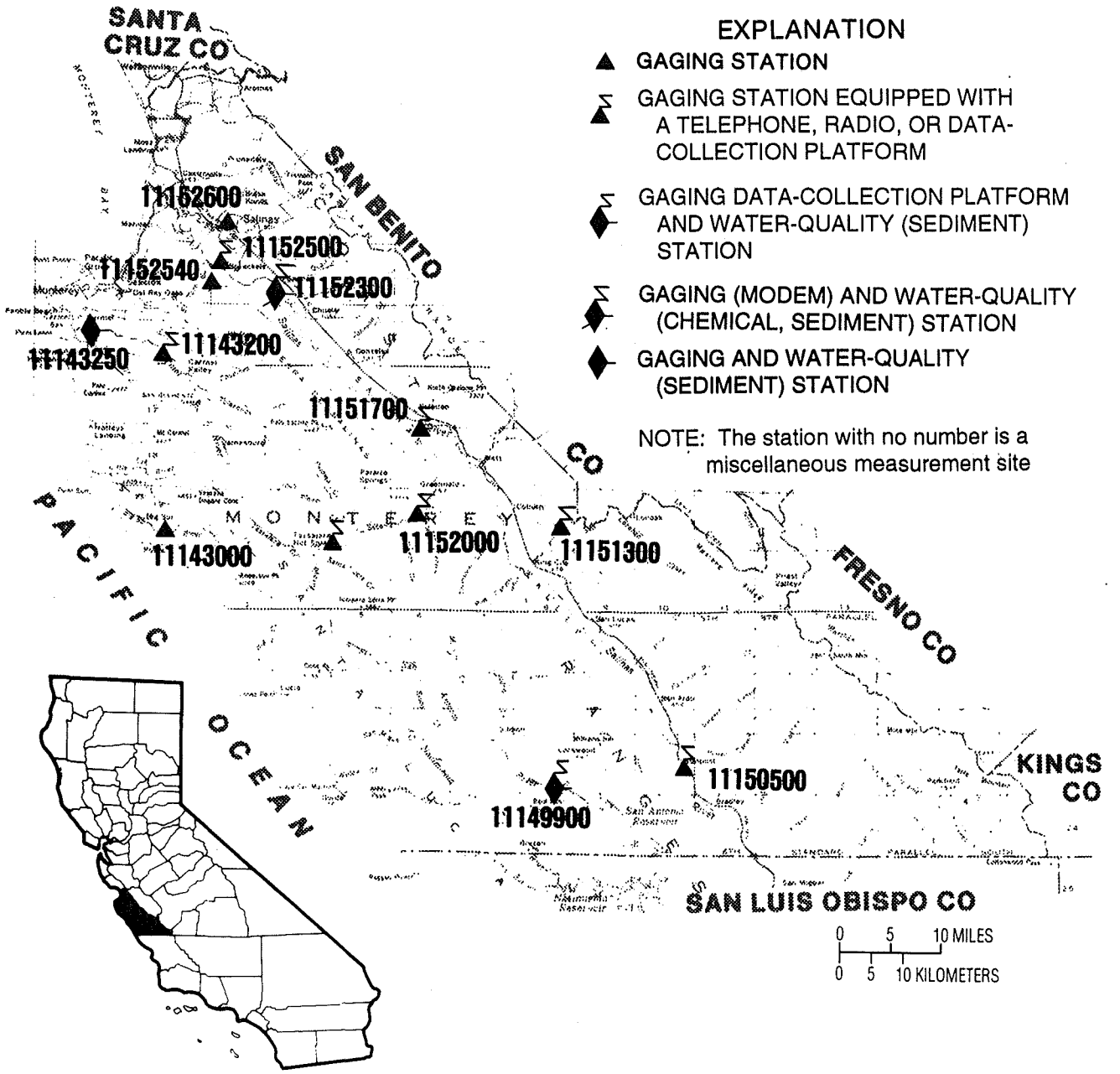


Figure 13. Location of discharge and water-quality stations in Monterey County.

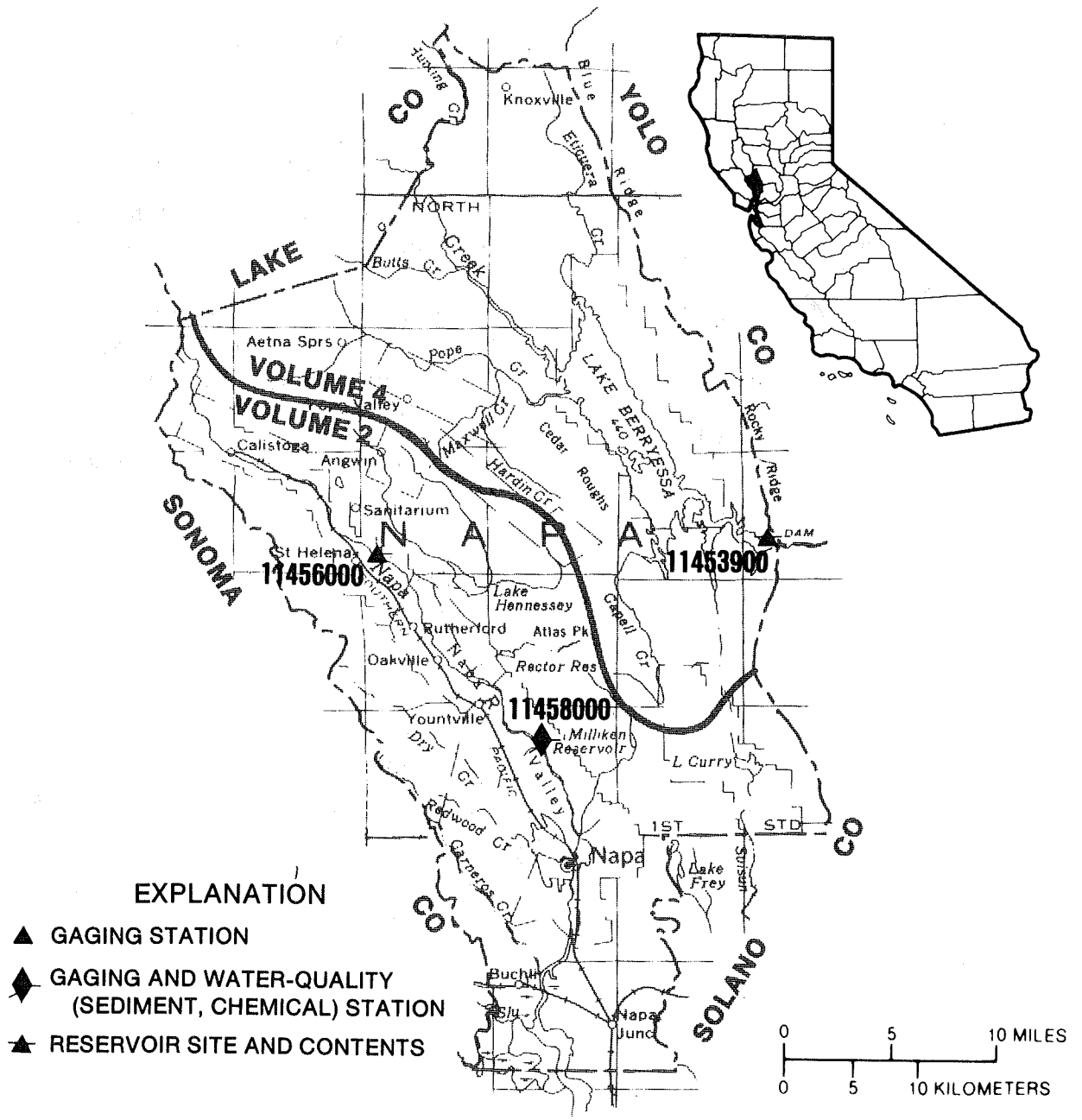


Figure 14. Location of discharge and water-quality stations in Napa County.
(NOTE: Record for station 11453900 published in volume 4.)

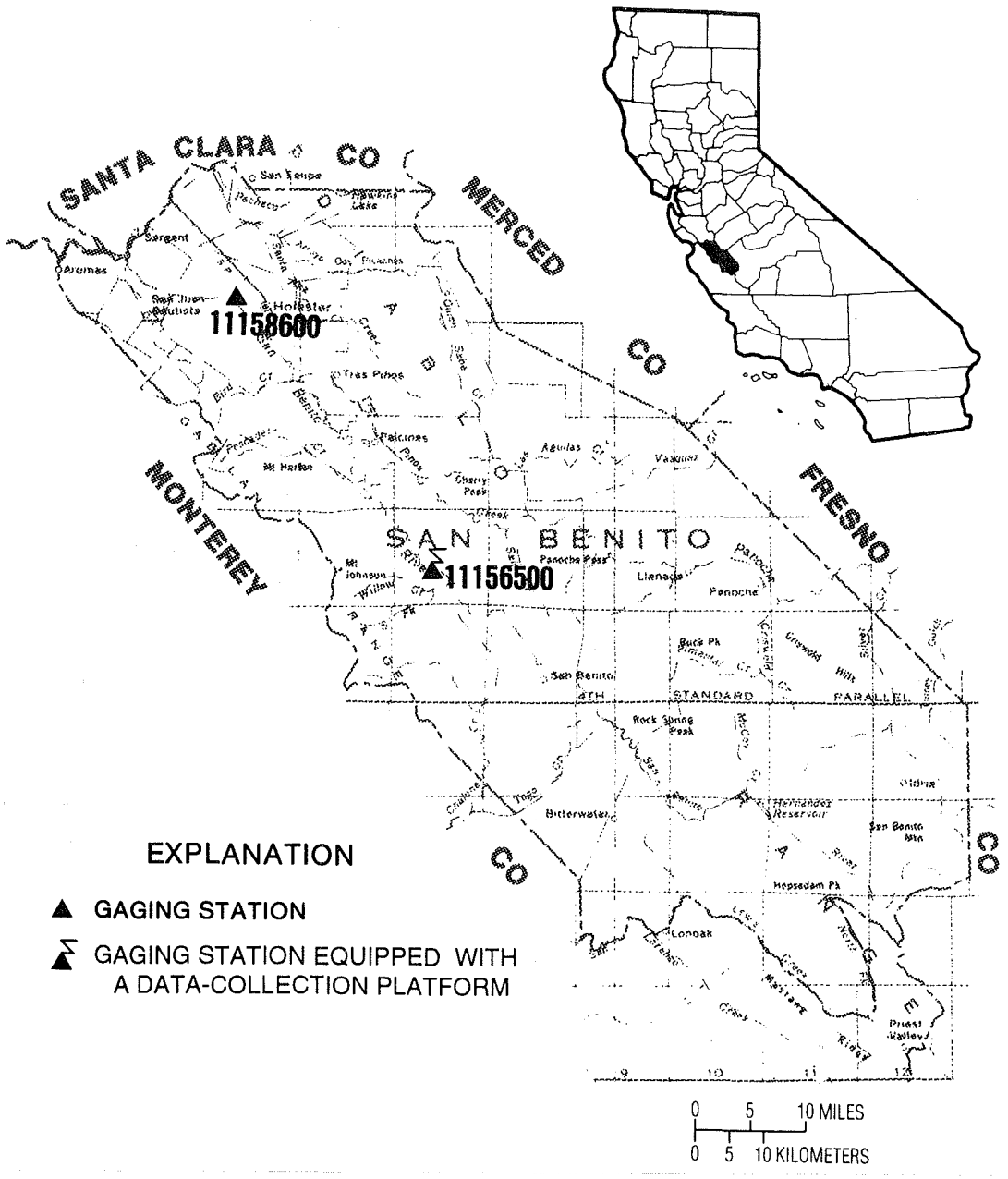


Figure 15. Location of discharge stations in San Benito County.

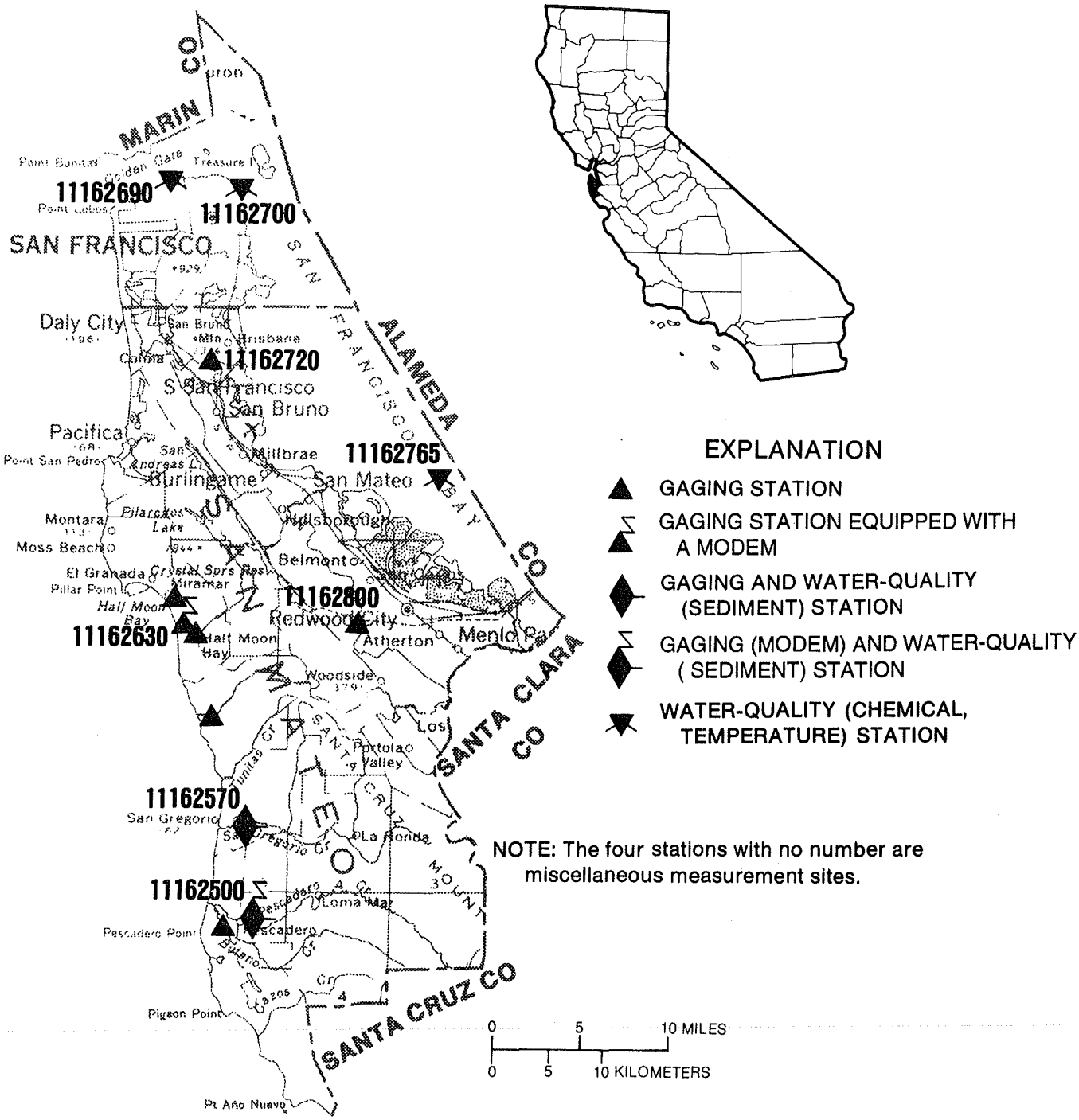


Figure 16. Location of discharge and water-quality stations in San Francisco and San Mateo Counties.

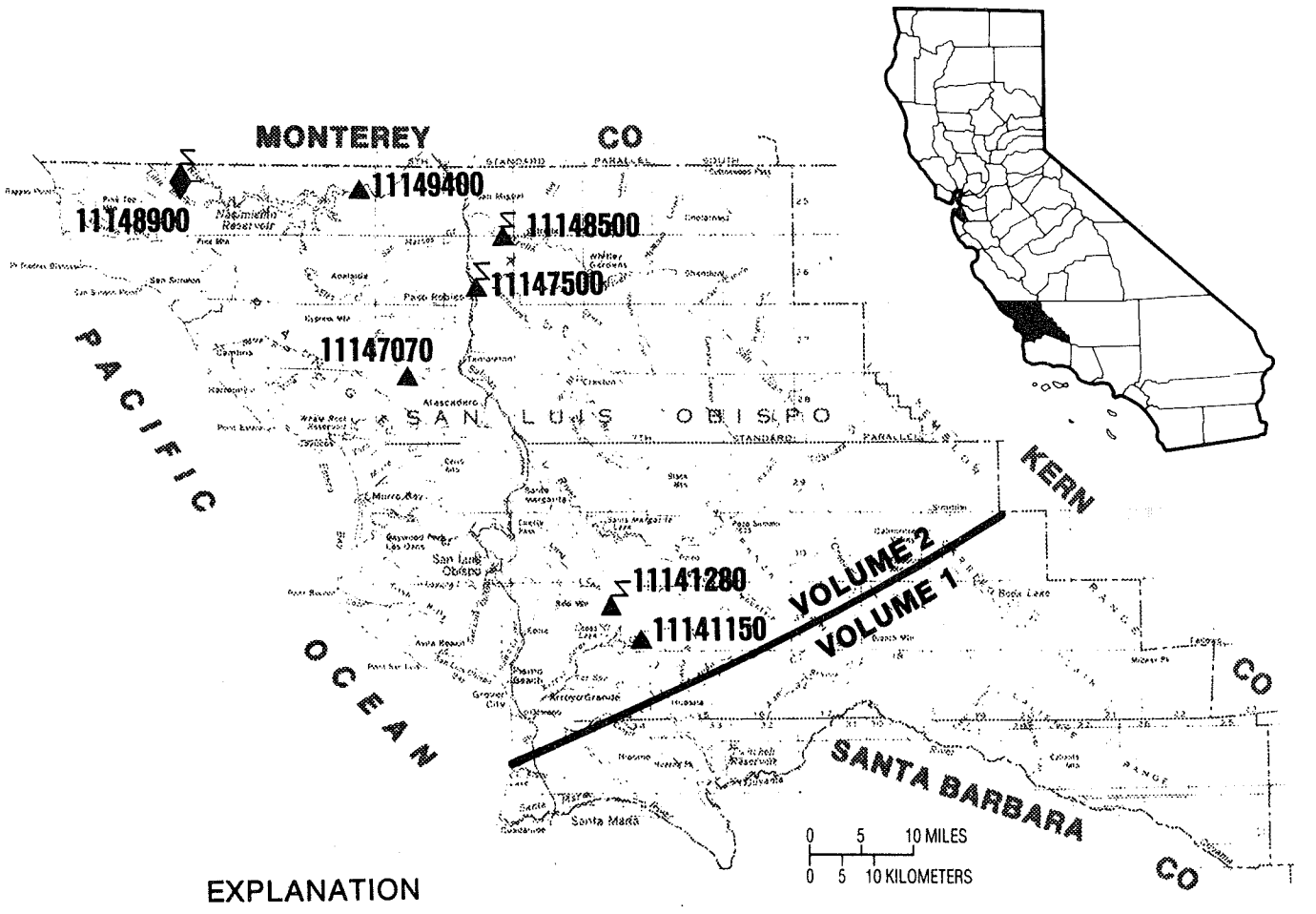


Figure 17. Location of discharge and water-quality stations in San Luis Obispo County.

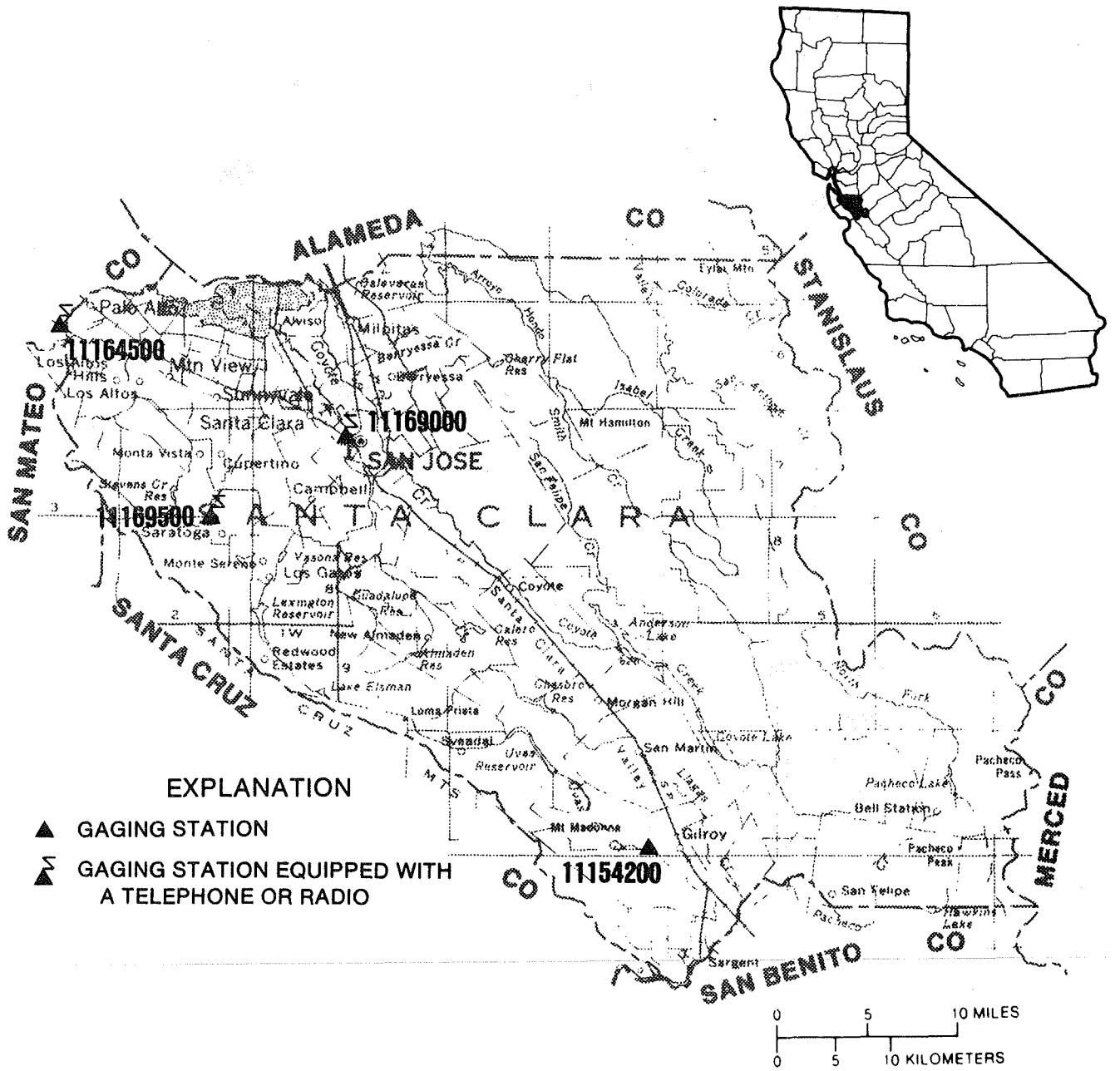


Figure 18. Location of discharge and water-quality stations in Santa Clara County.

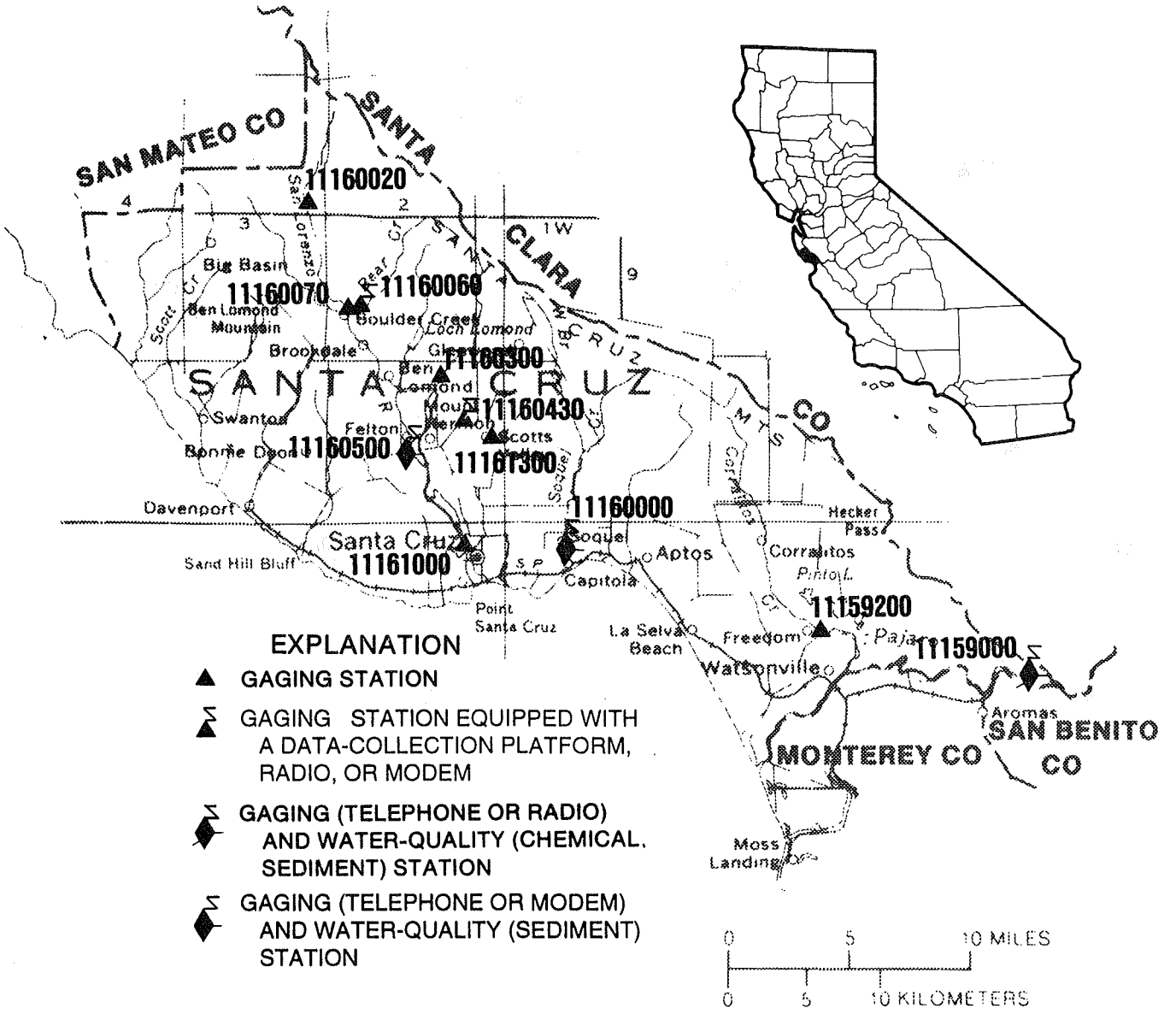


Figure 19. Location of discharge and water-quality stations in Santa Cruz County.

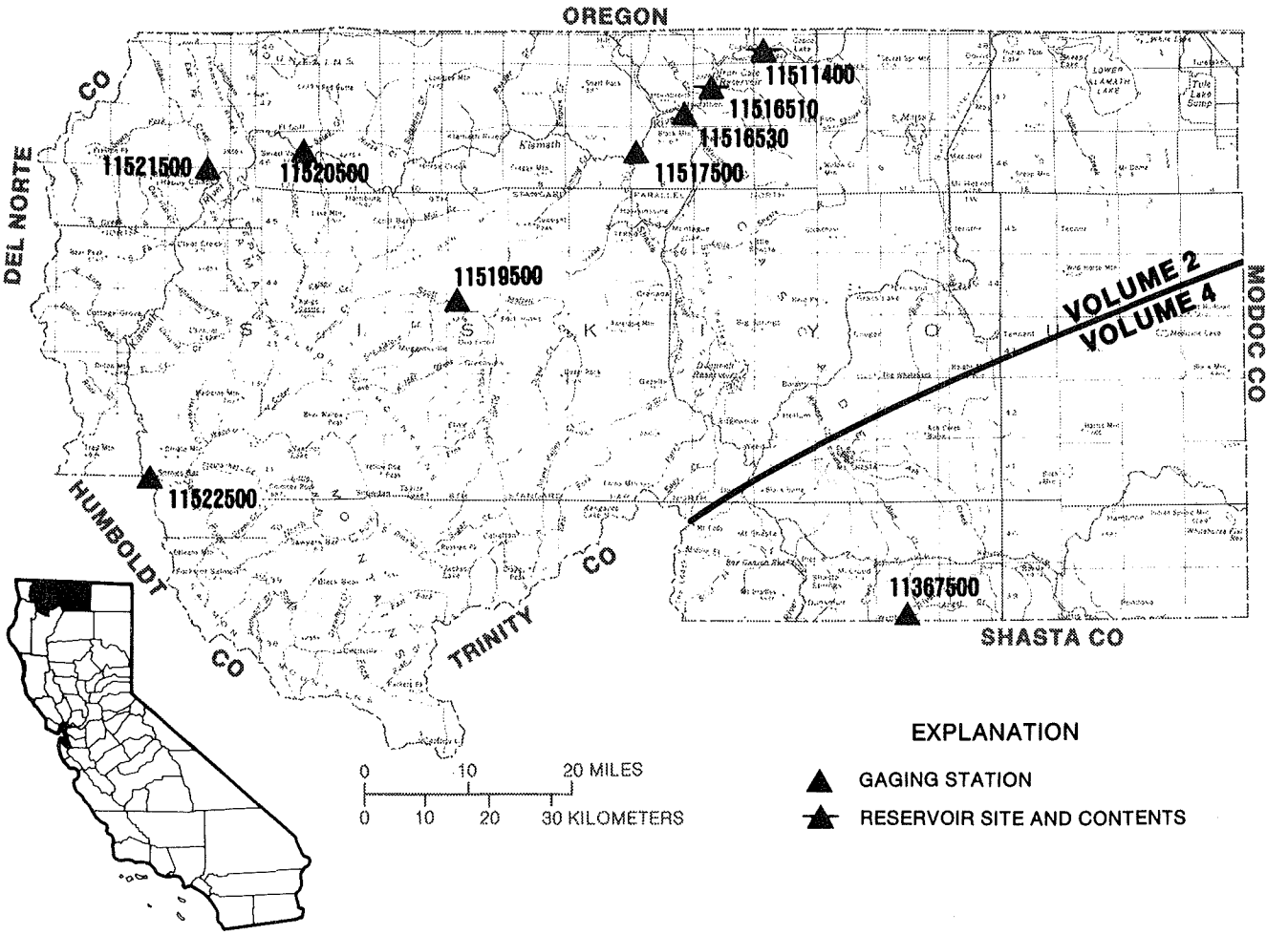


Figure 20. Location of discharge stations in Siskiyou County.
(NOTE: Records for station 11367500 published in volume 4.)

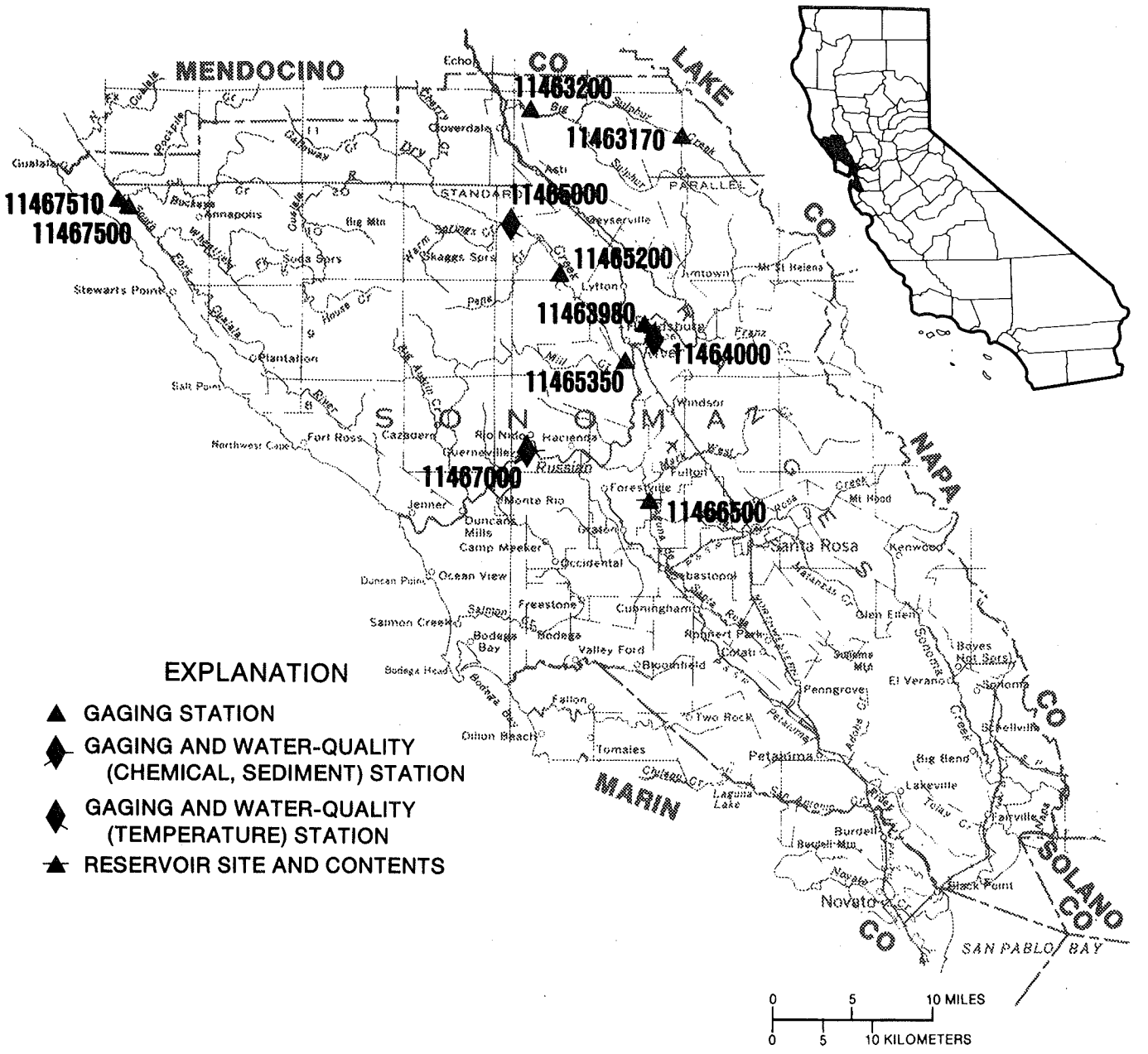


Figure 21. Location of discharge and water-quality stations in Sonoma County.

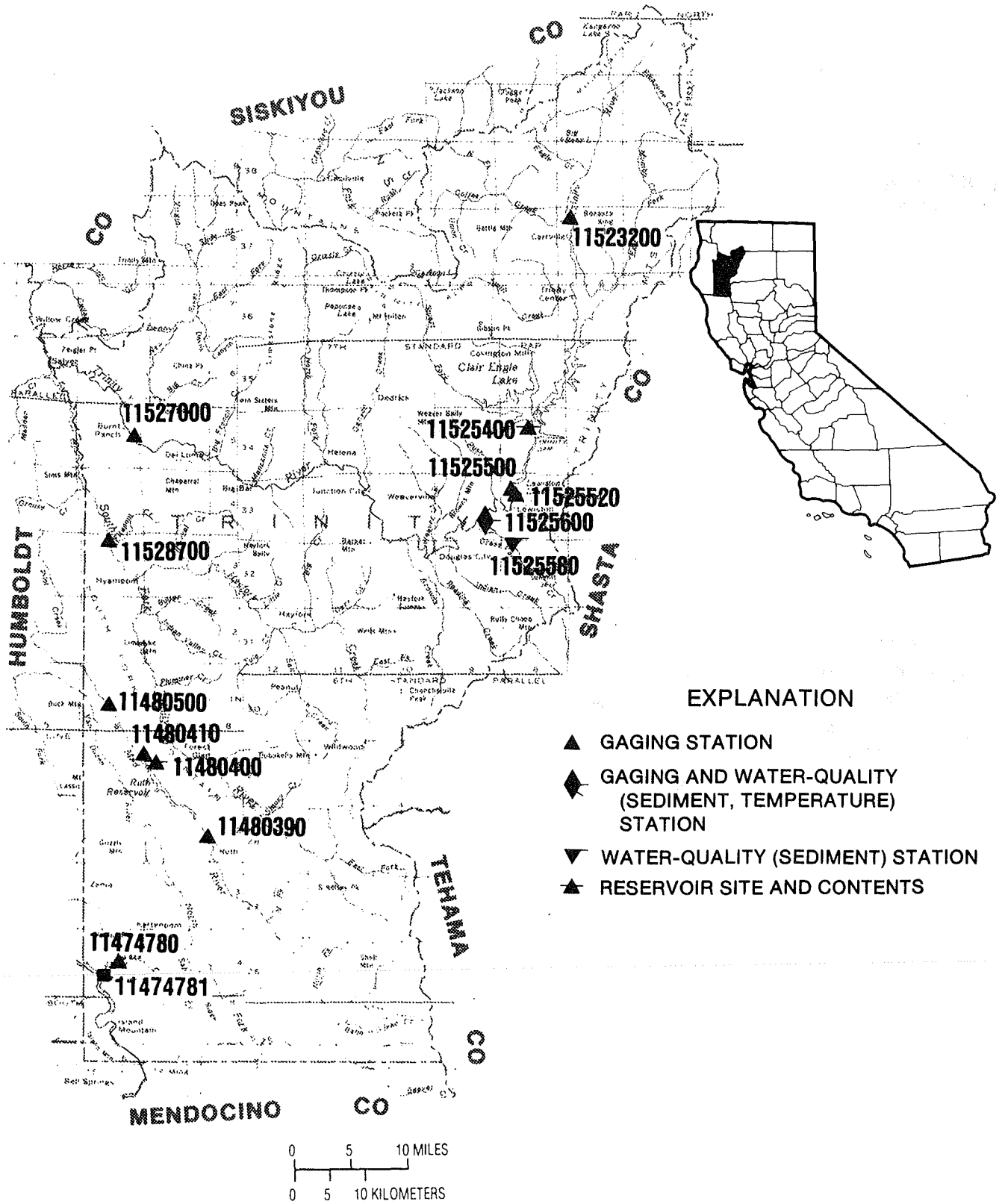


Figure 22. Location of discharge and water-quality stations in Trinity County.

GAGING STATION AND WATER-QUALITY RECORDS

Remark Codes

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

PRINTED OUTPUT	REMARK
e	Estimated value
>	Actual value is 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)
&	Biological organism estimated as dominant
*	Instantaneous streamflow at the time of cross-sectional measurements
1	Laboratory value

ARROYO GRANDE BASIN

11141150 ARROYO GRANDE ABOVE PHOENIX CREEK, NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°11'19", long 120°26'03", in Arroyo Grande Grant, San Luis Obispo County, Hydrologic Unit 18060006, on right bank 0.4 mi upstream from county road bridge, 0.45 mi upstream from Phoenix Creek, and 9.2 mi northeast of Arroyo Grande.

DRAINAGE AREA.--13.4 mi^2.

PERIOD OF RECORD.--June 1967 to September 1992 (discontinued).
CHEMICAL DATA: Water year 1977.
WATER TEMPERATURE: Water years 1968-73.
SEDIMENT DATA: Water years 1967-73, June 1990.

REVISED RECORDS.--WDR CA-70-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 24, 1984, at site 0.4 mi downstream at different datum.

REMARKS.--Records poor. No regulation or diversion upstream from station except for small stock ponds.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft^3/s, Jan. 25, 1969, gage height, 6.83 ft, in gage well, 6.57 ft from floodmarks, site and datum then in use, from rating curve extended above 350 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 8.29 ft, Apr. 4, 1978, from floodmark, site and datum then in use; minimum daily discharge, 0.12 ft^3/s, Sept. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	e0630	e*225	unknown	Feb. 15	e0445	e200	unknown

Minimum daily, 0.28 ft^3/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.30	e.45	e.62	e1.3	e.82	e1.6	e1.3	1.1	.84	.79	.49	.55
2	e.30	e.42	e.62	e.83	e.82	e1.6	e1.3	1.1	.79	.76	.53	.42
3	e.30	e.41	e.62	e.80	e.82	e1.5	e1.3	1.1	.80	.66	.48	.38
4	e.31	e.40	e.62	e.90	e.81	e1.5	e1.3	1.2	.87	.67	.50	.39
5	e.31	e.40	e.62	e10	e.81	e1.6	e1.3	1.3	.99	.58	.40	.41
6	e.31	e.40	e.62	e7.0	e.81	e4.0	e1.3	1.3	1.1	.44	.43	.43
7	e.31	e.40	e.64	e7.4	e.80	e3.5	e1.3	1.4	1.1	.40	.41	.33
8	e.31	e.40	e.70	e3.8	e.80	e2.6	e1.3	1.5	1.1	.44	.38	.33
9	e.32	e.41	e.69	e2.0	e.80	e2.0	e1.3	1.5	1.1	.45	.41	.33
10	e.32	e.70	e.67	e1.5	e17	e1.8	1.3	1.5	1.3	.47	.43	.39
11	e.32	e.67	e.66	e1.3	e28	e1.7	1.2	1.5	1.4	.53	.46	.37
12	e.32	e.60	e.66	e1.1	e56	e1.6	1.2	1.5	1.4	.64	.38	.39
13	e.32	e.53	e.66	e1.0	e45	e1.6	1.3	1.3	1.5	.70	.39	.41
14	e.33	e.50	e.66	e.97	e35	e1.5	1.4	1.3	1.6	.71	.42	.37
15	e.33	e.48	e.66	e.94	e60	e1.5	1.3	1.3	1.7	.73	.41	.38
16	e.33	e.46	e.66	e.94	e35	e1.5	1.3	1.2	1.0	.64	.41	.41
17	e.33	e.50	e.66	e.91	e18	e1.5	1.3	1.1	1.2	.62	.41	.39
18	e.33	e1.0	e.66	e.90	e9.0	e1.5	1.3	1.1	1.4	.63	.39	.39
19	e.34	e.96	e.66	e.88	e4.8	e1.4	1.5	1.1	1.5	.54	.42	.39
20	e.34	e.81	e.66	e.87	e3.3	e1.4	1.5	1.0	1.5	.55	.39	.38
21	e.34	e.73	e.66	e.86	e2.8	e1.4	1.6	1.0	1.4	.55	.40	.29
22	e.34	e.68	e.66	e.86	e2.5	e2.0	1.5	1.0	1.3	.51	.43	.28
23	e.35	e.67	e.66	e.86	e2.3	e1.9	1.5	1.0	1.2	.47	.44	.31
24	e.35	e.66	e.66	e.85	e2.1	e1.7	1.5	1.0	1.1	.52	.45	.33
25	e.35	e.65	e.66	e.85	e2.0	e1.6	1.4	1.0	.96	.52	.44	.38
26	e.80	e.64	e.66	e.84	e1.9	e1.5	1.4	.99	.95	.54	.42	.37
27	e.77	e.63	e.66	e.84	e1.8	e1.5	1.3	.94	.93	.58	.33	.40
28	e.64	e.63	e3.5	e.84	e1.7	e1.5	1.3	.90	.79	.49	.40	.42
29	e.57	e.63	e6.0	e.84	e1.7	e1.4	1.2	.93	.75	.54	.45	.42
30	e.51	e.62	e6.4	e.83	---	e1.4	1.2	.91	.83	.57	.51	.41
31	e.48	---	e2.5	e.83	---	e1.4	---	.86	---	.46	.51	---
TOTAL	11.88	17.44	36.04	54.64	337.19	54.2	40.2	35.93	34.40	17.70	13.32	11.45
MEAN	.38	.58	1.16	1.76	11.6	1.75	1.34	1.16	1.15	.57	.43	.38
MAX	.80	1.0	6.4	10	60	4.0	1.6	1.5	1.7	.79	.53	.55
MIN	.30	.40	.62	.80	.80	1.4	1.2	.86	.75	.40	.33	.28
AC-FT	24	35	71	108	669	108	80	71	68	35	26	23

e Estimated.

11141150 ARROYO GRANDE ABOVE PHOENIX CREEK, NEAR ARROYO GRANDE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.96	1.39	1.90	4.93	7.42	6.67	3.36	1.84	1.47	1.07	.83	.76
MAX	1.95	4.75	6.75	47.8	42.3	32.2	16.0	5.90	4.23	2.84	2.07	1.50
(WY)	1984	1983	1983	1969	1969	1986	1982	1983	1983	1983	1983	1986
MIN	.32	.40	.41	.52	.66	.80	.57	.43	.28	.18	.20	.26
(WY)	1991	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	288.75		664.39			
ANNUAL MEAN	.79		1.82		2.68	
HIGHEST ANNUAL MEAN					10.8	1969
LOWEST ANNUAL MEAN					.50	1990
HIGHEST DAILY MEAN	8.6	Mar 20	60	Feb 15	391	Jan 25 1969
LOWEST DAILY MEAN	.30	Sep 29	.28	Sep 22	.12	Sep 7 1977
ANNUAL SEVEN-DAY MINIMUM	.30	Sep 27	.31	Oct 1	.16	Aug 5 1990
INSTANTANEOUS PEAK FLOW			225	Feb 12	1270	Jan 25 1969
INSTANTANEOUS PEAK STAGE			.00	Feb 12	8.29	Apr 4 1978
ANNUAL RUNOFF (AC-FT)	573		1320		1940	
10 PERCENT EXCEEDS	.99		1.7		3.6	
50 PERCENT EXCEEDS	.62		.80		1.2	
90 PERCENT EXCEEDS	.34		.38		.43	

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°14'08", long 120°28'17", in SE 1/4 sec.19, T.31 S., R.14 E., San Luis Obispo County, Hydrologic Unit 18060006, on right bank 3.4 mi north of Lopez Lake spillway and 9.2 mi northeast of Arroyo Grande.

DRAINAGE AREA.--20.9 mi^2.

PERIOD OF RECORD.--July 1967 to current year.
CHEMICAL DATA: Water year 1977.
WATER TEMPERATURE: Water years 1968-72.
SEDIMENT DATA: Water years 1968-72.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 31, 1984, at site 0.4 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,830 ft^3/s, Jan. 25, 1969, gage height, 9.26 ft in gage well, 10.8 ft from floodmarks, site and datum then in use, from rating curve extended above 300 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 9.62 ft, Mar. 1, 1983, site and datum then in use; minimum daily discharge, 0.30 ft^3/s, Aug. 1, 1977.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0630	*506	*6.90	Feb. 15	0445	447	6.71

Minimum daily, 0.82 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.7	1.8	2.8	2.7	6.3	3.7	3.3	2.2	1.7	.99	1.1
2	.88	1.7	1.8	2.0	2.7	6.3	3.8	3.3	2.2	1.7	.94	1.0
3	.90	1.6	1.8	2.0	2.7	6.2	3.9	3.2	2.1	1.7	.96	.92
4	.91	1.5	1.7	2.0	2.7	5.9	3.7	3.3	2.1	1.7	.97	.93
5	1.0	1.4	1.7	26	2.7	6.2	3.7	3.5	2.1	1.6	.97	.84
6	1.1	1.6	1.7	e15	2.8	14	3.5	3.5	2.3	1.3	.97	.86
7	1.2	1.7	1.8	e16	2.9	13	3.7	3.3	2.3	1.3	.96	.93
8	1.0	1.6	1.9	e9.5	2.9	9.8	3.9	3.2	2.2	1.2	.94	.95
9	1.0	2.1	1.8	e4.8	2.9	8.3	4.0	3.2	2.1	1.8	.93	1.0
10	.97	2.1	1.7	e4.1	38	7.4	4.1	3.2	2.2	1.6	.88	1.1
11	1.0	2.0	1.8	e3.8	52	7.1	4.0	3.3	2.0	1.2	e.95	1.0
12	1.1	1.8	1.9	e3.6	144	7.3	4.0	3.2	1.9	1.6	e1.0	1.1
13	1.2	1.7	1.9	e3.5	114	7.2	4.0	3.2	e1.9	1.6	1.1	1.0
14	1.2	1.7	1.9	e3.4	86	6.2	4.2	3.2	e1.8	1.5	1.3	1.2
15	1.1	1.7	1.8	e3.3	150	5.4	4.2	3.2	e1.8	1.4	1.0	1.3
16	1.2	1.5	1.7	3.0	75	5.4	4.4	3.2	e1.7	1.2	1.0	1.2
17	1.2	2.2	1.7	3.0	57	5.1	4.4	3.2	e1.7	1.2	.95	1.2
18	1.2	2.1	1.7	3.0	34	5.2	4.4	3.0	e1.7	1.1	1.0	1.1
19	1.0	1.7	1.7	3.0	22	5.2	4.2	3.0	e1.7	.98	e1.0	e1.1
20	1.1	1.7	1.8	2.9	19	5.6	4.0	3.0	e1.6	1.0	e.98	e1.0
21	1.1	1.7	1.8	2.9	15	5.9	4.0	3.2	e1.6	1.0	e.96	e1.0
22	1.2	1.8	1.8	2.9	12	7.6	3.8	3.0	e1.6	1.0	e.95	e.97
23	1.2	1.8	1.8	2.9	11	5.6	3.8	2.9	e1.6	1.0	.94	e.94
24	1.1	1.7	1.8	2.9	9.4	4.6	3.8	2.7	e1.6	1.0	.93	e.92
25	1.2	1.6	1.8	2.9	8.4	4.7	3.5	2.5	1.6	1.0	1.1	.90
26	2.5	1.8	1.6	2.8	7.9	4.5	3.3	2.4	1.6	1.1	1.0	.86
27	2.1	1.8	2.4	2.7	7.2	4.4	3.3	2.4	1.5	1.0	.92	.82
28	1.8	1.6	7.3	2.7	6.9	4.3	3.3	2.4	1.4	1.0	.93	.83
29	1.8	1.6	17	2.7	6.6	4.3	3.3	2.5	1.4	1.0	1.0	.87
30	1.8	1.7	18	2.7	---	3.9	3.3	2.4	1.6	1.0	1.1	.85
31	1.7	---	5.4	2.7	---	3.7	---	2.2	---	1.0	1.1	---
TOTAL	38.76	52.2	96.3	147.5	900.4	196.6	115.2	93.1	55.1	39.48	30.72	29.79
MEAN	1.25	1.74	3.11	4.76	31.0	6.34	3.84	3.00	1.84	1.27	.99	.99
MAX	2.5	2.2	18	26	150	14	4.4	3.5	2.3	1.8	1.3	1.3
MIN	.88	1.4	1.6	2.0	2.7	3.7	3.3	2.2	1.4	.98	.88	.82
AC-FT	77	104	191	293	1790	390	228	185	109	78	61	59

e Estimated.

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.91	4.32	6.88	19.4	26.7	26.3	13.0	6.79	4.42	3.20	2.74	2.56
MAX	9.12	13.6	26.4	145	133	133	65.2	46.1	20.8	13.8	9.82	8.30
(WY)	1984	1984	1984	1969	1969	1983	1983	1983	1983	1983	1983	1983
MIN	1.03	1.23	1.58	2.00	2.00	2.46	2.08	1.75	1.38	.72	.44	.82
(WY)	1978	1978	1991	1991	1991	1977	1977	1990	1972	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	1459.26		1795.15			
ANNUAL MEAN	4.00		4.90		9.84	
HIGHEST ANNUAL MEAN					37.3	1983
LOWEST ANNUAL MEAN					1.89	1977
HIGHEST DAILY MEAN	94	Mar 20	150	Feb 15	1360	Jan 25 1969
LOWEST DAILY MEAN	.77	Aug 29	.82	Sep 27	.30	Aug 1 1977
ANNUAL SEVEN-DAY MINIMUM	.81	Aug 28	.86	Sep 24	.34	Jul 28 1977
INSTANTANEOUS PEAK FLOW			506	Feb 12	2830	Jan 25 1969
INSTANTANEOUS PEAK STAGE			6.90	Feb 12	9.62	Mar 1 1983
ANNUAL RUNOFF (AC-FT)	2890		3560		7130	
10 PERCENT EXCEEDS	3.9		6.4		15	
50 PERCENT EXCEEDS	1.8		1.8		3.6	
90 PERCENT EXCEEDS	.98		.98		1.5	

11143000 BIG SUR RIVER NEAR BIG SUR, CA

LOCATION.--Lat 36°14'45", long 121°46'20", in SW 1/4 SW 1/4 sec.29, T.19 S., R.2 E., Monterey County, Hydrologic Unit 18060006, on right bank at downstream side of bridge, 0.4 mi upstream from Post Creek, and 2.6 mi southeast of town of Big Sur.

DRAINAGE AREA.--46.5 mi^2.

PERIOD OF RECORD.--March 1950 to current year. Prior to October 1959, published as Sur River at Big Sur.
CHEMICAL DATA: Water year 1977.
WATER TEMPERATURE: Water years 1966-79.

REVISED RECORDS.--WSP 1445: 1952(P), 1953(M). WSP 1715: 1951, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 0.9 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft^3/s, Jan. 5, 1978, gage height, 14.30 ft, from rating curve extended above 6,800 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 2.6 ft^3/s, Aug. 23, 1977, Sept. 9, Oct. 29, Nov. 5, 1990.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	2400	*2,090	*7.66				

Minimum daily, 5.3 ft^3/s, several days in October.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.6	e9.9	e9.8	47	20	113	109	45	24	e18	e13	e9.0
2	e5.6	e9.3	e9.7	37	17	109	103	43	23	e18	e13	e8.9
3	e5.6	e9.0	e9.6	31	17	99	98	42	22	e17	e13	e8.8
4	e5.6	e8.7	e9.6	27	16	89	93	41	23	e17	e13	e8.7
5	e5.6	e8.4	e9.6	125	15	280	89	40	23	e17	e12	e8.6
6	e5.5	e8.3	e9.5	104	24	466	85	39	e23	e17	e12	e8.5
7	e5.5	e8.2	e9.5	140	23	356	82	39	e22	e17	e12	e8.4
8	5.5	e8.1	e9.5	124	21	287	78	37	e22	e17	e12	e8.3
9	5.3	e8.1	e9.4	89	30	242	75	35	e22	e17	e12	e8.2
10	5.3	e8.1	e9.4	68	158	210	73	34	e21	e17	e12	e8.1
11	e5.4	e8.0	e9.4	55	190	186	71	34	e21	e16	e12	e8.0
12	e5.4	e8.0	e9.4	47	649	169	75	34	e21	e16	e11	e8.0
13	e5.4	e8.0	e9.4	41	427	163	78	34	e21	e16	e11	e7.9
14	e5.4	e8.0	9.4	37	595	182	70	34	e20	e16	e11	e7.8
15	e5.4	8.2	9.4	33	1280	164	67	33	e20	e16	e11	e7.7
16	e5.4	e8.9	9.4	30	735	158	65	32	e20	e16	e11	e7.6
17	e5.4	e15	9.7	28	526	144	63	30	e20	e16	e11	e7.5
18	e5.3	e17	17	27	389	135	59	29	e20	e15	e11	e7.4
19	e5.3	e14	13	25	341	127	56	29	e20	e15	e11	e7.3
20	e5.3	e12	11	23	600	127	55	29	e19	e15	e10	e7.2
21	e5.3	e11	11	22	418	130	54	28	e19	e15	e10	e7.2
22	e5.3	e11	10	21	329	163	54	26	e19	e15	e10	e7.1
23	e5.4	e11	10	20	265	199	53	26	e19	e15	e10	e7.0
24	e5.4	e10	9.9	20	218	171	53	26	e19	e14	e9.9	e6.9
25	e7.9	e10	9.9	19	184	160	50	26	e19	e14	e9.8	e6.8
26	e52	e10	9.9	19	157	155	48	25	e18	e14	e9.7	e6.8
27	e31	e10	22	18	138	145	47	25	e18	e14	e9.6	e6.7
28	e19	e10	101	18	123	134	46	26	e18	e14	e9.5	e6.6
29	e14	e9.9	419	18	112	127	45	26	e18	e14	e9.4	e6.5
30	e12	e9.8	138	17	---	120	45	26	e18	e13	e9.3	e6.4
31	e11	---	68	17	---	114	---	25	---	e13	e9.2	---
TOTAL	277.1	295.9	1011.4	1347	8017	5424	2039	998	612	484	340.4	229.9
MEAN	8.94	9.86	32.6	43.5	276	175	68.0	32.2	20.4	15.6	11.0	7.66
MAX	52	17	419	140	1280	466	109	45	24	18	13	9.0
MIN	5.3	8.0	9.4	17	15	89	45	25	18	13	9.2	6.4
AC-FT	550	587	2010	2670	15900	10760	4040	1980	1210	960	675	456

e Estimated.

11143000 BIG SUR RIVER NEAR BIG SUR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.7	47.9	103	214	256	217	147	65.2	35.0	22.4	16.5	14.9
MAX	86.8	302	449	986	940	964	843	333	90.8	53.5	40.4	39.4
(WY)	1963	1951	1956	1952	1983	1983	1958	1983	1983	1983	1983	1983
MIN	5.08	4.97	7.52	8.27	11.3	16.8	9.15	8.70	6.17	4.94	3.80	4.52
(WY)	1991	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1950 - 1992	
ANNUAL TOTAL	16453.7		21075.7			
ANNUAL MEAN	45.1		57.6		95.8	
HIGHEST ANNUAL MEAN					319	1983
LOWEST ANNUAL MEAN					10.0	1977
HIGHEST DAILY MEAN	1250	Mar 4	1280	Feb 15	4120	Dec 23 1955
LOWEST DAILY MEAN	5.3	Oct 9	5.3	Oct 9	2.6	Aug 23 1977
ANNUAL SEVEN-DAY MINIMUM	5.3	Oct 16	5.3	Oct 16	2.9	Nov 4 1990
INSTANTANEOUS PEAK FLOW			2090	Feb 14	10700	Jan 5 1978
INSTANTANEOUS PEAK STAGE			7.66	Feb 14	14.30	Jan 5 1978
ANNUAL RUNOFF (AC-FT)	32640		41800		69410	
10 PERCENT EXCEEDS	92		144		210	
50 PERCENT EXCEEDS	10		18		28	
90 PERCENT EXCEEDS	6.0		7.4		9.2	

11143200 CARMEL RIVER AT ROBLES DEL RIO, CA

LOCATION.--Lat 36°28'28", long 121°43'40", in Los Laureles Grant, Monterey County, Hydrologic Unit 18060012, on right bank 10 ft downstream from county road bridge at Robles del Rio, 0.2 mi downstream from Hitchcock Canyon, and 11 mi southeast of town of Carmel.

DRAINAGE AREA.--193 mi^2.

PERIOD OF RECORD.--August 1957 to current year.

REVISED RECORDS.--WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 1981, at site 150 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Low flow regulated by Los Padres Reservoir 11 mi upstream, usable capacity, 2,180 acre-ft, and San Clemente Reservoir 4 mi upstream, usable capacity, 796 acre-ft. Diversion from San Clemente Reservoir for municipal supply amounted to 3,140 acre-ft for the current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,380 ft^3/s, Feb. 28, 1983, gage height, 11.49 ft, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurement at gage height 9.97 ft; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 11.7 ft from floodmarks, discharge, 6,930 ft^3/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0315	*3,600	*10.32				

Minimum daily, 2.0 ft^3/s, Dec. 22, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.1	2.5	16	16	134	94	22	9.9	3.6	3.2	2.7
2	2.8	3.1	2.6	13	16	130	80	22	9.2	3.6	3.0	2.8
3	2.7	3.1	2.6	11	16	121	85	21	7.6	3.5	2.9	2.8
4	2.8	3.0	2.5	11	15	111	78	21	7.0	3.5	2.9	2.8
5	2.8	2.9	2.4	28	14	146	76	21	6.6	3.5	3.0	2.8
6	2.8	2.8	2.2	38	16	373	73	21	6.2	3.4	3.3	3.1
7	2.8	2.8	2.6	53	18	323	70	18	6.6	3.2	3.2	3.2
8	2.8	2.8	2.7	41	17	266	69	18	6.9	3.1	2.9	3.2
9	2.8	2.8	2.6	59	17	233	66	19	7.1	3.0	3.1	3.4
10	2.8	2.8	2.6	80	83	210	62	20	7.1	3.0	3.1	3.5
11	2.8	2.8	2.6	68	452	191	59	19	6.8	3.0	3.0	3.5
12	2.8	2.8	2.5	57	1260	173	58	17	6.4	3.0	2.9	3.3
13	2.8	2.8	2.5	49	844	159	64	17	6.0	3.2	2.8	3.2
14	2.7	2.8	2.5	43	699	155	56	17	5.6	3.2	2.9	3.2
15	2.8	2.8	2.5	38	2090	149	54	16	6.1	3.2	2.9	3.3
16	2.9	2.8	2.4	34	1020	140	49	14	6.8	3.2	2.7	3.2
17	2.8	2.9	2.5	32	711	132	47	14	6.5	3.5	2.7	3.1
18	2.6	2.9	2.4	29	514	123	48	14	6.3	3.4	2.7	3.0
19	3.0	2.8	2.5	27	404	117	37	14	6.1	3.0	2.7	3.0
20	2.9	2.4	2.4	25	429	116	35	14	5.9	3.2	2.8	2.9
21	2.8	2.4	2.1	22	362	128	35	13	5.2	3.3	2.9	3.0
22	2.9	2.5	2.0	21	308	132	33	14	5.1	3.1	3.0	2.9
23	2.9	2.6	2.0	20	265	154	29	14	4.3	3.0	2.9	2.8
24	2.9	2.5	2.3	20	231	141	28	14	3.9	2.9	2.8	2.8
25	3.0	2.5	2.4	19	203	133	27	13	3.7	3.1	2.9	2.7
26	4.0	2.4	2.4	18	179	127	27	13	3.8	3.0	3.1	2.7
27	3.4	2.1	3.1	18	158	121	25	11	3.8	2.9	2.8	2.7
28	3.0	2.3	3.8	20	143	112	23	11	3.6	2.9	3.1	2.8
29	3.1	2.3	37	19	133	106	22	10	3.6	2.8	2.9	2.8
30	2.9	2.3	42	17	---	104	22	10	3.5	3.1	3.2	2.8
31	3.0	---	20	16	---	103	---	10	---	3.0	2.7	---
TOTAL	89.9	80.9	169.2	962	10633	4863	1531	492	177.2	98.4	91.0	90.0
MEAN	2.90	2.70	5.46	31.0	367	157	51.0	15.9	5.91	3.17	2.94	3.00
MAX	4.0	3.1	42	80	2090	373	94	22	9.9	3.6	3.3	3.5
MIN	2.6	2.1	2.0	11	14	103	22	10	3.5	2.8	2.7	2.7
AC-FT	178	160	336	1910	21090	9650	3040	976	351	195	180	179

11143200 CARMEL RIVER AT ROBLES DEL RIO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.95	14.6	58.4	162	284	262	169	53.7	16.1	4.86	1.40	1.26
MAX	23.3	135	480	769	1206	1855	1071	410	129	50.9	13.4	10.6
(WY)	1984	1984	1984	1969	1969	1983	1958	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.26	.000	.011	.000	.000	.000	.000	.000	.000
(WY)	1960	1960	1960	1991	1977	1977	1977	1977	1961	1959	1957	1957

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	12366.29		19277.6			
ANNUAL MEAN	33.9		52.7		84.7	
HIGHEST ANNUAL MEAN					442	1983
LOWEST ANNUAL MEAN					.050	1977
HIGHEST DAILY MEAN	1440	Mar 25	2090	Feb 15	6260	Mar 1 1983
LOWEST DAILY MEAN	.13	Jan 28	2.0	Dec 22	.00	Aug 1 1957
ANNUAL SEVEN-DAY MINIMUM	.14	Jan 26	2.2	Dec 20	.00	Aug 1 1957
INSTANTANEOUS PEAK FLOW			3600	Feb 15	8380	Feb 28 1983
INSTANTANEOUS PEAK STAGE			10.32	Feb 15	11.49	Feb 28 1983
ANNUAL RUNOFF (AC-FT)	24530		38240		61380	
10 PERCENT EXCEEDS	67		132		197	
50 PERCENT EXCEEDS	2.8		3.7		3.8	
90 PERCENT EXCEEDS	.28		2.6		.00	

11143250 CARMEL RIVER NEAR CARMEL, CA

LOCATION.--Lat 36°32'20", long 121°52'25", in Canada de la Segunda Grant, Monterey County, Hydrologic Unit 18060012, on right bank 0.3 mi downstream from Potrero Canyon and 3 mi east of Carmel.

DRAINAGE AREA.--246 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flow regulated by Los Padres Reservoir, usable capacity, 2,180 acre-ft, and San Clemente Reservoir, usable capacity, 796 acre-ft. Diversion from San Clemente Reservoir for municipal supply amounted to 3,140 acre-ft for the current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,590 ft^3/s, Feb. 28, 1983, gage height, 18.22 ft, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurement at gage height 17.35 ft; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0700	*3,910	*11.48				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	144	102	15	1.2	.00	.00	.00
2	.00	.00	.00	.00	.00	138	90	14	1.2	.00	.00	.00
3	.00	.00	.00	.00	.00	129	88	15	.97	.00	.00	.00
4	.00	.00	.00	.00	.00	119	84	17	.92	.00	.00	.00
5	.00	.00	.00	.00	.00	133	80	17	.92	.00	.00	.00
6	.00	.00	.00	.00	.00	330	78	16	.69	.00	.00	.00
7	.00	.00	.00	.00	.00	318	74	16	.11	.00	.00	.00
8	.00	.00	.00	.00	.00	261	70	16	.03	.00	.00	.00
9	.00	.00	.00	.00	.00	230	68	16	.23	.00	.00	.00
10	.00	.00	.00	.00	.00	207	66	12	.11	.00	.00	.00
11	.00	.00	.00	.00	e306	191	59	12	.00	.00	.00	.00
12	.00	.00	.00	.00	1220	176	60	11	.00	.00	.00	.00
13	.00	.00	.00	.00	1060	163	59	9.8	.00	.00	.00	.00
14	.00	.00	.00	.00	715	155	58	8.9	.00	.00	.00	.00
15	.00	.00	.00	.00	2450	154	55	8.3	.00	.00	.00	.00
16	.00	.00	.00	.00	1160	144	50	7.3	.00	.00	.00	.00
17	.00	.00	.00	.00	775	135	45	6.9	.00	.00	.00	.00
18	.00	.00	.00	.00	589	128	46	5.6	.00	.00	.00	.00
19	.00	.00	.00	.00	458	122	38	3.7	.00	.00	.00	.00
20	.00	.00	.00	.00	444	119	35	3.0	.00	.00	.00	.00
21	.00	.00	.00	.00	393	126	32	2.9	.00	.00	.00	.00
22	.00	.00	.00	.00	334	128	29	2.7	.00	.00	.00	.00
23	.00	.00	.00	.00	285	144	26	2.3	.00	.00	.00	.00
24	.00	.00	.00	.00	247	137	23	1.8	.00	.00	.00	.00
25	.00	.00	.00	.00	215	132	21	2.3	.00	.00	.00	.00
26	.00	.00	.00	.00	191	127	19	1.4	.00	.00	.00	.00
27	.00	.00	.00	.00	168	120	17	1.1	.00	.00	.00	.00
28	.00	.00	.00	.00	157	114	16	1.4	.00	.00	.00	.00
29	.00	.00	.00	.00	148	109	14	1.1	.00	.00	.00	.00
30	.00	.00	.00	.00	---	105	14	1.0	.00	.00	.00	.00
31	.00	---	.00	.00	---	106	---	1.3	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	11315.00	4844	1516	249.8	6.38	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	390	156	50.5	8.06	.21	.000	.000	.000
MAX	.00	.00	.00	.00	2450	330	102	17	1.2	.00	.00	.00
MIN	.00	.00	.00	.00	.00	105	14	1.0	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	22440	9610	3010	495	13	.00	.00	.00

e Estimated.

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.92	10.7	64.6	206	335	315	183	67.2	17.6	3.77	.71	.26
MAX	22.3	110	479	1034	1754	2196	1006	533	130	51.4	13.1	3.80
(WY)	1984	1984	1983	1969	1969	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1965	1965	1969	1977	1977	1977	1977	1977	1968	1966	1964	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	9168.15		17931.18			
ANNUAL MEAN	25.1		49.0		99.2	
HIGHEST ANNUAL MEAN					508	1983
LOWEST ANNUAL MEAN					.000	1977
HIGHEST DAILY MEAN	1340	Mar 25	2450	Feb 15	8000	Mar 1 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 6 1962
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jul 9 1964
INSTANTANEOUS PEAK FLOW			3910	Feb 15	9590	Feb 28 1983
INSTANTANEOUS PEAK STAGE			11.48	Feb 15	18.22	Feb 28 1983
ANNUAL RUNOFF (AC-FT)	18190		35570		71840	
10 PERCENT EXCEEDS	49		132		248	
50 PERCENT EXCEEDS	.00		.00		.50	
90 PERCENT EXCEEDS	.00		.00		.00	

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954-66, 1990, December 1991 to May 1992.
CHEMICAL DATA: Water years 1954-66.
SEDIMENT DATA: Water years 1990, December 1991 to May 1992.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB						
11...	1755	455	12.0	134	165	72
14...	1315	584	12.0	62	98	26
28...	1550	160	14.5	6	2.6	57
APR						
02...	1230	88	17.0	5	1.2	76
16...	1045	51	17.0	2	0.28	--
MAY						
18...	1110	4.9	19.5	1	0.01	84

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE 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
DEC							
13...	1030	0.0	--	--	1	6	21
13...	1031	0.0	--	--	--	--	1
13...	1032	0.0	--	--	--	--	2
13...	1033	0.0	--	--	--	--	2
13...	1034	0.0	--	--	--	--	--
13...	1035	0.0	--	--	--	--	--
13...	1036	0.0	--	16	40	61	74
13...	1037	0.0	--	10	39	82	98
FEB							
28...	1630	159	14.5	--	--	--	4
28...	1631	159	14.5	--	--	--	5
28...	1632	159	14.5	--	--	--	4
28...	1633	159	14.5	--	--	--	2
28...	1634	159	14.5	--	--	--	--
28...	1635	159	14.5	8	42	83	96
APR							
02...	1350	88	17.0	--	--	--	3
02...	1353	88	17.0	--	--	1	6
02...	1356	88	17.0	--	--	--	5
02...	1359	88	17.0	--	--	--	5
02...	1402	88	17.0	--	--	--	--
02...	1405	88	17.0	8	34	60	69

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
DEC							
13...	71	99	100	--	--	--	--
13...	10	31	45	54	67	100	--
13...	13	23	35	52	70	100	--
13...	14	40	67	87	99	100	--
13...	11	76	99	100	--	--	--
13...	31	93	99	100	--	--	--
13...	89	95	99	100	--	--	--
13...	100	--	--	--	--	--	--
FEB							
28...	31	68	87	97	100	--	--
28...	23	55	77	93	99	100	--
28...	12	18	25	36	54	100	--
28...	17	53	85	97	99	100	--
28...	24	83	99	100	--	--	--
28...	99	100	--	--	--	--	--
APR							
02...	30	73	94	98	100	--	--
02...	18	32	47	65	90	95	100
02...	13	20	30	44	74	100	--
02...	23	55	84	94	97	100	--
02...	36	95	98	99	99	100	--
02...	85	98	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)
FEB										
11...	1825	1000	1140	0.250	0	1812	1834	15	5.0	2
11...	1850	1000	1140	0.250	0	1837	1906	15	5.0	2
14...	1345	1000	1100	0.250	0	1335	1350	20	5.0	1
28...	1605	1000	1150	0.250	0	1600	1610	15	2.5	2
28...	1620	1000	1150	0.250	0	1615	1625	15	2.5	2
APR										
02...	1310	1000	1150	0.250	0	1305	1315	20	2.0	2
02...	1330	1000	1150	0.250	0	1325	1335	20	2.0	2
16...	1100	1000	1150	0.250	0	1055	1106	30	2.0	2
16...	1115	1000	1150	0.250	0	1110	1122	30	2.0	2

DATE	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
FEB									
11...	10	10	5.00	442	12.0	15.5	822	--	--
11...	10	10	5.00	435	12.0	17.4	822	--	--
14...	12	12	5.00	584	12.0	12.1	726	--	--
28...	20	20	3.50	160	14.5	3.77	184	--	--
28...	20	20	3.50	160	14.5	3.62	184	--	--
APR									
02...	25	25	1.00	88	17.0	0.25	14	--	--
02...	25	25	1.00	88	17.0	0.32	14	--	--
16...	21	21	3.00	51	17.0	0.01	0.48	1	1
16...	21	21	3.00	51	17.0	0.01	0.48	--	1

11143250 CARMEL RIVER NEAR CARMEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB									
11...	--	2	21	55	77	88	96	100	--
11...	--	2	21	57	81	92	95	99	100
14...	--	2	22	61	81	88	95	100	--
28...	--	5	34	75	93	99	100	--	--
28...	--	4	35	76	93	98	98	100	--
APR									
02...	1	8	41	79	90	95	100	--	--
02...	--	6	43	80	91	96	98	100	--
16...	2	7	45	93	100	--	--	--	--
16...	2	8	55	92	98	100	--	--	--

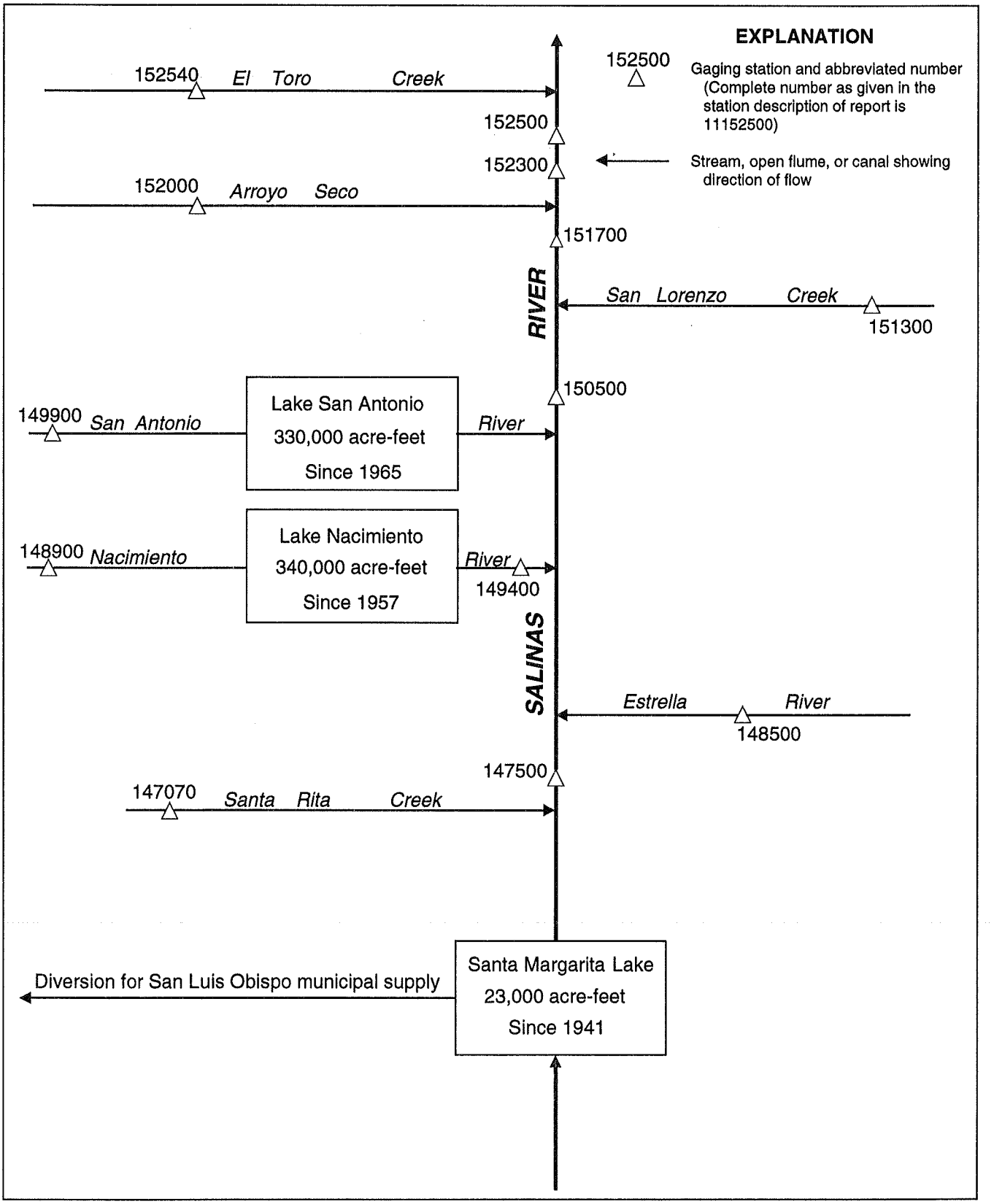


Figure 23. Diversions and storage in Salinas River basin.

11147070 SANTA RITA CREEK NEAR TEMPLETON, CA

LOCATION.--Lat 35°31'26", long 120°45'54", in Asuncion Grant, San Luis Obispo County, Hydrologic Unit 18060005, on left bank 1.6 mi upstream from mouth and 4 mi west of Templeton.

DRAINAGE AREA.--18.2 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Some regulation by stockponds and small diversions by irrigation pumps upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,060 ft^3/s, Jan. 19, 1969, gage height, 11.12 ft in gage well, 11.75 ft from floodmarks, from rating curve extended above 1,300 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0400	*1,740	*7.76	Mar. 5	2115	1,410	7.34

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	8.6	.00	2.2	.38	16	7.5	1.1	.59	.04	.00	.00
2	.00	.63	.00	1.5	.36	16	6.8	1.1	.41	.04	.00	.00
3	.00	.09	.00	1.3	.39	15	6.2	1.0	.39	.03	.00	.00
4	.00	.05	.00	1.4	.36	12	5.7	1.1	.32	.02	.00	.00
5	.00	.03	.00	76	.39	184	7.9	1.1	.39	.02	.00	.00
6	.00	.01	.00	15	.74	216	9.8	1.2	.45	.02	.00	.00
7	.00	.00	.00	13	1.2	124	3.5	1.2	.43	.01	.00	.00
8	.00	.00	.00	17	1.2	80	3.3	1.1	.36	.01	.00	.00
9	.00	.00	.00	15	1.3	49	3.2	.84	.31	.00	.00	.00
10	.00	.00	.00	10	64	37	3.0	.80	.32	.00	.00	.00
11	.00	.00	.00	2.4	53	31	3.0	.83	.34	.00	.00	.00
12	.00	.00	.00	1.7	241	26	3.0	.83	.21	.00	.00	.00
13	.00	.00	.00	1.2	234	23	3.0	.75	.17	.00	.00	.00
14	.00	.00	.00	1.0	71	21	2.7	.78	.15	.04	.00	.00
15	.00	.00	.00	.90	480	19	2.6	.97	.14	.05	.00	.00
16	.00	.00	.00	.83	247	17	2.6	.84	.13	.04	.00	.00
17	.00	.00	.00	.75	126	15	2.4	.72	.12	.03	.00	.00
18	.00	.00	.00	.70	63	13	2.2	.57	.11	.02	.00	.00
19	.00	.00	.00	.64	42	12	2.1	.54	.09	.01	.00	.00
20	.00	.00	.00	.55	76	14	2.0	.82	.08	.01	.00	.00
21	.00	.00	.00	.53	43	16	2.0	.77	.07	.00	.00	.00
22	.00	.00	.00	.50	33	30	1.8	.66	.07	.00	.00	.00
23	.00	.00	.00	.44	27	36	1.7	.68	.06	.00	.00	.00
24	.00	.00	.00	.44	23	19	1.7	.68	.05	.00	.00	.00
25	.00	.00	.00	.44	19	15	1.6	.76	.05	.00	.00	.00
26	.00	.00	.00	.44	16	14	1.4	.74	.04	.00	.00	.00
27	.00	.00	.00	.44	14	12	1.3	.73	.04	.00	.00	.00
28	.00	.00	5.1	.40	12	10	1.2	.79	.05	.00	.00	.00
29	.00	.00	71	.37	11	9.3	1.2	.74	.04	.00	.00	.00
30	5.9	.00	18	.36	---	8.8	1.2	.88	.04	.00	.00	.00
31	12	---	4.2	.36	---	8.1	---	.74	---	.00	.00	---
TOTAL	17.90	9.41	98.30	167.79	1901.32	1118.2	97.6	26.36	6.02	0.39	0.00	0.00
MEAN	.58	.31	3.17	5.41	65.6	36.1	3.25	.85	.20	.013	.000	.000
MAX	12	8.6	71	76	480	216	9.8	1.2	.59	.05	.00	.00
MIN	.00	.00	.00	.36	.36	8.1	1.2	.54	.04	.00	.00	.00
AC-FT	36	19	195	333	3770	2220	194	52	12	.8	.00	.00

11147070 SANTA RITA CREEK NEAR TEMPLETON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.29	4.10	15.1	36.2	48.7	37.0	15.9	2.94	.66	.13	.027	.030
MAX	4.35	29.0	131	227	207	185	114	24.2	3.72	1.29	.68	.55
(WY)	1983	1983	1967	1969	1962	1983	1982	1983	1983	1983	1983	1967
MIN	.000	.000	.000	.000	.000	.22	.10	.015	.000	.000	.000	.000
(WY)	1962	1962	1977	1991	1991	1977	1977	1990	1972	1966	1962	1962

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	2892.88		3443.29			
ANNUAL MEAN	7.93		9.41		13.2	
HIGHEST ANNUAL MEAN					52.7	1983
LOWEST ANNUAL MEAN					.16	1977
HIGHEST DAILY MEAN	517	Mar 4	480	Feb 15	2190	Dec 6 1966
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1961
INSTANTANEOUS PEAK FLOW			1740	Feb 15	6060	Jan 19 1969
INSTANTANEOUS PEAK STAGE			7.76	Feb 15	11.12	Jan 19 1969
ANNUAL RUNOFF (AC-FT)	5740		6830		9600	
10 PERCENT EXCEEDS	6.6		16		21	
50 PERCENT EXCEEDS	.00		.06		.23	
90 PERCENT EXCEEDS	.00		.00		.00	

11147500 SALINAS RIVER AT PASO ROBLES, CA

LOCATION.--Lat 35°37'43", long 120°41'00", in Paso de Robles Grant, San Luis Obispo County, Hydrologic Unit 18060005, on left bank at upstream side of 13th Street Bridge in Paso Robles and 3.5 mi upstream from Huerhuero Creek.

DRAINAGE AREA.--390 mi^2.

PERIOD OF RECORD.--October 1939 to September 1965, October 1969 to current year.
CHEMICAL DATA: Water years 1963-66.
SEDIMENT DATA: June 1990.

REVISED RECORDS.--WSP 981: 1942.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 670.61 ft above National Geodetic Vertical Datum of 1929. Prior to June 14, 1951, nonrecording gage at same site and datum.

REMARKS.--Records poor. Low flows regulated by Santa Margarita Lake 32 mi upstream beginning in December 1941, usable capacity, 23,000 acre-ft. Diversion from Santa Margarita Lake for San Luis Obispo municipal supply amounted to 1,890 acre-ft for the current year. Small diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft^3/s, Feb. 16, 1980, gage height, 15.99 ft, from rating curve extended above 11,000 ft^3/s; maximum gage height, 17.24 ft, Apr. 3, 1958; no flow for many days in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 23.8 ft from floodmarks, discharge, 28,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0830	*9,680	*13.51	Mar. 6	0330	2,170	8.29

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	e.00	162	88	5.9	.00	.00	.00	.00
2	.00	.00	.00	.00	e.00	177	81	4.9	.00	.00	.00	.00
3	.00	.00	.00	.00	e.00	170	77	4.9	.00	.00	.00	.00
4	.00	.00	.00	.00	e.00	147	74	5.8	.00	.00	.00	.00
5	.00	.00	.00	e10	.00	145	74	5.0	.00	.00	.00	.00
6	.00	.00	.00	e3.0	.00	966	77	3.3	.00	.00	.00	.00
7	.00	.00	.00	e.00	.00	589	69	2.5	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	509	63	1.6	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	325	57	2.0	.00	.00	.00	.00
10	.00	.00	.00	.00	31	254	54	.83	.00	.00	.00	.00
11	.00	.00	.00	.00	979	208	51	.82	.00	.00	.00	.00
12	.00	.00	.00	e.00	2930	174	52	.45	.00	.00	.00	.00
13	.00	.00	.00	e.00	4340	142	50	.05	.00	.00	.00	.00
14	.00	.00	.00	e.00	1180	126	48	.00	.00	.00	.00	.00
15	.00	.00	.00	e.00	4520	122	46	.00	.00	.00	.00	.00
16	.00	.00	.00	e.00	1920	120	44	.00	.00	.00	.00	.00
17	.00	.00	.00	e.00	1130	107	39	.00	.00	.00	.00	.00
18	.00	.00	.00	e.00	708	98	35	.00	.00	.00	.00	.00
19	.00	.00	.00	e.00	522	87	32	.00	.00	.00	.00	e.00
20	.00	.00	.00	e.00	503	103	29	.00	.00	.00	.00	e.00
21	.00	.00	.00	e.00	414	105	24	.00	.00	.00	.00	e.00
22	.00	.00	.00	e.00	334	108	21	.00	.00	.00	.00	e.00
23	.00	.00	.00	e.00	301	217	19	.00	.00	.00	.00	e.00
24	.00	.00	.00	e.00	268	167	16	.00	.00	.00	.00	e.00
25	.00	.00	.00	e.00	243	149	15	.00	.00	.00	.00	e.00
26	.00	.00	.00	e.00	222	134	14	.00	.00	.00	.00	e.00
27	.00	.00	.00	e.00	194	135	14	.00	.00	.00	.00	e.00
28	.00	.00	.00	e.00	180	122	13	.00	.00	.00	.00	e.00
29	.00	.00	8.8	e.00	170	112	9.6	.00	.00	.00	.00	e.00
30	.00	.00	.00	e.00	---	103	7.0	.00	.00	.00	.00	e.00
31	.00	---	.00	e.00	---	100	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	8.80	13.00	21089.00	6183	1292.6	38.05	0.00	0.00	0.00	0.00
MEAN	.000	.000	.28	.42	727	199	43.1	1.23	.000	.000	.000	.000
MAX	.00	.00	8.8	10	4520	966	88	5.9	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	87	7.0	.00	.00	.00	.00	.00
AC-FT	.00	.00	17	26	41830	12260	2560	75	.00	.00	.00	.00

e Estimated.

11147500 SALINAS RIVER AT PASO ROBLES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.87	5.39	48.4	183	348	338	161	22.0	2.28	.27	.064	1.03
MAX	117	86.0	581	1409	2026	1978	1980	247	30.5	4.84	1.91	44.0
(WY)	1943	1983	1983	1983	1980	1983	1958	1983	1941	1941	1942	1942
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1941	1940	1940	1948	1948	1961	1961	1959	1947	1940	1940	1940

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	14730.60		28624.45			
ANNUAL MEAN	40.4		78.2		91.2	
HIGHEST ANNUAL MEAN					526	1983
LOWEST ANNUAL MEAN					.000	1961
HIGHEST DAILY MEAN	2260	Mar 20	4520	Feb 15	11800	Feb 18 1980
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Nov 1 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Nov 1 1939
INSTANTANEOUS PEAK FLOW			9680	Feb 15	18500	Feb 16 1980
INSTANTANEOUS PEAK STAGE			13.51	Feb 15	17.24	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	29220		56780		66080	
10 PERCENT EXCEEDS	9.6		134		135	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11148500 ESTRELLA RIVER NEAR ESTRELLA, CA

LOCATION.--Lat 35°43'02", long 120°38'21", in NW 1/4 NW 1/4 sec.36, T.25 S., R.12 E., San Luis Obispo County, Hydrologic Unit 18060004, on right bank 0.2 mi downstream from mouth of Ranchito Canyon and 1.9 mi northwest of Estrella.

DRAINAGE AREA.--922 mi^2, not including Carrizo Plains.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1960, published as Estrella Creek near Estrella.
SEDIMENT DATA: June 1990.

REVISED RECORDS.--WSP 2129: 1969, drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 671.59 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records poor. No regulation; pumpage from wells along river for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s, Feb. 24, 1969, gage height, 10.4 ft, from floodmarks, by slope-area measurement of peak flow; maximum gage height, 10.9 ft, Jan. 25, 1969, from floodmarks; no flow for several months in each year.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	2245	e*2,290	e*4.11				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	.00	e1.4	e1.5	e.00	e.00	e.00	.00	.00
2	.00	.00	.00	e.00	.00	e1.3	e1.3	e.00	e.00	e.00	.00	.00
3	.00	.00	.00	e.00	.00	e1.2	e1.2	e.00	e.00	e.00	.00	.00
4	.00	.00	.00	e.00	.00	e1.1	e1.0	e.00	e.00	e.00	.00	.00
5	.00	.00	.00	e6.0	.00	e40	e.92	e.00	e.00	e.00	.00	.00
6	.00	.00	.00	e.50	.00	e20	e.75	e.00	e.00	e.00	.00	.00
7	.00	.00	.00	.00	.00	e9.2	e.55	e.00	e.00	e.00	.00	.00
8	.00	.00	.00	.00	.00	e5.2	e.40	e.00	e.00	e.00	.00	.00
9	.00	.00	.00	.00	.00	e3.5	e.25	e.00	e.00	.00	.00	.00
10	.00	.00	.00	.00	.00	e2.6	e.15	e.00	e.00	.00	.00	.00
11	.00	.00	.00	.00	e11	e2.2	e.04	e.00	e.00	.00	.00	.00
12	.00	.00	.00	.00	329	e1.7	e.00	e.00	e.00	.00	.00	.00
13	.00	.00	.00	.00	1460	1.5	e.00	e.00	e.00	.00	.00	.00
14	.00	.00	.00	.00	521	1.3	e.00	e.00	e.00	.00	.00	.00
15	.00	.00	.00	.00	1370	1.2	e.00	e.00	e.00	.00	.00	.00
16	.00	.00	.00	.00	718	1.1	e.00	e.00	e.00	.00	.00	.00
17	.00	.00	.00	.00	165	e1.0	e.00	e.00	e.00	.00	.00	.00
18	.00	.00	.00	.00	28	e.90	e.00	e.00	e.00	.00	.00	.00
19	.00	.00	.00	.00	e11	e.85	e.00	e.00	e.00	.00	.00	.00
20	.00	.00	.00	.00	e6.5	5.2	e.00	e.00	e.00	.00	.00	.00
21	.00	.00	.00	.00	e4.4	3.7	e.00	e.00	e.00	.00	.00	.00
22	.00	.00	.00	.00	e3.6	19	e.00	e.00	e.00	.00	.00	.00
23	.00	.00	.00	.00	e3.0	27	e.00	e.00	e.00	.00	.00	.00
24	.00	.00	.00	.00	e2.5	60	e.00	e.00	e.00	.00	.00	.00
25	.00	.00	.00	.00	e2.2	22	e.00	e.00	e.00	.00	.00	.00
26	.00	.00	.00	.00	e1.9	7.7	e.00	e.00	e.00	.00	.00	.00
27	.00	.00	.00	.00	e1.7	8.8	e.00	e.00	e.00	.00	.00	.00
28	.00	.00	.00	.00	e1.6	5.6	e.00	e.00	e.00	.00	.00	.00
29	.00	.00	e4.0	.00	e1.5	3.8	e.00	e.00	e.00	.00	.00	.00
30	.00	.00	e.40	.00	---	e2.6	e.00	e.00	e.00	.00	.00	.00
31	.00	---	e.00	.00	---	e1.9	---	e.00	---	.00	.00	---
TOTAL	0.00	0.00	4.40	6.50	4641.90	264.55	8.06	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.14	.21	160	8.53	.27	.000	.000	.000	.000	.000
MAX	.00	.00	4.0	6.0	1460	60	1.5	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.85	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	8.7	13	9210	525	16	.00	.00	.00	.00	.00

e Estimated.

11148500 ESTRELLA RIVER NEAR ESTRELLA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.042	1.22	13.3	41.0	132	76.9	31.6	1.67	.15	.000	.000	.27
MAX	.93	29.6	371	910	1671	1016	670	25.1	2.58	.000	.000	6.53
(WY)	1977	1973	1967	1969	1969	1978	1958	1983	1969	1955	1955	1976
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1955	1956	1960	1975	1976	1976	1972	1961	1956	1955	1955	1955

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1955 - 1992	
ANNUAL TOTAL	9785.66		4925.41			
ANNUAL MEAN	26.8		13.5		24.2	
HIGHEST ANNUAL MEAN					256	1969
LOWEST ANNUAL MEAN					.000	1989
HIGHEST DAILY MEAN	2490	Mar 19	1460	Feb 13	18500	Feb 10 1978
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1954
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1954
INSTANTANEOUS PEAK FLOW			2290	Feb 15	32500	Feb 24 1969
INSTANTANEOUS PEAK STAGE			4.11	Feb 15	10.90	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	19410		9770		17520	
10 PERCENT EXCEEDS	.70		1.9		6.5	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA

LOCATION.--Lat 35°47'19", long 121°05'34", in SW 1/4 NE 1/4 sec.3, T.25 S., R.8 E., San Luis Obispo County, Hydrologic Unit 18060005, on left bank just downstream from Sapaque Creek and 1.4 mi south of Bryson.

DRAINAGE AREA.--162 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR CA-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No storage or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft^3/s, Jan. 16, 1978, gage height, 32.00 ft, from rating curve extended above 7,900 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0700	11,200	19.00	Feb. 15	0230	*16,900	*21.45

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	66	20	128	94	25	5.9	.26	.00	.00
2	.00	.00	.00	47	20	130	88	25	5.0	.33	.00	.00
3	.00	.00	.00	39	20	130	82	24	4.4	.31	.00	.00
4	.00	.00	.00	36	19	110	78	23	3.8	.27	.00	.00
5	.00	.00	.00	575	18	489	74	22	3.0	.24	.00	.00
6	.00	.00	.00	260	22	1110	70	21	2.8	.22	.00	.00
7	.00	.00	.00	206	44	694	67	21	3.0	.14	.00	.00
8	.00	.00	.00	181	47	466	64	20	3.2	.10	.00	.00
9	.00	.00	.00	125	81	334	61	20	3.3	.08	.00	.00
10	.00	.00	.00	97	1380	262	59	18	2.9	.06	.00	.00
11	.00	.00	.00	79	1420	218	56	17	2.6	.05	.00	.00
12	.00	.00	.00	66	5960	188	55	16	2.3	.07	.00	.00
13	.00	.00	.00	56	1350	165	60	16	2.1	.06	.00	.00
14	.00	.00	.00	50	979	156	55	16	2.0	.04	.00	.00
15	.00	.00	.00	45	5570	150	52	15	2.0	.02	.00	.00
16	.00	.00	.00	40	1730	134	50	15	2.0	.00	.00	.00
17	.00	.00	.00	38	1080	122	47	14	1.9	.00	.00	.00
18	.00	.00	.00	35	654	113	45	13	1.8	.00	.00	.00
19	.00	.00	.00	32	461	106	42	12	1.5	.00	.00	.00
20	.00	.00	.00	30	714	110	41	11	1.3	.00	.00	.00
21	.00	.00	.00	28	524	132	39	11	1.0	.00	.00	.00
22	.00	.00	.00	27	380	132	37	11	.79	.00	.00	.00
23	.00	.00	.00	26	290	296	36	10	.63	.00	.00	.00
24	.00	.00	.00	25	231	195	35	9.2	.49	.00	.00	.00
25	.00	.00	.00	24	191	164	33	7.6	.43	.00	.00	.00
26	.00	.00	.00	23	163	148	32	7.1	.35	.00	.00	.00
27	.00	.00	.00	22	143	135	30	6.7	.26	.00	.00	.00
28	.00	.00	2.0	22	126	121	29	6.6	.12	.00	.00	.00
29	.00	.00	731	21	116	112	27	6.6	.16	.00	.00	.00
30	.00	.00	363	21	---	106	25	7.1	.16	.00	.00	.00
31	.00	---	109	20	---	99	---	6.7	---	.00	.00	---
TOTAL	0.00	0.00	1205.00	2362	23753	6955	1563	453.6	61.19	2.25	0.00	0.00
MEAN	.000	.000	38.9	76.2	819	224	52.1	14.6	2.04	.073	.000	.000
MAX	.00	.00	731	575	5960	1110	94	25	5.9	.33	.00	.00
MIN	.00	.00	.00	20	18	99	25	6.6	.12	.00	.00	.00
AC-FT	.00	.00	2390	4690	47110	13800	3100	900	121	4.5	.00	.00

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.64	65.2	178	458	657	519	179	42.3	9.30	1.91	.18	.052
MAX	4.90	413	911	2440	2057	2048	1142	318	43.1	11.2	2.86	.77
(WY)	1973	1973	1983	1978	1973	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	3.82	16.0	4.20	1.61	.11	.000	.000	.000
(WY)	1972	1978	1991	1991	1991	1977	1977	1990	1977	1972	1972	1972

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	39273.45		36355.04			
ANNUAL MEAN	108		99.3		174	
HIGHEST ANNUAL MEAN					623	1983
LOWEST ANNUAL MEAN					5.74	1977
HIGHEST DAILY MEAN	8850	Mar 4	5960	Feb 12	17400	Jan 16 1978
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Sep 16 1971
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Sep 16 1971
INSTANTANEOUS PEAK FLOW			16900	Feb 15	57000	Jan 16 1978
INSTANTANEOUS PEAK STAGE			21.45	Feb 15	32.00	Jan 16 1978
ANNUAL RUNOFF (AC-FT)	77900		72110		125700	
10 PERCENT EXCEEDS	130		152		281	
50 PERCENT EXCEEDS	.00		.32		5.7	
90 PERCENT EXCEEDS	.00		.00		.00	

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year. Published as station 11148800 "near Bryson" in water years 1958-59, 1961-71.
WATER TEMPERATURE: Water years 1972-73.
SEDIMENT DATA: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1971 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to September 1973.

REMARKS.--Zero bedload discharge observed for flows less than 258 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM
DEC							
30...	1350	265	10.0	8	5.7	99	100
MAR							
06...	1640	1100	12.0	16	48	89	--
APR							
16...	1330	50	20.5	1	0.13	--	--
MAY							
27...	1505	7.1	25.5	2	0.04	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE 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
NOV							
19...	1301	0.0	--	--	1	2	3
19...	1302	0.0	--	--	--	2	5
19...	1303	0.0	--	--	--	1	4
19...	1304	0.0	--	--	--	1	6
19...	1305	0.0	--	--	2	19	75
APR							
16...	1510	50	20.5	--	1	5	18
16...	1515	50	20.5	--	1	2	5
16...	1520	50	20.5	--	--	1	2
16...	1525	50	20.5	--	--	1	7
16...	1530	50	20.5	--	--	2	26
16...	1535	50	20.5	1	3	22	73

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
19...	5	22	45	58	69	100	--
19...	18	42	57	76	95	100	--
19...	34	84	97	100	--	--	--
19...	65	95	99	100	--	--	--
19...	99	100	--	--	--	--	--
APR							
16...	31	47	70	88	97	100	--
16...	8	10	24	54	85	100	--
16...	7	18	38	64	96	100	--
16...	25	33	42	54	77	96	100
16...	88	99	100	--	--	--	--
16...	99	100	--	--	--	--	--

11148900 NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)
MAR												
06...	1758	1000	1100	0.250	0	1755	1800	20	20.0	2	5	5
06...	1808	1000	1100	0.250	0	1805	1810	20	20.0	2	5	5

DATE	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
MAR												
06...	10.0	1070	12.0	0.84	158	7	43	85	96	100	--	--
06...	10.0	1060	12.0	2.31	158	2	13	38	66	76	92	100

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CA

LOCATION.--Lat 35°45'41", long 120°51'16", in NE 1/4 NE 1/4 sec.14, T.25 S., R.10 E., San Luis Obispo County, Hydrologic Unit 18060005, Camp Roberts Military Reservation, on left bank 2.2 mi downstream from Nacimiento Dam, and 7.6 mi southwest of Bradley.

DRAINAGE AREA.--329 mi^2.

PERIOD OF RECORD.--October 1957 to current year.
CHEMICAL DATA: Water years 1963-66.

REVISED RECORDS.--WDR CA-84-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 597 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,340 ft^3/s, Feb. 25, 1969, gage height, 10.92 ft; no flow at times in 1958-63, 1965, 1977, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 462 ft^3/s, Sept. 23, gage height, 4.62 ft; minimum daily, 1.4 ft^3/s, Aug. 2, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	361	4.6	5.0	4.0	2.1	11	385	349	295	1.9	354
2	406	361	4.6	5.0	3.8	4.1	11	385	350	333	1.4	354
3	408	360	4.7	5.3	3.7	10	11	384	340	156	1.7	354
4	409	235	4.8	5.0	4.1	10	11	384	353	112	1.4	352
5	408	56	4.6	6.5	3.9	11	10	371	352	106	1.6	352
6	408	14	3.6	5.5	4.8	14	11	384	352	81	1.7	355
7	409	6.9	5.0	5.2	4.5	11	11	382	352	23	1.7	306
8	413	5.3	5.0	4.9	4.1	11	11	383	352	11	2.0	351
9	413	4.2	4.8	4.8	4.1	10	11	386	338	5.8	1.6	353
10	417	4.0	4.6	4.7	6.8	10	11	386	347	6.2	1.5	355
11	416	3.7	4.9	4.6	6.3	10	11	383	353	7.0	1.7	354
12	414	4.7	4.9	4.6	8.1	10	11	379	348	7.7	1.8	354
13	412	4.5	4.8	4.5	6.5	11	10	380	348	8.7	2.0	356
14	412	5.0	4.7	4.6	2.6	11	11	388	344	17	2.3	355
15	410	4.3	4.9	4.3	4.3	11	15	384	342	9.3	2.2	352
16	409	5.0	4.8	4.2	3.1	11	26	383	337	8.7	2.0	353
17	409	4.9	5.0	4.0	2.3	11	208	383	336	8.2	2.1	342
18	409	5.3	5.2	3.6	2.2	11	250	383	329	9.2	2.7	341
19	406	5.1	5.1	4.2	2.1	11	195	379	371	8.9	206	353
20	405	5.8	5.3	3.4	2.6	11	253	378	371	9.2	428	351
21	405	5.2	5.3	4.0	2.3	11	330	370	367	10	415	303
22	404	5.1	5.0	4.2	2.4	11	287	365	369	10	405	257
23	406	5.8	5.2	4.1	2.3	11	264	340	323	2.5	399	456
24	401	5.7	5.2	3.2	2.2	11	316	351	220	4.9	391	449
25	394	5.4	5.2	4.0	2.3	11	326	352	224	6.0	384	444
26	392	5.0	5.3	3.4	1.7	11	321	344	225	5.9	378	442
27	390	4.8	5.8	3.8	2.0	12	319	333	225	55	372	440
28	385	5.1	6.2	3.7	1.7	11	393	342	227	7.3	367	440
29	378	5.2	8.3	3.8	1.6	11	389	346	178	3.2	362	396
30	373	4.6	5.9	3.9	---	11	386	354	138	2.3	356	382
31	368	---	5.4	3.7	---	11	---	352	---	2.7	354	---
TOTAL	12496	1507.6	158.7	135.7	102.4	323.2	4430	11499	9460	1332.7	4850.3	11006
MEAN	403	50.3	5.12	4.38	3.53	10.4	148	371	315	43.0	156	367
MAX	417	361	8.3	6.5	8.1	14	393	388	371	333	428	456
MIN	368	3.7	3.6	3.2	1.6	2.1	10	333	138	2.3	1.4	257
AC-FT	24790	2990	315	269	203	641	8790	22810	18760	2640	9620	21830

11149400 NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	227	102	116	234	429	287	171	225	296	375	406	355
MAX	501	618	1629	1868	2787	3016	1501	1067	581	662	802	571
(WY)	1983	1983	1983	1980	1983	1969	1958	1983	1969	1958	1967	1967
MIN	.000	.000	.000	.000	.000	.000	.000	.000	1.16	2.44	.000	.000
(WY)	1958	1958	1958	1962	1962	1961	1961	1961	1990	1990	1961	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	54833.55		57301.6			
ANNUAL MEAN	150		157		268	
HIGHEST ANNUAL MEAN					1038	1983
LOWEST ANNUAL MEAN					3.43	1990
HIGHEST DAILY MEAN	502	Jul 13	456	Sep 23	6770	Feb 26 1969
LOWEST DAILY MEAN	.12	Apr 16	1.4	Aug 2	.00	Oct 1 1957
ANNUAL SEVEN-DAY MINIMUM	.36	Apr 15	1.6	Aug 1	.00	Oct 1 1957
INSTANTANEOUS PEAK FLOW			462	Sep 23	7340	Feb 25 1969
INSTANTANEOUS PEAK STAGE			4.62	Sep 23	10.92	Feb 25 1969
ANNUAL RUNOFF (AC-FT)	108800		113700		194000	
10 PERCENT EXCEEDS	446		393		509	
50 PERCENT EXCEEDS	15		11		122	
90 PERCENT EXCEEDS	2.4		3.0		.61	

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA

LOCATION.--Lat 35°53'48", long 121°05'14", in Los Ojitos Grant, Monterey County, Hydrologic Unit 18060005, on downstream side of highway bridge, 0.4 mi upstream from Tule Canyon, and 3.3 mi south of Lockwood.

DRAINAGE AREA.--217 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR CA-82-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 795.00 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 28, 1975, at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No regulation; some pumping upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s, Jan. 26, 1969, gage height, 13.25 ft, current datum; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	1345	*3,820	*9.81	Feb. 15	0815	2,260	9.07

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	4.9	131	91	26	3.2	.00	.00	.00
2	.00	.00	.00	.00	4.5	136	91	24	2.5	.00	.00	.00
3	.00	.00	.00	.00	4.2	126	86	23	1.9	.00	.00	.00
4	.00	.00	.00	.00	4.0	116	80	20	1.3	.00	.00	.00
5	.00	.00	.00	.00	4.4	114	77	19	.95	.00	.00	.00
6	.00	.00	.00	.00	6.1	460	73	20	.85	.00	.00	.00
7	.00	.00	.00	5.1	7.1	436	70	20	.73	.00	.00	.00
8	.00	.00	.00	20	7.8	317	69	21	.53	.00	.00	.00
9	.00	.00	.00	19	11	253	67	21	.41	.00	.00	.00
10	.00	.00	.00	16	42	216	62	19	.20	.00	.00	.00
11	.00	.00	.00	15	220	188	62	18	.13	.00	.00	.00
12	.00	.00	.00	12	1530	167	60	17	.03	.00	.00	.00
13	.00	.00	.00	9.9	615	153	61	17	.00	.00	.00	.00
14	.00	.00	.00	9.9	318	142	58	17	.00	.00	.00	.00
15	.00	.00	.00	9.4	1300	141	52	16	.00	.00	.00	.00
16	.00	.00	.00	9.3	806	127	52	15	.00	.00	.00	.00
17	.00	.00	.00	8.9	551	120	45	14	.00	.00	.00	.00
18	.00	.00	.00	8.5	397	111	44	13	.00	.00	.00	.00
19	.00	.00	.00	8.0	323	106	45	12	.00	.00	.00	.00
20	.00	.00	.00	7.6	471	107	41	10	.00	.00	.00	.00
21	.00	.00	.00	7.4	402	123	38	9.2	.00	.00	.00	.00
22	.00	.00	.00	7.1	315	128	35	8.8	.00	.00	.00	.00
23	.00	.00	.00	6.7	258	153	34	7.8	.00	.00	.00	.00
24	.00	.00	.00	6.7	224	142	32	7.3	.00	.00	.00	.00
25	.00	.00	.00	6.7	196	123	32	6.7	.00	.00	.00	.00
26	.00	.00	.00	6.5	172	117	31	6.0	.00	.00	.00	.00
27	.00	.00	.00	6.3	153	113	30	5.4	.00	.00	.00	.00
28	.00	.00	.00	6.5	140	106	28	5.2	.00	.00	.00	.00
29	.00	.00	.00	6.2	131	101	29	4.8	.00	.00	.00	.00
30	.00	.00	.00	6.1	---	97	29	4.5	.00	.00	.00	.00
31	.00	---	.00	5.1	---	96	---	3.8	---	.00	.00	---
TOTAL	0.00	0.00	0.00	229.90	8618.0	4966	1604	431.5	12.73	0.00	0.00	0.00
MEAN	.000	.000	.000	7.42	297	160	53.5	13.9	.42	.000	.000	.000
MAX	.00	.00	.00	20	1530	460	91	26	3.2	.00	.00	.00
MIN	.00	.00	.00	.00	4.0	96	28	3.8	.00	.00	.00	.00
AC-FT	.00	.00	.00	456	17090	9850	3180	856	25	.00	.00	.00

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.43	16.8	84.2	258	360	330	131	40.5	11.6	2.76	.25	.071
MAX	11.7	108	573	1515	1807	1856	637	167	51.9	22.9	6.83	1.91
(WY)	1984	1984	1967	1969	1986	1983	1982	1983	1978	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.058	.005	.000	.000	.000	.000	.000
(WY)	1966	1967	1977	1977	1977	1977	1977	1977	1972	1966	1966	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	15926.10		15862.13			
ANNUAL MEAN	43.6		43.3		102	
HIGHEST ANNUAL MEAN					455	1983
LOWEST ANNUAL MEAN					.005	1977
HIGHEST DAILY MEAN	2650	Mar 4	1530	Feb 12	8440	Mar 2 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1965
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1965
INSTANTANEOUS PEAK FLOW			3820	Feb 12	14000	Jan 26 1969
INSTANTANEOUS PEAK STAGE			9.81	Feb 12	13.25	Jan 26 1969
ANNUAL RUNOFF (AC-FT)	31590		31460		73670	
10 PERCENT EXCEEDS	76		124		201	
50 PERCENT EXCEEDS	.00		.00		3.0	
90 PERCENT EXCEEDS	.00		.00		.00	

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.
WATER TEMPERATURE: Water years 1966-73.
SEDIMENT DATA: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1965 to September 1973.
SUSPENDED-SEDIMENT DISCHARGE: October 1965 to September 1973.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN											
16...	1400	9.4	15.0	1	0.03	--	--	--	--	--	--
FEB											
03...	1520	4.5	15.0	6	0.07	68	--	--	--	--	--
12...	1735	1990	12.0	488	2620	44	46	58	87	98	100
14...	1640	289	12.0	44	34	19	--	--	--	--	--
MAR											
03...	1520	125	16.5	15	5.1	17	--	--	--	--	--
APR											
02...	1620	92	22.5	9	2.2	--	--	--	--	--	--
MAY											
27...	1840	4.9	23.0	1	0.01	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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
NOV							
13...	1156	0.0	--	--	--	1	14
13...	1157	0.0	--	--	--	1	9
13...	1158	0.0	--	--	--	3	21
13...	1159	0.0	--	--	--	1	10
13...	1200	0.0	--	--	--	3	17
13...	1201	0.0	--	--	--	2	14
13...	1202	0.0	--	--	--	1	9
13...	1203	0.0	--	--	--	3	27
13...	1204	0.0	--	--	--	5	19
13...	1205	0.0	--	--	--	4	9
APR							
02...	1715	91	22.5	--	--	1	13
02...	1717	91	22.5	--	--	1	12
02...	1719	91	22.5	--	--	1	6
02...	1721	91	22.5	--	--	2	22
02...	1723	91	22.5	--	--	2	15
02...	1725	91	22.5	--	--	2	16
02...	1727	91	22.5	--	--	1	14
02...	1729	91	22.5	--	--	3	19
02...	1731	91	22.5	--	--	3	19
02...	1733	91	22.5	1	3	9	22

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
13...	45	75	89	96	100	--	--
13...	24	42	58	72	93	100	--
13...	51	73	85	91	98	100	--
13...	25	40	55	69	80	98	100
13...	51	79	91	95	100	--	--
13...	49	73	82	90	96	100	--
13...	21	36	47	58	69	96	100
13...	62	74	82	89	95	97	100
13...	49	72	87	95	98	100	--
13...	30	63	85	94	98	100	--
APR							
02...	48	77	91	96	100	--	--
02...	38	65	82	92	98	100	--
02...	25	49	67	81	93	100	--
02...	75	95	98	100	--	--	--
02...	34	52	68	82	94	100	--
02...	48	72	85	91	98	100	--
02...	49	73	84	90	97	100	--
02...	71	93	97	97	98	100	--
02...	56	80	90	97	98	100	--
02...	57	88	96	98	100	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)
JAN									
16...	1410	1000	1120	0.250	0	1406	1415	20	1.0
16...	1420	1000	1120	0.250	0	1417	1426	20	1.0
FEB									
03...	1530	1000	1120	0.250	0	1525	1534	30	0.7
03...	1545	1000	1120	0.250	0	1538	1549	30	0.7
14...	1700	1000	1120	0.250	0	1655	1710	20	7.0
14...	1720	1000	1120	0.250	0	1715	1725	10	7.0
MAR									
03...	1545	1000	1120	0.250	0	1540	1550	10	3.0
03...	1555	1000	1120	0.250	0	1553	1602	10	3.0
APR									
02...	1635	1000	1150	0.250	0	1630	1640	20	3.0
02...	1650	1000	1150	0.250	0	1645	1655	20	3.0
MAY									
27...	1850	1000	1150	0.250	0	1846	1855	20	0.5
27...	1900	1000	1150	0.250	0	1857	1904	20	0.5

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
JAN									
16...	2	17	17	1.00	9.4	15.0	0.37	5.0	--
16...	2	17	17	1.00	9.4	15.0	0.22	5.0	--
FEB									
03...	2	20	20	2.95	4.5	15.0	0.00	0.20	--
03...	2	20	20	2.95	4.5	15.0	0.02	0.20	1
14...	2	20	20	9.00	282	12.0	5.03	676	--
14...	2	20	20	9.00	282	12.0	4.62	676	--
MAR									
03...	2	21	21	3.00	127	16.5	4.66	290	--
03...	2	21	21	3.00	127	16.5	4.56	290	--
APR									
02...	2	21	21	4.50	94	22.5	2.01	127	--
02...	2	21	21	4.50	93	22.5	2.02	127	--
MAY									
27...	2	19	19	0.50	4.9	23.0	0.04	0.48	--
27...	2	19	19	0.50	4.9	23.0	0.06	0.48	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
JAN								
16...	--	12	55	89	97	99	100	--
16...	1	12	57	89	96	98	100	--
FEB								
03...	2	12	56	77	92	100	--	--
03...	1	17	64	83	88	92	100	--
14...	1	20	57	81	91	96	99	100
14...	2	24	63	85	94	98	100	--
MAR								
03...	--	14	57	84	93	98	100	--
03...	--	17	64	89	95	97	99	100
APR								
02...	--	13	53	80	92	98	100	--
02...	--	11	48	79	93	97	99	100
MAY								
27...	1	6	61	91	97	100	--	--
27...	--	9	66	94	99	100	--	--

11150500 SALINAS RIVER NEAR BRADLEY, CA

LOCATION.--Lat 35°55'49", long 120°52'04", in SW 1/4 NW 1/4 sec.14, T.23 S., R.10 E., Monterey County, Hydrologic Unit 18060005, on left bank 6 mi northwest of Bradley and 7 mi downstream from San Antonio River.

DRAINAGE AREA.--2,535 mi^2.

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
CHEMICAL DATA: Water years 1958, 1962-66, 1972-75, 1977, 1980-81.
SEDIMENT DATA: Water years 1950, 1990.

REVISED RECORDS.--WSP 1285: 1950. WDR CA-84-2: 1978.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 442.69 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Several small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft^3/s, Feb. 24, 1969, gage height, 20.34 ft, from floodmarks; no flow at times in 1951, 1954-55, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,800 ft^3/s, Feb. 15, gage height, 11.17 ft; minimum daily, 8.1 ft^3/s, Aug. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	420	18	27	18	145	133	418	386	464	14	368
2	452	415	18	25	18	143	123	410	385	491	12	367
3	441	406	18	25	17	154	119	404	382	373	11	364
4	432	397	18	23	17	149	114	411	373	215	11	356
5	423	215	18	65	17	153	106	421	421	188	11	344
6	419	135	17	41	21	526	101	443	428	145	11	333
7	414	94	18	33	22	846	100	451	422	109	11	322
8	416	71	18	28	21	630	95	456	414	76	10	292
9	424	48	17	25	20	454	90	459	406	53	10	325
10	424	41	17	25	29	317	85	454	407	41	9.5	328
11	423	37	17	24	27	253	83	458	417	33	8.8	329
12	422	31	19	23	1130	221	80	448	421	29	8.9	328
13	411	29	19	22	6150	196	79	449	452	25	9.1	324
14	401	27	20	21	3510	183	76	448	448	22	9.0	323
15	403	27	19	20	5110	175	74	449	441	21	8.8	322
16	404	26	18	19	4920	170	71	445	435	19	8.5	334
17	408	26	18	19	2300	160	72	436	425	18	8.7	344
18	405	25	18	19	1250	151	209	441	429	16	8.3	324
19	405	25	18	19	782	142	227	437	478	16	8.1	342
20	402	23	18	19	577	150	225	434	521	15	115	348
21	402	23	18	18	477	216	291	436	533	15	286	350
22	407	23	18	18	361	218	347	443	543	14	321	222
23	414	22	18	18	289	302	286	440	543	14	323	372
24	420	22	18	18	244	309	310	440	597	13	325	416
25	422	21	17	18	214	251	339	441	556	13	330	411
26	433	20	17	18	196	211	353	434	544	13	334	432
27	431	20	18	18	179	188	324	407	542	12	338	491
28	421	19	22	18	164	180	421	401	538	13	344	497
29	419	19	39	17	150	160	428	404	558	19	359	482
30	422	18	36	18	---	147	420	405	560	17	363	436
31	421	---	35	18	---	140	---	399	---	15	367	---
TOTAL	13006	2725	617	719	28230	7640	5781	13422	14005	2527	3993.7	10826
MEAN	420	90.8	19.9	23.2	973	246	193	433	467	81.5	129	361
MAX	465	420	39	65	6150	846	428	459	597	491	367	497
MIN	401	18	17	17	17	140	71	399	373	12	8.1	222
AC-FT	25800	5410	1220	1430	55990	15150	11470	26620	27780	5010	7920	21470

11150500 SALINAS RIVER NEAR BRADLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1956, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.23	100	752	1457	685	878	310	139	21.1	3.41	2.03	1.74
MAX	4.04	742	2319	5372	1449	2724	580	249	55.3	6.26	4.16	4.46
(WY)	1951	1951	1956	1952	1950	1952	1952	1955	1956	1953	1952	1952
MIN	1.64	4.40	11.0	140	238	293	87.4	40.7	7.87	1.64	.000	.000
(WY)	1955	1956	1954	1949	1953	1950	1951	1949	1950	1951	1955	1955

SUMMARY STATISTICS	WATER YEARS 1949 - 1956		
ANNUAL MEAN	363		
HIGHEST ANNUAL MEAN	945		1952
LOWEST ANNUAL MEAN	152		1955
HIGHEST DAILY MEAN	22000	Dec 24	1955
LOWEST DAILY MEAN	.00	Aug 15	1951
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 15	1951
INSTANTANEOUS PEAK FLOW	26800	Jan 15	1952
INSTANTANEOUS PEAK STAGE	12.35	Jan 15	1952
ANNUAL RUNOFF (AC-FT)	263100		
10 PERCENT EXCEEDS	745		
50 PERCENT EXCEEDS	16		
90 PERCENT EXCEEDS	1.6		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	265	144	214	569	1291	915	516	333	382	458	506	426
MAX	632	559	2152	4641	8425	6415	5642	1792	641	661	770	743
(WY)	1970	1983	1983	1969	1969	1983	1958	1983	1983	1983	1991	1969
MIN	3.00	5.00	7.58	9.26	10.6	16.3	12.1	4.50	2.98	.84	.37	1.47
(WY)	1962	1962	1991	1991	1991	1990	1990	1961	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	99869.2		103491.7			
ANNUAL MEAN	274		283		497	
HIGHEST ANNUAL MEAN					1997	1983
LOWEST ANNUAL MEAN					9.39	1990
HIGHEST DAILY MEAN	5340	Mar 20	6150	Feb 13	60400	Feb 25 1969
LOWEST DAILY MEAN	7.7	Feb 26	8.1	Aug 19	.07	Sep 9 1990
ANNUAL SEVEN-DAY MINIMUM	8.9	Jan 19	8.6	Aug 13	.09	Sep 4 1990
INSTANTANEOUS PEAK FLOW			10800	Feb 15	117000	Feb 24 1969
INSTANTANEOUS PEAK STAGE			11.17	Feb 15	20.34	Feb 24 1969
ANNUAL RUNOFF (AC-FT)	198100		205300		360100	
10 PERCENT EXCEEDS	517		453		636	
50 PERCENT EXCEEDS	31		196		294	
90 PERCENT EXCEEDS	10		17		19	

11151300 SAN LORENZO CREEK BELOW BITTERWATER CREEK, NEAR KING CITY, CA

LOCATION.--Lat 36°16'05", long 121°03'55", in NE 1/4 sec.23, T.19 S., R.8 E., Monterey County, Hydrologic Unit 18060005, on left bank 1.3 mi downstream from Bitterwater Creek, 5 mi northeast of King City, and 10 mi upstream from mouth.

DRAINAGE AREA.--233 mi^2.

PERIOD OF RECORD.--October 1958 to current year.
CHEMICAL DATA: Water year 1977.

REVISED RECORDS.--WDR CA-85-2: 1969-84(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 431.48 ft above National Geodetic Vertical Datum of 1929. October 1958 to Apr. 24, 1967, at site 500 ft upstream at datum 5.00 ft higher. Apr. 25, 1967, to July 12, 1981, at site 200 ft upstream.

REMARKS.--Records fair. No regulation; small diversions upstream from station by ranchers and sand-processing plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s, Jan. 25, 1969, gage height, 15.33 ft, in gage well, 16.2 ft, from floodmarks, from rating curve extended above 7,100 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days in 1961 and 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0930	*1,660	*8.20	Mar. 23	0145	722	6.66

Minimum daily, 0.01 ft^3/s, several days in August.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.07	.08	1.4	1.1	2.2	4.0	.07	.08	.07	.02	.03
2	.05	.07	.08	.57	1.1	2.2	3.1	.07	.08	.07	.02	.03
3	.05	.07	.08	.33	1.1	2.3	2.5	.06	.08	.09	.02	.03
4	.05	.08	.08	.24	1.2	1.9	2.1	.06	.08	.08	.02	.03
5	.05	.07	.08	31	1.2	2.0	1.8	.06	.08	.09	.02	.02
6	.06	.08	.08	27	1.5	83	1.6	.07	.08	.08	.02	.02
7	.05	.08	.09	10	2.0	27	1.5	.07	.08	.07	.02	.02
8	.05	.07	.08	9.5	1.8	13	1.3	.07	.08	.07	.02	.02
9	.05	.07	.08	4.1	1.7	6.8	1.2	.07	.08	.07	.02	.02
10	.05	.08	.08	2.8	4.1	3.9	1.1	.07	.07	.06	.01	.02
11	.05	.08	.07	2.1	50	2.7	.86	.07	.07	.06	.01	.02
12	.05	.08	.08	1.6	460	2.1	.76	.07	.08	.06	.01	.03
13	.05	.08	.08	1.4	234	1.7	.69	.07	.08	.06	.01	.02
14	.05	.07	.08	1.3	23	1.4	.47	.07	.08	.06	.02	.02
15	.05	.07	.08	1.3	507	1.5	.36	.07	.08	.07	.02	.02
16	.05	.07	.08	1.2	80	1.5	.32	.07	.08	.04	.01	.02
17	.05	.07	.08	1.2	56	1.4	.30	.07	.08	.04	.01	.03
18	.06	.07	.08	1.2	14	1.3	.26	.07	.08	.04	.01	.03
19	.06	.07	.07	1.2	6.1	1.2	.23	.07	e.08	.04	.01	.03
20	.06	.07	.08	1.1	4.2	3.7	.20	.06	.07	.04	.02	.03
21	.06	.07	.08	1.1	3.7	156	.18	.07	.07	.03	.02	.03
22	.06	.08	.08	1.1	2.8	116	.16	.06	.07	.03	.02	.04
23	.06	.07	.08	1.1	2.2	248	.15	.07	.07	.03	.02	.05
24	.06	.07	.08	1.1	2.0	36	.17	.07	.08	.03	.02	.04
25	.06	.08	.08	1.1	1.9	13	.16	.08	.07	.03	.03	.04
26	.09	.08	.08	1.1	1.8	17	.14	.08	.07	.03	.03	.04
27	.07	.07	.26	1.1	1.7	15	.11	.08	.07	.03	.02	.05
28	.07	.07	.15	1.1	1.7	7.3	.10	.08	.08	.02	.03	.04
29	.07	.07	.73	1.2	1.7	5.1	.10	.08	.07	.02	.03	.04
30	.07	.07	5.5	1.2	---	4.5	.07	.07	.07	.02	.03	.05
31	.07	---	3.2	1.1	---	4.4	---	.07	---	.02	.03	---
TOTAL	1.79	2.20	11.91	112.84	1470.6	785.1	25.99	2.17	2.29	1.55	0.60	0.91
MEAN	.058	.073	.38	3.64	50.7	25.3	.87	.070	.076	.050	.019	.030
MAX	.09	.08	5.5	31	507	248	4.0	.08	.08	.09	.03	.05
MIN	.05	.07	.07	.24	1.1	1.2	.07	.06	.07	.02	.01	.02
AC-FT	3.6	4.4	24	224	2920	1560	52	4.3	4.5	3.1	1.2	1.8

e Estimated.

11151300 SAN LORENZO CREEK BELOW BITTERWATER CREEK, NEAR KING CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.77	4.16	10.0	34.9	48.6	36.1	15.0	4.27	1.85	.88	.64	1.18
MAX	20.0	34.7	62.6	401	409	299	113	63.6	31.9	15.0	7.26	17.9
(WY)	1977	1966	1967	1969	1969	1983	1983	1983	1983	1983	1983	1976
MIN	.053	.058	.073	.065	.25	.59	.19	.070	.040	.050	.000	.030
(WY)	1991	1991	1991	1991	1991	1964	1964	1992	1961	1992	1973	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	4647.57		2417.95			
ANNUAL MEAN	12.7		6.61		13.1	
HIGHEST ANNUAL MEAN					80.8	1969
LOWEST ANNUAL MEAN					.66	1968
HIGHEST DAILY MEAN	972	Mar 20	507	Feb 15	4490	Feb 24 1969
LOWEST DAILY MEAN	.04	Sep 24	.01	Aug 10	.00	Jun 12 1961
ANNUAL SEVEN-DAY MINIMUM	.05	Sep 22	.01	Aug 10	.00	Jun 12 1961
INSTANTANEOUS PEAK FLOW			1660	Feb 15	11500	Jan 25 1969
INSTANTANEOUS PEAK STAGE			8.20	Feb 15	15.33	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	9220		4800		9490	
10 PERCENT EXCEEDS	2.6		3.3		14	
50 PERCENT EXCEEDS	.08		.08		1.1	
90 PERCENT EXCEEDS	.06		.02		.10	

11151700 SALINAS RIVER AT SOLEDAD, CA

LOCATION.--Lat 36°24'40", long 121°19'06", on boundary between San Vicente and Los Coches Grants, Monterey County, Hydrologic Unit 18060005, near right bank on upstream end of pier on U.S. Highway 101, 0.9 mi south of Soledad, and 1 mi upstream from Arroyo Seco.

DRAINAGE AREA.--3,563 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to September 1978, October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and by Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Several small diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 106,000 ft^3/s, Feb. 25, 1969, gage height, 23.31 ft; maximum gage height, 23.39 ft, Jan. 26, 1969; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,450 ft^3/s, Feb. 16, gage height, 14.38 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	24	.00	.00	.00	45	55	127	134	267	.00	.00
2	e.00	24	.00	.00	.00	28	45	135	139	232	.00	.00
3	e.00	21	.00	.00	.00	e10	29	137	131	211	.00	.00
4	e.00	21	.00	.00	.00	e.00	e10	143	124	184	.00	.00
5	e.00	21	.00	.00	.00	e.00	e.00	134	115	109	.00	.00
6	e.00	e7.0	.00	.00	.00	e25	e.00	130	125	67	.00	.00
7	e.00	e.00	.00	.00	.00	e150	e.00	129	140	36	.00	.00
8	e.00	.00	.00	.00	.00	e400	e.00	133	150	e15	.00	.00
9	e1.8	.00	.00	.00	.00	e280	e.00	139	154	e5.0	.00	.00
10	e4.6	.00	.00	.00	.00	138	e.00	137	143	e.10	.00	.00
11	9.6	.00	.00	.00	.00	69	e.00	138	132	.00	.00	.00
12	13	.00	.00	.00	206	45	e.00	136	131	.00	.00	.00
13	13	.00	.00	.00	505	29	e.00	134	132	.00	.00	.00
14	13	.00	.00	.00	e2950	15	e.00	129	147	.00	.00	.00
15	14	.00	.00	.00	e1980	7.7	e.00	127	173	.00	.00	.00
16	14	.00	.00	.00	e4210	3.2	e.00	128	180	.00	.00	.00
17	14	.00	.00	.00	e3140	.68	e.00	128	185	.00	.00	.00
18	12	.00	.00	.00	1620	.00	e.00	130	187	.00	.00	.00
19	11	.00	.00	.00	867	.00	e.00	128	178	.00	.00	.00
20	9.5	.00	.00	.00	532	.00	e.00	128	173	.00	.00	.00
21	7.9	.00	.00	.00	356	20	e.00	129	194	.00	.00	.00
22	7.1	.00	.00	.00	256	148	e.00	130	206	.00	.00	.00
23	5.5	.00	.00	.00	184	238	e20	126	209	.00	.00	.00
24	3.7	.00	.00	.00	119	209	42	128	206	.00	.00	.00
25	2.7	.00	.00	.00	87	146	34	138	213	.00	.00	.00
26	1.8	.00	.00	.00	79	129	46	144	220	.00	.00	.00
27	1.2	.00	.00	.00	72	101	66	140	212	.00	.00	.00
28	.94	.00	.00	.00	62	85	81	134	209	.00	.00	.00
29	8.5	.00	.00	.00	54	73	88	124	222	.00	.00	.00
30	6.4	.00	.00	.00	---	68	119	126	242	.00	.00	.00
31	23	---	.00	.00	---	62	---	125	---	.00	.00	---
TOTAL	198.24	118.00	0.00	0.00	17279.00	2524.58	635.00	4094	5106	1126.10	0.00	0.00
MEAN	6.39	3.93	.000	.000	596	81.4	21.2	132	170	36.3	.000	.000
MAX	23	24	.00	.00	4210	400	119	144	242	267	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	124	115	.00	.00	.00
AC-FT	393	234	.00	.00	34270	5010	1260	8120	10130	2230	.00	.00

e Estimated.

11151700 SALINAS RIVER AT SOLEDAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	174	108	144	681	1259	912	272	137	129	130	152	183
MAX	488	336	876	5099	9295	5428	1834	661	456	390	327	478
(WY)	1970	1970	1984	1969	1969	1969	1969	1969	1969	1969	1969	1969
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1969 - 1992	
ANNUAL TOTAL	15779.17		31080.92			
ANNUAL MEAN	43.2		84.9		352	
HIGHEST ANNUAL MEAN					1981	1969
LOWEST ANNUAL MEAN					.000	1990
HIGHEST DAILY MEAN	2970	Mar 20	4210	Feb 16	68300	Feb 25 1969
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Mar 9 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Mar 9 1977
INSTANTANEOUS PEAK FLOW			6450	Feb 16	106000	Feb 25 1969
INSTANTANEOUS PEAK STAGE			14.38	Feb 16	23.39	Jan 26 1969
ANNUAL RUNOFF (AC-FT)	31300		61650		255100	
10 PERCENT EXCEEDS	9.5		160		424	
50 PERCENT EXCEEDS	.00		.00		118	
90 PERCENT EXCEEDS	.00		.00		.00	

11151700 SALINAS RIVER AT SOLEDAD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-75, 1977, 1990, July 1992 (discontinued).
CHEMICAL DATA: Water years 1972-75, 1977.
SEDIMENT DATA: Water years 1990, 1992 (discontinued).

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE 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
JUL 10...	1130	10	0.08	25.5	9	11	22

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
JUL 10...	48	76	90	93	96	98	100

11152000 ARROYO SECO NEAR SOLEDAD, CA

LOCATION.--Lat 36°16'50", long 121°19'18", in SW 1/4 NE 1/4 sec.16, T.19 S., R.6 E., Monterey County, Hydrologic Unit 18060005, on right bank under county road bridge, 1.5 mi downstream from Vaquero Creek, and 10 mi south of Soledad.

DRAINAGE AREA.--244 mi^2.

PERIOD OF RECORD.--November 1901 to current year. Records for water year 1902 incomplete; yearly estimate published in WSP 1315-B.

REVISED RECORDS.--WSP 881: 1902-9 (yearly summary only). WSP 1565: 1916-19, 1920-21(M), 1922, 1926-27, 1928-30(M), 1932, 1934, 1936(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 339.20 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1929, nonrecording gage, and June 16, 1929, to Dec. 2, 1941, water-stage recorder at site 1 mi upstream at different datum. Dec. 3, 1941, to Sept. 30, 1959, water-stage recorder at datum 2.00 ft higher. Jan. 30 to Mar. 26, 1969, nonrecording gage at bridge at same datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation or large diversion upstream from station. Low flows affected by upstream gravel mining during summer months.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,300 ft^3/s, Apr. 3, 1958, gage height, 16.40 ft, datum then in use, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurement at gage height 16.30 ft; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0645	*6,060	*7.59	Feb. 15	0400	4,750	6.77

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.6	6.1	79	23	199	156	59	18	8.7	.60	.00
2	.00	1.6	5.3	55	26	198	148	58	15	9.1	.52	.00
3	.00	1.6	6.1	45	24	190	139	54	13	9.1	.52	.00
4	.00	1.6	7.7	38	23	167	133	51	10	8.7	.43	.00
5	.00	1.6	7.9	200	22	462	128	49	10	8.7	.31	.00
6	.00	1.7	7.8	200	26	1170	120	47	10	7.8	.44	.00
7	.00	1.7	8.3	190	40	795	114	47	11	7.4	.44	.00
8	.00	1.8	8.6	210	38	585	110	45	13	7.0	.44	.00
9	.00	2.1	8.7	140	36	471	104	42	13	5.5	.44	.00
10	.00	2.4	8.7	108	495	399	101	39	11	5.5	.23	.00
11	.00	2.4	8.1	88	1410	349	98	38	9.1	5.2	.18	.00
12	.00	2.3	8.3	75	3430	306	97	38	8.9	5.9	.30	.00
13	.00	2.8	7.9	64	1380	274	101	39	9.6	7.8	.36	.00
14	.00	3.0	9.4	57	974	263	94	39	10	8.7	.36	.00
15	.00	2.9	9.6	52	2970	259	89	39	9.6	8.2	.30	.00
16	.00	3.2	8.8	47	1730	225	86	37	9.3	7.4	.18	.00
17	.00	2.9	9.4	43	1180	206	83	35	10	5.5	.13	.00
18	.00	3.8	9.6	41	801	193	80	30	9.5	4.3	.04	.00
19	.00	17	9.9	38	614	180	79	29	8.4	4.0	.00	.00
20	.00	14	13	35	953	179	78	30	8.6	2.7	.00	.00
21	.00	11	14	33	670	217	75	31	8.1	1.9	.00	.00
22	.00	9.6	12	32	521	209	71	28	6.4	1.2	.00	.00
23	.00	8.7	11	30	423	355	69	26	5.7	.60	.00	.00
24	.00	7.9	12	29	352	270	68	26	5.1	.44	.00	.00
25	.00	7.2	11	28	300	240	65	26	4.8	.36	.00	.00
26	.00	7.1	11	26	261	221	64	23	5.7	.44	.00	.00
27	.00	7.0	13	25	231	208	61	24	6.1	.91	.00	.00
28	10	7.0	116	25	208	192	60	22	5.9	1.0	.00	.00
29	6.7	6.6	811	25	190	179	58	22	5.7	.91	.00	.00
30	3.8	5.9	389	24	---	172	57	22	6.0	.60	.00	.00
31	2.4	---	137	23	---	168	---	20	---	.52	.00	---
TOTAL	22.90	150.0	1706.2	2105	19351	9501	2786	1115	276.5	146.08	6.22	0.00
MEAN	.74	5.00	55.0	67.9	667	306	92.9	36.0	9.22	4.71	.20	.000
MAX	10	17	811	210	3430	1170	156	59	18	9.1	.60	.00
MIN	.00	1.6	5.3	23	22	167	57	20	4.8	.36	.00	.00
AC-FT	45	298	3380	4180	38380	18850	5530	2210	548	290	12	.00

11152000 ARROYO SECO NEAR SOLEDAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.40	55.6	168	366	563	444	256	92.0	38.2	14.2	5.70	4.72
MAX	75.5	650	1161	2425	2611	2344	2043	644	185	90.8	54.5	38.8
(WY)	1905	1927	1956	1914	1938	1983	1958	1983	1983	1983	1983	1978
MIN	.000	.000	2.87	5.95	8.98	18.5	7.82	4.14	.66	.000	.000	.000
(WY)	1914	1991	1991	1991	1991	1977	1977	1977	1924	1924	1913	1913

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1902 - 1992	
ANNUAL TOTAL	25910.05		37165.90			
ANNUAL MEAN	71.0		102		166	
HIGHEST ANNUAL MEAN					709	1983
LOWEST ANNUAL MEAN					6.97	1977
HIGHEST DAILY MEAN	3520	Mar 4	3430	Feb 12	16500	Dec 23 1955
LOWEST DAILY MEAN	.00	Aug 11	.00	Oct 1	.00	Aug 27 1904
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 11	.00	Oct 1	.00	Aug 27 1904
INSTANTANEOUS PEAK FLOW			6060	Feb 12	28300	Apr 3 1958
INSTANTANEOUS PEAK STAGE			7.59	Feb 12	16.40	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	51390		73720		120200	
10 PERCENT EXCEEDS	135		218		350	
50 PERCENT EXCEEDS	6.4		9.6		28	
90 PERCENT EXCEEDS	.00		.00		.00	

11152300 SALINAS RIVER NEAR CHUALAR, CA
(National stream quality accounting network station)

LOCATION.--Lat 36°33'20", long 121°32'55", in Guadalupe y Llanitos de Los Correos Grant, Monterey County, Hydrologic Unit 18060005, near left bank on upstream side of bridge on Chualar-River Road and 2 mi southwest of Chualar.

DRAINAGE AREA.--4,042 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

REVISED RECORDS.--WDR CA-85-2: 1983-84(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 68.00 ft above National Geodetic Vertical Datum of 1929. Prior to January 1979, nonrecording gage at same site and datum. Prior to Aug. 19, 1991, at site 0.2 mi upstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Daily discharges prior to January 1979 determined by discharge measurements at this site correlated to streamflow for Salinas River at Soledad (station 11151700) and Salinas River near Spreckels (station 11152500). Flow regulated by Santa Margarita Lake beginning in December 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Large withdrawals from ground water and small surface-water diversions for municipal use and for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft^3/s, Mar. 3, 1983, gage height, 14.92 ft, from rating curve extended above 21,000 ft^3/s; no flow at times during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,510 ft^3/s, Feb. 17, gage height, 9.67 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	e.00	.00	.00	2.5	24	.00	.00
2	.00	.00	.00	.00	.00	e.00	.00	.00	4.0	25	.00	.00
3	.00	.00	.00	.00	.00	e.00	.00	.00	5.6	15	.00	.00
4	.00	.00	.00	.00	.00	e.00	.00	.00	5.9	10	.00	.00
5	.00	.00	.00	.00	.00	e15	.00	e.00	3.9	.81	.00	.00
6	.00	.00	.00	.00	.00	126	.00	e.00	1.0	.00	.00	.00
7	.00	.00	.00	.00	.00	e110	.00	e.00	1.8	.00	.00	.00
8	.00	.00	.00	.00	.00	211	.00	e.00	4.7	.00	.00	.00
9	.00	.00	.00	.00	.00	195	.00	e.00	6.7	.00	.00	.00
10	.00	.00	.00	.00	.00	113	.00	e.00	6.8	.00	.00	.00
11	.00	.00	.00	.00	1.8	e35	.00	e.00	7.1	.00	.00	.00
12	.00	.00	.00	.00	533	e4.2	.00	e.00	6.8	.00	.00	.00
13	.00	.00	.00	.00	685	.00	.00	e.00	5.8	.00	.00	.00
14	.00	.00	.00	.00	1420	.00	.00	e.00	6.8	.00	.00	.00
15	.00	.00	.00	.00	3030	.00	.00	e.00	8.9	.00	.00	.00
16	.00	.00	.00	.00	3000	.00	.00	e.00	11	.00	.00	.00
17	.00	.00	.00	.00	3540	.00	.00	e.00	12	.00	.00	.00
18	.00	.00	.00	.00	1480	.00	.00	e.00	14	.00	.00	.00
19	.00	.00	.00	.00	756	.00	.00	e.00	14	.00	.00	.00
20	.00	.00	.00	.00	504	.00	.00	e.00	13	.00	.00	.00
21	.00	.00	.00	.00	423	.00	.00	e.00	13	.00	.00	.00
22	.00	.00	.00	.00	216	.00	.00	e.00	15	.00	.00	.00
23	.00	.00	.00	.00	122	e65	.00	e.00	16	.00	.00	.00
24	.00	.00	.00	.00	e40	e62	.00	e.50	17	.00	.00	.00
25	.00	.00	.00	.00	e1.0	e46	.00	e1.3	17	.00	.00	.00
26	.00	.00	.00	.00	e.00	e37	.00	e1.8	17	.00	.00	.00
27	.00	.00	.00	.00	e.00	e29	.00	2.1	19	.00	.00	.00
28	.00	.00	.00	.00	e.00	7.6	.00	2.6	20	.00	.00	.00
29	.00	.00	.00	.00	e.00	.78	.00	3.1	21	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	2.7	22	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	2.7	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	15751.80	1056.58	0.00	16.80	319.3	74.81	0.00	0.00
MEAN	.000	.000	.000	.000	543	34.1	.000	.54	10.6	2.41	.000	.000
MAX	.00	.00	.00	.00	3540	211	.00	3.1	22	25	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00
AC-FT	.00	.00	.00	.00	31240	2100	.00	33	633	148	.00	.00

e Estimated.

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.3	76.6	339	824	1603	1520	464	211	70.0	54.2	62.1	82.4
MAX	286	474	2757	5000	7804	10690	2793	2418	767	462	381	425
(WY)	1983	1983	1983	1983	1983	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1981	1990	1990	1989	1977	1989	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992	
ANNUAL TOTAL	16235.46		17219.29			
ANNUAL MEAN	44.5		47.0		442	
HIGHEST ANNUAL MEAN					2796	1983
LOWEST ANNUAL MEAN					.000	1990
HIGHEST DAILY MEAN	4070	Mar 28	3540	Feb 17	43500	Mar 3 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jan 27 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Feb 3 1977
INSTANTANEOUS PEAK FLOW			5510	Feb 17	53000	Mar 3 1983
INSTANTANEOUS PEAK STAGE			9.67	Feb 17	14.92	Mar 3 1983
ANNUAL RUNOFF (AC-FT)	32200		34150		320000	
10 PERCENT EXCEEDS	.00		15		649	
50 PERCENT EXCEEDS	.00		.00		36	
90 PERCENT EXCEEDS	.00		.00		.00	

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.
CHEMICAL DATA: Water years 1977 to current year.
BIOLOGICAL DATA: Water years 1977-81.
SPECIFIC CONDUCTANCE: Water years 1977-81.
WATER TEMPERATURE: Water years 1977-81.
SEDIMENT DATA: Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1977 to September 1981.
WATER TEMPERATURE: January 1977 to September 1981.

INSTRUMENTATION.--Water-quality monitor from January 1977 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
FEB											
19...	1400	721	400	7.9	13.5	680	767	10.4	99	K780	3000
JUN											
10...	1240	8.0	405	8.7	20.0	75	758	9.7	107	240	420

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)
FEB											
19...	150	50	39	13	24	25	0.9	2.8	124	0	102
JUN											
10...	170	48	40	17	18	19	0.6	1.9	142	3	121

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
FEB										
19...	64	24	0.40	19	241	251	0.33	0.020	0.020	0.690
JUN										
10...	66	16	0.20	11	245	243	0.33	0.010	<0.010	<0.050

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
FEB										
19...	0.700	0.010	0.020	3.2	2.00	1.50	0.140	0.140	220	39
JUN										
10...	<0.050	0.010	<0.010	0.40	0.130	0.040	0.020	0.030	--	--

11152300 SALINAS RIVER NEAR CHUALAR, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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)
FEB										
19...	<3	93	12	3	<10	3	3	<1.0	270	<6
JUN										
10...	--	--	--	--	--	--	--	--	--	--

CROSS-SECTIONAL ANALYSES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
19...*	1345	1.70	36.0	400	7.9	13.5	767	10.4	99	1840	100
19...*	1346	1.90	94.0	400	8.0	13.5	767	10.4	99	1870	99
19...*	1347	2.25	135	400	8.0	13.5	767	10.4	99	1880	100
19...*	1348	2.00	177	400	8.0	13.5	767	10.5	100	1880	100
19...*	1349	3.30	223	400	8.0	13.5	767	10.4	99	1850	100

* Instantaneous streamflow at the time of cross-sectional measurement: Feb. 19, 721 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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
FEB						
19...	1320	727	13.5	1860	3650	100
JUN						
10...	1220	8.0	20.0	130	2.8	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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
JUL												
10...	1430	5	0.0	6	9	20	57	87	95	98	99	100

11152500 SALINAS RIVER NEAR SPRECKELS, CA

LOCATION.--Lat 36°37'52", long 121°40'17", in Nacional Grant, Monterey County, Hydrologic Unit 18060005, on right bank on downstream side of bridge on Salinas-Monterey highway, 0.8 mi upstream from El Toro Creek, 1.6 mi northwest of Spreckels, and 2 mi south of Salinas.

DRAINAGE AREA.--4,156 mi^2.

PERIOD OF RECORD.--January 1900 to August 1901, October 1929 to current year. Records for water year 1930 incomplete; yearly estimate published in WSP 1315-B. Published as "near Salinas" 1900-01.
CHEMICAL DATA: Water years 1952-54, 1958-70, 1972-79. Published incorrectly as station 11152300 "near Chualar" in 1967.
BIOLOGICAL DATA: Water years 1975-77.
SPECIFIC CONDUCTANCE: Water years 1975 to January 1977, daily.
WATER TEMPERATURE: Water years 1967-79, daily. Published incorrectly as station 11152300 "near Chualar" in 1967-69.
SEDIMENT DATA: Water years 1950-51; 1967-79, daily; 1986, monthly; August 1990. Published incorrectly as station 11152300 "near Chualar" in 1967-69.
TURBIDITY: Water year 1973.

REVISED RECORDS.--WSP 1565: 1930, 1935, 1945. WSP 1715: 1959. WSP 1929: Drainage area. WDR CA-85-2: 1983.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 20.56 ft above National Geodetic Vertical Datum of 1929. 1900-01, May 10 to July 29, 1940, nonrecording gages at site 0.3 mi downstream at different datum. July 29, 1940, to May 22, 1969, water-stage recorder at site 0.3 mi downstream at datum 0.69 ft lower. May 23, 1969, to Jan. 13, 1970, nonrecording gage at same site and datum. Mar. 17, 1941, to June 30, 1961, supplementary nonrecording gages.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Santa Margarita Lake (formerly Salinas Reservoir) beginning in 1941, usable capacity, 23,000 acre-ft; Lake Nacimiento (formerly Nacimiento Reservoir) beginning in February 1957, usable capacity, 340,000 acre-ft; and by Lake San Antonio beginning in December 1965, usable capacity, 330,000 acre-ft. Large withdrawals from ground water and small surface-water diversions for municipal use and for irrigation of about 95,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83,100 ft^3/s, Feb. 26, 1969, gage height, 26.51 ft, site and datum then in use; maximum gage height, 26.85 ft, Jan. 16, 1952, site and datum then in use, from floodmarks; no flow at times in 1929-40, many days in 1990-92.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,880 ft^3/s, Feb. 17, gage height, 14.22 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	1.4	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.55	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	3.1	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	6.2	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	3.7	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	1.4	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	50	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	63	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	35	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	11	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	5.8	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	516	4.1	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	2930	3.0	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	2360	2.0	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	3330	1.1	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	1630	.32	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	805	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	391	2.3	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	359	5.2	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	168	4.5	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	70	4.9	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	23	3.7	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	3.4	4.1	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.32	32	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.02	21	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	7.3	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	4.4	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	3.0	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	2.3	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	12585.74	284.42	1.95	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	434	9.17	.065	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	3330	63	1.4	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	24960	564	3.9	.00	.00	.00	.00	.00

11152500 SALINAS RIVER NEAR SPRECKELS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1940, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.24	5.04	378	491	3003	1656	520	75.7	7.80	1.53	.81	1.82
MAX	12.0	12.0	3215	1742	11940	9543	2019	340	49.3	9.00	5.00	6.10
(WY)	1939	1939	1932	1940	1938	1938	1935	1938	1938	1938	1938	1932
MIN	.000	.000	.000	6.33	9.23	3.86	.70	.10	.10	.000	.000	.000
(WY)	1940	1940	1940	1931	1931	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	WATER YEARS 1930 - 1940	
ANNUAL TOTAL		
ANNUAL MEAN	497	
HIGHEST ANNUAL MEAN	1931	1938
LOWEST ANNUAL MEAN	2.66	1931
HIGHEST DAILY MEAN	69900	Feb 12 1938
LOWEST DAILY MEAN	.00	Jul 1 1931
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 1 1931
INSTANTANEOUS PEAK FLOW	75000	Feb 12 1938
INSTANTANEOUS PEAK STAGE	25.00	Feb 12 1938
ANNUAL RUNOFF (AC-FT)	360400	
10 PERCENT EXCEEDS	727	
50 PERCENT EXCEEDS	4.7	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.2	35.2	228	836	1277	1167	505	122	34.9	20.4	22.0	33.5
MAX	402	389	2511	5959	9862	12640	6714	2839	767	403	354	394
(WY)	1970	1983	1983	1969	1969	1983	1958	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1942 - 1992	
ANNUAL TOTAL	15744.38		12872.11			
ANNUAL MEAN	43.1		35.2		355	
HIGHEST ANNUAL MEAN					2997	1983
LOWEST ANNUAL MEAN					.81	1990
HIGHEST DAILY MEAN	3770	Mar 28	3330	Feb 17	64800	Feb 26 1969
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jan 31 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jan 31 1990
INSTANTANEOUS PEAK FLOW			3880	Feb 17	83100	Feb 26 1969
INSTANTANEOUS PEAK STAGE			14.22	Feb 17	26.51	Feb 26 1969
ANNUAL RUNOFF (AC-FT)	31230		25530		256800	
10 PERCENT EXCEEDS	.00		1.4		526	
50 PERCENT EXCEEDS	.00		.00		3.4	
90 PERCENT EXCEEDS	.00		.00		.95	

11152540 EL TORO CREEK NEAR SPRECKELS, CA

LOCATION.--Lat 36°35'00", long 121°42'50", in El Toro Grant, Monterey County, Hydrologic Unit 18060005, on right bank 0.3 mi downstream from San Benancio Gulch and 4.7 mi southwest of Spreckels.

DRAINAGE AREA.--31.9 mi^2.

PERIOD OF RECORD.--October 1961 to current year.
SEDIMENT DATA: Water years 1986, August 1990.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 210 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 16, 1983, at site 700 ft upstream at different datum.

REMARKS.--Records poor. No regulation or diversion upstream from station except for small stock ponds. Low flow at times affected by irrigation runoff from upstream golf course.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft^3/s, Mar. 2, 1983, gage height, 6.10 ft, site and datum then in use, from rating curve extended above 93 ft^3/s on basis of slope-area measurement at gage height 6.07 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft^3/s and maximum (*), from rating curve extended above 75 ft^3/s on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0100	*597	*5.14	Mar. 5	2030	79	1.57
Mar. 1	1630	65	1.46				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.57	5.6	e.06	e.01	.02	e.01	.00	.00
2	.00	.00	.00	.00	.13	.75	e.04	e.01	.02	e.01	.00	.00
3	.00	.00	.00	.00	.11	.15	e.05	e.01	.02	e.01	.00	.00
4	.00	.00	.00	e.01	.10	.10	e.02	e.01	.02	e.01	.00	.00
5	.00	.00	.00	e11	.10	21	e.02	e.01	e.02	e.01	.01	.00
6	.00	.00	.00	e3.5	.37	37	e.01	e.01	e.01	e.01	.00	.00
7	.00	.00	.00	1.4	.62	14	e.01	e.01	e.01	e.01	.00	.00
8	.00	.00	.00	.40	.10	9.0	e.01	e.01	e.01	e.01	.00	.00
9	.00	.00	.00	.17	.68	5.1	e.01	e.01	e.01	e.01	.00	.00
10	.00	.00	.00	.04	1.9	2.4	e.01	e.01	e.01	e.01	.00	.00
11	.00	.00	.00	.03	13	1.5	e.01	e.01	e.01	e.01	.00	.00
12	.00	.00	.00	.02	e30	.79	e.01	e.01	e.01	e.01	.00	.00
13	.00	.00	.00	.01	e80	.60	e.01	e.01	e.01	e.01	.00	.00
14	.00	.00	.00	.01	27	1.6	e.01	e.01	e.01	e.01	.00	.00
15	.00	.00	.00	.01	159	.51	e.28	e.01	e.01	e.01	.00	.00
16	.00	.00	.00	.18	e55	.41	.06	e.01	e.01	.04	.00	.00
17	.00	.00	.00	.02	e23	.32	.04	e.01	e.01	.06	.00	.00
18	.00	.00	.00	.02	e16	.32	.03	e.01	e.01	.09	.00	.00
19	.00	.00	.00	.02	e11	.33	.04	e.01	e.01	.14	.00	.00
20	.00	.00	.00	.01	e6.0	.49	.05	e.01	e.01	.17	.00	.00
21	.00	.00	.00	.01	e3.1	.54	.05	e.01	e.01	.19	.00	.00
22	.00	.00	.00	.01	1.4	2.3	.05	e.02	e.01	.20	.00	.00
23	.00	.00	.00	.01	e.54	.77	.03	e.03	e.01	.19	.00	.00
24	.00	.00	.00	.01	e.38	.22	2.5	e.01	e.01	.13	.00	.00
25	.00	.00	.00	.02	e.31	.21	.09	e.01	e.01	.03	.00	.00
26	.00	.00	.00	.05	e.27	.20	e.01	e.01	e.01	.18	.00	.00
27	.00	.00	.00	.11	e.24	.17	e.01	e.01	e.01	.05	.00	.00
28	.00	.00	.00	.27	.23	e.11	e.01	e.01	e.01	e.01	.00	.00
29	.00	.00	3.7	.07	.28	e.09	e.01	e.01	e.01	.00	.00	.00
30	.00	.00	.20	.06	---	e.12	e.01	.02	e.01	.00	.00	.00
31	.00	---	.01	.10	---	e.07	---	.02	---	.00	.00	---
TOTAL	0.00	0.00	3.91	17.57	431.43	106.77	3.55	0.36	0.35	1.63	0.01	0.00
MEAN	.000	.000	.13	.57	14.9	3.44	.12	.012	.012	.053	.000	.000
MAX	.00	.00	3.7	11	159	37	2.5	.03	.02	.20	.01	.00
MIN	.00	.00	.00	.00	.10	.07	.01	.01	.01	.00	.00	.00
AC-FT	.00	.00	7.8	35	856	212	7.0	.7	.7	3.2	.02	.00

e Estimated.

11152540 EL TORO CREEK NEAR SPRECKELS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.12	.26	.68	3.26	6.35	5.70	2.26	.35	.11	.071	.047	.047
MAX	1.52	2.23	7.08	27.4	77.8	62.2	14.8	5.18	.63	.49	.28	.22
(WY)	1980	1983	1983	1969	1969	1983	1982	1983	1983	1969	1983	1983
MIN	.000	.000	.000	.000	.000	.058	.022	.000	.000	.000	.000	.000
(WY)	1965	1989	1990	1991	1991	1966	1990	1966	1966	1965	1962	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	141.58		565.58			
ANNUAL MEAN	.39		1.55		1.58	
HIGHEST ANNUAL MEAN					11.3	1983
LOWEST ANNUAL MEAN					.034	1990
HIGHEST DAILY MEAN	40	Mar 26	159	Feb 15	390	Mar 2 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1961
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 6 1961
INSTANTANEOUS PEAK FLOW			597	Feb 15	630	Mar 2 1983
INSTANTANEOUS PEAK STAGE			5.14	Feb 15	6.10	Mar 2 1983
ANNUAL RUNOFF (AC-FT)	281		1120		1140	
10 PERCENT EXCEEDS	.06		.54		1.0	
50 PERCENT EXCEEDS	.00		.01		.10	
90 PERCENT EXCEEDS	.00		.00		.00	

11152600 GABILAN CREEK NEAR SALINAS, CA

LOCATION.--Lat 36°45'21", long 121°36'34", in La Natividad Grant, Monterey County, Hydrologic Unit 18060011, on left bank at downstream side of county road bridge, 0.3 mi downstream from small left-bank tributary, and 6.2 mi northeast of Salinas.

DRAINAGE AREA.--36.7 mi^2.

PERIOD OF RECORD.--October 1970 to current year. January 1959 to September 1970 in reports of Monterey County Flood Control and Water Conservation District.

REVISED RECORDS.--WDR CA-84-2: 1974(M), 1978(P), 1980-83(P).

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Oct. 9, 1975. Elevation of gage is 200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 9, 1975, on right bank at different datum.

REMARKS.--Records fair. Natural flow of stream affected by small diversions, storage reservoirs, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 898 ft^3/s, Apr. 1, 1974, gage height, 11.13 ft, at datum then in use, from rating curve extended above 260 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	2315	104	2.90	Mar. 6	1730	*292	*3.44

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
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	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	3.0	.00	3.3	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	1.8	.00	31	.00	.00	.00	e.00	.00	.00
7	.00	.00	.00	.00	.00	7.1	.00	.00	.00	e.00	.00	.00
8	.00	.00	.00	.00	.00	1.7	.00	.00	.00	e.00	.00	.00
9	.00	.00	.00	.00	.00	.05	.00	.00	.00	e.00	.00	.00
10	.00	.00	.01	.00	.00	.00	.00	.00	.00	e.00	.00	.00
11	.00	.00	.00	.00	.58	.00	.00	.00	.00	e.00	.00	.00
12	.00	.00	.00	.00	2.0	.00	.00	.00	.00	e.00	.00	.00
13	.00	.00	.00	.00	3.3	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	9.4	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	15	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	20	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	8.6	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	1.3	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.57	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	6.9	.32	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.63	.33	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.98	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.45	.00	.00	.00	.00	.00	.03
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.89	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.90	4.80	68.28	45.23	0.00	0.00	0.00	0.00	0.00	0.12
MEAN	.000	.000	.029	.15	2.35	1.46	.000	.000	.000	.000	.000	.004
MAX	.00	.00	.89	3.0	20	31	.00	.00	.00	.00	.00	.05
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	1.8	9.5	135	90	.00	.00	.00	.00	.00	.2

e Estimated.

11152600 GABILAN CREEK NEAR SALINAS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.044	.55	2.51	6.46	11.8	14.3	8.53	2.23	.91	.31	.14	.035
MAX	.50	6.20	20.0	35.1	88.6	124	58.7	23.4	9.27	5.14	2.85	.58
(WY)	1984	1983	1983	1983	1983	1983	1974	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1971	1971	1972	1972	1972	1972	1972	1971	1971	1971	1971	1971

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	51.33		119.33			
ANNUAL MEAN	.14		.33		3.94	
HIGHEST ANNUAL MEAN					29.7	1983
LOWEST ANNUAL MEAN					.000	1972
HIGHEST DAILY MEAN	26	Mar 26	31	Mar 6	298	Apr 2 1974
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1970
INSTANTANEOUS PEAK FLOW			292	Mar 6	898	Apr 1 1974
INSTANTANEOUS PEAK STAGE			3.44	Mar 6	11.13	Apr 1 1974
ANNUAL RUNOFF (AC-FT)	102		237		2860	
10 PERCENT EXCEEDS	.00		.00		7.0	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11154200 UVAS CREEK NEAR GILROY, CA

LOCATION.--Lat 36°59'32", long 121°34'21", in Las Animas Grant, Santa Clara County, Hydrologic Unit 18060002, on left bank 400 ft upstream from county road bridge, 0.4 mi southwest of Gilroy, and 3.9 mi downstream from Bodfish Creek.

DRAINAGE AREA.--71.2 mi^2.

PERIOD OF RECORD.--January 1959 to current year (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except for daily discharges from Feb. 20 to Mar. 5, which are poor. Flow regulated by Uvas Reservoir 10 mi upstream, capacity, 9,950 acre-ft. Small diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft^3/s, Feb. 17, 1986, gage height, 21.82 ft, from rating curve extended above 4,500 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 934 ft^3/s, Feb. 20, gage height, 13.34 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	21	19	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	15	16	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	8.4	14	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	6.2	15	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	31	13	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	131	12	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	69	11	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	47	10	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	33	8.9	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	27	7.5	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	12	21	2.5	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	61	18	2.6	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	60	16	5.3	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	49	14	6.7	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	319	13	6.0	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	331	13	2.2	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	162	13	.82	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	79	11	1.7	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	52	10	.72	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	435	14	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	139	13	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	88	9.0	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	61	31	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	47	39	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	39	35	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	35	34	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	33	30	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	29	27	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	25	25	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	25	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	23	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	2056.00	822.6	154.94	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	70.9	26.5	5.16	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	435	131	19	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	6.2	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	4080	1630	307	.00	.00	.00	.00	.00

11154200 UVAS CREEK NEAR GILROY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.45	5.18	23.7	99.9	155	111	53.2	11.2	2.35	1.48	1.33	1.49
MAX	6.24	67.2	251	448	1028	747	369	130	19.9	16.0	7.12	27.1
(WY)	1971	1984	1984	1982	1986	1983	1982	1983	1967	1962	1963	1959
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1960	1960	1960	1960	1961	1961	1961	1961	1972	1961	1960	1960

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	2937.77		3033.54			
ANNUAL MEAN	8.05		8.29		38.7	
HIGHEST ANNUAL MEAN					192	1983
LOWEST ANNUAL MEAN					.000	1977
HIGHEST DAILY MEAN	621	Mar 26	435	Feb 20	6520	Feb 19 1986
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jan 1 1959
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jan 1 1959
INSTANTANEOUS PEAK FLOW			934	Feb 20	14200	Feb 17 1986
INSTANTANEOUS PEAK STAGE			13.34	Feb 20	21.82	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	5830		6020		28040	
10 PERCENT EXCEEDS	4.0		18		61	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CA

LOCATION.--Lat 36°36'34", long 121°12'07", in SE 1/4 SE 1/4 sec.21, T.15 S., R.7 E., San Benito County, Hydrologic Unit 18060002, on left bank 0.9 mi northwest of Willow Creek School, 1.3 mi downstream from Willow Creek, and 10 mi northwest of San Benito.

DRAINAGE AREA.--249 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1565: 1948(M), 1949. WSP 1315-B: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 925.52 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 28, 1948, and Nov. 11, 1955, to Sept. 30, 1965, at site 0.9 mi downstream at different datum. Jan. 28, 1948, to Nov. 10, 1955, and Oct. 1, 1965, to Oct. 22, 1970, at present site at datum 2.37 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flow regulated by Hernandez Reservoir 40 mi upstream beginning in December 1961, capacity, 18,500 acre-ft. Small diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,210 ft^3/s, Apr. 3, 1958, gage height, 8.35 ft, site and datum then in use, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1938 reached a stage of about 9.0 ft, from floodmarks at former site 0.9 mi downstream, referenced to datum used at that site.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	1400	542	6.72	July 15	0815	*681	*7.02

Minimum daily, 0.12 ft^3/s, Dec. 21-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.17	.16	e4.0	.34	e.67	e1.7	78	38	2.9	e.78	.42
2	.23	.16	.16	e2.0	.34	e.63	e1.6	68	38	2.1	e.76	.39
3	.22	.16	.16	e1.5	.34	e.61	e1.5	68	38	1.6	e.74	.38
4	.22	.16	.18	e1.0	.34	e.60	e1.4	66	39	1.3	e.72	.37
5	.19	.16	.18	e61	.34	e2.0	e1.3	62	42	1.0	e.70	.35
6	.21	.16	.17	e56	.34	e47	e1.3	61	43	.76	e.68	.36
7	.20	.16	.17	e24	.34	e10	e1.3	62	43	.59	e.66	.38
8	.20	.16	.16	e13	.34	3.4	e1.3	67	40	.38	e.65	.35
9	.20	.16	.16	5.1	.34	2.5	e1.2	56	43	.23	e.64	.32
10	.20	.16	.15	3.5	5.5	1.6	e1.2	49	44	22	e.63	.28
11	.19	.16	.14	2.3	e61	1.1	e1.2	47	44	29	e.62	.28
12	.18	.15	.14	2.1	e296	.86	e1.2	46	49	38	e.61	.28
13	.18	.14	.19	.90	e164	.61	e1.2	46	52	27	e.60	.34
14	.18	.14	.27	.90	e74	.64	1.5	44	51	24	e.59	.36
15	.17	.14	.14	.90	e333	.84	1.2	42	50	e162	e.58	.39
16	.18	.14	.14	.82	e159	.95	1.2	42	51	e14	e.57	.39
17	.20	.16	.14	.61	e110	1.0	15	42	51	9.0	e.56	.37
18	.19	.19	.14	.61	e45	.79	34	40	50	4.5	e.55	.37
19	.16	.18	.14	.61	e14	.61	37	41	50	2.6	e.54	.37
20	.16	.18	.13	.61	e4.5	6.3	38	42	48	1.5	e.53	.33
21	.17	.17	.12	.61	e2.3	117	35	43	48	e1.2	e.52	.34
22	.16	.16	.12	.57	e1.8	144	67	47	48	e1.1	e.51	.31
23	.16	.16	.12	.39	e1.4	e202	79	48	46	e1.0	e.50	.32
24	.16	.16	.12	.41	e1.2	e58	82	45	46	e.95	e.49	.31
25	.16	.15	.13	.41	e.95	e33	107	46	44	e.92	e.48	.33
26	.23	.14	.13	.41	e.85	e22	97	45	44	e.90	.45	.35
27	.20	.14	.20	.41	e.78	e20	101	41	28	e.88	.42	.35
28	.18	.14	.18	.34	e.72	e8.3	95	39	8.3	e.86	.41	.33
29	.18	.14	62	.34	e.67	e4.5	81	40	7.2	e.84	.40	.33
30	.18	.16	e26	.34	---	e2.5	84	41	5.2	e.82	.41	.35
31	.18	---	e8.0	.34	---	e1.8	---	40	---	e.80	.42	---
TOTAL	5.84	4.71	100.34	186.03	1279.73	695.81	973.3	1544	1228.7	354.73	17.72	10.40
MEAN	.19	.16	3.24	6.00	44.1	22.4	32.4	49.8	41.0	11.4	.57	.35
MAX	.23	.19	62	61	333	202	107	78	52	162	.78	.42
MIN	.16	.14	.12	.34	.34	.60	1.2	39	5.2	.23	.40	.28
AC-FT	12	9.3	199	369	2540	1380	1930	3060	2440	704	35	21

e Estimated.

11156500 SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.34	4.43	16.1	27.2	56.8	67.8	42.5	20.9	19.7	14.2	12.5	9.26
MAX	42.2	20.1	181	238	471	655	532	130	88.5	79.2	71.0	67.2
(WY)	1974	1976	1956	1952	1941	1983	1958	1983	1962	1967	1967	1978
MIN	.013	.069	.095	.081	.11	.23	.21	.15	.078	.019	.000	.000
(WY)	1962	1990	1991	1990	1991	1977	1990	1961	1989	1961	1961	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	3622.58		6401.31			
ANNUAL MEAN	9.92		17.5		24.6	
HIGHEST ANNUAL MEAN					126	1941
LOWEST ANNUAL MEAN					.15	1990
HIGHEST DAILY MEAN	232	Mar 25	333	Feb 15	3540	Apr 3 1958
LOWEST DAILY MEAN	.07	Feb 9	.12	Dec 21	.00	Sep 19 1947
ANNUAL SEVEN-DAY MINIMUM	.08	Feb 4	.12	Dec 20	.00	Sep 19 1947
INSTANTANEOUS PEAK FLOW			681	Jul 15	8210	Apr 3 1958
INSTANTANEOUS PEAK STAGE			7.02	Jul 15	8.35	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	7190		12700		17800	
10 PERCENT EXCEEDS	48		51		53	
50 PERCENT EXCEEDS	.23		.73		3.1	
90 PERCENT EXCEEDS	.09		.16		.16	

11158600 SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER, CA

LOCATION.--Lat 36°51'07", long 121°25'44", in San Justo Grant, San Benito County, Hydrologic Unit 18060002, on right bank at downstream side of bridge on State Highway 156 and 1.6 mi west of Hollister.

DRAINAGE AREA.--607 mi^2.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flows regulated by Hernandez Reservoir 73 mi upstream, capacity, 18,500 acre-ft. Some diversions upstream from station for irrigation. Percolation ponds are constructed upstream from station during summer months.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,900 ft^3/s, Mar. 1, 1983, gage height, 11.97 ft, from rating curve extended above 4,100 ft^3/s; no flow for many days in most years.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	unknown	*676	*4.67				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.00	.00	.00	.00	e.00	.00	e12	3.8	.03	.00	.00
2	.32	.00	.00	.00	.00	e.00	.00	e16	5.1	.00	.00	.00
3	.33	.00	.00	.00	.00	e.00	.00	e14	7.6	.00	.00	.00
4	.34	.00	.00	.00	.00	e.00	.00	e12	7.6	.00	.00	.00
5	.40	.00	.00	e.00	.00	e9.0	.00	e11	7.8	.00	.00	.00
6	.38	.00	.00	.00	.00	15	.00	e11	7.9	.00	.00	.00
7	.31	.00	.00	.00	.00	e11	.00	e12	8.1	.00	.00	.00
8	e.25	.00	.00	.00	.00	20	.00	e9.7	8.5	.00	.00	.00
9	e.23	.00	.00	.00	.00	13	.00	4.6	8.0	.00	.00	.47
10	e.21	.00	.00	.00	.00	e6.0	.00	3.3	8.0	.00	.00	.16
11	e.19	.00	.00	.00	e.00	e3.2	.00	1.9	7.7	.00	.00	.00
12	.08	.00	.00	.00	e2.0	e1.8	.00	2.2	7.7	.00	.00	.00
13	.00	.00	.00	.00	e200	e.93	.00	3.0	8.2	.00	.00	.00
14	.00	.00	.00	.00	e111	e.51	.00	3.5	7.8	.00	.00	.00
15	.00	.00	.00	.00	e71	e.31	.00	3.3	8.0	.00	.00	.00
16	.00	.00	.00	.00	e48	e.20	.00	4.0	7.4	.30	.00	.00
17	.00	e.00	.00	.00	e34	e.12	.00	4.9	7.2	9.8	.00	.00
18	.00	.00	.00	.00	e25	e.08	.00	5.4	7.9	2.0	.00	.00
19	.00	.00	.00	.00	23	.00	.00	4.2	8.6	.65	.00	.00
20	.00	.00	.00	.00	20	.27	.00	4.1	8.6	.30	.00	.00
21	.00	.00	.00	.00	e7.0	.16	.00	4.8	9.0	.13	.00	.00
22	.00	.00	.00	.00	e2.5	.31	.00	3.9	9.5	.00	.00	.00
23	.00	.00	.00	.00	e.90	.44	.00	5.0	8.8	.00	.00	.00
24	.00	.00	.00	.00	e.40	1.0	.00	6.3	9.3	.00	.00	.00
25	.00	.00	.00	.00	e.17	.92	e3.2	6.9	9.2	.00	.00	.00
26	.18	.00	.00	.00	e.10	1.4	e7.5	5.4	8.5	.00	.00	.00
27	.00	.00	.00	.00	e.06	.63	e9.7	6.0	8.8	.00	.00	.00
28	.00	.00	.00	.00	e.00	.50	e11	6.9	9.3	.00	.00	.00
29	.00	.00	e.00	.00	e.00	.41	e12	5.9	4.0	.00	.00	.00
30	.00	.00	.00	.00	---	.10	e11	5.7	.80	.00	.00	.00
31	.00	---	.00	.00	---	.10	---	6.2	---	.00	.00	---
TOTAL	3.47	0.00	0.00	0.00	545.13	87.39	54.40	205.1	228.70	13.21	0.00	0.63
MEAN	.11	.000	.000	.000	18.8	2.82	1.81	6.62	7.62	.43	.000	.021
MAX	.40	.00	.00	.00	200	20	12	16	9.5	9.8	.00	.47
MIN	.00	.00	.00	.00	.00	.00	.00	1.9	.80	.00	.00	.00
AC-FT	6.9	.00	.00	.00	1080	173	108	407	454	26	.00	1.2

e Estimated.

11158600 SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.02	4.73	16.8	48.6	98.2	113	34.3	11.0	5.88	4.80	5.18	4.63
MAX	8.73	38.2	154	335	613	1545	373	184	18.1	18.0	18.6	16.3
(WY)	1974	1984	1984	1983	1978	1983	1983	1983	1983	1980	1978	1973
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1973	1975	1977	1977	1977	1977	1977	1976	1972	1972	1972	1972

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	335.71		1138.03			
ANNUAL MEAN	.92		3.11		28.7	
HIGHEST ANNUAL MEAN					269	1983
LOWEST ANNUAL MEAN					.000	1977
HIGHEST DAILY MEAN	22	Mar 27	200	Feb 13	8860	Mar 1 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 13	.00	Feb 1 1971
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 13	.00	Oct 11 1971
INSTANTANEOUS PEAK FLOW			676	Feb 13	13900	Mar 1 1983
INSTANTANEOUS PEAK STAGE			4.67	Feb 13	11.97	Mar 1 1983
ANNUAL RUNOFF (AC-FT)	666		2260		20820	
10 PERCENT EXCEEDS	.39		8.5		23	
50 PERCENT EXCEEDS	.00		.00		.42	
90 PERCENT EXCEEDS	.00		.00		.00	

11159000 PAJARO RIVER AT CHITTENDEN, CA
(National stream quality accounting network station)

LOCATION.--Lat 36°54'01", long 121°35'48", in Salsipuedes Grant, Santa Cruz County, Hydrologic Unit 18060002, on left bank at downstream side of bridge on State Highway 129, 0.6 mi downstream from Pescadero Creek, 0.6 mi southeast of Chittenden, and 2.3 mi downstream from San Benito River.

DRAINAGE AREA.--1,186 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "near Chittenden."

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 81.89 ft (revised) above National Geodetic Vertical Datum of 1929. Prior to May 13, 1949, nonrecording gage on former bridge 100 ft downstream at same datum except for periods in 1947 and 1948 when a water-stage recorder was in use.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flows regulated by Hernandez Reservoir, capacity, 18,500 acre-ft; Pacheco Lake, capacity, 6,140 acre-ft; Chesbro Reservoir, capacity, 8,090 acre-ft; Uvas Reservoir, capacity, 9,950 acre-ft; and San Felipe Lake. Many diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft^3/s, Dec. 24, 1955, gage height, 32.46 ft, from rating curve extended above 8,300 ft^3/s on basis of slope-conveyance study; maximum gage height, 33.11 ft, Apr. 3, 1958; no flow at times in July and August 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938 reached a stage of 31.3 ft, from floodmarks.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	2145	*1,540	*12.59				

Minimum daily, 0.06 ft^3/s, Oct. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.87	.43	10	3.0	45	49	11	5.4	2.7	3.2	1.2
2	1.6	.79	.39	6.0	3.0	42	45	9.7	5.4	2.8	2.5	1.2
3	1.6	.67	.37	4.4	2.7	39	40	9.3	5.0	2.9	2.5	1.1
4	1.2	.61	.43	3.4	2.6	34	38	9.5	4.4	3.6	2.4	.86
5	.98	.59	.44	6.2	2.5	47	36	9.8	4.8	3.5	2.4	.89
6	.90	.55	.44	7.9	2.5	200	33	11	5.3	3.1	2.3	.81
7	.68	.52	.63	9.3	2.6	237	30	11	4.9	2.6	2.3	.75
8	.38	.53	.61	8.5	2.6	165	27	9.5	4.7	2.2	2.5	.63
9	.16	.52	.56	6.2	2.6	131	26	9.2	4.1	3.0	3.0	.71
10	e.14	.57	.57	4.9	2.9	107	23	8.4	4.2	3.2	3.2	.73
11	e.09	.58	.55	4.2	7.3	89	20	6.5	4.0	3.5	2.2	.66
12	e.06	.48	.55	3.5	68	75	19	6.0	4.1	3.1	2.0	.54
13	e.07	.48	.55	3.2	200	64	18	6.0	3.3	4.0	2.1	.60
14	e.08	.52	.55	2.8	102	56	18	6.6	3.4	3.8	1.9	.66
15	e.10	.48	.57	2.8	799	50	18	6.5	3.8	3.3	2.2	.72
16	e.14	.43	.64	2.7	1160	45	17	6.3	3.3	3.1	2.1	.67
17	.22	.60	.65	2.6	1060	44	16	6.3	3.3	3.5	1.6	.88
18	.47	1.0	1.1	2.6	507	40	15	6.3	3.8	3.9	1.1	1.0
19	.33	.79	1.4	2.6	357	36	14	6.2	3.7	4.1	.99	1.1
20	.29	.65	1.2	2.6	726	41	14	6.0	3.6	4.5	.97	1.0
21	.20	.61	1.2	2.6	460	57	14	5.7	3.2	4.4	1.1	.89
22	.20	.61	1.2	2.5	280	51	13	6.0	3.4	3.8	1.2	.80
23	.20	.58	1.3	2.6	204	62	13	6.6	3.4	3.3	1.3	.76
24	.10	.55	1.4	2.6	151	176	13	6.6	3.5	3.8	1.1	.76
25	.08	.55	1.5	2.6	114	128	13	6.5	3.6	3.9	.88	.66
26	1.9	.51	1.5	2.5	88	99	12	6.0	3.3	3.6	1.1	.53
27	1.8	.48	1.9	2.4	70	84	12	6.0	2.8	3.9	.94	.48
28	2.8	.47	2.8	2.4	57	79	12	5.4	2.5	3.8	.95	.47
29	1.6	.39	4.8	2.5	50	65	12	5.5	2.8	3.5	1.1	.37
30	1.2	.41	6.3	2.4	---	57	11	5.0	2.9	3.5	1.1	.35
31	1.0	---	18	2.4	---	54	---	5.0	---	3.3	1.1	---
TOTAL	22.27	17.39	54.53	123.9	6487.3	2499	641	225.4	115.9	107.2	55.33	22.78
MEAN	.72	.58	1.76	4.00	224	80.6	21.4	7.27	3.86	3.46	1.78	.76
MAX	2.8	1.0	18	10	1160	237	49	11	5.4	4.5	3.2	1.2
MIN	.06	.39	.37	2.4	2.5	34	11	5.0	2.5	2.2	.88	.35
AC-FT	44	34	108	246	12870	4960	1270	447	230	213	110	45

e Estimated.

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.25	32.7	140	360	496	425	256	45.8	13.4	7.16	5.69	6.23
MAX	22.7	843	1990	2350	2641	4227	3165	646	92.9	26.2	22.1	93.3
(WY)	1984	1951	1956	1952	1969	1983	1958	1983	1983	1983	1983	1959
MIN	.10	.29	.60	1.22	1.28	1.50	.97	.75	.66	.37	.37	.24
(WY)	1962	1962	1962	1991	1991	1977	1977	1977	1977	1961	1948	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	10099.94		10372.00			
ANNUAL MEAN	27.7		28.3		148	
HIGHEST ANNUAL MEAN					905	1983
LOWEST ANNUAL MEAN					1.06	1977
HIGHEST DAILY MEAN	1300	Mar 26	1160	Feb 16	21700	Dec 24 1955
LOWEST DAILY MEAN	.06	Oct 12	.06	Oct 12	.00	Jul 11 1948
ANNUAL SEVEN-DAY MINIMUM	.10	Oct 10	.10	Oct 10	.00	Aug 16 1948
INSTANTANEOUS PEAK FLOW			1540	Feb 16	24000	Dec 24 1955
INSTANTANEOUS PEAK STAGE			12.59	Feb 16	33.11	Apr 3 1958
ANNUAL RUNOFF (AC-FT)	20030		20570		106900	
10 PERCENT EXCEEDS	18		52		212	
50 PERCENT EXCEEDS	2.3		3.0		10	
90 PERCENT EXCEEDS	.48		.50		1.0	

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year (discontinued).
CHEMICAL DATA: Water years 1952 to current year (discontinued).
BIOLOGICAL DATA: Water years 1978-81.
SPECIFIC CONDUCTANCE: Water years 1978-81.
WATER TEMPERATURE: Water years 1978-81.
SEDIMENT DATA: Water years 1978 to current year (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1978 to September 1981.
WATER TEMPERATURE: May 1978 to September 1981.

INSTRUMENTATION.--Water-quality monitor from May 1978 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
09...	1245	0.55	2870	7.9	7.5	1.4	765	8.3	70	K7	32
MAR											
16...	1300	44	1200	7.9	15.5	6.0	762	9.6	97	100	73
JUN											
09...	1455	4.1	1780	8.2	17.5	1.5	758	7.4	78	K20	K23
JUL											
21...	1235	4.3	1530	8.3	20.0	1.5	761	6.6	73	K14	42
SEP											
08...	1135	0.62	1960	8.1	16.0	2.6	760	5.8	59	K4	K12

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)
DEC										
09...	520	42	110	60	410	63	8	5.3	586	480
MAR										
16...	450	190	81	61	98	32	2	3.1	320	262
JUN										
09...	610	150	100	88	160	36	3	3.7	568	465
JUL										
21...	510	81	82	75	130	35	2	4.9	529	433
SEP										
08...	470	31	68	73	230	51	5	4.0	537	440

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
DEC										
09...	140	600	0.50	28	1520	1650	2.07	0.020	0.010	0.200
MAR										
16...	220	89	0.20	12	770	745	1.05	0.030	0.030	5.10
JUN										
09...	260	180	0.20	21	1150	1110	1.56	0.040	0.040	3.30
JUL										
21...	190	140	0.30	23	960	928	1.31	0.040	0.030	4.60
SEP										
08...	190	280	0.30	15	1160	1130	1.58	0.010	<0.010	0.380

11159000 PAJARO RIVER AT CHITTENDEN, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
DEC										
09...	0.190	0.160	0.150	0.40	0.240	0.230	0.210	0.210	20	200
MAR										
16...	5.00	0.020	0.020	0.80	0.090	0.070	0.120	0.100	10	99
JUN										
09...	3.30	0.070	0.070	0.80	0.240	0.250	0.260	0.260	10	120
JUL										
21...	4.60	0.050	0.050	0.90	0.390	0.410	0.380	0.370	<10	110
SEP										
08...	0.370	0.050	0.050	0.50	0.250	0.210	0.220	0.210	<10	130

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC										
09...	<1	100	60	410	1	2	<1	<1.0	780	22
MAR										
16...	<3	18	22	86	<10	11	2	<1.0	590	<6
JUN										
09...	<3	24	30	150	<10	10	2	<1.0	790	<6
JUL										
21...	<3	21	23	82	<10	9	2	<1.0	760	7
SEP										
08...	<3	230	28	320	<10	7	1	<1.0	630	<6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
09...	1240	0.55	7.5	4	0.01	--
MAR						
16...	1245	45	15.5	14	1.7	88
JUN						
09...	1430	4.1	17.5	36	0.40	54
JUL						
21...	1120	4.3	20.0	26	0.30	32
SEP						
08...	1130	0.62	16.0	14	0.02	51

11159200 CORRALITOS CREEK AT FREEDOM, CA

LOCATION.--Lat 36°56'22", long 121°46'10", in Los Corralitos Grant, Santa Cruz County, Hydrologic Unit 18060002, on right bank just upstream from Green Valley Road bridge, 0.2 mi north of Freedom, and 2.3 mi north of Watsonville.

DRAINAGE AREA.--27.8 mi^2.

PERIOD OF RECORD.--October 1956 to current year.
SEDIMENT DATA: Water years 1976-77, 1980-81.

GAGE.--Water-stage recorder. Datum of gage is 89.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation; Watsonville Water Works can divert up to 8.0 ft^3/s upstream from station for municipal supply, domestic use, and irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,610 ft^3/s, Jan. 4, 1982, gage height, 16.66 ft, from rating curve extended above 1,400 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 15.6 ft, from floodmarks, discharge, 3,620 ft^3/s based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 15	0045	651	5.76	Feb. 20	0230	*1,830	*8.45

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	e.00	.00	.00	.55	3.1	.00	.00	.00	.00	.00
2	.00	.00	e.00	.00	.00	.38	1.8	.00	.00	.00	.00	.00
3	.00	.00	e.00	.00	.00	.17	.99	.00	.00	.00	.00	.00
4	.00	.00	e.00	.02	.00	.05	.67	.00	.00	.00	.00	.00
5	.00	.00	e.00	32	.00	58	.53	.00	.00	.00	.00	.00
6	.00	.00	e.00	7.8	.00	87	.43	.00	.00	.00	.00	.00
7	.00	.00	e.00	10	.00	46	.34	.00	.00	.00	.00	.00
8	.00	.00	e.00	.59	.00	30	.27	.00	.00	.00	.00	.00
9	.00	.00	e.00	.01	.00	22	.20	.00	.00	.00	.00	.00
10	.00	.00	e.00	.00	3.5	16	.15	.00	.00	.00	.00	.00
11	.00	.00	e.00	.00	82	13	.07	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	42	11	.03	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	37	8.6	.12	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	92	10	.09	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	245	9.0	.03	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	145	13	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	71	9.2	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	43	7.2	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	64	5.6	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	540	7.1	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	66	7.2	.00	.00	.00	.00	.00	.00
22	.00	e.00	.00	.00	35	14	.00	.00	.00	.00	.00	.00
23	.00	e.00	.00	.00	21	26	.00	.00	.00	.00	.00	.00
24	.00	e.00	.00	.00	13	16	.00	.00	.00	.00	.00	.00
25	.00	e.00	.00	.00	7.9	12	.00	.00	.00	.00	.00	.00
26	15	e.00	.00	.00	4.5	9.8	.00	.00	.00	.00	.00	.00
27	.11	e.00	.01	.00	1.8	8.1	.00	.00	.00	.00	.00	.00
28	.00	e.00	.00	.00	.72	6.3	.00	.00	.00	.00	.00	.00
29	.00	e.00	42	.00	.46	5.1	.00	.00	.00	.00	.00	.00
30	.00	e.00	6.2	.00	---	5.9	.00	.00	.00	.00	.00	.00
31	.00	---	.01	.00	---	5.0	---	.00	---	.00	.00	---
TOTAL	15.11	0.00	48.22	50.42	1514.88	469.25	8.82	0.00	0.00	0.00	0.00	0.00
MEAN	.49	.000	1.56	1.63	52.2	15.1	.29	.000	.000	.000	.000	.000
MAX	15	.00	42	32	540	87	3.1	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
AC-FT	30	.00	96	100	3000	931	17	.00	.00	.00	.00	.00

e Estimated.

11159200 CORRALITOS CREEK AT FREEDOM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.92	5.53	13.7	39.8	51.8	35.8	23.2	4.51	.90	.38	.18	.70
MAX	17.4	37.3	86.7	167	256	209	166	39.1	9.10	4.77	1.15	20.8
(WY)	1963	1984	1965	1982	1986	1983	1958	1983	1983	1983	1983	1959
MIN	.000	.000	.000	.000	.003	.076	.000	.000	.000	.000	.000	.000
(WY)	1962	1981	1991	1991	1991	1988	1977	1977	1962	1961	1961	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	1806.54		2106.70			
ANNUAL MEAN	4.95		5.76		14.6	
HIGHEST ANNUAL MEAN					56.4	1983
LOWEST ANNUAL MEAN					.17	1977
HIGHEST DAILY MEAN	312	Mar 4	540	Feb 20	2290	Jan 4 1982
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 12 1957
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 12 1957
INSTANTANEOUS PEAK FLOW			1830	Feb 20	5610	Jan 4 1982
INSTANTANEOUS PEAK STAGE			8.45	Feb 20	16.66	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	3580		4180		10570	
10 PERCENT EXCEEDS	2.2		8.2		29	
50 PERCENT EXCEEDS	.00		.00		.37	
90 PERCENT EXCEEDS	.00		.00		.00	

11160000 SOQUEL CREEK AT SOQUEL, CA

LOCATION.--Lat 36°59'29", long 121°57'17", in NE 1/4 sec.10, T.11 S., R.1 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank 0.2 mi upstream from highway bridge in town of Soquel and 0.4 mi downstream from Bates Creek.

DRAINAGE AREA.--40.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1715: Drainage area. WSP 2129: 1958, 1959-60(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 21.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation; many diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft^3/s, Dec. 23, 1955, gage height, 22.33 ft, from rating curve extended above 2,900 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in 1977, 1988 and 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 11	0315	1,730	9.04	Feb. 20	0145	1,720	9.03
Feb. 14	2000	*2,770	*10.98				

No flow for several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.38	1.6	1.2	9.1	7.6	35	23	8.2	3.9	3.9	.52	e.12
2	.36	1.5	1.4	7.8	6.7	30	21	7.9	3.7	2.7	.43	.24
3	.38	1.5	1.6	7.1	5.7	27	19	7.9	3.8	2.3	.40	.19
4	.40	1.5	1.7	7.7	5.3	25	19	7.5	3.3	2.1	.28	.19
5	.41	1.5	1.7	70	5.0	68	18	7.2	2.9	2.2	.25	e.13
6	.31	1.5	1.7	24	6.2	143	17	7.4	3.6	2.3	.42	e.12
7	.34	1.5	2.3	32	6.4	74	17	7.2	3.8	2.0	.43	e.15
8	.24	1.5	2.2	20	5.8	49	16	7.4	3.5	1.9	.34	e.13
9	.24	1.6	2.2	13	7.5	40	16	7.1	3.3	1.7	.24	e.14
10	.25	1.7	1.9	10	68	35	15	6.8	3.0	1.6	.26	e.15
11	.29	1.8	1.7	8.7	497	31	15	6.8	2.6	1.5	.10	e.14
12	.34	1.8	1.6	7.9	348	28	15	6.8	2.3	2.2	.09	e.15
13	.33	1.8	1.6	7.2	232	27	17	6.7	2.3	2.3	e.10	e.15
14	.33	2.1	1.5	6.8	568	30	15	6.4	2.3	1.9	e.03	e.15
15	.22	2.0	1.5	6.4	e531	33	14	6.2	2.3	1.6	e.00	e.07
16	.34	1.8	1.5	6.3	e316	40	14	6.3	2.3	1.5	e.00	e.00
17	.51	11	1.5	6.2	165	32	14	6.3	2.4	1.3	e.00	e.07
18	.53	6.1	4.0	5.9	92	28	13	6.2	2.1	1.2	e.00	.12
19	.40	1.8	4.1	5.7	229	26	13	6.1	2.0	1.0	e.00	.28
20	.19	1.2	3.1	5.5	e659	28	12	5.9	2.2	.86	e.00	.20
21	.07	1.3	2.5	5.3	e177	30	12	5.8	2.1	.72	e.00	.11
22	.23	1.2	2.3	5.2	105	49	11	5.2	1.9	.71	e.00	.08
23	.27	1.1	2.2	5.0	72	68	11	4.9	1.7	.62	e.00	.07
24	.28	1.0	2.0	5.0	56	40	9.8	4.8	1.8	.68	e.00	.05
25	1.4	.95	2.0	4.9	48	34	9.4	4.5	1.8	.76	e.00	.00
26	32	.90	2.0	4.8	42	32	9.4	4.7	1.7	.91	e.00	.00
27	12	.87	4.1	4.8	37	30	9.2	4.8	1.6	.84	e.07	.00
28	4.2	.88	25	5.1	32	27	8.8	5.2	1.6	.75	.15	.00
29	2.5	.85	121	5.2	29	25	8.8	5.4	2.4	.69	.24	.00
30	2.0	.85	33	4.9	---	25	8.5	5.1	6.4	.62	.59	.02
31	1.8	---	13	4.7	---	25	---	4.4	---	.63	e.30	---
TOTAL	63.54	56.70	249.1	322.2	4359.2	1214	420.9	193.1	80.6	45.99	5.24	3.22
MEAN	2.05	1.89	8.04	10.4	150	39.2	14.0	6.23	2.69	1.48	.17	.11
MAX	32	11	121	70	659	143	23	8.2	6.4	3.9	.59	.28
MIN	.07	.85	1.2	4.7	5.0	25	8.5	4.4	1.6	.62	.00	.00
AC-FT	126	112	494	639	8650	2410	835	383	160	91	10	6.4

e Estimated.

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.86	17.4	60.9	107	116	94.7	56.9	18.8	8.73	4.94	3.13	3.16
MAX	111	78.5	625	437	596	577	324	95.9	28.8	15.3	10.5	22.4
(WY)	1963	1973	1956	1952	1986	1983	1982	1983	1983	1983	1983	1959
MIN	.65	1.36	2.74	2.57	3.96	3.97	2.81	2.26	.91	.26	.17	.11
(WY)	1989	1991	1991	1991	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	5055.73		7013.79			
ANNUAL MEAN	13.9		19.2		41.2	
HIGHEST ANNUAL MEAN					169	1983
LOWEST ANNUAL MEAN					2.89	1977
HIGHEST DAILY MEAN	634	Mar 24	659	Feb 20	8800	Dec 23 1955
LOWEST DAILY MEAN	.07	Oct 21	.00	Aug 15	.00	Jul 30 1977
ANNUAL SEVEN-DAY MINIMUM	.28	Oct 18	.00	Aug 15	.00	Aug 15 1992
INSTANTANEOUS PEAK FLOW			2770	Feb 14	15800	Dec 23 1955
INSTANTANEOUS PEAK STAGE			10.98	Feb 14	22.33	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	10030		13910		29860	
10 PERCENT EXCEEDS	20		32		78	
50 PERCENT EXCEEDS	2.3		2.3		7.3	
90 PERCENT EXCEEDS	.48		.14		1.5	

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-79, January 1990 to current year.
CHEMICAL DATA: Water years 1952-66, 1977.
WATER TEMPERATURE: Water years 1966-79.
SEDIMENT DATA: Water years 1976-77, January 1990 to current year.

PERIOD OF DAILY RECORDS.--
WATER TEMPERATURE: January 1966 to February 1979.

REMARKS.--Zero bedload discharge observed for flows less than 16 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
03...	1040	0.33	15.0	2	0.00	--	--	--
NOV								
04...	1135	1.5	17.0	1	0.00	--	--	--
DEC								
10...	1215	1.8	7.5	2	0.01	--	--	--
28...	1225	25	10.5	18	1.2	--	--	--
30...	1325	24	9.5	28	1.8	--	--	--
JAN								
08...	1040	19	6.5	23	1.2	--	--	--
FEB								
12...	1450	279	12.5	1840	1390	27	32	43
21...	1315	173	12.5	962	449	--	--	--
APR								
08...	1245	16	13.0	8	0.35	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
03...	--	--	--	--	--	--	--
NOV							
04...	--	--	--	--	--	--	--
DEC							
10...	--	--	--	--	--	--	--
28...	--	--	89	100	--	--	--
30...	--	--	100	--	--	--	--
JAN							
08...	--	--	60	--	--	--	--
FEB							
12...	56	65	73	80	91	98	100
21...	--	--	28	35	75	99	100
APR							
08...	--	--	70	--	--	--	--

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE 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
NOV								
04...	1300	1.5	17.0	6	17	42	73	87
04...	1304	1.5	17.0	1	4	9	14	16
04...	1308	1.5	17.0	2	4	10	16	20
04...	1311	1.5	17.0	2	4	7	16	32
04...	1315	1.5	17.0	1	1	3	8	21
04...	1319	1.5	17.0	--	1	2	7	24
04...	1322	1.5	17.0	--	1	3	17	42
04...	1326	1.5	17.0	2	6	24	57	90
04...	1330	1.5	17.0	5	13	38	87	99
FEB								
21...	1420	164	12.5	2	19	89	100	--
21...	1423	163	12.5	--	--	2	4	4
21...	1426	163	12.5	--	1	3	5	7
21...	1429	163	12.5	--	--	2	10	18
21...	1432	163	12.5	--	--	2	9	14
21...	1435	163	12.5	--	--	7	42	56
21...	1438	163	12.5	--	1	8	23	31
21...	1441	163	12.5	11	29	66	92	97
21...	1444	163	12.5	6	28	80	96	99
APR								
08...	1325	16	13.0	4	20	42	45	46
08...	1329	16	13.0	1	3	12	18	19
08...	1333	16	13.0	--	2	5	8	10
08...	1338	16	13.0	--	1	4	8	11
08...	1341	16	13.0	--	--	--	1	2
08...	1345	16	13.0	--	1	4	14	26
08...	1351	16	13.0	--	1	4	13	24
08...	1355	16	13.0	7	20	51	84	91
08...	1400	16	13.0	8	36	81	96	98

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
NOV							
04...	92	96	98	100	--	--	--
04...	17	20	25	35	50	86	100
04...	24	32	44	59	80	100	--
04...	45	55	65	77	91	100	--
04...	30	36	44	59	76	100	--
04...	48	64	72	79	85	100	--
04...	50	56	61	67	76	100	--
04...	98	100	--	--	--	--	--
04...	100	--	--	--	--	--	--
FEB							
21...	--	--	--	--	--	--	--
21...	4	6	10	20	36	100	--
21...	10	14	23	34	47	100	--
21...	24	30	38	51	78	100	--
21...	19	24	32	45	68	100	--
21...	62	67	74	85	97	100	--
21...	42	56	73	91	100	--	--
21...	98	98	99	100	--	--	--
21...	99	100	--	--	--	--	--
APR							
08...	46	46	47	49	54	79	100
08...	20	24	33	50	72	100	--
08...	12	16	25	34	59	100	--
08...	13	18	26	40	60	100	--
08...	6	10	16	29	59	100	--
08...	35	44	56	73	100	--	--
08...	41	59	82	94	100	--	--
08...	92	93	93	93	95	100	--
08...	99	100	--	--	--	--	--

11160000 SOQUEL CREEK AT SOQUEL, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
30...	1340	1000	1150	0.250	0	1335	1345	20	1.0
30...	1400	1000	1150	0.250	0	1355	1405	20	1.0
FEB									
12...	1525	1000	1100	0.250	0	1522	1527	15	5.0
12...	1538	1000	1100	0.250	0	1535	1541	15	5.0
21...	1340	1000	1120	0.250	0	1335	1345	10	2.0
21...	1355	1000	1120	0.250	0	1350	1400	10	2.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
DEC									
30...	2	28	28	2.50	24	9.5	0.02	1.0	--
30...	2	28	28	2.50	24	9.5	0.06	1.0	--
FEB									
12...	2	8	8	2.50	264	12.5	5.38	196	1
12...	2	8	8	2.50	257	12.5	4.40	196	1
21...	2	17	17	2.50	169	12.5	1.67	50	2
21...	2	17	17	2.50	168	12.5	1.30	50	2

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
DEC								
30...	9	66	92	98	100	--	--	--
30...	4	52	89	98	100	--	--	--
FEB								
12...	7	34	58	73	83	90	95	100
12...	9	42	68	83	91	97	98	100
21...	34	83	93	95	96	97	98	100
21...	31	87	96	98	99	100	--	--

11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CA

LOCATION.--Lat 37°12'24", long 122°08'38", in NE 1/4 SW 1/4 sec.25, T.8 S., R.3 W., Santa Cruz County, Hydrologic Unit 18060001, on right bank 22 ft upstream from culvert on State Highway 9, 100 ft upstream from small right-bank tributary, and 5.8 mi north of town of Boulder Creek.

DRAINAGE AREA.--6.17 mi^2.

PERIOD OF RECORD.--July 1968 to current year.
CHEMICAL DATA: Water years 1973-75, 1977, 1980-81.
SEDIMENT DATA: Water year 1976.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except for daily discharges greater than 5.0 ft^3/s, which are fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s, Jan. 4, 1982, gage height, 11.48 ft, from rating curve extended above 230 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.08 ft^3/s, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0415	*372	*6.33	Feb. 14	1730	170	4.41

Minimum daily, 0.19 ft^3/s, Oct. 12-16, 19-21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.37	.84	1.0	1.2	3.6	3.7	1.4	1.2	1.1	.65	.52
2	.25	.37	.85	.98	.97	3.4	3.5	1.4	1.1	1.0	.63	.47
3	.25	.37	.85	.92	.85	3.2	3.5	1.4	1.1	.98	.63	.46
4	.25	.37	.85	.96	.85	3.0	3.3	1.4	1.1	.98	.63	.49
5	.25	.37	.80	2.9	.85	11	3.3	1.4	1.1	.98	.63	.46
6	.25	.36	.81	3.0	1.0	15	3.0	1.4	1.1	.98	.63	.44
7	.25	.35	.94	4.2	.98	11	3.0	1.3	1.1	.98	.63	.44
8	.25	.37	.98	2.2	.98	6.8	2.9	1.3	1.1	.96	.63	.44
9	.25	.37	.98	1.5	1.2	4.9	2.8	1.3	1.1	.94	.63	.44
10	.25	.37	.98	1.3	8.2	3.9	2.6	1.3	1.1	.94	.59	.44
11	.21	.37	.98	1.1	26	3.4	2.3	1.3	1.1	.95	.56	.44
12	.19	.37	.90	1.1	115	2.9	2.5	1.3	1.1	.98	.57	.44
13	.19	.44	.74	.98	23	2.7	2.3	1.3	1.1	.96	.59	.44
14	.19	.44	.63	.98	61	3.0	2.1	1.2	1.1	.91	.56	.44
15	.19	.44	.63	.98	48	6.2	2.1	1.2	1.1	.88	.54	.43
16	.19	.48	.63	.98	28	7.8	2.0	1.2	1.1	.86	.44	.41
17	.20	1.0	.65	.98	19	5.7	1.9	1.3	1.1	.86	.43	.42
18	.24	.67	1.0	.97	12	4.7	1.8	1.3	1.0	.85	.43	.42
19	.19	.53	.83	.85	16	4.0	1.7	1.3	1.0	.85	.43	.38
20	.19	.44	.74	.85	33	4.8	1.7	1.3	1.0	.85	.43	.37
21	.19	.49	.74	.85	17	4.9	1.6	1.3	.98	.77	.44	.37
22	.21	.44	.74	.85	11	6.0	1.7	1.2	.98	.74	.47	.37
23	.25	.44	.74	.85	8.6	6.8	1.8	1.2	.98	.74	.47	.37
24	.25	.44	.73	.85	6.7	5.6	1.7	1.2	.98	.74	.43	.37
25	.38	.52	.71	.85	5.6	5.7	1.6	1.2	.98	.74	.47	.37
26	3.2	.53	.71	.85	4.6	5.3	1.6	1.2	.98	.73	.48	.37
27	.62	.53	1.0	.85	4.3	4.8	1.5	1.3	.96	.68	.46	.37
28	.41	.53	2.0	.94	3.9	4.3	1.5	1.4	.98	.66	.44	.40
29	.42	.65	7.3	.85	3.5	4.1	1.5	1.3	1.3	.66	.48	.47
30	.38	.74	1.9	.85	---	3.9	1.4	1.3	1.5	.68	.53	.50
31	.37	---	1.2	.85	---	3.8	---	1.2	---	.68	.52	---
TOTAL	11.17	14.16	34.38	38.17	463.28	166.2	67.9	40.1	32.42	26.61	16.45	12.75
MEAN	.36	.47	1.11	1.23	16.0	5.36	2.26	1.29	1.08	.86	.53	.42
MAX	3.2	1.0	7.3	4.2	115	15	3.7	1.4	1.5	1.1	.65	.52
MIN	.19	.35	.63	.85	.85	2.7	1.4	1.2	.96	.66	.43	.37
AC-FT	22	28	68	76	919	330	135	80	64	53	33	25

11160020 SAN LORENZO RIVER NEAR BOULDER CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.87	2.80	5.52	14.2	19.5	16.7	8.48	3.26	1.83	1.18	.83	.70
MAX	2.80	12.8	40.6	51.4	81.1	102	56.6	16.7	5.07	3.15	2.16	1.57
(WY)	1990	1984	1984	1969	1986	1983	1982	1983	1983	1983	1983	1983
MIN	.21	.44	.51	.62	.54	.77	.45	.58	.37	.17	.11	.18
(WY)	1978	1989	1977	1977	1977	1977	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1968 - 1992	
ANNUAL TOTAL	516.57		923.59			
ANNUAL MEAN	1.42		2.52		6.26	
HIGHEST ANNUAL MEAN					23.3	1983
LOWEST ANNUAL MEAN					.43	1977
HIGHEST DAILY MEAN	43	Mar 4	115	Feb 12	527	Mar 2 1983
LOWEST DAILY MEAN	.19	Oct 12	.19	Oct 12	.08	Aug 2 1977
ANNUAL SEVEN-DAY MINIMUM	.19	Oct 11	.19	Oct 11	.09	Jul 30 1977
INSTANTANEOUS PEAK FLOW			372	Feb 12	1050	Jan 4 1982
INSTANTANEOUS PEAK STAGE			6.33	Feb 12	11.48	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	1020		1830		4540	
10 PERCENT EXCEEDS	2.2		4.3		12	
50 PERCENT EXCEEDS	.74		.97		1.3	
90 PERCENT EXCEEDS	.37		.37		.43	

11160060 BEAR CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'40", long 122°06'57", in NW 1/4 NW 1/4 sec.29, T.9 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank on downstream side of private road bridge in town of Boulder Creek and 0.3 mi upstream from mouth.

DRAINAGE AREA.--16.0 mi^2.

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation; small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,480 ft^3/s, Jan. 4, 1982, gage height, 13.30 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.09 ft^3/s, Sept. 8, 9, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	e0400	e*1,530	unknown	Feb. 14	1600	818	5.40

Minimum daily, 0.10 ft^3/s, Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	e.58	.66	1.4	1.6	10	9.3	e4.3	2.2	1.6	.38	e.12
2	.28	e.56	.70	1.2	1.2	9.0	8.4	e4.3	2.0	1.4	.41	e.12
3	.27	e.55	.78	1.0	.88	8.1	8.0	e4.2	1.9	1.1	.42	e.12
4	.27	e.54	.76	1.8	.80	7.2	7.6	e4.2	1.6	1.0	.38	e.12
5	.29	e.53	.74	16	.76	31	7.4	e4.2	1.6	.86	.30	e.12
6	.26	e.52	.77	8.0	1.3	48	7.1	e4.1	1.6	.82	.31	e.12
7	.27	e.50	.85	15	1.3	38	6.6	e4.0	1.6	.64	.36	e.12
8	.30	.47	.80	6.1	1.0	25	6.5	e3.9	1.7	.68	.38	e.12
9	.32	.51	.78	3.1	2.6	19	6.2	e3.8	1.6	.64	.43	e.12
10	.33	.52	.69	2.2	e50	16	e6.2	e3.7	1.5	.62	.53	e.12
11	.34	.53	.67	1.7	e155	14	e6.0	e3.6	1.6	.56	.43	e.12
12	.30	.55	.64	1.4	e410	12	e6.0	e3.5	1.6	.52	.44	e.12
13	.22	.54	.60	1.2	e90	11	e5.8	e3.4	1.6	.61	.45	e.12
14	.22	.67	.56	1.1	323	14	e5.7	e3.2	1.6	.61	.40	e.12
15	.22	.83	.56	1.0	184	38	e5.6	e3.0	1.6	.54	.38	e.12
16	.23	.86	.57	.94	92	38	e5.5	e2.9	1.6	.58	.33	e.12
17	.23	5.9	.61	.94	48	26	e5.5	e2.8	1.4	.52	.37	e.12
18	.25	3.6	2.8	.86	31	21	e5.4	e2.8	1.4	.51	.23	.12
19	.72	1.3	1.9	.86	71	18	e5.4	e2.7	1.5	.44	.18	e.12
20	.22	.92	.95	.80	125	19	e5.3	e2.6	1.4	.44	.21	e.12
21	.23	.74	.69	.79	48	17	e5.2	e2.6	1.3	.43	.12	e.12
22	.23	.65	.55	.75	31	20	e5.0	e2.6	1.3	.41	.10	e.12
23	.23	.60	.55	.72	23	20	e4.9	e2.5	1.3	.44	.12	e.12
24	.23	.52	.53	.72	18	16	e4.8	e2.5	1.2	.44	.11	e.12
25	.48	.49	.55	.72	16	14	e4.8	e2.4	1.2	.47	e.12	e.12
26	7.8	.45	.55	.72	13	15	e4.7	e2.3	1.2	.46	e.12	e.12
27	e1.5	.43	5.4	.67	11	13	e4.6	e2.2	1.1	.40	e.12	e.12
28	e.90	.45	15	.88	9.9	12	e4.6	e2.1	1.1	.37	e.12	e.12
29	e.70	.51	59	.88	9.0	11	e4.5	2.1	1.4	.32	e.12	e.12
30	e.65	.55	6.3	.74	---	11	e4.4	2.2	2.2	.34	e.12	e.12
31	e.60	---	2.3	.72	---	10	---	2.2	---	.32	e.12	---
TOTAL	19.36	26.37	108.81	74.91	1769.34	581.3	177.0	96.9	45.9	19.09	8.61	3.60
MEAN	.62	.88	3.51	2.42	61.0	18.8	5.90	3.13	1.53	.62	.28	.12
MAX	7.8	5.9	59	16	410	48	9.3	4.3	2.2	1.6	.53	.12
MIN	.22	.43	.53	.67	.76	7.2	4.4	2.1	1.1	.32	.10	.12
AC-FT	38	52	216	149	3510	1150	351	192	91	38	17	7.1

e Estimated.

11160060 BEAR CREEK AT BOULDER CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.01	5.52	13.1	35.3	52.6	45.6	27.1	8.18	3.31	1.69	.89	.72
MAX	2.39	22.8	63.8	127	236	226	216	49.6	13.7	6.50	3.67	2.20
(WY)	1983	1984	1984	1978	1986	1983	1982	1983	1983	1983	1983	1982
MIN	.18	.69	1.54	.97	2.01	1.78	2.03	.93	.55	.20	.20	.12
(WY)	1978	1991	1991	1991	1991	1988	1990	1989	1989	1989	1987	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1978 - 1992	
ANNUAL TOTAL	1709.55		2931.19			
ANNUAL MEAN	4.68		8.01		16.1	
HIGHEST ANNUAL MEAN					57.9	1983
LOWEST ANNUAL MEAN					2.44	1988
HIGHEST DAILY MEAN	197	Mar 4	410	Feb 12	1840	Jan 4 1982
LOWEST DAILY MEAN	.22	Oct 13	.10	Aug 22	.09	Sep 8 1988
ANNUAL SEVEN-DAY MINIMUM	.24	Oct 12	.12	Aug 21	.11	Sep 6 1988
INSTANTANEOUS PEAK FLOW			1530	Feb 12	4480	Jan 4 1982
INSTANTANEOUS PEAK STAGE					13.30	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	3390		5810		11630	
10 PERCENT EXCEEDS	7.2		15		29	
50 PERCENT EXCEEDS	.81		.91		2.1	
90 PERCENT EXCEEDS	.29		.12		.32	

11160070 BOULDER CREEK AT BOULDER CREEK, CA

LOCATION.--Lat 37°07'36", long 122°07'18", in NW 1/4 NE 1/4 sec.30, T.9 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on right bank under bridge on State Highway 9 in town of Boulder Creek and 750 ft upstream from mouth.

DRAINAGE AREA.--11.3 mi^2.

PERIOD OF RECORD.--May 1973 to current year.
CHEMICAL DATA: Water years 1973-75, 1977.
SEDIMENT DATA: Water years 1976-77.

REVISED RECORDS.--WDR CA-84-2: 1980, 1982-83.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation; small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft^3/s, Jan. 4, 1982, gage height, 9.50 ft, from rating curve extended above 330 ft^3/s on basis of slope-area measurement at gage height 6.03 ft; minimum daily, 0.35 ft^3/s, Oct. 16, 17, 1977.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 29	0230	377	3.12	Feb. 14	1630	713	3.95
Feb. 12	0415	*1,330	*5.30	Feb. 19	2330	583	3.64

Minimum daily, 0.53 ft^3/s, Nov. 22-27, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	.97	.88	4.3	6.0	20	13	4.5	3.1	2.4	1.5	1.2
2	.83	.97	.88	3.7	2.7	16	12	4.4	3.1	2.1	1.4	1.2
3	.80	.97	.88	3.6	2.4	15	12	4.0	3.1	2.0	1.3	1.1
4	.82	.97	.88	5.9	2.3	14	10	4.0	3.1	2.0	1.3	1.1
5	.80	.97	.88	39	2.1	70	10	4.0	3.1	1.9	1.3	1.1
6	.83	.97	.88	24	3.0	84	9.5	4.0	3.1	1.8	1.3	1.0
7	.80	1.0	1.0	42	2.7	49	9.1	3.8	3.1	1.8	1.3	.97
8	.80	1.1	1.1	17	2.3	35	8.1	3.8	3.1	1.9	1.3	.97
9	.80	1.1	.93	8.8	11	29	7.7	3.7	2.9	2.0	1.3	1.1
10	.80	1.2	.88	6.2	44	25	7.6	3.6	3.0	2.0	1.3	1.0
11	.80	1.3	.88	5.0	157	22	7.0	3.8	2.9	2.0	1.2	.84
12	.80	1.3	.88	4.3	434	19	9.6	3.8	2.9	2.0	1.3	.88
13	.79	1.4	.88	3.8	113	18	8.7	3.8	2.9	2.0	1.3	.85
14	.80	1.7	.88	3.5	333	23	7.3	3.5	2.9	1.9	1.3	.83
15	.77	1.8	.94	3.2	213	49	6.9	3.5	3.0	1.8	1.3	.88
16	.81	1.9	1.0	2.9	132	45	6.6	3.6	3.1	1.8	1.3	.88
17	.80	13	1.3	2.8	70	36	6.5	3.5	3.1	1.7	1.2	.82
18	.80	2.0	3.8	2.7	49	30	6.1	3.4	2.9	1.7	1.2	.80
19	.80	.70	1.9	2.5	132	26	5.9	3.3	2.9	1.7	1.3	.80
20	.80	.59	1.3	2.5	208	29	5.8	3.3	2.9	1.7	1.2	.78
21	.85	.57	1.2	2.3	73	26	5.5	3.3	2.8	1.7	1.1	.72
22	.88	.53	1.3	2.3	51	27	5.4	3.3	2.7	1.7	1.1	.73
23	.94	.53	1.3	2.3	40	24	5.2	3.2	2.7	1.8	1.2	.72
24	1.0	.53	1.3	2.1	33	21	5.1	3.4	2.7	1.7	1.2	.65
25	2.9	.53	1.3	2.1	28	20	4.6	3.3	2.5	1.7	1.2	.65
26	27	.53	1.3	2.1	24	18	4.5	3.2	2.5	1.5	1.2	.64
27	2.2	.53	12	2.1	21	17	4.4	3.1	2.5	1.5	1.2	.60
28	1.4	.62	26	2.6	18	16	4.5	3.2	2.5	1.5	1.2	.59
29	1.1	.72	142	2.3	16	15	4.6	3.5	4.1	1.5	1.3	.56
30	1.1	.87	15	2.2	---	15	4.6	3.3	4.2	1.5	1.3	.53
31	.97	---	6.1	2.1	---	14	---	3.1	---	1.5	1.3	---
TOTAL	56.55	41.87	231.75	212.2	2223.5	867	217.8	111.2	89.4	55.8	39.2	25.49
MEAN	1.82	1.40	7.48	6.85	76.7	28.0	7.26	3.59	2.98	1.80	1.26	.85
MAX	27	13	142	42	434	84	13	4.5	4.2	2.4	1.5	1.2
MIN	.77	.53	.88	2.1	2.1	14	4.4	3.1	2.5	1.5	1.1	.53
AC-FT	112	83	460	421	4410	1720	432	221	177	111	78	51

11160070 BOULDER CREEK AT BOULDER CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.53	7.02	17.2	35.2	51.4	45.4	21.3	7.83	3.52	2.10	1.38	1.14
MAX	3.59	35.8	88.2	133	172	195	124	35.5	9.92	5.27	2.74	1.94
(WY)	1980	1984	1984	1978	1986	1983	1982	1983	1983	1983	1983	1983
MIN	.50	.69	1.38	.96	1.48	2.48	.99	.82	.67	.54	.55	.65
(WY)	1978	1991	1991	1991	1977	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992	
ANNUAL TOTAL	2824.34		4171.76			
ANNUAL MEAN	7.74		11.4		16.1	
HIGHEST ANNUAL MEAN					49.5	1983
LOWEST ANNUAL MEAN					1.20	1977
HIGHEST DAILY MEAN	310	Mar 4	434	Feb 12	941	Feb 17 1986
LOWEST DAILY MEAN	.53	Nov 22	.53	Nov 22	.35	Oct 16 1977
ANNUAL SEVEN-DAY MINIMUM	.54	Nov 21	.54	Nov 21	.38	Oct 13 1977
INSTANTANEOUS PEAK FLOW			1330	Feb 12	3500	Jan 4 1982
INSTANTANEOUS PEAK STAGE			5.30	Feb 12	9.50	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	5600		8270		11650	
10 PERCENT EXCEEDS	12		24		33	
50 PERCENT EXCEEDS	1.3		2.3		2.5	
90 PERCENT EXCEEDS	.80		.80		.80	

11160300 ZAYANTE CREEK AT ZAYANTE, CA

LOCATION.--Lat 37°05'10", long 122°02'45", in SE 1/4 sec.2, T.10 S., R.2 W., Santa Cruz County, Hydrologic Unit 18060001, on left bank at downstream side of bridge on Zayante Road in town of Zayante, 0.4 mi upstream from Lompico Creek, 2.0 mi east of Ben Lomond, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--October 1957 to current year.
CHEMICAL DATA: Water years 1973-74, 1977.
WATER TEMPERATURE: Water years 1970-73.
SEDIMENT DATA: Water years 1970-73, 1976-77.

GAGE.--Water-stage recorder and bedrock notch low-flow control. Datum of gage is 372.44 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1989, at datum 0.04 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No known regulation; small diversions upstream from station for individual use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,620 ft^3/s, Jan. 14, 1978, gage height, 8.52 ft, from rating curve extended above 1,200 ft^3/s on basis of slope-area measurement at gage height 7.70 ft; maximum gage height, 8.86 ft, Jan. 4, 1982; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0515	1,400	5.42	Feb. 19	2315	571	4.02
Feb. 14	1815	*1,600	*5.72				

Minimum daily, 0.05 ft^3/s, Sept. 26, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.39	.83	1.6	2.7	9.8	6.0	2.1	1.3	.76	.31	.12
2	.13	.43	.94	1.4	1.7	9.4	5.7	2.0	1.2	.63	.29	.11
3	.13	.46	1.0	1.3	1.5	9.1	5.4	1.9	1.2	.62	.27	.10
4	.13	.46	1.1	1.4	1.5	8.9	5.2	1.9	1.3	.58	.27	.10
5	.13	.48	1.2	10	1.4	14	4.9	1.9	1.2	.62	.24	.10
6	.13	.47	1.2	4.7	2.2	22	4.7	1.8	1.2	.61	.24	.10
7	.13	.43	1.0	6.7	2.3	16	4.6	1.9	1.1	.60	.23	.10
8	.13	.43	.65	4.3	1.9	12	4.6	1.8	1.1	.59	.19	.09
9	.12	.45	.61	2.8	2.7	10	4.3	1.8	1.1	.55	.18	.10
10	.12	.46	.59	2.2	22	8.9	4.0	1.6	.99	.53	.17	.13
11	.12	.45	.57	1.9	85	8.1	3.9	1.7	.98	.52	.16	.13
12	.12	.45	.57	1.6	290	7.5	4.6	1.9	.94	.55	.14	.11
13	.12	.46	.57	1.5	44	7.0	4.4	1.9	.94	.53	.15	.12
14	.12	.47	.58	1.4	281	8.5	3.9	1.9	.86	.46	.15	.09
15	.12	.42	.58	1.3	138	15	3.7	1.9	.86	.42	.14	.09
16	.12	.38	.58	1.2	57	15	3.6	1.8	.86	.39	.13	.08
17	.13	2.2	.58	1.2	28	12	3.3	1.7	.87	.37	.12	.09
18	.14	1.6	.96	1.2	19	10	3.2	1.6	.80	.35	.12	.09
19	.14	.83	.85	1.1	98	9.3	3.0	1.6	.81	.33	.12	.09
20	.13	.70	.67	1.0	140	9.4	2.9	1.6	.79	.33	.13	.08
21	.12	.63	.64	1.0	36	9.1	2.9	1.6	.75	.31	.13	.08
22	.13	.63	.61	1.0	23	11	2.8	1.5	.71	.30	.15	.07
23	.15	.63	.61	1.0	18	10	2.8	1.6	.68	.32	.14	.07
24	.17	.59	.62	1.0	15	8.9	2.8	1.5	.67	.31	.13	.07
25	.29	.61	.61	.99	13	8.3	2.7	1.5	.67	.32	.13	.07
26	3.7	.58	.61	.97	12	7.8	2.7	1.5	.64	.35	.14	.05
27	.98	.58	1.1	.97	11	7.3	2.8	1.4	.60	.32	.13	.05
28	.49	.56	4.6	1.4	11	6.7	2.6	1.5	.59	.33	.11	.07
29	.40	.54	18	1.6	9.9	6.4	2.3	1.5	.81	.32	.10	.08
30	.41	.57	4.2	1.5	---	6.5	2.2	1.4	1.3	.32	.14	.09
31	.39	---	2.1	1.4	---	6.2	---	1.4	---	.34	.15	---
TOTAL	9.77	18.34	49.33	62.63	1368.8	310.1	112.5	52.7	27.82	13.88	5.20	2.72
MEAN	.32	.61	1.59	2.02	47.2	10.0	3.75	1.70	.93	.45	.17	.091
MAX	3.7	2.2	18	10	290	22	6.0	2.1	1.3	.76	.31	.13
MIN	.12	.38	.57	.97	1.4	6.2	2.2	1.4	.59	.30	.10	.05
AC-FT	19	36	98	124	2720	615	223	105	55	28	10	5.4

11160300 ZAYANTE CREEK AT ZAYANTE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.32	3.59	8.80	29.9	38.3	27.3	15.2	5.04	2.17	1.22	.76	.75
MAX	15.8	16.4	49.1	136	214	183	100	47.2	8.77	4.59	2.46	5.16
(WY)	1963	1973	1984	1969	1986	1983	1958	1983	1983	1983	1983	1959
MIN	.21	.61	.76	.86	.81	1.03	.51	.52	.18	.060	.021	.091
(WY)	1962	1992	1991	1991	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	1427.22		2033.79			
ANNUAL MEAN	3.91		5.56		11.0	
HIGHEST ANNUAL MEAN					43.3	1983
LOWEST ANNUAL MEAN					.61	1977
HIGHEST DAILY MEAN	309	Mar 24	290	Feb 12	1690	Jan 4 1982
LOWEST DAILY MEAN	.12	Oct 9	.05	Sep 26	.00	Jul 17 1961
ANNUAL SEVEN-DAY MINIMUM	.12	Oct 9	.06	Sep 22	.00	Sep 2 1961
INSTANTANEOUS PEAK FLOW			1600	Feb 14	4620	Jan 14 1978
INSTANTANEOUS PEAK STAGE			5.72	Feb 14	8.52	Jan 14 1978
ANNUAL RUNOFF (AC-FT)	2830		4030		8000	
10 PERCENT EXCEEDS	4.4		9.3		18	
50 PERCENT EXCEEDS	.73		.87		1.5	
90 PERCENT EXCEEDS	.16		.12		.35	

11160430 BEAN CREEK NEAR SCOTTS VALLEY, CA

LOCATION.--Lat 37°03'19", long 122°02'25", in San Augustin Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank, 0.3 mi downstream from unnamed left bank tributary, 100 ft northeast of Mt. Hermon Road, 1.2 mi northwest of Scotts Valley Post Office, and 1.8 mi east of Felton.

DRAINAGE AREA.--8.81 mi^2.

PERIOD OF RECORD.--January 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and discharges greater than 50 ft^3/s, which are poor. No regulation; small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft^3/s, Feb. 14, 1992, gage height, 9.29 ft; minimum daily, 0.94 ft^3/s, Jan. 31, 1992.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0645	690	7.54	Feb. 19	2400	417	6.66
Feb. 14	1900	*1,290	*9.29				

Minimum daily, 0.94 ft^3/s, Jan. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	2.2	1.8	e1.3	11	5.5	2.9	2.5	2.4	2.1	1.8
2	1.9	2.0	2.4	1.7	1.1	8.0	5.1	2.9	2.6	2.3	2.2	1.7
3	1.8	2.0	2.4	1.6	1.1	6.4	4.7	2.9	2.6	2.2	2.2	1.6
4	1.8	2.0	2.5	4.9	1.1	5.7	4.7	2.4	2.6	2.2	2.1	1.6
5	1.9	2.0	2.5	25	1.7	28	4.7	2.5	2.6	2.2	2.2	1.5
6	1.9	1.9	2.5	4.2	2.7	36	4.5	2.4	2.5	2.2	2.2	1.7
7	1.9	1.9	2.6	12	1.8	32	4.3	2.4	2.5	2.1	2.1	1.7
8	1.8	1.9	2.2	4.7	1.9	25	4.4	2.4	2.4	2.2	2.2	1.6
9	1.9	1.9	2.2	4.3	5.3	19	4.3	2.4	2.3	2.1	2.1	1.8
10	1.9	2.0	2.1	3.1	25	17	4.2	2.6	2.4	2.2	2.1	1.8
11	1.9	1.9	2.0	2.4	60	12	4.1	2.2	2.4	2.2	2.1	1.8
12	1.9	2.0	2.0	1.7	198	9.6	5.6	2.3	2.5	2.2	2.1	1.9
13	1.9	2.0	2.0	1.5	e67	8.1	4.4	2.4	2.5	2.2	2.1	1.8
14	1.9	2.1	2.0	1.7	256	12	3.9	2.4	2.5	2.2	2.1	1.8
15	1.9	2.2	1.9	2.1	160	17	3.7	2.7	2.5	2.2	2.0	1.8
16	1.9	2.4	1.9	1.3	86	16	3.5	2.8	2.5	2.1	2.0	2.0
17	1.9	9.6	1.9	1.2	66	13	3.4	2.5	2.3	2.1	2.0	2.1
18	1.7	2.5	2.2	1.1	52	12	3.3	2.6	2.3	2.1	2.0	2.2
19	1.9	1.9	1.8	1.1	111	11	3.1	2.5	2.4	2.0	1.9	2.2
20	1.9	1.8	1.8	1.1	160	13	3.1	2.3	2.3	2.1	1.9	2.3
21	2.1	1.8	1.8	1.0	62	10	2.9	2.3	2.2	2.1	2.0	2.3
22	2.1	1.8	1.8	1.0	45	16	2.8	2.4	2.2	2.1	2.0	2.3
23	2.0	1.8	1.7	1.0	35	11	2.9	2.1	2.2	2.4	1.9	2.3
24	2.0	1.8	1.8	1.0	28	9.3	2.9	2.2	2.3	2.8	1.9	2.3
25	6.5	1.9	1.8	1.0	23	8.8	2.9	2.2	2.5	2.6	1.7	2.4
26	11	1.9	1.8	1.0	20	8.2	2.9	2.2	2.4	2.6	1.7	2.4
27	2.7	1.8	7.0	.97	16	7.7	2.6	2.2	2.4	2.5	1.7	2.5
28	2.6	1.8	14	1.2	11	6.9	2.9	2.4	2.4	2.5	1.7	2.5
29	3.5	2.0	49	1.1	9.5	6.4	2.9	2.5	5.4	2.5	1.8	2.5
30	2.7	2.2	4.2	.96	---	6.3	2.8	2.6	2.6	2.5	1.8	2.3
31	2.1	---	2.2	.94	---	5.7	---	2.5	---	2.4	1.7	---
TOTAL	76.7	66.9	130.2	89.67	1508.5	408.1	113.0	76.1	75.8	70.5	61.6	60.5
MEAN	2.47	2.23	4.20	2.89	52.0	13.2	3.77	2.45	2.53	2.27	1.99	2.02
MAX	11	9.6	49	25	256	36	5.6	2.9	5.4	2.8	2.2	2.5
MIN	1.7	1.8	1.7	.94	1.1	5.7	2.6	2.1	2.2	2.0	1.7	1.5
AC-FT	152	133	258	178	2990	809	224	151	150	140	122	120

e Estimated.

11160430 BEAN CREEK NEAR SCOTTS VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.47	2.78	3.12	3.01	15.9	16.5	3.79	2.53	2.21	1.97	1.90	1.90
MAX	2.98	4.10	4.20	4.03	52.0	32.0	4.57	3.01	2.53	2.27	1.99	2.02
(WY)	1990	1990	1992	1990	1992	1991	1991	1990	1992	1992	1992	1992
MIN	1.96	2.00	2.16	2.11	2.42	3.92	2.62	2.33	1.96	1.71	1.84	1.76
(WY)	1991	1991	1991	1991	1991	1990	1990	1989	1991	1991	1989	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	1832.8		2737.57			
ANNUAL MEAN	5.02		7.48		5.09	
HIGHEST ANNUAL MEAN					7.48	1992
LOWEST ANNUAL MEAN					3.00	1990
HIGHEST DAILY MEAN	183	Mar 24	256	Feb 14	256	Feb 14 1992
LOWEST DAILY MEAN	1.6	Jul 23	.94	Jan 31	.94	Jan 31 1992
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 16	1.0	Jan 21	1.0	Jan 21 1992
INSTANTANEOUS PEAK FLOW			1290	Feb 14	1290	Feb 14 1992
INSTANTANEOUS PEAK STAGE			9.29	Feb 14	9.29	Feb 14 1992
ANNUAL RUNOFF (AC-FT)	3640		5430		3690	
10 PERCENT EXCEEDS	6.4		11		6.2	
50 PERCENT EXCEEDS	2.0		2.3		2.2	
90 PERCENT EXCEEDS	1.7		1.7		1.8	

11160500 SAN LORENZO RIVER AT BIG TREES, CA

LOCATION.--Lat 37°02'40", long 122°04'17", in Zayante Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank 20 ft upstream from bridge on Henry Cowell State Park Road, 200 ft upstream from Shingle Mill Creek, 0.3 mi downstream from Zayante Creek, 0.9 mi northwest of Big Trees station on Southern Pacific railroad, and 5.3 mi northwest of Santa Cruz.

DRAINAGE AREA.--106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1938(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 227.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1972, at site 1.3 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good except for daily discharges greater than 200 ft^3/s and for discharges from June 14 to July 30, which are fair. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by a fiber dam located 500 ft upstream from gage. Many small diversions upstream from station for domestic supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft^3/s, Dec. 23, 1955, gage height, 22.55 ft, site and datum then in use, from rating curve extended above 11,000 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 28.85 ft, Jan. 5, 1982; minimum daily discharge, 5.6 ft^3/s, July 27, 28, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0600	*10,400	*16.45	Feb. 20	0045	2,830	9.56
Feb. 14	1915	7,410	14.00				

Minimum daily, 7.5 ft^3/s, Oct. 9, 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	12	10	31	31	118	71	31	22	21	10	10
2	8.1	12	11	27	22	94	66	34	21	18	10	9.6
3	7.7	12	10	23	19	81	62	34	21	16	10	9.0
4	7.8	12	10	31	17	73	58	29	21	16	9.6	8.9
5	8.1	12	11	207	16	254	54	30	21	16	9.7	8.8
6	8.3	12	11	95	21	339	52	31	21	15	10	8.7
7	8.6	12	12	184	22	257	49	32	21	14	11	8.7
8	7.8	12	12	58	18	187	50	30	25	14	11	8.7
9	7.5	12	12	33	30	153	48	30	30	14	12	8.4
10	7.6	12	11	32	208	133	47	29	22	13	11	11
11	7.5	12	11	31	643	121	46	29	21	13	11	8.9
12	7.5	12	11	24	2960	107	58	28	20	14	11	8.7
13	8.6	12	11	21	345	95	56	27	19	13	10	8.7
14	8.3	12	11	18	1960	132	43	28	20	13	10	8.7
15	7.8	12	11	19	1510	229	40	26	19	13	10	8.5
16	7.7	12	11	19	722	248	38	23	17	12	9.8	8.6
17	8.5	66	11	21	462	187	37	24	15	12	10	8.8
18	8.0	35	19	21	326	153	36	27	13	12	9.6	8.9
19	8.2	17	17	20	656	136	36	26	13	12	9.5	8.6
20	8.3	14	14	19	1260	146	35	27	13	12	9.4	8.8
21	8.8	12	12	19	404	147	34	27	13	11	11	8.9
22	8.2	12	12	18	296	162	34	26	12	11	8.8	8.7
23	8.6	11	12	17	239	149	29	26	12	11	8.9	8.6
24	8.3	11	11	17	196	123	29	25	12	11	9.6	8.5
25	20	11	11	17	159	114	30	24	12	11	9.8	8.0
26	164	11	11	17	138	109	32	23	11	11	9.9	7.9
27	34	11	31	17	123	100	29	23	11	11	9.5	8.0
28	19	10	109	18	109	90	29	23	11	11	8.7	8.0
29	15	10	643	19	99	82	28	24	20	12	9.1	8.3
30	13	10	99	17	---	82	27	24	32	11	10	8.1
31	13	---	44	16	---	77	---	23	---	11	11	---
TOTAL	472.0	433	1232	1126	13011	4478	1283	843	541	405	310.9	262.0
MEAN	15.2	14.4	39.7	36.3	449	144	42.8	27.2	18.0	13.1	10.0	8.73
MAX	164	66	643	207	2960	339	71	34	32	21	12	11
MIN	7.5	10	10	16	16	73	27	23	11	11	8.7	7.9
AC-FT	936	859	2440	2230	25810	8880	2540	1670	1070	803	617	520

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.5	55.7	154	298	386	296	180	70.4	39.7	26.2	19.7	18.0
MAX	176	461	1319	1242	1532	1483	1005	322	112	65.8	44.0	52.1
(WY)	1963	1951	1956	1952	1986	1983	1958	1983	1983	1983	1983	1959
MIN	8.26	11.4	14.7	13.8	16.6	21.4	12.3	11.6	9.37	6.66	6.50	8.28
(WY)	1978	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	16296.1		24396.9			
ANNUAL MEAN	44.6		66.7		129	
HIGHEST ANNUAL MEAN					391	1983
LOWEST ANNUAL MEAN					13.2	1977
HIGHEST DAILY MEAN	1840	Mar 24	2960	Feb 12	17000	Dec 23 1955
LOWEST DAILY MEAN	7.5	Sep 5	7.5	Oct 9	5.6	Jul 27 1977
ANNUAL SEVEN-DAY MINIMUM	7.8	Aug 30	7.8	Oct 6	5.8	Jul 26 1977
INSTANTANEOUS PEAK FLOW			10400	Feb 12	30400	Dec 23 1955
INSTANTANEOUS PEAK STAGE			16.45	Feb 12	28.85	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	32320		48390		93720	
10 PERCENT EXCEEDS	56		132		266	
50 PERCENT EXCEEDS	13		17		32	
90 PERCENT EXCEEDS	8.1		8.7		13	

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-7, 1952-82, 1986, November 1989 to current year.
CHEMICAL DATA: Water years 1906-7, 1952-67, 1969-70, 1973-75, 1977, 1980-81.
WATER TEMPERATURE: Water years 1966-82.
SEDIMENT DATA: Water years 1973-82, 1986, November 1989 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1966 to February 1979.
SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1982.

REMARKS.--Zero bedload discharge observed for flows less than 104 ft^3/s during current year. Sediment loads at times affected by fiber dam upstream.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
01...	1315	8.7	18.5	6	0.14	51	--	--	--	--	--
NOV											
01...	1425	12	10.5	4	0.13	72	--	--	--	--	--
DEC											
02...	1415	10	8.5	3	0.08	41	--	--	--	--	--
30...	1135	87	8.5	35	8.2	97	100	--	--	--	--
JAN											
02...	1415	21	7.5	9	0.51	62	--	--	--	--	--
06...	1650	104	9.0	26	7.3	92	--	--	--	--	--
07...	1145	235	9.0	33	21	97	100	--	--	--	--
FEB											
03...	1340	19	9.0	6	0.31	79	--	--	--	--	--
15...	1340	1020	12.0	857	2360	33	37	51	83	99	100
MAR											
04...	1235	69	11.5	5	0.93	83	--	--	--	--	--
APR											
01...	1400	71	12.5	4	0.77	85	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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
NOV							
01...	1445	12	10.5	7	23	53	76
01...	1448	12	10.5	2	7	18	31
01...	1450	12	10.5	--	1	5	11
01...	1452	12	10.5	--	1	3	6
01...	1455	12	10.5	--	1	2	4
01...	1458	12	10.5	1	2	4	5
01...	1500	12	10.5	1	3	7	11
MAR							
02...	1122	92	12.5	1	6	24	66
02...	1135	92	12.5	--	--	1	10
02...	1145	92	12.5	--	--	1	6
02...	1151	92	12.5	--	1	1	3
02...	1155	92	12.5	--	1	2	4
02...	1200	92	12.5	--	1	2	4
02...	1206	92	12.5	1	2	6	18
APR							
01...	1415	71	12.5	6	24	66	92
01...	1418	71	12.5	--	--	3	15
01...	1422	71	12.5	--	--	1	12
01...	1427	71	12.5	--	--	1	4
01...	1432	71	12.5	--	1	1	2
01...	1436	71	12.5	--	1	2	4
01...	1440	71	12.5	1	3	8	26

11160500 SAN LORENZO RIVER AT BIG TREES, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
01...	85	91	95	96	97	100	--
01...	65	89	95	97	98	99	100
01...	31	48	58	67	76	84	100
01...	21	36	48	56	68	80	100
01...	9	18	30	45	57	84	100
01...	7	15	30	49	77	97	100
01...	19	47	79	93	98	100	--
MAR							
02...	94	97	98	100	--	--	--
02...	34	55	69	80	89	98	100
02...	16	26	34	44	63	88	100
02...	10	20	26	32	47	66	100
02...	13	28	39	52	71	88	100
02...	10	22	33	46	64	78	100
02...	33	55	78	90	97	100	--
APR							
01...	98	98	99	100	--	--	--
01...	53	89	95	97	98	100	--
01...	38	57	71	81	93	100	--
01...	18	32	50	66	79	89	100
01...	9	21	31	40	58	88	100
01...	10	25	37	50	63	88	100
01...	46	68	86	94	98	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
FEB									
15...	1405	1020	1100	0.250	0	1405	1405	20	12.5
15...	1410	1020	1100	0.250	0	1410	1410	20	11.0
15...	1415	1020	1100	0.250	0	1415	1415	20	10.0
15...	1420	1020	1100	0.250	0	1420	1420	20	9.0
15...	1425	1020	1100	0.250	0	1425	1425	20	15.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
FEB									
15...	5	1	1	23.0	1000	12.0	16.7	1540	2
15...	5	1	1	35.0	996	12.0	55.6	1540	1
15...	5	1	1	45.0	991	12.0	32.0	1540	2
15...	5	1	1	55.0	991	12.0	16.8	1540	1
15...	5	1	1	63.0	991	12.0	16.6	1540	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB								
15...	23	81	98	99	100	--	--	--
15...	16	54	76	85	90	94	98	100
15...	24	58	75	82	87	93	100	--
15...	9	26	53	71	79	87	100	--
15...	10	35	65	82	93	100	--	--

11161000 SAN LORENZO RIVER AT SANTA CRUZ, CA

LOCATION.--Lat 36°59'27", long 122°01'51", in La Carbonera Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank, in city of Santa Cruz Water Meter Repair compound, 0.3 mi upstream from intersection of State Highways 1 and 9, 1.0 mi north of Santa Cruz, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--115 mi^2.

PERIOD OF RECORD.--October 1952 to September 1960, October 1987 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1952 to September 1960, water-stage recorder at site 0.1 mi downstream at different datum.

REMARKS.--Records fair. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by a fiber dam located 6.8 mi upstream from gage. Water is diverted 50 ft upstream from station by city of Santa Cruz for municipal supply; many small diversions upstream from station for domestic supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,400 ft^3/s, Dec. 23, 1955, gage height, 23.10 ft, site and datum then in use, from rating curve extended above 4,500 ft^3/s on basis of slope-area measurement of peak flow; no flow for several days in 1955 and many days in 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0715	*11,100	*14.25	Feb. 20	0200	2,770	9.63
Feb. 14	2045	7,320	12.69				

Minimum daily, 0.39 ft^3/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	5.4	5.5	39	28	115	74	21	17	14	2.7	4.0
2	1.5	6.7	4.8	29	21	97	69	23	15	11	3.0	2.9
3	1.1	6.0	6.2	23	16	87	63	23	14	9.6	3.6	1.8
4	1.7	4.9	5.8	21	15	79	58	20	14	8.8	2.5	2.2
5	1.5	5.0	4.6	241	13	221	56	20	14	8.2	2.8	2.5
6	.74	4.2	5.7	117	15	325	52	23	14	8.4	e2.2	1.6
7	1.3	3.5	6.2	208	23	248	49	21	13	7.5	e2.1	.42
8	1.7	2.9	5.2	119	16	176	48	22	13	6.9	e2.0	.75
9	1.4	4.2	5.8	57	17	144	47	19	24	6.7	e2.1	1.6
10	1.2	3.3	5.6	42	175	128	45	19	14	6.3	2.3	1.4
11	1.7	3.0	4.4	37	718	116	44	19	13	5.7	2.3	2.4
12	.92	5.1	3.9	32	3390	104	51	19	12	6.2	1.8	3.2
13	.97	5.6	4.4	28	718	95	55	19	11	6.6	2.4	2.7
14	1.2	4.6	5.6	28	1980	122	37	18	11	6.1	2.1	1.2
15	1.1	3.9	4.8	25	1740	195	35	18	12	5.5	2.0	.78
16	.99	6.4	5.2	22	699	237	33	16	11	5.0	2.3	.65
17	1.7	70	5.5	23	400	176	32	15	12	5.9	2.1	.39
18	1.1	63	10	22	274	140	32	16	11	6.0	2.5	.74
19	1.5	25	16	21	489	122	31	16	12	5.0	3.1	.97
20	2.0	12	9.1	21	1370	128	28	17	11	5.6	3.0	1.5
21	1.8	9.6	5.8	19	425	138	28	17	9.8	8.2	2.0	.53
22	3.7	8.5	5.8	17	291	147	26	16	9.5	3.4	3.0	1.1
23	1.3	8.7	4.9	15	237	140	24	16	8.9	3.2	2.1	1.4
24	2.0	8.7	5.6	15	199	111	23	15	8.7	3.6	1.7	1.4
25	2.8	8.9	7.5	14	157	103	22	16	9.2	3.7	1.4	.76
26	240	6.3	6.4	14	139	98	23	16	9.3	3.5	1.2	.41
27	72	5.7	12	16	124	94	22	17	7.6	3.4	.94	.48
28	32	4.2	127	15	112	89	23	18	7.5	3.8	1.0	4.1
29	22	7.0	847	16	102	82	21	18	8.8	3.4	2.9	4.1
30	14	6.2	153	14	---	79	21	17	30	3.1	2.6	3.7
31	6.7	---	58	13	---	76	---	15	---	2.6	3.2	---
TOTAL	424.82	318.5	1357.3	1323	13903	4212	1172	565	377.3	186.9	70.94	51.68
MEAN	13.7	10.6	43.8	42.7	479	136	39.1	18.2	12.6	6.03	2.29	1.72
MAX	240	70	847	241	3390	325	74	23	30	14	3.6	4.1
MIN	.74	2.9	3.9	13	13	76	21	15	7.5	2.6	.94	.39
AC-FT	843	632	2690	2620	27580	8350	2320	1120	748	371	141	103

e Estimated.

11161000 SAN LORENZO RIVER AT SANTA CRUZ, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.6	22.3	178	184	269	175	137	54.6	25.8	12.8	7.41	8.81
MAX	28.9	38.8	1366	822	1254	728	1017	138	70.0	45.0	30.0	40.4
(WY)	1990	1955	1956	1956	1958	1958	1958	1958	1958	1958	1958	1959
MIN	1.83	3.45	7.30	5.60	15.3	16.8	15.9	13.7	4.64	1.48	.27	.17
(WY)	1989	1991	1991	1991	1991	1988	1990	1988	1988	1988	1960	1960

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1953 - 1992	
ANNUAL TOTAL	14887.32		23962.44			
ANNUAL MEAN	40.8		65.5		89.8	
HIGHEST ANNUAL MEAN					293	1958
LOWEST ANNUAL MEAN					21.5	1988
HIGHEST DAILY MEAN	1770	Mar 24	3390	Feb 12	17400	Dec 23 1955
LOWEST DAILY MEAN	.48	Aug 29	.39	Sep 17	.00	Sep 3 1955
ANNUAL SEVEN-DAY MINIMUM	.88	Sep 21	.79	Sep 15	.00	Sep 20 1960
INSTANTANEOUS PEAK FLOW			11100	Feb 12	30400	Dec 23 1955
INSTANTANEOUS PEAK STAGE			14.25	Feb 12	23.10	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	29530		47530		65090	
10 PERCENT EXCEEDS	64		127		172	
50 PERCENT EXCEEDS	5.7		12		20	
90 PERCENT EXCEEDS	1.2		1.5		2.0	

11161300 CARBONERA CREEK AT SCOTTS VALLEY, CA

LOCATION.--Lat 37°03'02", long 122°00'45" in San Augustin Grant, Santa Cruz County, Hydrologic Unit 18060001, on right bank at east city limits of Scotts Valley, 1.1 mi upstream from Glen Canyon Road, 3.3 mi east of Felton, and 4.1 mi upstream from Branciforte Creek.

DRAINAGE AREA.--3.60 mi^2.

PERIOD OF RECORD.--February 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 550 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Low flows affected by return flow from urban irrigation and by periodic flushing of upstream county well.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft^3/s, Feb. 14, 1992, gage height, 10.05 ft, from rating curve extended above 330 ft^3/s on basis of slope-area measurement at gage-height 9.48 ft; no flow for many days in each year.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 10	2330	501	7.52	Feb. 14	1730	*1,090	*10.05

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.05	.08	1.6	3.2	4.8	.90	.46	.04	.36	.00	.00
2	.98	.04	.07	1.4	.88	2.5	.81	.44	.28	e.20	.00	.00
3	1.5	.03	.12	1.3	.67	2.0	.75	.43	.15	e.15	.00	.00
4	.20	.03	.04	7.4	.77	1.7	.71	.44	.05	e.12	.00	.00
5	.24	.18	.08	18	.59	23	.58	.42	.03	e.08	.00	.00
6	.00	.33	.05	5.3	3.1	12	.59	.41	.01	e.02	.00	.00
7	.00	.01	1.2	13	.99	5.5	.76	.39	.01	.03	.00	.00
8	.00	.09	.09	3.4	.85	3.7	.67	.38	.00	.00	.00	.00
9	.05	.14	.09	2.3	7.1	2.8	.79	.32	.01	.00	.00	.00
10	.00	.10	.12	1.9	48	2.3	.85	.26	.00	.00	.00	.00
11	.00	.05	.13	1.7	64	1.9	.75	.31	.04	.00	.00	.00
12	.00	.11	.14	1.5	110	1.7	2.6	.40	.00	.05	.00	.00
13	.00	.04	.14	1.4	43	1.4	.56	.26	.00	.00	.00	.00
14	.00	.02	.16	1.4	199	4.6	.40	.23	.00	.23	.00	.00
15	.00	.00	.13	1.1	80	6.3	.37	.30	.00	.04	.00	.00
16	.00	.02	.14	1.1	48	3.3	.35	.20	.14	.00	.00	.00
17	.00	14	.76	1.1	21	2.3	.36	.12	.01	.00	.00	.00
18	.02	.67	3.5	1.0	15	1.9	.32	.09	.00	.00	.00	.00
19	.00	.20	.35	.92	109	1.7	.34	.10	.00	.00	.00	.00
20	.00	.09	.26	.94	53	3.1	.35	.12	.00	.00	.00	.00
21	.00	.09	.14	.93	13	2.6	.45	.06	.00	.00	.00	.00
22	.00	.05	.20	.88	7.6	5.4	.46	.06	.00	.00	.00	.00
23	.00	.03	.38	.86	5.5	2.5	.45	.12	.00	.00	.00	.00
24	.00	.00	.34	.87	4.5	1.7	.50	.09	.00	.00	.00	.00
25	7.0	.02	.40	.83	3.6	1.4	.47	.07	.00	.00	.00	.00
26	15	.02	.35	.94	3.0	1.3	.45	.04	.00	.00	.00	.00
27	.42	.03	9.7	.77	2.6	1.2	.46	.12	.00	.00	.00	.00
28	.26	.00	18	1.6	2.3	1.0	.52	.10	.00	.00	.00	.00
29	.41	.03	48	.67	2.6	1.1	.53	.15	4.3	.00	.31	.00
30	.39	.01	3.3	.65	---	1.5	.48	.14	1.1	.00	.23	.00
31	.11	---	2.0	.61	---	.97	---	.07	---	.00	.13	---
TOTAL	26.73	16.48	90.46	77.37	852.85	109.17	18.58	7.10	6.17	1.28	0.67	0.00
MEAN	.86	.55	2.92	2.50	29.4	3.52	.62	.23	.21	.041	.022	.000
MAX	15	14	48	18	199	23	2.6	.46	4.3	.36	.31	.00
MIN	.00	.00	.04	.61	.59	.97	.32	.04	.00	.00	.00	.00
AC-FT	53	33	179	153	1690	217	37	14	12	2.5	1.3	.00

e Estimated.

11161300 CARBONERA CREEK AT SCOTTS VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.73	1.76	4.40	4.47	16.1	12.0	1.08	.69	.15	.045	.14	.19
MAX	3.01	4.86	10.9	15.4	63.9	32.0	1.89	3.22	.35	.21	.91	.68
(WY)	1990	1989	1989	1986	1986	1986	1986	1990	1990	1989	1989	1989
MIN	.039	.002	.51	.35	.95	.25	.41	.099	.002	.005	.000	.000
(WY)	1987	1987	1987	1991	1988	1988	1987	1987	1987	1990	1985	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	1044.86		1206.86			
ANNUAL MEAN	2.86		3.30		3.46	
HIGHEST ANNUAL MEAN					10.1	1986
LOWEST ANNUAL MEAN					1.33	1990
HIGHEST DAILY MEAN	182	Mar 24	199	Feb 14	352	Feb 17 1986
LOWEST DAILY MEAN	.00	Jun 5	.00	Oct 6	.00	Jun 28 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 14	.00	Oct 10	.00	Jun 28 1985
INSTANTANEOUS PEAK FLOW			1090	Feb 14	1090	Feb 14 1992
INSTANTANEOUS PEAK STAGE			10.05	Feb 14	10.05	Feb 14 1992
ANNUAL RUNOFF (AC-FT)	2070		2390		2510	
10 PERCENT EXCEEDS	3.9		3.5		3.9	
50 PERCENT EXCEEDS	.17		.14		.23	
90 PERCENT EXCEEDS	.00		.00		.00	

11162500 PESCADERO CREEK NEAR PESCADERO, CA

LOCATION.--Lat 37°15'39", long 122°19'40", in SW 1/4 sec.5, T.8 S., R.4 W., San Mateo County, Hydrologic Unit 18050006, on left bank at downstream side of highway bridge, 3.0 mi east of Pescadero, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--45.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WSP 1445: 1952-53(M). WSP 1715: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 62.3 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair except for daily discharges during August 26 to September 30, which are poor. Minor regulation from swimming pools in San Mateo County Memorial Park and Portola State Park during summer months. Small diversions upstream from station by pumping.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,420 ft^3/s, Dec. 23, 1955, gage height, 21.27 ft, from rating curve extended above 2,700 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0545	*4,100	*13.75	Feb. 14	2100	2,300	10.21

Minimum daily, 0.33 ft^3/s, Oct. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	1.3	1.4	8.3	7.8	39	31	8.3	4.2	4.9	1.5	1.2
2	.70	.84	1.3	6.1	8.0	36	29	8.3	4.0	3.6	1.5	1.3
3	.59	.81	1.5	4.9	5.3	33	26	8.3	3.8	3.0	1.4	1.2
4	.57	.94	1.5	4.7	4.2	30	23	8.3	3.7	3.0	1.3	.98
5	.60	1.0	1.5	28	4.0	113	21	7.9	3.7	2.8	1.2	1.0
6	.55	1.0	1.6	35	4.1	150	20	7.9	3.7	2.8	1.2	1.0
7	.47	1.0	2.3	75	4.2	117	18	7.8	3.7	2.8	1.2	.87
8	.36	1.0	2.5	45	4.2	83	17	7.5	3.7	2.7	1.3	.79
9	.37	1.1	2.3	21	5.7	65	15	7.7	3.7	2.6	1.3	.86
10	.33	1.2	2.4	14	45	56	15	7.8	3.2	2.6	1.2	.75
11	.44	1.2	2.1	10	308	51	14	7.5	3.2	2.6	1.1	.71
12	.37	1.2	2.0	8.2	1650	46	13	7.5	2.8	2.4	1.2	.71
13	.41	1.0	1.6	6.8	295	43	16	7.2	3.1	2.2	1.1	.68
14	.39	.99	1.6	5.8	638	42	13	7.2	3.2	2.3	1.1	.65
15	.42	1.1	1.7	5.3	1070	69	12	7.2	3.2	2.3	1.0	.68
16	.45	1.2	1.7	4.7	393	124	13	7.1	3.2	2.1	1.0	.66
17	.48	3.8	1.8	4.5	259	95	13	6.8	3.4	2.0	1.0	.55
18	.49	9.5	3.2	4.2	158	75	13	6.4	3.7	1.9	1.0	.58
19	.45	4.2	5.6	3.9	126	61	12	5.1	3.5	1.9	1.0	.63
20	.50	1.9	4.5	3.7	410	56	12	5.3	3.5	1.9	.99	.60
21	.66	1.5	2.8	3.4	200	68	11	5.1	3.4	1.8	1.0	1.4
22	.81	1.2	2.2	3.2	135	67	11	4.8	3.1	1.8	1.0	2.2
23	.81	1.0	2.1	3.2	101	88	11	4.8	3.0	1.8	1.0	.63
24	.81	.92	1.9	3.0	81	67	11	4.9	2.9	1.8	.94	.63
25	1.6	.91	1.7	3.0	68	58	10	4.7	2.8	1.8	.91	.64
26	20	.91	1.8	2.9	57	53	9.4	4.9	2.8	1.7	.83	.56
27	16	1.2	4.2	2.8	50	46	8.7	4.9	2.7	1.3	.72	.59
28	3.8	1.4	13	3.2	44	40	8.7	4.9	2.7	1.4	.80	.58
29	2.3	1.5	108	3.5	40	37	8.7	4.8	2.9	1.5	.89	.63
30	1.8	1.4	39	3.5	---	36	8.7	4.8	5.1	1.5	.96	.60
31	1.6	---	14	3.3	---	33	---	4.7	---	1.4	1.1	---
TOTAL	59.91	48.22	234.8	334.1	6175.5	1977	444.2	200.4	101.6	70.2	33.74	24.86
MEAN	1.93	1.61	7.57	10.8	213	63.8	14.8	6.46	3.39	2.26	1.09	.83
MAX	20	9.5	108	75	1650	150	31	8.3	5.1	4.9	1.5	2.2
MIN	.33	.81	1.3	2.8	4.0	30	8.7	4.7	2.7	1.3	.72	.55
AC-FT	119	96	466	663	12250	3920	881	397	202	139	67	49

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.84	14.1	60.1	108	115	91.4	56.8	17.8	8.27	4.66	3.25	2.51
MAX	92.8	85.9	469	418	476	540	398	93.8	28.1	14.8	10.5	7.79
(WY)	1963	1984	1956	1952	1983	1983	1958	1983	1983	1983	1969	1983
MIN	.38	1.61	2.30	2.75	2.92	4.25	1.93	2.00	.78	.20	.012	.083
(WY)	1962	1992	1977	1991	1977	1988	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	5027.42		9704.53			
ANNUAL MEAN	13.8		26.5		40.3	
HIGHEST ANNUAL MEAN					164	1983
LOWEST ANNUAL MEAN					1.72	1977
HIGHEST DAILY MEAN	522	Mar 24	1650	Feb 12	5560	Dec 23 1955
LOWEST DAILY MEAN	.33	Oct 10	.33	Oct 10	.00	Sep 9 1961
ANNUAL SEVEN-DAY MINIMUM	.38	Oct 8	.38	Oct 8	.00	Aug 17 1977
INSTANTANEOUS PEAK FLOW			4100	Feb 12	9420	Dec 23 1955
INSTANTANEOUS PEAK STAGE			13.75	Feb 12	21.27	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	9970		19250		29190	
10 PERCENT EXCEEDS	16		52		83	
50 PERCENT EXCEEDS	2.3		3.2		6.6	
90 PERCENT EXCEEDS	.65		.71		1.3	

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-80, 1986, December 1989 to current year.
CHEMICAL DATA: Water year 1977.
WATER TEMPERATURE: Water years 1965-80.
SEDIMENT DATA: Water years 1971, 1973, 1980, 1986, December 1989 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1965 to February 1979.
SUSPENDED-SEDIMENT DISCHARGE: December 1979 to September 1980.

REMARKS.--Zero bedload discharge observed for flows less than 55 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
12...	1150	1.5	10.0	5	0.02	--	--	--
DEC								
11...	1210	2.0	5.0	14	0.08	--	--	--
28...	1240	10	9.0	11	0.30	--	--	--
JAN								
14...	1340	6.1	5.5	3	0.05	--	--	--
FEB								
12...	1730	545	11.0	1280	1880	29	40	52
MAR								
10...	1255	55	12.5	16	2.4	--	--	--
APR								
14...	1345	13	14.5	4	0.14	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV							
12...	--	--	74	--	--	--	--
DEC							
11...	--	--	52	--	--	--	--
28...	--	--	92	--	--	--	--
JAN							
14...	--	--	--	--	--	--	--
FEB							
12...	63	75	84	94	98	99	100
MAR							
10...	--	--	92	--	--	--	--
APR							
14...	--	--	64	--	--	--	--

11162500 PESCADERO CREEK NEAR PESCADERO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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
NOV							
12...	1210	1.5	10.0	3	9	28	76
12...	1215	1.5	10.0	--	1	4	26
12...	1220	1.5	10.0	--	1	2	14
12...	1225	1.5	10.0	--	1	2	11
12...	1230	1.5	10.0	--	1	3	14
12...	1235	1.5	10.0	1	1	4	16
MAR							
10...	1405	55	12.5	2	9	29	65
10...	1410	55	12.5	1	4	11	28
10...	1414	55	12.5	--	1	3	13
10...	1417	55	12.5	--	--	2	11
10...	1422	55	12.5	--	1	4	18
10...	1430	55	12.5	--	2	7	31
APR							
14...	1404	13	14.5	4	13	36	79
14...	1409	13	14.5	6	16	32	54
14...	1415	13	14.5	2	3	6	23
14...	1420	13	14.5	1	2	6	17
14...	1425	13	14.5	--	1	3	13
14...	1430	13	14.5	1	2	6	27

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
12...	96	98	99	100	--	--	--
12...	64	82	90	94	96	100	--
12...	57	80	90	95	99	100	--
12...	62	86	93	98	100	--	--
12...	28	36	44	54	70	92	100
12...	34	46	54	60	64	74	100
MAR							
10...	94	99	100	--	--	--	--
10...	64	84	92	98	100	--	--
10...	38	55	70	85	94	100	--
10...	30	41	49	56	67	90	100
10...	33	40	46	54	68	77	100
10...	58	64	67	73	80	92	100
APR							
14...	98	99	100	--	--	--	--
14...	86	94	98	99	100	--	--
14...	51	65	74	86	95	99	100
14...	44	64	76	83	93	99	100
14...	28	37	44	54	68	85	100
14...	57	68	74	79	88	96	100

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA

LOCATION.--Lat 37°19'33", long 122°23'08", in San Gregorio Grant, San Mateo County, Hydrologic Unit 18050006, on right bank at downstream side of bridge on Old Coast Highway, 0.1 mi south of town of San Gregorio, and 1.4 mi upstream from mouth.

DRAINAGE AREA.--50.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 11.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Low flows affected by domestic irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,910 ft^3/s, Jan. 4, 1982, gage height, 21.28 ft, from rating curve extended above 560 ft^3/s on basis of contracted-opening measurement of peak flow; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*), from rating curve extended above 140 ft^3/s on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0145	*5,200	*17.48	Feb. 14	1645	1,790	11.16

No flow for several days in August and September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	1.2	.79	4.3	7.3	24	e33	7.1	3.7	3.2	.07	.00
2	.05	1.1	.79	3.0	4.4	20	e30	6.8	3.6	2.0	.16	.02
3	.06	1.0	.84	2.3	1.8	17	e28	6.2	3.8	1.9	.35	.01
4	.06	1.0	.82	2.2	1.3	15	e26	5.7	3.5	2.2	.42	.22
5	.07	1.0	.79	28	1.2	233	e24	5.7	2.8	2.5	.14	.16
6	.09	1.0	.88	50	1.1	170	e22	5.6	2.7	1.6	.05	.13
7	.10	.94	1.0	135	1.3	85	e21	5.4	3.5	1.2	.30	.00
8	.12	.85	1.3	51	1.2	62	e20	5.5	3.0	.93	.12	.00
9	.14	.69	1.4	19	1.9	51	e19	5.5	2.8	.69	.35	.01
10	.14	.68	1.3	9.3	169	43	e18	5.1	2.2	.41	.52	.13
11	.08	.46	1.1	5.5	687	37	e17	4.4	2.3	.77	.13	.41
12	.10	.44	1.0	3.6	1970	33	e16	4.2	2.0	1.1	.15	.21
13	.07	.36	1.0	2.5	456	29	e15	4.2	2.2	.51	.00	.19
14	.07	.56	.94	1.9	740	34	e15	4.5	2.7	.50	.00	.00
15	.09	.72	.94	1.7	776	90	14	3.9	2.4	.57	.05	.00
16	.09	.70	1.0	1.5	295	151	14	3.4	1.8	.44	.00	.00
17	.08	1.1	1.0	1.4	171	101	13	3.6	1.5	.42	.10	.01
18	.08	4.6	1.0	1.3	112	73	13	3.7	1.1	.40	.00	.02
19	.07	2.8	2.2	1.1	111	57	12	4.2	1.6	.06	.03	.06
20	.08	1.5	2.1	1.0	282	61	11	4.1	2.4	.21	.00	.07
21	.06	1.5	1.5	1.0	137	75	10	3.6	2.4	.38	.00	.03
22	.07	1.3	1.4	.88	105	117	9.3	3.1	1.9	.79	.00	.04
23	.07	1.2	1.3	.83	79	145	9.2	3.4	1.8	.82	.10	.17
24	.12	1.1	1.3	.78	61	81	9.1	4.0	1.2	.84	.08	.07
25	.25	1.0	1.2	.73	47	69	9.0	3.6	1.2	.79	.02	.26
26	42	1.0	1.1	.73	39	61	8.8	3.4	.93	.58	.05	.45
27	16	.95	1.9	.73	31	e54	7.9	4.2	1.5	.19	.07	.10
28	3.9	.88	10	.90	26	e48	7.5	3.5	1.3	.33	.09	.09
29	2.7	.91	111	.99	23	e43	7.1	3.7	1.3	.32	.08	.43
30	2.2	.78	25	.84	---	e39	7.0	3.8	4.1	.35	.05	.43
31	1.5	---	7.6	.75	---	e36	---	4.2	---	.30	.22	---
TOTAL	70.57	33.32	185.49	334.76	6338.5	2154	465.9	139.3	69.23	27.30	3.70	3.72
MEAN	2.28	1.11	5.98	10.8	219	69.5	15.5	4.49	2.31	.88	.12	.12
MAX	42	4.6	111	135	1970	233	33	7.1	4.1	3.2	.52	.45
MIN	.05	.36	.79	.73	1.1	15	7.0	3.1	.93	.06	.00	.00
AC-FT	140	66	368	664	12570	4270	924	276	137	54	7.3	7.4

e Estimated.

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.25	27.5	55.0	88.3	105	93.5	41.6	12.5	5.92	3.03	1.57	1.27
MAX	11.6	162	297	345	379	432	259	68.5	20.5	11.7	6.68	4.46
(WY)	1984	1973	1984	1982	1986	1983	1982	1983	1982	1974	1982	1983
MIN	.000	.71	1.70	1.17	2.21	2.98	1.05	1.42	.35	.019	.000	.000
(WY)	1978	1977	1977	1991	1977	1977	1977	1977	1981	1988	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	5507.41		9825.79			
ANNUAL MEAN	15.1		26.8		36.2	
HIGHEST ANNUAL MEAN					111	1983
LOWEST ANNUAL MEAN					1.16	1977
HIGHEST DAILY MEAN	948	Mar 24	1970	Feb 12	4120	Jan 4 1982
LOWEST DAILY MEAN	.04	Aug 26	.00	Aug 13	.00	Aug 11 1972
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 29	.02	Aug 16	.00	Aug 11 1972
INSTANTANEOUS PEAK FLOW			5200	Feb 12	7910	Jan 4 1982
INSTANTANEOUS PEAK STAGE			17.48	Feb 12	21.28	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	10920		19490		26240	
10 PERCENT EXCEEDS	14		50		70	
50 PERCENT EXCEEDS	1.3		1.3		4.7	
90 PERCENT EXCEEDS	.08		.07		.18	

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
SEDIMENT DATA: Water year 1986, December 1989 to current year.

REMARKS.--Zero bedload discharge observed for flows less than 14 ft^3/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
07...	1500	0.10	14.0	14	0.00	--	--	--	--	--
NOV										
12...	1520	0.46	10.5	2	0.00	--	--	--	--	--
DEC										
11...	1525	1.1	12.0	3	0.01	--	--	--	--	--
28...	1445	9.0	10.5	5	0.12	79	--	--	--	--
30...	1400	19	8.5	21	1.1	93	--	--	--	--
JAN										
14...	1635	1.9	7.5	10	0.05	97	--	--	--	--
FEB										
13...	1400	348	11.0	941	884	84	95	99	100	--
15...	1500	454	11.5	1620	1990	74	90	97	99	100
21...	1520	127	13.0	130	45	80	91	98	100	--
MAR										
11...	1205	37	13.5	24	2.4	91	--	--	--	--
APR										
15...	1635	14	14.5	5	0.19	62	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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
NOV							
12...	1700	0.46	10.5	--	1	2	5
12...	1705	0.46	10.5	2	5	8	13
12...	1710	0.46	10.5	4	9	15	26
12...	1715	0.46	10.5	5	12	19	33
12...	1720	0.46	10.5	2	4	6	21
12...	1730	0.46	10.5	15	32	50	81
12...	1740	0.46	10.5	21	38	53	70
FEB							
21...	1610	125	13.0	1	2	10	22
21...	1611	125	13.0	1	2	5	10
21...	1612	125	13.0	1	2	4	6
21...	1613	125	13.0	2	9	26	46
APR							
15...	1650	14	14.5	5	18	36	50
15...	1655	14	14.5	2	5	8	11
15...	1700	14	14.5	2	5	8	14
15...	1705	14	14.5	1	3	6	13
15...	1710	14	14.5	1	2	4	13
15...	1715	14	14.5	--	1	2	4
15...	1720	14	14.5	1	4	12	30

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
12...	10	16	25	36	55	82	100
12...	21	30	39	48	62	79	100
12...	39	50	59	70	86	100	--
12...	48	58	68	79	92	100	--
12...	45	60	71	81	93	100	--
12...	94	97	98	99	100	--	--
12...	84	97	100	--	--	--	--
FEB							
21...	30	42	56	70	94	100	--
21...	18	26	34	45	59	68	100
21...	9	11	16	25	46	56	100
21...	54	56	59	68	92	100	--
APR							
15...	58	62	64	67	70	72	100
15...	14	19	27	40	57	82	100
15...	22	29	37	50	66	86	100
15...	22	30	40	51	68	87	100
15...	26	36	45	56	74	86	100
15...	9	15	24	39	70	100	--
15...	48	59	70	81	91	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
DEC									
30...	1440	1000	1120	0.250	0	1430	1445	40	1.0
30...	1455	1000	1120	0.250	0	1445	1500	40	1.0
FEB									
21...	1540	1000	1150	0.250	0	1532	1554	30	1.5
21...	1600	1000	1150	0.250	0	1552	1604	30	1.5

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
DEC									
30...	2	21	21	3.00	17	8.5	0.01	0.08	1
30...	2	21	21	3.00	17	8.5	0.00	0.08	2
FEB									
21...	2	20	20	2.30	127	13.0	0.11	5.1	1
21...	2	20	20	2.30	126	13.0	0.23	5.1	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
DEC									
30...	2	5	17	26	44	68	100	--	--
30...	4	5	10	16	35	67	100	--	--
FEB									
21...	2	13	49	68	81	89	92	93	100
21...	2	9	58	84	93	96	97	97	100

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA

LOCATION.--Lat 37°28'00", long 122°25'59", on north boundary of Miramontes Grant, San Mateo County, Hydrologic Unit 18050006, on left bank 50 ft downstream from State Highway 1, 0.3 mi northwest of town of Half Moon Bay, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--27.1 mi^2.

PERIOD OF RECORD.--July 1966 to current year.
SEDIMENT DATA: June 1990.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 31.51 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1983, at site 800 ft downstream at different datum.

REMARKS.--Records fair except for July and August, which are poor. Flow slightly regulated by storage in Pilarcitos Lake 10 mi upstream, capacity, 3,100 acre-ft. Water is diverted to city of San Francisco water system; small diversions for irrigation upstream from station by pumping.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft^3/s, Jan. 4, 1982, gage height, 13.08 ft, site and datum then in use, from rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*), from rating curve extended above 210 ft^3/s on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0330	*1,200	*9.07	Feb. 14	2200	603	6.09

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.58	.10	2.6	13	15	13	3.3	1.5	.97	.00	.00
2	.07	.20	.37	1.9	2.2	12	12	3.2	1.1	.80	.00	.00
3	.06	.29	.29	1.5	1.4	10	11	3.8	.98	.72	.03	.00
4	.08	.78	.14	6.1	1.2	9.5	10	3.2	1.1	.71	.00	.00
5	.06	.70	.56	23	1.1	24	9.7	3.2	.95	e.70	.00	.00
6	.02	.32	.81	22	1.6	47	8.9	3.2	1.1	e.68	.00	.00
7	.06	.16	1.5	52	1.2	30	8.3	3.1	1.3	e.66	.00	.00
8	.00	.17	.68	23	1.1	24	8.1	2.7	.96	e.64	.06	.00
9	.00	.18	.31	14	5.6	21	8.1	2.7	.85	e.62	.12	.00
10	.00	.22	.11	11	41	19	8.2	2.8	.70	e.61	.13	.00
11	.00	.18	.29	8.5	135	17	8.4	2.5	.78	e.60	.00	.00
12	.00	.14	.37	5.6	426	16	9.0	2.5	.68	e.59	.00	.00
13	.00	.17	.38	4.5	148	15	8.2	2.2	.69	e.57	.00	.00
14	.00	.15	.57	3.5	221	23	6.4	2.3	.74	e.55	.00	.00
15	.00	.23	.62	3.0	272	21	5.4	2.2	.78	.42	.02	.00
16	.00	.39	.56	2.5	151	26	5.5	2.2	.66	.33	.10	.00
17	.00	3.7	.84	3.0	93	21	6.1	2.5	.64	.27	.15	.00
18	.00	2.8	2.2	2.5	63	20	5.3	2.1	.73	.22	.00	.00
19	.00	.79	1.2	2.0	63	19	5.2	1.9	1.1	.16	.00	.00
20	.00	.49	.94	2.0	96	21	4.7	1.6	1.0	.25	.00	.00
21	.00	.71	.85	1.7	58	19	4.5	1.5	1.2	.11	.00	.00
22	.00	.39	.70	1.9	44	46	4.2	1.7	1.2	.20	.00	.00
23	.00	.22	.46	1.9	33	44	3.9	1.5	.98	.09	.02	.00
24	.03	.47	.16	2.0	26	28	3.6	1.8	.81	.19	.00	.00
25	2.8	.43	.49	1.6	21	24	3.8	1.7	.69	.35	.00	.00
26	35	.15	.66	1.6	19	21	4.0	1.5	.70	.56	.00	.00
27	3.2	.44	10	1.7	16	19	3.9	1.4	.71	.34	.00	.00
28	.64	.44	20	2.8	14	17	3.9	1.5	.71	.00	.00	.00
29	5.0	.38	44	1.6	13	16	3.7	1.5	2.8	.00	.00	.00
30	4.3	.14	11	1.2	---	18	3.6	1.1	2.2	.02	.00	.00
31	2.5	---	4.1	1.4	---	14	---	1.1	---	.06	.00	---
TOTAL	53.83	16.41	105.26	213.6	1981.4	676.5	200.6	69.5	30.34	12.99	0.63	0.00
MEAN	1.74	.55	3.40	6.89	68.3	21.8	6.69	2.24	1.01	.42	.020	.000
MAX	35	3.7	44	52	426	47	13	3.8	2.8	.97	.15	.00
MIN	.00	.14	.10	1.2	1.1	9.5	3.6	1.1	.64	.00	.00	.00
AC-FT	107	33	209	424	3930	1340	398	138	60	26	1.2	.00

e Estimated.

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.24	5.98	16.4	38.3	42.0	38.4	19.7	5.49	1.93	.88	.52	.33
MAX	4.44	32.5	92.1	164	234	278	127	37.2	8.22	3.21	2.01	1.26
(WY)	1983	1983	1971	1982	1983	1983	1982	1983	1967	1967	1982	1983
MIN	.000	.000	.59	.48	.66	1.44	.073	.009	.000	.000	.000	.000
(WY)	1967	1991	1991	1991	1977	1988	1977	1977	1972	1966	1966	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992		
ANNUAL TOTAL	1879.00		3361.06				
ANNUAL MEAN	5.15		9.18		14.1		
HIGHEST ANNUAL MEAN					73.9		1983
LOWEST ANNUAL MEAN					.51		1977
HIGHEST DAILY MEAN	171	Mar 26	426	Feb 12	2150	Jan 4	1982
LOWEST DAILY MEAN	.00	Jul 3	.00	Oct 8	.00	Jul 1	1966
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 8	.00	Oct 8	.00	Jul 1	1966
INSTANTANEOUS PEAK FLOW			1200	Feb 12	4750	Jan 4	1982
INSTANTANEOUS PEAK STAGE			9.07	Feb 12	13.08	Jan 4	1982
ANNUAL RUNOFF (AC-FT)	3730		6670		10250		
10 PERCENT EXCEEDS	9.4		21		27		
50 PERCENT EXCEEDS	.74		.96		1.7		
90 PERCENT EXCEEDS	.05		.00		.00		

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°48'24", long 122°27'54", in NE 1/4 NE 1/4 sec.36, T.1 S., R.6 W., in San Miguel Grant, San Francisco County, Hydrologic Unit 18050002, at end of Coast Guard dock at Presidio Military Reservation.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1990 to current year.
WATER TEMPERATURE: October 1990 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1990.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. The probe is set at 4.0 ft below Mean Lower Low Water (MLLW). Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 50,900 microsiemens, May 26, June 30, and July 1, 1991; minimum recorded, 37,200 microsiemens, February 25, 1992.
WATER TEMPERATURE: Maximum recorded, 18.5°C, several days in July 1992; minimum recorded 8.0°C, several days during December 1990 and January 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 50,600 microsiemens, Jan. 5; minimum recorded, 37,200 microsiemens, Feb. 25.
WATER TEMPERATURE: Maximum recorded, 18.5°C, several days in July; minimum recorded, 9.0°C, Jan. 24.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	50000	48900	49400	48400	49900	48200	49800	47900	49900	48200	47500	42100
2	50000	48400	49400	48500	49900	48800	49600	47900	49700	48200	47600	42400
3	50000	48900	49300	48300	49900	48600	50200	48100	49600	48600	47500	43100
4	49900	48900	49200	48200	50100	48700	49800	48000	---	---	47800	43700
5	49900	48900	49200	48200	50000	48800	50600	48200	---	---	46900	43800
6	49700	48800	49300	48100	50000	48400	50200	48100	---	---	47200	43700
7	49600	48500	49300	48100	50100	48700	50000	47600	---	---	47600	43100
8	49700	48600	49400	48200	49900	48500	49400	47500	---	---	48300	43400
9	49700	48200	49500	48300	49900	48300	49600	47500	---	---	48200	42900
10	49900	48500	49400	48300	49900	48700	49000	47500	---	---	48300	42500
11	49900	48800	49400	48200	49800	48800	48900	47400	---	---	48000	42900
12	49900	48700	49300	48000	49500	48700	48900	47200	---	---	48400	41500
13	49800	48700	49300	47600	49400	48500	48900	46900	---	---	48800	43900
14	49600	48000	48900	47500	49700	48100	49000	47200	49400	47100	48500	44200
15	49700	47500	49700	47900	49400	48200	49000	47100	49500	46100	48300	44900
16	49500	48300	49500	48200	49600	48100	49000	47100	49100	45300	48100	44700
17	49500	48100	49600	48500	49800	47800	49200	47100	48700	46300	48100	44800
18	49500	48500	49400	48200	49800	48100	49300	47200	48200	44800	47900	44800
19	49500	48600	49500	48100	49900	47900	49200	47200	47300	44700	48000	44900
20	49400	48400	49400	48000	50000	48100	49200	47200	47400	43400	48200	44800
21	49300	48400	49500	47900	49800	48100	49200	47300	47100	43200	48500	45100
22	49500	48600	49400	47800	50000	48300	48900	47400	46800	42300	48400	45200
23	49500	48500	49400	47800	49900	48100	48900	47700	47500	41400	48400	44800
24	49500	48300	49300	47800	49700	48500	49100	47700	47500	38400	48600	43400
25	49700	48100	49400	47800	49700	48400	49200	48000	47800	37200	48500	42800
26	49500	48400	49500	47900	50000	48400	49300	48200	47400	37300	48800	42400
27	49400	48200	49400	48300	49600	48700	49600	48200	48100	37900	48900	42400
28	49500	48000	49500	48300	49800	48600	49700	47800	47500	40600	49000	42700
29	49400	48200	49400	48500	49800	48700	49600	48000	47500	40800	48700	43400
30	49600	48200	49400	48000	49600	48400	49700	47900	---	---	48500	44000
31	49600	48200	---	---	49700	48200	49900	48200	---	---	48500	44800
MONTH	50000	47500	49700	47500	50100	47800	50600	46900	---	---	49000	41500

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	48300	45100	48400	45700	49000	46700	48500	46600	48600	47300	---	---
2	47600	44300	48700	45800	49000	46600	48400	46600	48400	47500	---	---
3	47300	44200	48700	46000	48900	46700	48300	46800	48400	47600	---	---
4	47700	44000	48800	46300	48900	46300	48200	46900	48500	47600	---	---
5	48600	43400	49000	46300	48900	46700	48100	47000	48600	47600	---	---
6	48000	43700	48900	46500	48600	46800	48100	47000	48600	47600	---	---
7	47600	43500	49000	46600	48500	46900	48100	46600	48600	47500	---	---
8	47100	43300	49000	47000	48200	46900	48200	47100	48500	47400	---	---
9	46600	43200	49200	47000	48100	47100	48200	47100	48600	47500	---	---
10	47100	43600	49000	47300	48100	46900	48300	47100	48600	47300	---	---
11	47300	44300	49300	47800	48100	46700	48400	47100	48600	47300	---	---
12	46900	44200	49500	47900	48200	46600	48500	47000	48400	47300	---	---
13	46500	44200	49500	47900	48000	46400	48400	47000	48500	47400	48300	47300
14	46100	44100	49300	47700	48000	46400	48400	46800	48400	47400	48300	47500
15	46100	43800	49500	47700	48000	46400	48300	47000	48400	47300	48300	47500
16	46400	44000	49500	47800	48500	46600	48300	47000	48300	47400	48400	47400
17	46400	43900	49600	47400	48500	46600	48200	47100	48300	47600	48400	47600
18	46700	43900	49600	47600	48600	46900	48300	47000	---	---	48300	47400
19	46900	43900	49500	47700	48500	47100	48200	47000	48500	47400	48300	47300
20	47300	44200	49600	47900	48600	47300	48300	46800	48700	47600	48300	47300
21	47400	44200	49600	47800	48400	47000	48200	47100	48700	47900	48300	47000
22	47800	44100	49600	47900	48400	47200	48800	47100	48800	47700	48400	47200
23	48300	42800	49400	48000	48300	47100	48800	46900	48900	47600	48100	47100
24	48100	42100	49500	48100	48300	47400	48800	47300	48800	47600	48100	47200
25	48300	41800	49100	47800	48300	47000	48700	47300	48900	47500	48200	47200
26	48100	41700	48900	47600	48300	47000	48700	47200	48800	47500	48300	46700
27	48400	45000	48700	47600	48300	46600	48700	47300	48700	47900	48200	46600
28	48400	44900	48600	47200	48300	46600	48700	47300	---	---	48200	47100
29	48400	45500	48800	46800	48500	46500	48800	47200	---	---	48200	47200
30	48400	45400	48700	47000	48400	46500	48700	47200	---	---	48000	47100
31	---	---	48900	46800	---	---	48700	47400	---	---	---	---
MONTH	48600	41700	49600	45700	49000	46300	48800	46600	---	---	---	---

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	15.5	14.5	13.5	11.5	11.0	10.5	10.0	11.5	10.5	13.5	13.5
2	16.5	15.5	14.5	13.5	11.5	11.0	10.5	10.0	11.5	10.5	14.0	13.5
3	16.5	15.5	14.5	13.5	11.0	11.0	11.0	10.0	11.5	11.0	14.0	13.5
4	16.5	15.5	14.0	13.5	11.0	10.5	11.0	10.5	11.5	11.0	14.0	13.5
5	16.5	15.5	14.5	13.5	11.0	10.5	11.5	10.5	11.5	11.0	14.0	13.5
6	16.5	15.5	---	---	11.0	10.5	11.0	10.5	11.5	11.0	14.0	13.5
7	16.5	15.5	14.5	13.5	11.0	10.5	11.0	10.5	11.5	11.0	14.0	13.5
8	16.5	15.5	14.5	13.0	11.0	10.5	11.0	10.5	11.5	11.0	14.0	13.5
9	17.0	15.5	14.0	13.0	11.0	10.5	11.0	10.5	11.5	11.0	14.5	14.0
10	16.5	15.5	14.0	13.5	11.0	10.5	11.0	10.0	11.5	11.5	14.5	14.0
11	16.5	15.5	14.0	13.0	11.0	10.5	11.0	10.5	12.0	11.5	14.5	14.0
12	16.5	15.0	14.0	13.0	11.0	10.5	11.0	10.0	12.5	11.5	15.0	14.0
13	16.5	15.0	14.0	13.0	10.5	10.0	10.5	10.0	12.0	11.5	14.5	14.0
14	16.5	15.0	14.0	13.0	10.5	10.0	11.0	10.0	12.0	11.5	14.5	14.0
15	16.5	15.0	13.5	12.5	10.0	9.5	10.5	10.0	12.5	11.5	14.5	14.0
16	16.5	15.0	13.0	12.0	10.0	9.5	10.5	10.0	12.0	11.5	14.5	14.0
17	16.0	15.0	12.5	12.0	10.0	9.5	11.0	10.0	12.5	12.0	14.5	14.0
18	16.0	15.0	13.0	12.0	10.0	10.0	11.0	10.0	12.5	12.0	14.5	14.0
19	16.0	15.0	13.0	12.0	10.0	9.5	10.5	10.0	12.5	12.0	14.5	14.0
20	16.0	15.0	13.0	12.0	10.0	9.5	10.5	10.0	12.5	12.0	14.5	14.0
21	16.0	15.0	13.0	12.0	10.0	9.5	10.5	10.0	12.5	12.5	14.5	14.0
22	16.0	15.0	13.0	12.0	10.0	9.5	10.5	9.5	13.0	12.5	15.0	14.5
23	16.0	15.0	13.0	12.0	10.0	9.5	10.0	9.5	13.0	12.5	15.0	14.5
24	16.5	15.0	13.0	12.0	10.0	9.5	10.0	9.0	13.5	12.5	15.5	14.5
25	16.0	15.0	12.5	12.0	10.0	10.0	10.0	10.0	13.5	12.5	15.5	14.5
26	16.0	15.0	12.5	12.0	10.0	10.0	10.5	10.0	14.0	13.0	16.0	14.5
27	15.5	14.5	12.5	11.5	10.0	10.0	10.5	10.0	14.0	13.0	16.0	14.5
28	15.5	14.5	12.5	11.5	10.5	10.0	11.0	10.0	14.0	13.0	15.5	14.5
29	15.5	14.0	12.0	11.5	10.5	10.0	11.0	10.0	14.0	13.5	15.5	14.5
30	15.0	13.5	11.5	11.0	10.5	10.0	11.0	10.0	---	---	15.0	14.5
31	15.0	13.5	---	---	10.5	10.0	11.0	10.5	---	---	15.5	14.5
MONTH	17.0	13.5	---	---	11.5	9.5	11.5	9.0	14.0	10.5	16.0	13.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.5	15.5	13.5	17.0	15.5	17.5	16.0	17.5	15.5	---	---
2	15.0	15.0	15.5	13.5	17.0	15.5	17.5	16.5	17.0	16.0	---	---
3	15.5	15.0	15.5	13.5	17.0	15.5	17.5	16.5	17.0	15.5	---	---
4	15.5	14.5	15.5	13.5	17.5	15.5	18.0	16.5	17.0	15.5	---	---
5	16.0	14.0	15.5	13.5	17.0	15.5	18.0	16.5	16.5	15.5	---	---
6	16.0	14.0	15.5	14.0	17.5	15.5	18.0	16.5	16.5	15.5	---	---
7	16.0	14.0	16.0	14.0	17.0	16.0	18.0	16.5	16.5	15.5	---	---
8	15.5	14.0	16.0	14.0	17.0	16.0	17.5	16.5	16.5	15.5	---	---
9	15.5	14.0	16.0	14.0	17.0	16.0	17.5	16.5	17.0	15.5	---	---
10	15.5	14.0	16.0	14.5	17.0	16.0	17.5	16.5	17.0	15.0	---	---
11	15.0	14.0	16.0	14.5	17.0	16.0	18.0	16.5	17.0	15.0	---	---
12	15.0	14.0	15.5	14.5	17.0	16.0	18.0	16.5	17.0	15.5	---	---
13	15.5	14.5	15.5	14.5	17.5	15.5	18.0	16.5	17.0	15.5	---	---
14	15.5	14.5	16.0	15.0	17.5	15.5	18.0	16.5	17.0	15.5	17.0	16.5
15	15.0	14.5	16.0	15.0	17.0	15.0	18.0	16.5	17.0	16.0	17.0	16.0
16	15.5	14.5	16.0	15.0	17.0	15.0	18.5	16.5	17.0	16.0	17.0	16.0
17	15.5	15.0	16.5	15.0	16.5	14.5	18.5	16.5	17.0	16.0	17.0	16.0
18	16.0	15.0	16.5	15.0	16.5	14.5	18.5	17.0	17.0	16.0	17.0	16.0
19	16.5	15.0	16.5	15.0	16.5	14.5	18.5	17.0	17.0	15.0	17.0	16.0
20	16.5	14.5	17.0	15.0	16.0	14.5	18.5	17.0	17.0	15.5	17.0	16.0
21	16.5	14.5	17.0	15.5	16.5	14.5	18.5	17.0	16.5	15.5	17.0	16.0
22	16.5	13.5	17.0	15.0	16.5	15.0	18.5	15.5	17.0	15.5	17.0	16.0
23	17.0	13.0	17.0	15.0	16.0	15.0	18.0	15.5	17.0	15.0	17.0	16.0
24	16.5	13.0	16.5	15.0	16.5	15.0	18.5	16.0	17.0	15.0	17.5	16.5
25	16.5	13.0	17.0	15.5	16.5	15.0	18.0	16.0	17.0	15.0	17.5	16.5
26	16.0	13.0	17.0	15.5	16.5	15.5	18.0	15.5	17.0	15.5	17.5	16.0
27	15.5	13.5	16.5	15.5	17.0	15.5	17.5	15.5	---	---	17.5	16.0
28	15.5	13.5	17.0	15.5	17.0	16.0	17.5	15.5	---	---	17.0	16.0
29	15.0	13.5	16.5	15.5	17.5	16.0	18.0	15.5	---	---	17.5	16.0
30	15.0	13.5	16.5	15.5	17.5	16.0	17.5	15.5	---	---	17.5	16.0
31	---	---	17.0	15.5	---	---	17.5	15.5	---	---	---	---
MONTH	17.0	13.0	17.0	13.5	17.5	14.5	18.5	15.5	---	---	---	---

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°47'27", long 122°23'05", in SE 1/4 NW 1/4 sec.2, T.2 S., R.5 W., in San Miguel Grant, San Francisco County, Hydrologic Unit 18050002, at end of Pier 24 and directly under the west end of the San Francisco-Oakland Bay Bridge.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to current year.
WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1989.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Upper probe is set at 8.8 ft below Mean Lower Low Water (MLLW). Lower probe is set at 39.3 ft below MLLW. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,700 microsiemens, Aug. 13, 1991; minimum recorded, 28,300 microsiemens, Feb. 25, 1992.
(Lower probe) Maximum recorded, 50,300 microsiemens, Sept. 6, 9-12, 1991; minimum recorded, 29,900 microsiemens, Feb. 25, 1992.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 20.5°C, July 23, 1992; minimum recorded, 7.5°C, Dec. 26, 30, 1990, Jan. 1-3, 1991.
(Lower probe) Maximum recorded, 20.0°C, on several days in July 1992; minimum recorded, 7.5°C, Jan. 2, 3, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,100 microsiemens, Oct. 1; minimum recorded, 28,300 microsiemens, Feb. 25.
(Lower probe) Maximum recorded, 49,600 microsiemens, several days in October; minimum recorded, 29,900 microsiemens, Feb. 25.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 20.5°C, July 23; minimum recorded, 9.0°C, Jan. 26.
(Lower probe) Maximum recorded, 20.0°C, on several days in July; minimum recorded, 9.5°C, Dec. 16, several days in January.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	50100	48200	48400	47600	48300	47200	47700	44700	48200	45900	43900	37900
2	49900	49000	48400	47600	48400	47300	47700	44600	48000	45900	43500	37900
3	49900	49100	48400	47700	48300	47300	47800	45100	48000	46000	43700	39500
4	49600	49000	48300	47600	48400	47000	47800	46000	47900	46100	45000	40000
5	49600	49000	48300	47600	48400	47100	47900	45900	47800	46200	44100	40000
6	49500	48900	48500	47500	48200	47000	47700	45900	47800	46300	43500	39200
7	49500	48800	48600	47700	48400	47200	47300	44000	47900	46500	43000	37900
8	49400	48700	48600	47700	48200	47200	47300	44300	47800	45900	43700	38800
9	49400	48700	48600	47600	48200	47200	46900	43800	47700	46700	44400	38400
10	49500	48700	48600	47600	48200	47100	46700	43500	48100	46800	44100	36200
11	49400	48700	48600	47600	48100	47200	46400	43400	48200	45900	44100	36900
12	49300	48500	48200	46800	47800	46800	45900	42200	48400	44600	44100	37300
13	49400	47700	48400	46000	47700	46200	45600	42900	48200	43800	44800	38500
14	49100	47300	48000	47200	47200	45100	45800	44100	48100	43300	44900	40300
15	48700	47200	47700	46300	47100	44500	47000	44000	48200	42000	45900	40200
16	48600	46900	48100	45200	48000	45100	47200	44900	47500	40100	46000	40200
17	---	---	48500	47100	47900	46100	47400	45200	47100	38700	46100	41100
18	48500	47000	48500	47400	48200	46500	47500	45200	46700	39700	45900	42400
19	48600	47700	48300	47400	48000	46300	47400	45100	46300	39200	46300	41200
20	48800	47800	48300	47200	47800	46000	47600	45000	45600	36900	46300	41000
21	48600	48000	48400	46800	47900	45700	47500	45300	45100	35800	46400	41200
22	48800	48000	---	---	47900	46000	47300	45200	44000	31700	45300	40800
23	48600	48000	48500	47400	48000	45900	47200	45400	42500	30100	44800	39200
24	48700	48000	48600	47100	47800	46200	47300	45700	42300	28900	44700	36200
25	48700	48000	48500	47400	47600	46300	47500	45800	42900	28300	44600	36600
26	48700	47700	48300	47400	47700	46600	47600	45100	42900	30000	44400	36700
27	48400	47800	48200	47400	47900	46600	47600	44900	41900	31400	44000	39400
28	48400	47100	48100	47300	48000	46600	47600	44600	42700	33800	44600	40200
29	48400	47700	48300	47200	47800	45800	47700	44800	43400	35900	44500	40200
30	48200	47500	48000	47200	47700	44800	47800	45800	---	---	44300	40200
31	48300	47600	---	---	47700	44900	48100	45800	---	---	44800	40600
MONTH	---	---	---	---	48400	44500	48100	42200	48400	28300	46400	36200

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	46600	42100	48200	44700	48500	46000	48400	46700	48600	47700	48300	47700
2	46500	41900	48300	44900	48500	45800	48300	46800	48500	47800	48300	47700
3	46500	42500	48400	45400	48400	45900	48300	46900	48800	47800	48400	47700
4	45900	42300	48300	45100	48300	45900	48300	47300	48600	47700	48500	46900
5	45600	41800	48400	45400	48200	46200	48500	47400	48200	47500	48400	47600
6	45700	41900	---	---	48100	46100	48400	47300	48100	47200	48400	47400
7	46000	40900	---	---	48000	46700	48600	47400	48100	47300	48500	47700
8	45200	41600	47800	45200	47900	46800	48700	47300	48100	47100	48300	47700
9	---	---	47600	45500	47900	46700	48600	47300	48300	47200	48500	47700
10	45000	42100	47600	45900	48000	46300	48400	47100	48300	47000	48500	47600
11	45000	42700	47900	45800	48000	46400	48500	47100	48300	47200	48200	47800
12	45900	43300	48000	45000	47900	46000	48400	46600	48100	47300	48200	47800
13	46000	43000	---	---	47900	46200	48300	46900	48200	47300	48400	47700
14	46400	43500	48200	45700	48000	45900	48400	47000	48100	47400	48300	47700
15	46400	43700	48300	45700	48000	46100	48400	47100	47900	47400	48400	47700
16	46400	43700	48300	45800	48000	46100	48400	47300	---	---	48200	47700
17	46500	43800	48300	45700	48000	46000	48600	47200	---	---	48300	47600
18	46600	43700	48300	45900	48000	46200	48500	47600	---	---	48300	47500
19	47000	43300	48300	46100	48000	46200	48400	47600	---	---	48500	47400
20	46600	43200	48200	46100	47900	46700	48400	47500	48500	47400	48500	47700
21	46600	43800	48000	45800	48000	46900	48300	47400	48500	47300	48400	47700
22	46100	43000	48100	46000	47900	46900	48500	47200	48500	47200	48400	47800
23	46000	40600	48100	45900	48000	46800	48700	46900	48400	47500	48200	47700
24	46000	40200	48200	46100	48100	46500	48600	47100	48700	47400	48200	47600
25	45600	41800	48000	46600	48100	46600	48500	47400	48400	47700	48300	47500
26	46000	43000	48000	46500	48200	46500	48600	47200	48800	47600	48300	47600
27	45600	42800	48100	46200	48200	46600	48500	47000	48400	47700	48400	47500
28	46200	43600	48100	46000	48300	46500	48600	47200	48400	47600	48500	47700
29	46800	44100	48200	45900	48400	46600	48700	47300	48300	47700	48200	47700
30	46800	45000	48500	45900	48400	46700	48700	47600	48300	47600	48300	47600
31	---	---	48400	45800	---	---	48600	47600	48300	47700	---	---
MONTH	---	---	---	---	48500	45800	48700	46600	---	---	48500	46900

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	49600	48000	49200	48300	48500	47200	47700	44900	48700	46000	44600	38200
2	49500	48700	49300	48300	48400	47200	47800	44900	48400	46100	44800	38300
3	49500	48800	49300	48400	48400	47200	48000	45000	48500	46200	45500	39700
4	49400	48700	49200	48300	48500	47100	47900	45900	48400	46200	45100	40100
5	49400	48800	49200	48200	48600	47200	47900	45800	48500	46400	45300	37500
6	49400	48700	49400	48100	48300	47200	47600	45700	48400	46600	45000	39100
7	49500	48500	49400	48500	48500	47200	47300	44300	48500	46600	45100	38600
8	49600	48700	49500	48400	48400	47100	47200	44200	48000	46300	45400	38900
9	49600	48700	49500	48400	48400	47100	47000	43900	48000	46700	45100	38600
10	49500	48800	49500	48400	48400	47100	46800	43400	48200	46900	44500	36100
11	49500	48700	49500	48500	48200	47100	46600	42800	48600	46000	44300	36900
12	49600	48700	48800	47600	---	---	46300	42100	48500	44900	44700	37300
13	49600	48000	48900	46800	47700	46000	46900	42700	48300	44300	45100	38900
14	49600	47500	48600	47600	47600	45000	46900	44200	48500	43800	45800	39900
15	49200	47500	48500	46600	47700	44400	47300	44100	48400	42200	46400	40200
16	49300	47200	48700	45900	48000	45000	47400	45000	48000	41000	46000	39800
17	48700	46500	48900	47500	48000	46100	47700	45300	47500	40400	45700	40700
18	49200	47900	48800	47700	48300	46600	47800	45200	47000	39700	45300	41500
19	49600	48400	48700	47600	48100	46500	47800	45100	46700	39900	45600	40700
20	49500	48500	48700	47400	48300	46200	47900	45000	46000	37400	45600	40500
21	49400	48600	48700	47000	48200	46100	47900	45300	45600	36600	45900	40900
22	49400	48700	48800	47100	48400	46300	47500	45200	45400	33300	45800	40300
23	49500	48600	48700	47300	48200	46100	47400	45400	44600	32100	45800	39400
24	49400	48500	48700	47100	48000	46100	47500	45800	43900	30000	44400	36600
25	49400	48600	48600	47300	47800	46300	47800	45800	44600	29900	44100	36500
26	49500	48300	48400	47300	47700	46500	47900	45500	45600	31200	44400	36600
27	49200	48300	48300	47300	47900	46500	47700	45000	45300	32300	44400	38500
28	49300	48100	48100	47300	48000	46500	47700	45000	44800	34400	44300	39100
29	49200	48300	48300	47200	47700	45800	47900	45100	44700	36600	44700	39200
30	49000	48200	48200	47200	47700	45000	48300	45900	---	---	44700	39400
31	49000	48200	---	---	47600	44700	48600	46000	---	---	45600	39800
MONTH	49600	46500	49500	45900	---	---	48600	42100	48700	29900	46400	36100

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	48500	46000	48500	46700	48300	47100	48200	47500
2	---	---	---	---	48500	45800	48300	46600	48300	47300	48100	47400
3	---	---	---	---	48400	45900	48100	46800	48400	47500	48200	47300
4	---	---	---	---	48200	45900	48100	47000	---	---	48300	46700
5	---	---	---	---	48200	46200	48100	47100	---	---	48300	47300
6	---	---	---	---	48100	46200	48100	47000	48300	47000	48200	47200
7	---	---	---	---	48100	46700	48400	47000	48100	47200	48100	47400
8	---	---	---	---	47900	46700	48400	46900	48200	46900	48200	47300
9	---	---	---	---	47900	46600	48300	46900	48300	47100	48000	47300
10	---	---	---	---	47900	46100	48500	46800	48100	46900	48100	47400
11	---	---	---	---	47900	46300	48400	47200	48000	47100	48100	47500
12	---	---	---	---	47900	46000	48400	46700	48000	47200	48200	47500
13	---	---	---	---	47900	46000	48300	46900	48000	47200	48300	47600
14	---	---	---	---	48000	45900	48300	46900	48000	47200	48200	47500
15	---	---	---	---	48000	46000	48300	47100	48000	47200	48300	47500
16	---	---	---	---	48000	46000	48300	47100	47900	47100	48300	47600
17	---	---	---	---	48000	46000	48300	47200	47900	47000	48400	47600
18	---	---	---	---	47900	46100	48400	47400	48000	47000	48500	47500
19	---	---	---	---	48000	46300	48200	47400	48300	47000	48400	47300
20	---	---	---	---	48000	46700	48300	47300	48300	47300	48300	47500
21	---	---	---	---	48000	46800	48400	47200	48300	47100	48100	47400
22	---	---	---	---	48200	46900	48900	47100	48300	47100	47900	47300
23	---	---	---	---	48300	46500	48700	46900	48400	47000	48000	47200
24	---	---	---	---	48200	46400	48600	47000	48400	47300	48100	47400
25	---	---	---	---	48300	46500	48400	47000	48200	47400	48300	47400
26	---	---	---	---	48200	46700	48400	47000	48300	47000	48300	47400
27	---	---	---	---	48200	46500	48400	46900	48100	47300	48200	47200
28	---	---	---	---	48300	46500	48300	46900	48100	47300	48200	47400
29	---	---	48200	45900	48400	46700	48300	46900	48100	47500	47900	47400
30	---	---	48500	46000	48500	46700	48300	47200	47900	47200	48100	47300
31	---	---	48400	45900	---	---	48300	47200	48100	47400	---	---
MONTH	---	---	---	---	48500	45800	48900	46600	---	---	48500	46700

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	16.0	15.5	14.0	12.0	11.5	10.0	9.5	11.0	10.0	14.0	13.5
2	17.5	16.0	15.5	14.0	12.0	11.0	10.5	9.5	11.0	10.0	14.0	13.5
3	17.5	16.0	15.5	13.5	12.0	11.0	10.5	10.0	11.0	10.5	14.0	14.0
4	17.5	16.0	15.5	13.5	11.5	11.0	10.5	10.0	11.0	10.5	14.0	14.0
5	17.5	16.0	15.5	13.5	11.5	11.0	10.5	10.0	11.0	10.5	14.0	14.0
6	17.5	16.0	15.5	13.5	11.5	11.0	10.5	10.0	11.0	11.0	14.0	14.0
7	18.0	16.0	15.5	13.5	11.5	11.0	10.5	10.0	11.5	11.0	14.0	14.0
8	18.0	16.0	15.5	13.5	11.5	11.0	10.5	10.0	11.0	11.0	14.5	14.0
9	18.0	16.0	15.5	13.5	11.5	11.0	10.5	10.0	11.5	11.0	14.5	14.0
10	18.5	16.0	15.0	13.5	11.0	10.5	10.5	10.0	11.5	11.0	15.0	14.0
11	18.0	16.0	15.0	13.5	11.0	10.5	10.5	10.0	11.5	11.5	15.0	14.0
12	18.0	16.0	15.0	14.0	11.0	10.5	10.0	9.5	11.5	11.5	15.0	14.0
13	18.0	16.0	15.0	14.0	11.0	10.5	10.0	9.5	12.0	11.5	15.0	14.5
14	18.0	16.0	15.0	14.0	11.0	10.0	10.0	9.5	12.0	11.5	14.5	14.5
15	18.0	16.0	14.5	13.5	10.5	10.0	10.5	9.5	12.0	11.5	14.5	14.0
16	18.0	16.0	14.0	13.0	10.5	9.5	10.5	9.5	12.0	11.5	14.5	14.0
17	18.0	16.0	14.0	12.5	10.5	10.0	10.5	9.5	12.0	11.5	14.5	14.0
18	18.0	16.0	14.0	12.5	10.5	10.0	10.5	9.5	12.0	12.0	14.5	14.5
19	18.0	16.0	14.0	12.5	10.5	10.0	10.5	9.5	12.5	12.0	15.0	14.5
20	17.5	16.0	14.0	12.5	10.0	9.5	10.5	10.0	12.5	12.0	14.5	14.5
21	18.0	15.5	14.0	12.5	10.0	9.5	10.5	9.5	12.5	12.0	15.0	14.5
22	17.5	15.5	14.0	12.5	10.0	9.5	10.5	9.5	13.0	12.5	15.0	14.5
23	17.5	15.5	13.5	12.0	10.0	9.5	10.0	9.5	13.0	12.5	15.5	15.0
24	17.5	15.5	13.5	12.0	10.0	9.5	10.0	9.5	13.5	12.5	16.0	15.0
25	17.0	15.5	13.5	12.0	10.0	9.5	10.0	9.5	13.5	12.5	15.5	15.0
26	16.5	15.0	13.0	12.0	10.0	10.0	10.0	9.0	13.5	13.0	16.5	15.0
27	16.5	15.0	13.0	12.5	10.0	10.0	10.0	9.5	14.0	13.0	16.0	15.0
28	16.5	15.0	13.0	12.0	10.0	10.0	10.0	9.5	14.0	13.5	16.0	15.0
29	16.0	15.0	12.5	12.0	10.0	9.5	10.5	9.5	14.0	13.5	15.5	15.0
30	16.0	14.5	12.0	11.5	10.0	9.5	10.5	9.5	---	---	15.5	15.0
31	15.5	14.5	---	---	10.0	9.5	10.5	9.5	---	---	15.5	15.0
MONTH	18.5	14.5	15.5	11.5	12.0	9.5	10.5	9.0	14.0	10.0	16.5	13.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	15.0	17.0	14.5	18.5	15.5	18.5	16.5	19.0	16.0	18.0	16.5
2	16.0	15.0	17.0	14.5	19.0	15.5	18.5	16.5	18.5	16.0	18.0	16.5
3	16.0	15.5	17.0	14.5	19.0	15.5	19.0	16.5	18.0	16.0	18.0	16.5
4	16.0	15.5	17.5	14.5	19.0	15.5	18.5	16.5	18.0	16.0	18.0	16.5
5	16.5	15.5	17.0	14.5	19.0	16.0	18.5	17.0	18.0	16.0	18.0	16.5
6	16.5	15.0	17.5	14.0	18.5	16.0	18.5	17.0	19.0	15.5	18.5	16.5
7	16.5	15.0	17.5	14.5	18.0	16.0	18.5	17.0	18.5	15.5	18.0	16.5
8	16.5	15.0	17.5	14.5	17.5	16.5	19.0	17.0	19.0	16.0	18.0	16.5
9	15.5	15.0	17.5	15.0	18.0	16.5	19.5	17.0	19.0	16.0	18.5	16.5
10	16.0	14.5	17.0	15.0	18.0	16.5	19.5	16.5	19.0	16.0	18.5	16.5
11	15.5	14.5	17.0	15.0	18.0	16.0	19.5	16.5	18.5	16.0	18.5	16.5
12	15.0	14.5	17.0	15.0	18.5	16.5	20.0	17.0	18.5	16.0	18.5	17.0
13	15.5	14.5	17.5	15.0	18.5	16.0	20.0	17.0	18.5	16.0	18.5	16.5
14	15.5	14.5	17.0	15.0	18.5	16.0	20.0	17.5	18.5	16.0	18.5	16.5
15	15.5	15.0	17.5	15.0	18.0	15.5	20.0	17.5	18.5	16.5	18.5	16.5
16	16.0	15.0	17.5	15.0	18.0	15.5	20.0	17.5	18.5	16.5	18.5	16.5
17	16.0	15.0	17.5	15.0	18.5	15.5	20.0	17.5	18.5	16.5	18.5	16.5
18	16.5	15.5	17.5	15.5	18.0	15.5	19.5	17.5	18.5	16.5	18.5	16.5
19	16.5	15.0	17.5	15.5	18.5	15.0	19.5	18.0	18.5	16.0	18.5	16.5
20	17.0	15.5	18.0	15.5	17.5	15.0	19.5	18.0	18.5	16.0	18.5	16.5
21	16.5	15.5	18.5	16.0	17.5	15.0	19.5	18.0	18.5	16.0	18.5	16.5
22	17.5	15.5	18.5	16.0	17.5	15.5	20.0	17.0	19.5	16.0	18.5	16.5
23	17.0	15.5	18.5	16.0	17.5	15.5	20.5	17.0	19.0	16.0	18.5	16.5
24	17.0	15.5	18.0	15.5	17.5	15.0	20.0	16.5	19.0	15.5	18.5	16.5
25	17.5	15.5	17.5	16.0	17.5	15.5	19.5	16.5	18.5	15.5	18.5	16.0
26	17.0	15.0	18.0	16.0	18.0	15.5	20.0	16.0	19.0	16.0	19.0	16.0
27	17.0	15.5	18.0	16.0	18.0	16.0	20.0	16.0	18.5	16.0	19.0	16.0
28	17.0	15.5	18.5	15.5	18.5	16.0	20.0	16.0	18.5	16.0	19.0	16.0
29	16.0	15.0	18.5	15.5	18.5	16.0	20.0	16.0	18.5	16.0	18.5	16.0
30	16.5	15.0	18.5	15.5	18.5	16.0	19.0	16.0	18.0	16.0	19.0	16.5
31	---	---	18.5	15.5	---	---	19.0	16.0	18.0	16.0	---	---
MONTH	17.5	14.5	18.5	14.0	19.0	15.0	20.5	16.0	19.5	15.5	19.0	15.5

11162700 SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.5	15.5	13.5	12.0	11.0	10.5	10.0	11.0	10.0	14.0	13.5
2	17.5	15.5	15.5	13.5	12.0	11.0	10.5	10.0	11.0	10.0	14.0	13.5
3	17.5	15.5	15.5	13.5	12.0	11.0	10.5	10.0	11.0	10.5	14.0	13.5
4	17.5	15.5	15.5	13.5	12.0	11.0	10.5	10.0	11.0	10.5	14.0	13.5
5	17.5	15.5	15.5	13.5	11.5	11.0	11.0	10.0	11.0	10.5	14.0	13.5
6	17.5	16.0	15.5	13.5	11.5	11.0	11.0	10.0	11.0	11.0	14.0	13.5
7	18.0	16.0	15.5	13.5	11.5	11.0	11.0	10.0	11.5	11.0	14.0	13.5
8	18.0	15.5	15.0	13.0	11.5	11.0	11.0	10.0	11.5	11.0	14.0	14.0
9	18.0	15.5	15.0	13.5	11.5	11.0	10.5	10.0	11.5	11.0	14.5	14.0
10	18.5	15.5	15.0	13.5	11.5	11.0	10.5	10.0	11.5	11.0	14.5	14.0
11	18.0	15.5	15.0	13.5	11.0	10.5	10.5	10.0	11.5	11.5	14.5	14.0
12	18.0	15.5	15.0	13.5	11.0	10.5	10.5	10.0	11.5	11.5	14.5	14.0
13	18.0	15.5	15.0	13.5	11.0	10.5	10.5	9.5	12.0	11.5	14.5	14.0
14	18.0	16.0	14.5	13.5	11.0	10.0	10.5	10.0	12.0	11.5	14.5	14.0
15	18.0	16.0	14.5	13.0	10.5	10.0	10.5	10.0	12.0	11.5	14.5	14.0
16	18.0	15.5	14.0	12.5	10.5	9.5	10.5	10.0	12.0	11.5	14.5	14.0
17	18.0	15.5	14.0	12.5	10.5	10.0	10.5	10.0	12.0	11.5	14.5	14.0
18	17.5	15.5	14.0	12.5	10.5	10.0	10.5	10.0	12.0	11.5	14.5	14.0
19	17.5	15.5	14.0	12.5	10.5	10.0	10.5	10.0	12.5	12.0	14.5	14.0
20	17.5	15.5	14.0	12.5	10.5	10.0	10.5	10.0	12.5	12.0	14.5	14.5
21	17.5	15.5	14.0	12.5	10.0	10.0	10.5	10.0	12.5	12.0	14.5	14.5
22	17.5	15.5	14.0	12.5	10.0	10.0	10.5	9.5	12.5	12.5	15.0	14.5
23	17.5	15.0	13.5	12.0	10.0	10.0	10.0	9.5	13.0	12.5	15.0	14.5
24	17.0	15.0	13.5	12.0	10.0	10.0	10.0	9.5	13.0	12.5	15.5	14.5
25	17.0	15.0	13.5	12.0	10.0	10.0	10.0	9.5	13.0	12.5	15.5	14.5
26	16.5	15.0	13.5	12.0	10.0	10.0	10.0	9.5	13.5	13.0	16.0	15.0
27	16.5	15.0	13.0	12.5	10.0	10.0	10.0	9.5	13.5	13.0	16.0	15.0
28	16.0	14.5	13.0	12.0	10.5	10.0	10.5	9.5	14.0	13.0	15.5	15.0
29	16.0	14.5	12.5	12.0	10.5	10.0	10.5	9.5	14.0	13.5	15.5	15.0
30	16.0	14.5	12.5	11.5	10.5	10.0	10.5	10.0	---	---	15.5	15.0
31	15.5	14.0	---	---	10.5	10.0	11.0	10.0	---	---	15.5	15.0
MONTH	18.5	14.0	15.5	11.5	12.0	9.5	11.0	9.5	14.0	10.0	16.0	13.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	15.0	16.5	14.0	18.5	15.5	18.5	16.5	18.5	15.5	18.0	16.0
2	16.0	15.0	17.0	14.0	19.0	15.5	18.5	16.5	18.5	16.0	18.0	16.0
3	16.0	15.0	16.5	14.0	19.0	15.5	19.0	16.5	18.0	16.0	18.0	16.5
4	16.0	15.0	17.0	14.0	19.0	15.5	18.5	16.5	18.0	16.0	18.0	16.5
5	16.0	15.0	17.0	14.0	18.5	16.0	18.5	17.0	18.0	15.5	18.0	16.5
6	16.0	14.5	17.5	14.0	18.5	16.0	18.5	17.0	19.0	15.5	18.5	16.5
7	16.0	14.5	17.0	14.5	17.5	16.0	18.5	17.0	18.0	15.5	18.0	16.5
8	16.0	14.5	17.0	14.5	17.5	16.0	19.0	17.0	18.5	15.5	18.5	16.5
9	16.0	14.5	17.5	15.0	17.5	16.0	19.5	16.5	19.0	15.5	18.5	16.5
10	16.0	15.0	16.5	15.0	18.0	16.0	19.5	16.5	19.0	15.5	18.5	16.5
11	16.0	15.0	16.5	14.5	18.0	16.0	19.0	16.5	18.5	16.0	18.5	16.5
12	15.5	15.0	16.5	15.0	18.5	16.0	20.0	17.0	18.5	16.0	18.5	16.5
13	15.5	15.0	17.0	15.0	18.5	16.0	20.0	17.0	18.5	16.0	18.5	16.5
14	16.0	15.0	17.5	15.0	18.5	15.5	20.0	17.0	18.5	16.0	18.5	16.5
15	16.0	15.0	17.5	15.0	18.0	15.5	19.5	17.0	18.5	16.0	18.5	16.5
16	16.0	15.0	17.5	15.0	18.5	15.5	19.5	17.5	18.5	16.5	18.5	16.5
17	16.5	15.5	17.5	15.0	18.0	15.0	19.5	17.5	18.5	16.5	18.5	16.5
18	16.5	15.5	18.0	15.5	18.0	15.0	19.5	17.5	18.5	16.0	18.5	16.5
19	17.0	15.5	17.5	15.5	18.0	15.0	19.5	17.5	18.5	16.0	18.5	16.5
20	17.0	15.5	18.0	15.5	17.0	15.0	19.5	17.5	18.5	16.0	18.5	16.0
21	17.0	15.5	18.5	16.0	17.0	15.0	19.5	17.5	18.5	16.0	18.5	16.0
22	17.0	15.5	18.0	15.5	17.0	15.0	20.0	16.5	19.0	16.0	18.5	16.5
23	17.0	15.0	18.0	15.5	17.0	15.0	20.0	16.5	19.0	15.5	18.5	16.5
24	16.5	14.5	18.0	15.5	17.5	15.5	20.0	16.5	18.5	15.0	18.5	16.5
25	17.0	14.5	17.5	15.5	17.5	15.5	19.5	16.0	18.5	15.5	18.5	16.0
26	16.5	14.5	18.0	16.0	18.0	15.5	20.0	16.0	18.5	15.5	18.5	16.0
27	17.0	14.5	18.0	15.5	18.0	16.0	19.5	15.5	18.5	15.5	19.0	16.0
28	16.5	14.0	18.5	15.5	18.5	16.0	20.0	15.5	18.5	15.5	19.0	16.0
29	16.0	14.5	18.5	16.0	18.5	16.0	20.0	15.5	18.0	16.0	18.5	16.0
30	16.5	14.5	18.5	15.5	18.0	16.0	19.5	16.0	18.0	16.0	19.0	16.0
31	---	---	18.5	15.5	---	---	19.0	15.5	18.0	16.0	---	---
MONTH	17.0	14.0	18.5	14.0	19.0	15.0	20.0	15.5	19.0	15.0	19.0	16.0

11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, CA

LOCATION.--Lat 37°39'14", long 122°25'31", in Buri Buri Grant, San Mateo County, Hydrologic Unit 18050004, on left bank in Orange Memorial Park, 1.0 mi southwest of South San Francisco Post Office.

DRAINAGE AREA.--10.8 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 12.53 ft above National Geodetic Vertical Datum of 1929. Recording raingages at Skyline College, elevation 700 ft at site 2.9 mi southwest of gaging station, and on San Bruno Mountain, elevation 930 ft at site 2.7 mi northwest of gaging station.

REMARKS.--Records poor. Low flow affected by return flow from urban irrigation. Channel lowered in 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,560 ft^3/s, Dec. 8, 1987, gage height, 7.53 ft, from rating curve extended above 1,200 ft^3/s on basis of step-backwater computation; no flow Oct. 5, 26, 1963, and many days in August 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0710	1,450	4.33	Feb. 11	2115	1,780	4.83
Dec. 28	2200	1,780	4.83	Feb. 14	1510	1,210	3.97
Jan. 4	2245	1,780	4.83	Mar. 5	0705	*1,970	*5.11
Feb. 1	0005	1,780	4.83	Mar. 22	1840	1,210	3.97

Minimum daily, 1.1 ft^3/s, Apr. 25 and June 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.7	1.9	4.1	60	13	2.1	2.2	2.6	1.5	2.8	3.0
2	3.2	4.2	2.4	3.1	3.5	2.3	e2.3	1.4	3.6	1.8	1.9	3.3
3	2.1	3.6	2.9	2.4	2.3	2.3	e2.3	1.2	2.4	1.8	3.0	2.6
4	2.5	3.4	3.5	130	2.3	2.3	2.3	1.4	2.4	1.9	2.9	6.5
5	3.0	4.4	3.1	58	3.0	186	2.3	1.6	2.2	1.8	5.1	4.1
6	2.2	2.8	5.9	23	4.0	63	2.2	2.3	3.0	2.8	3.3	3.2
7	2.0	3.1	7.6	64	4.9	13	2.6	2.4	1.7	1.9	4.9	2.2
8	1.7	4.7	3.6	4.5	2.3	6.5	2.1	4.0	2.8	1.7	3.3	1.7
9	2.9	4.6	2.2	9.7	39	2.7	2.3	2.8	3.2	1.5	2.9	3.6
10	2.7	5.3	3.1	4.6	68	2.2	2.3	2.2	2.6	2.2	3.5	2.9
11	2.5	6.1	2.8	2.3	238	2.3	25	2.3	1.3	2.3	4.2	2.0
12	3.5	5.6	2.0	2.3	54	4.1	4.6	2.8	1.4	2.6	3.6	2.9
13	2.3	7.3	6.8	2.3	37	2.4	2.3	2.0	1.7	2.3	4.2	e1.6
14	2.6	7.5	e9.3	2.5	188	26	2.3	3.6	1.7	2.6	4.5	2.2
15	3.8	7.0	e16	2.5	90	21	2.3	3.6	1.7	2.8	4.1	2.5
16	3.0	7.1	10	2.5	56	10	2.3	4.2	1.6	3.2	4.0	2.5
17	3.4	24	10	4.6	13	2.2	1.7	4.6	1.5	2.9	2.4	3.2
18	2.6	2.9	8.7	2.3	21	3.7	6.2	4.4	1.9	2.5	3.9	2.3
19	1.8	4.3	3.0	2.7	52	2.3	e1.2	3.9	2.0	2.6	3.2	3.1
20	1.9	3.7	2.6	3.3	17	7.8	e1.3	8.7	1.5	3.2	3.2	4.1
21	2.6	3.3	2.7	3.1	7.4	2.2	1.4	4.5	1.1	3.7	2.6	2.4
22	3.5	3.1	2.4	2.3	2.3	115	1.7	4.6	1.7	3.2	2.6	3.2
23	3.6	3.9	2.6	2.3	2.7	5.2	1.5	4.2	2.4	1.9	2.3	3.5
24	4.3	3.1	3.3	2.3	6.0	2.3	3.0	3.3	4.8	2.2	2.6	3.2
25	38	3.5	3.2	2.3	2.1	2.2	1.1	3.8	1.7	2.4	2.8	1.9
26	101	2.5	2.4	2.3	3.1	2.2	1.2	3.8	1.4	2.1	2.0	e2.0
27	3.3	3.1	65	2.3	1.9	2.3	1.7	5.3	1.8	2.5	2.9	1.5
28	3.6	1.9	170	14	2.2	2.3	1.4	3.9	2.3	2.4	3.4	2.2
29	3.2	3.1	39	2.3	6.8	2.3	1.4	3.3	16	3.0	9.1	2.2
30	2.9	3.5	3.5	2.3	---	9.7	1.9	2.0	1.7	3.5	2.8	1.6
31	2.5	---	4.9	3.6	---	2.3	---	2.0	---	3.8	3.0	---
TOTAL	220.1	146.3	406.4	369.8	989.8	523.1	88.3	102.3	77.7	76.6	107.0	83.2
MEAN	7.10	4.88	13.1	11.9	34.1	16.9	2.94	3.30	2.59	2.47	3.45	2.77
MAX	101	24	170	130	238	186	25	8.7	16	3.8	9.1	6.5
MIN	1.7	1.9	1.9	2.3	1.9	2.2	1.1	1.2	1.1	1.5	1.9	1.5
AC-FT	437	290	806	733	1960	1040	175	203	154	152	212	165
a	0.75	0.18	1.35	1.70	3.71	2.77	0.22	0.01	0.18	0.01	0.10	0.09
b	1.94	0.36	3.08	2.66	8.53	5.09	0.40	0.00	0.44	0.00	0.25	0.04

e Estimated.
a Precipitation, in inches, at San Bruno Mountain gage.
b Precipitation, in inches, at Skyline College gage.

11162720 COLMA CREEK AT SOUTH SAN FRANCISCO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.76	10.8	11.8	18.7	15.5	13.6	5.89	2.31	2.15	2.17	2.06	1.99
MAX	19.3	29.0	28.5	46.6	47.9	51.3	21.0	7.59	10.0	9.81	8.68	7.81
(WY)	1973	1974	1984	1982	1983	1983	1967	1988	1989	1989	1989	1989
MIN	.28	1.14	.93	1.47	.71	1.50	.13	.35	.40	.12	.060	.11
(WY)	1967	1976	1976	1976	1964	1966	1964	1964	1964	1964	1985	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	2616.13		3190.6			
ANNUAL MEAN	7.17		8.72		7.61	
HIGHEST ANNUAL MEAN					17.7	1983
LOWEST ANNUAL MEAN					2.33	1964
HIGHEST DAILY MEAN	170	Dec 28	238	Feb 11	820	Jan 4 1982
LOWEST DAILY MEAN	.34	Jul 29	1.1	Apr 25	.00	Oct 5 1963
ANNUAL SEVEN-DAY MINIMUM	.60	Jul 27	1.6	Apr 25	.00	Aug 11 1985
INSTANTANEOUS PEAK FLOW			1970	Mar 5	3560	Dec 8 1987
INSTANTANEOUS PEAK STAGE			5.11	Mar 5	7.53	Dec 8 1987
ANNUAL RUNOFF (AC-FT)	5190		6330		5510	
10 PERCENT EXCEEDS	9.5		10		13	
50 PERCENT EXCEEDS	2.8		2.8		1.7	
90 PERCENT EXCEEDS	.83		1.7		.56	

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA

WATER-QUALITY RECORDS

LOCATION.--Lat 37°35'04", long 122°14'59", unsurveyed, T.4 S., R.4 W., in San Mateo County, Hydrologic Unit 18050004, on Pier 20 directly under San Mateo Bridge.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to current year.
WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1989.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Upper probe is set at 5.5 ft below Mean Lower Low Water (MLLW). Lower probe is set at 45.5 ft below MLLW. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,200 microsiemens, Sept. 5, 1990; minimum recorded, 37,100 microsiemens, Feb. 27, 1992.
(Lower probe) Maximum recorded, 50,300 microsiemens, Oct. 31, Nov. 4, 9, 1990; minimum recorded, 37,500 microsiemens, Apr. 6, 1992.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.0°C, on several days in August 1990, July 14-17, 1992; minimum recorded, 6.5°C, on several days in December 1990 and January 1991.
(Lower probe) Maximum recorded, 23.0°C, on several days in August 1990, July 16, 17, 1992; minimum recorded, 6.5°C, Dec. 30, 1990 to Jan. 2, 1991.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 49,300 microsiemens, Oct. 9; minimum recorded, 37,100 microsiemens, Feb. 27.
(Lower probe) Maximum recorded, 49,700 microsiemens, Oct. 14; minimum recorded, 37,500 microsiemens, Apr. 6.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.0°C, July 14-17; minimum recorded, 9.0°C, Jan. 23-27.
(Lower probe) Maximum recorded, 23.0°C, July 16, 17; minimum recorded, 9.0°C, Jan 23-27.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	48800	47800	47900	47400	47300	46100	46300	45600	---	---
2	---	---	48900	47800	48000	47500	47200	46000	46300	45600	---	---
3	---	---	48900	47700	48200	47500	47200	46300	46400	45700	---	---
4	48900	48700	48800	47600	48100	47400	47200	46600	46400	45700	---	---
5	48900	48600	48700	47400	48100	47400	47200	46300	46200	45700	---	---
6	49000	48600	48700	47600	48000	47500	47000	45900	46200	45600	---	---
7	49100	48600	48600	47300	48100	47400	46900	45900	46300	45700	---	---
8	49000	48600	48600	47700	48200	47600	46900	45400	46200	45700	---	---
9	49300	48600	48500	47700	48200	47600	46800	45500	46100	45800	---	---
10	49100	48600	48600	47800	48100	47600	46500	45600	46100	45100	---	---
11	48900	48600	48700	47800	48200	47700	46500	45400	46000	44700	---	---
12	49000	48600	48700	47900	48200	47700	46400	45600	45800	43400	---	---
13	49100	48700	48500	47800	48300	47700	46400	45300	45600	42100	---	---
14	49200	48700	48300	47500	48100	47700	46400	45300	45600	43200	---	---
15	49100	48700	48200	47400	48100	47900	46600	45200	45300	41800	---	---
16	49000	48700	48200	47700	48100	47800	46500	45100	45200	40700	---	---
17	49000	48700	48400	47900	48200	47700	46500	45200	45000	42000	---	---
18	49000	48700	48200	47500	48300	47700	46500	45300	---	---	---	---
19	49100	48700	48200	47400	48200	47300	46500	45300	---	---	---	---
20	49100	48700	48200	47400	48200	47500	46400	45300	---	---	---	---
21	49100	48700	48300	47300	48200	47500	46300	45400	---	---	---	---
22	49100	48600	48300	47300	48200	47500	46200	45400	---	---	---	---
23	49100	48500	48300	47500	---	---	46200	45400	44600	42900	---	---
24	49000	48500	48300	47500	48100	47600	46200	45500	44000	42400	---	---
25	49100	48800	48300	47100	48100	47700	46100	45600	43300	40700	---	---
26	49000	48300	48300	47600	48100	47700	46400	45500	42200	38400	---	---
27	49100	47800	48200	47400	48000	47800	46200	45500	41000	37100	---	---
28	48800	47800	48100	47500	47900	47700	46200	45600	40400	37200	---	---
29	48800	47700	48200	47500	47700	45800	46300	45500	39600	37900	---	---
30	48600	47700	48000	47500	47400	46500	46200	45600	---	---	---	---
31	48700	47600	---	---	47300	46200	46300	45700	---	---	---	---
MONTH	---	---	48900	47100	---	---	47300	45100	---	---	---	---

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	45000	43000	45500	44700	47700	46700	48800	48000
2	---	---	---	---	45000	43100	45400	44600	47800	46900	48800	48000
3	---	---	---	---	45000	43200	45400	44800	48000	47000	48700	48000
4	---	---	---	---	45000	43300	45400	44800	48100	47200	48600	47900
5	---	---	---	---	---	---	45300	44700	48200	47300	48400	47800
6	---	---	---	---	---	---	45400	44700	48100	47200	48500	47800
7	---	---	---	---	---	---	45500	44900	48400	47100	48600	47800
8	---	---	---	---	---	---	---	---	47900	47200	48600	47800
9	---	---	---	---	---	---	45900	45300	48000	47200	48600	47600
10	---	---	---	---	---	---	46000	45300	48100	47300	48300	47400
11	---	---	---	---	---	---	46000	45300	48100	47200	48600	47500
12	---	---	---	---	---	---	46000	45400	48100	47100	48500	47600
13	---	---	43100	41300	---	---	46000	44900	48200	47100	48500	47800
14	---	---	43200	41400	---	---	46200	45300	---	---	48600	47700
15	---	---	43100	41400	---	---	46200	45500	48300	47200	48600	48000
16	---	---	43400	41400	---	---	46300	45500	48200	47200	48600	47800
17	---	---	43400	41500	---	---	46500	45600	48400	47300	48500	47900
18	---	---	---	---	---	---	46500	45700	48500	47500	48600	47900
19	---	---	---	---	---	---	46600	45700	48500	47500	48700	47900
20	---	---	---	---	---	---	46600	46000	48500	47500	48600	47700
21	---	---	---	---	---	---	46800	45900	48800	48100	48500	47600
22	---	---	43600	41900	---	---	46800	46100	48800	48000	48500	47600
23	---	---	43700	41900	---	---	---	---	48700	48000	48700	47600
24	---	---	43600	42000	---	---	47500	46500	48900	48100	48800	47800
25	---	---	43700	42200	44900	43900	47400	46600	49000	47800	48700	47800
26	---	---	---	---	44800	43900	47400	46500	48800	47800	48700	47800
27	---	---	44100	42500	44700	44000	47400	46500	48900	47800	48500	47700
28	---	---	44500	42700	44900	44000	47600	46600	48900	47900	48300	47600
29	---	---	44800	42700	45200	44000	47800	46700	48600	47800	48300	47500
30	---	---	44800	42900	45200	44400	47700	46700	48800	47800	48300	47600
31	---	---	44900	43000	---	---	47800	46800	48900	47900	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	48800	47400

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	48800	47300	47800	47300	47100	46300	46500	45500	39900	39300
2	---	---	48800	47500	47900	47400	47000	46100	46500	46000	39900	39000
3	---	---	48700	47500	48000	47500	47000	46200	46500	46000	39900	39200
4	48900	48700	48700	47400	48000	47200	47000	46400	46500	46100	39800	39100
5	48900	48100	48600	47600	48000	47400	46900	46300	46400	46000	39600	39200
6	49000	48500	48700	47700	48000	47500	46800	45900	46300	46000	39500	39200
7	49100	48300	48700	47500	48100	47500	46700	45700	46300	45700	39400	39100
8	49000	48500	48600	47700	48200	47600	46600	45800	46200	45500	39300	39000
9	49100	48500	48600	47500	48200	47700	46500	45900	46200	45800	39400	38900
10	49200	48300	48700	47700	48100	47600	46400	45800	46100	45900	39300	38800
11	49200	48400	48700	47800	48300	47500	46300	45600	46000	45700	39100	38600
12	49300	48400	48600	47800	48200	47800	46300	45700	45900	45200	39100	38300
13	49600	48400	48500	47500	48200	47800	46300	45600	45700	44300	39400	38300
14	49700	48600	48400	47200	48100	47800	46300	45600	45500	44600	39700	38600
15	49200	48600	48200	47100	48000	47800	46500	45500	45300	43300	39700	38700
16	49100	48500	48100	47400	48000	47400	46400	45300	45000	43100	39700	38300
17	49000	48200	48300	47600	48000	47400	46500	45300	44900	42700	39600	38600
18	49000	48600	48100	47400	48000	47500	46500	45300	44800	42600	39700	38600
19	49000	48500	48100	47100	47900	47100	46400	45300	44700	43100	39800	38600
20	49200	48300	48100	47300	48000	47200	46300	45400	44500	43100	40000	38500
21	49100	48700	48100	47100	47900	47200	46300	45500	44300	43100	40000	38400
22	49200	48400	48100	47200	47900	47200	46300	45400	44100	43000	40000	38700
23	49000	48200	48100	47200	---	---	46200	45600	44000	42800	40000	38600
24	49100	48500	48100	47000	47800	47100	46300	45700	43800	42900	---	---
25	49100	48200	48100	47200	47800	47300	46200	45800	43400	42800	40000	38800
26	49000	47900	48100	47400	47700	47200	46300	45800	43000	41900	40000	38700
27	48900	47800	48000	47300	47700	47500	46400	45800	42400	40900	39700	38300
28	48800	47500	48200	47400	47600	47400	46300	45800	41600	40300	39700	38200
29	48800	47300	48000	47400	47500	47200	46400	45900	40700	39500	39900	38200
30	48500	47500	48000	47200	47300	46900	46400	45800	---	---	39700	38300
31	48800	47300	---	---	47100	46500	46400	45900	---	---	---	---
MONTH	---	---	48800	47000	---	---	47100	45300	46500	39500	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	39600	38300	42400	40400	44800	42700	46000	44800	47400	46900	---	---
2	39600	38200	42600	40600	44800	42900	46000	44900	---	---	---	---
3	39600	37900	42900	40800	45100	42900	46000	44800	47500	47000	---	---
4	39600	37600	42700	40800	45100	43100	46100	44800	---	---	---	---
5	39300	37600	42700	40900	45600	43200	46100	45200	---	---	---	---
6	39700	37500	42600	40900	45600	43500	46600	45200	---	---	---	---
7	39500	37800	42700	40900	45300	43200	46300	45400	---	---	---	---
8	39600	37900	42700	40900	45300	43200	46500	45500	---	---	---	---
9	39600	37800	43000	41000	45500	42900	46600	45600	---	---	---	---
10	39800	37900	42900	41000	45400	43500	46600	45600	---	---	---	---
11	40000	38100	43100	41500	45600	43400	46700	45400	---	---	---	---
12	40300	38600	---	---	45400	43400	46800	45800	---	---	---	---
13	40300	38900	43600	41100	45500	43500	---	---	---	---	---	---
14	40200	38800	43100	41100	45600	43500	---	---	---	---	---	---
15	40700	38600	43100	41000	45300	43800	---	---	48000	47600	---	---
16	40700	38800	43300	41100	45400	43900	---	---	48200	47200	---	---
17	40700	38700	43300	41200	45700	44000	---	---	48100	47500	---	---
18	40600	38600	43300	41000	45400	43800	---	---	48100	47400	---	---
19	40800	38800	43400	41500	45300	44100	---	---	48200	47300	---	---
20	40900	38900	43600	41700	45000	43800	---	---	---	---	---	---
21	41200	38800	43400	41600	45200	43800	---	---	---	---	---	---
22	41500	38900	43400	41700	45400	43700	---	---	48200	47800	---	---
23	41400	39300	43600	41100	45700	43800	---	---	48200	47800	48100	47900
24	41600	39800	43800	41900	---	---	---	---	---	---	---	---
25	41900	40100	44700	41700	45700	44600	---	---	48300	47900	---	---
26	41800	40200	---	---	45600	44700	---	---	48300	47900	48300	47900
27	41900	40400	44000	41900	46300	44800	47600	46700	48300	48000	48200	47900
28	---	---	44600	42300	46000	44700	47500	46900	48200	47800	48300	47900
29	42300	40400	44700	42500	46000	45000	47500	46900	48200	47900	---	---
30	42800	40400	44700	42600	46000	44300	47500	46900	48100	47900	---	---
31	---	---	44800	42700	---	---	47400	46900	48100	47900	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	16.0	15.0	11.5	11.0	10.0	9.5	10.0	9.5	14.5	14.0
2	---	---	16.0	15.0	11.5	11.0	10.0	9.5	10.5	9.5	14.5	14.0
3	---	---	16.0	15.0	11.5	11.0	10.0	9.5	10.5	10.0	14.5	14.0
4	20.5	19.5	16.0	15.5	11.5	11.0	10.0	10.0	11.0	10.0	14.5	14.0
5	20.5	19.5	15.5	15.5	11.5	11.0	10.0	10.0	11.0	10.0	14.5	14.0
6	20.5	19.5	16.0	15.5	11.5	11.0	10.0	10.0	11.0	10.0	14.5	14.0
7	20.5	19.0	16.0	15.5	11.5	11.5	10.0	10.0	11.0	10.0	14.5	14.0
8	20.5	19.0	16.0	15.5	11.5	11.5	10.0	9.5	11.0	10.5	15.0	14.0
9	20.5	19.0	16.0	16.0	11.5	11.0	10.5	9.5	11.0	10.5	16.0	14.0
10	20.5	19.5	16.0	15.5	11.5	11.0	10.0	9.5	11.0	10.5	15.5	14.5
11	20.5	19.5	16.0	16.0	11.5	11.0	10.0	9.5	11.5	11.0	15.5	14.5
12	20.5	20.0	16.0	16.0	11.5	11.0	10.0	9.5	12.0	11.0	15.5	15.0
13	20.5	20.0	16.0	16.0	11.5	11.0	9.5	9.5	12.0	11.5	15.0	15.0
14	20.5	20.0	16.0	15.0	11.0	10.5	9.5	9.5	12.0	11.5	15.0	15.0
15	20.5	20.0	15.0	14.5	11.0	10.5	9.5	9.5	11.5	11.5	15.0	14.5
16	20.5	20.0	14.5	14.5	10.5	10.5	9.5	9.5	11.5	11.5	15.0	14.5
17	20.5	19.5	15.0	14.5	10.5	10.5	9.5	9.5	12.0	11.5	15.0	14.5
18	20.5	19.5	14.5	14.0	10.5	10.5	10.0	9.5	12.0	11.5	15.5	14.5
19	20.5	19.5	14.5	14.0	10.5	10.5	10.0	9.5	12.0	11.5	15.5	14.5
20	20.5	19.5	14.5	14.0	10.5	10.0	10.0	9.5	12.5	12.0	15.5	14.5
21	20.5	19.5	14.5	14.0	10.0	10.0	10.0	9.5	12.5	12.0	15.5	15.0
22	20.0	19.5	14.0	14.0	10.0	10.0	9.5	9.5	13.0	12.0	15.5	15.0
23	19.5	19.0	14.0	14.0	---	---	9.5	9.0	13.5	12.5	16.0	15.0
24	19.0	18.5	14.0	13.5	10.0	9.5	9.5	9.0	14.0	12.5	---	---
25	18.5	18.0	14.0	13.0	10.0	9.5	9.5	9.0	14.5	13.0	16.5	15.5
26	18.0	17.5	14.0	13.5	10.0	9.5	9.5	9.0	15.0	13.5	16.5	16.0
27	18.0	16.5	14.0	13.5	10.0	10.0	9.5	9.0	15.0	13.0	17.0	16.0
28	17.0	16.0	13.5	13.0	10.0	10.0	10.0	9.5	15.0	14.0	17.0	16.5
29	16.5	15.5	13.0	12.5	10.0	9.5	10.0	9.5	15.0	13.5	16.5	16.5
30	16.0	15.5	12.5	11.5	10.0	9.5	10.0	9.5	---	---	16.5	16.0
31	16.0	15.0	---	---	10.0	9.5	10.0	9.5	---	---	17.0	16.0
MONTH	---	---	16.0	11.5	---	---	10.5	9.0	15.0	9.5	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.5	16.0	19.0	18.0	21.0	19.5	21.0	20.0	21.5	20.5	21.0	20.0
2	17.0	16.0	19.5	18.0	21.0	20.0	21.5	20.5	21.5	20.5	21.0	20.5
3	17.0	16.5	19.5	18.5	21.0	20.0	21.5	20.5	21.0	20.5	21.0	20.0
4	17.0	16.5	19.5	18.5	21.5	20.0	21.5	21.0	21.0	20.5	21.0	20.0
5	16.5	16.0	19.5	19.0	21.5	20.5	21.5	21.0	21.0	20.0	21.0	20.5
6	16.5	16.0	20.0	19.0	21.0	20.5	21.0	21.0	21.0	20.0	21.5	20.0
7	---	---	20.0	19.0	21.0	20.5	22.0	21.0	21.0	20.0	21.0	20.0
8	---	---	20.0	19.5	21.5	20.5	---	---	21.0	20.0	21.5	20.0
9	---	---	20.0	19.5	---	---	22.5	21.0	21.5	20.0	21.0	20.0
10	---	---	20.5	19.5	21.0	20.5	22.0	21.5	21.5	20.5	21.0	20.0
11	17.0	16.5	21.0	19.5	21.0	20.0	22.5	21.5	21.5	20.5	21.0	20.0
12	---	---	---	---	20.5	20.0	22.5	21.5	22.0	20.5	21.0	20.5
13	17.0	16.5	20.5	19.5	20.0	19.5	22.5	21.5	22.0	21.0	21.5	20.0
14	---	---	20.5	19.0	20.0	19.0	23.0	21.5	---	---	21.0	20.5
15	---	---	20.0	19.0	19.5	18.5	23.0	22.0	22.0	21.0	21.0	20.5
16	---	---	20.0	19.0	19.5	18.5	23.0	22.0	22.0	21.0	21.0	20.0
17	---	---	20.0	19.0	19.5	18.5	23.0	22.0	22.0	21.0	20.5	20.0
18	---	---	20.0	19.5	19.5	19.0	22.5	22.0	22.0	21.0	20.5	20.0
19	---	---	20.0	19.5	19.5	19.0	22.5	22.0	21.5	21.0	20.5	20.0
20	---	---	20.0	19.5	20.0	19.0	22.5	22.0	21.5	20.5	20.5	20.0
21	---	---	20.0	19.5	21.0	19.5	22.5	21.5	21.5	20.5	20.5	19.5
22	---	---	20.0	19.5	21.0	20.0	22.0	21.5	21.5	20.0	20.5	19.5
23	---	---	20.5	19.5	21.0	20.0	---	---	21.5	20.0	20.5	19.5
24	---	---	20.5	20.0	---	---	22.0	21.0	21.5	20.0	20.5	19.5
25	---	---	20.5	20.0	21.5	20.5	22.0	21.0	21.5	20.0	21.0	19.5
26	18.0	17.0	20.0	19.5	21.5	21.0	22.0	21.0	21.5	20.0	21.0	20.0
27	18.0	17.5	21.0	19.5	22.0	20.5	22.0	21.0	21.5	20.0	21.0	20.0
28	---	---	20.5	19.5	22.0	20.5	22.0	20.5	21.5	20.5	21.0	20.0
29	18.5	17.5	20.5	19.5	22.0	20.5	22.0	20.5	21.5	20.5	21.0	20.0
30	18.5	18.0	20.5	19.5	21.5	20.0	21.5	20.5	21.0	20.0	21.0	20.0
31	---	---	21.0	19.5	---	---	21.5	20.5	21.0	20.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	21.5	19.5

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	19.0	16.0	15.0	11.5	11.0	10.0	9.5	10.0	9.5	14.5	14.0
2	20.0	18.5	16.0	15.0	12.0	11.0	10.0	9.5	10.5	10.0	14.5	14.0
3	---	---	16.0	15.5	11.5	11.0	10.0	9.5	10.5	10.0	14.5	14.0
4	20.5	19.5	15.5	15.5	11.5	11.0	10.0	10.0	10.5	10.0	14.5	14.0
5	20.5	19.5	15.5	15.5	11.5	11.0	10.0	10.0	10.5	10.0	14.5	14.0
6	20.5	19.5	16.0	15.5	11.5	11.0	10.0	10.0	10.5	10.0	14.5	14.0
7	20.5	19.5	16.0	15.5	11.5	11.5	10.0	10.0	10.5	10.0	14.5	14.0
8	20.5	19.0	16.0	15.5	11.5	11.5	10.0	9.5	10.5	10.5	14.5	14.0
9	20.5	19.0	16.0	16.0	11.5	11.0	10.0	9.5	10.5	10.5	15.0	14.0
10	20.5	19.0	16.0	15.5	11.5	11.0	10.0	9.5	11.0	10.5	15.0	14.5
11	20.5	19.5	16.0	15.5	11.5	11.0	9.5	9.5	11.0	11.0	15.0	14.5
12	20.5	19.5	16.0	16.0	11.5	11.0	9.5	9.5	11.5	11.0	15.0	15.0
13	20.5	19.5	16.0	16.0	11.0	11.0	9.5	9.5	11.5	11.5	15.0	15.0
14	20.5	19.5	16.0	15.0	11.0	10.5	9.5	9.5	11.5	11.5	15.0	14.5
15	20.5	19.5	15.0	14.0	11.0	10.5	9.5	9.5	11.5	11.5	15.0	14.5
16	20.5	19.0	15.0	14.0	10.5	10.5	9.5	9.5	11.5	11.5	15.0	14.5
17	20.5	19.5	15.0	14.0	10.5	10.0	10.0	9.5	12.0	11.5	15.0	14.5
18	20.0	19.5	14.5	14.0	10.5	10.5	10.0	9.5	12.0	11.5	15.0	14.5
19	20.0	19.0	14.5	14.0	10.5	10.0	10.0	9.5	12.0	11.5	15.0	14.5
20	20.0	19.5	14.5	14.0	10.5	10.0	10.0	9.5	12.0	12.0	15.0	14.5
21	20.5	19.5	14.0	14.0	10.0	10.0	10.0	9.5	12.5	12.0	15.0	15.0
22	20.0	19.0	14.0	14.0	10.0	9.5	9.5	9.5	12.5	12.0	15.5	15.0
23	19.5	18.5	14.0	13.5	---	---	9.5	9.0	13.5	12.5	15.5	15.0
24	19.0	17.5	14.0	14.0	10.0	9.5	9.5	9.0	13.5	12.5	---	---
25	18.5	18.0	14.0	13.5	10.0	9.5	9.5	9.0	13.5	13.0	16.5	15.5
26	18.5	17.0	14.0	13.5	10.0	9.5	9.5	9.0	13.5	13.0	16.5	16.0
27	17.5	16.5	14.0	13.5	10.0	10.0	9.5	9.0	14.0	13.5	16.5	16.0
28	17.0	16.0	13.5	12.5	10.0	10.0	9.5	9.5	14.5	13.5	16.5	16.5
29	16.5	15.5	13.0	12.5	10.0	9.5	9.5	9.5	14.5	14.0	16.5	16.0
30	16.0	15.5	12.5	11.0	10.0	9.5	10.0	9.5	---	---	16.5	16.0
31	16.0	15.0	---	---	10.0	10.0	10.0	9.5	---	---	16.5	15.5
MONTH	---	---	16.0	11.0	---	---	10.0	9.0	14.5	9.5	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.5	16.0	19.0	18.0	21.0	19.5	21.0	20.0	21.0	20.5	21.0	20.0
2	17.0	16.0	19.0	18.0	21.0	20.0	21.0	20.0	21.5	20.5	21.0	20.0
3	17.0	16.5	20.0	18.5	21.0	20.0	21.0	20.5	21.0	20.0	21.0	20.0
4	17.0	16.0	20.0	19.0	21.0	20.0	21.0	20.5	21.0	20.0	20.5	20.0
5	16.5	16.0	20.0	19.0	21.0	20.5	21.0	20.5	21.0	20.0	21.0	20.0
6	16.5	16.0	20.0	19.0	21.0	20.5	21.0	20.5	21.0	20.0	21.0	20.0
7	---	---	20.0	19.5	21.0	20.5	21.0	20.5	21.0	20.0	21.0	20.0
8	17.0	16.0	20.0	19.5	21.0	20.5	21.5	21.0	21.5	20.0	21.0	20.0
9	17.0	16.0	20.5	19.5	21.0	20.5	21.5	21.0	21.5	20.0	21.0	20.0
10	17.5	16.5	20.5	19.5	21.0	20.5	21.5	21.0	22.0	20.5	21.0	20.0
11	17.0	16.5	20.5	19.5	21.0	20.0	22.0	21.0	22.0	20.5	21.0	20.0
12	17.0	16.5	---	---	20.5	20.0	22.5	21.0	22.0	21.0	21.0	20.0
13	17.0	16.5	20.5	19.5	20.5	19.5	22.5	21.0	22.0	21.0	21.0	20.0
14	17.5	16.5	20.5	19.0	20.0	19.0	22.5	21.5	---	---	21.0	20.0
15	17.5	16.5	20.0	19.0	19.5	18.5	22.5	22.0	22.0	21.0	21.0	20.0
16	17.5	17.0	20.0	19.0	19.5	18.5	23.0	22.0	22.0	21.0	20.5	20.0
17	18.0	17.0	20.0	19.0	19.5	19.0	23.0	22.0	22.0	21.0	20.5	20.0
18	18.0	17.5	20.0	19.0	19.5	19.0	22.5	22.0	22.0	20.5	20.5	19.5
19	18.0	17.5	20.0	19.0	20.0	19.5	22.5	22.0	22.0	20.5	20.5	20.0
20	18.5	17.5	20.0	19.5	20.0	19.5	22.5	22.0	22.0	20.5	20.5	20.0
21	18.0	16.5	20.0	19.0	20.5	20.0	22.0	21.5	22.0	20.5	20.5	19.5
22	17.5	16.5	20.0	19.5	21.0	20.5	22.0	20.5	22.0	20.0	20.5	19.5
23	17.5	16.5	20.0	19.5	22.0	20.5	---	---	21.5	20.0	20.5	19.5
24	17.5	17.0	20.0	19.5	21.5	20.5	21.5	20.5	21.5	20.0	20.5	20.0
25	18.0	17.0	20.5	19.5	21.5	20.5	21.5	21.0	21.5	20.0	20.5	19.5
26	18.0	17.5	20.0	19.5	22.0	21.0	22.0	20.5	21.5	20.0	21.0	20.0
27	18.0	17.5	20.0	19.5	22.0	20.5	22.0	21.0	---	---	21.0	20.0
28	---	---	20.5	19.0	22.0	20.5	22.0	20.5	21.5	20.0	21.5	20.0
29	19.0	18.0	20.5	19.0	22.0	20.0	22.0	20.5	21.0	20.0	21.0	20.0
30	19.5	18.0	20.5	19.5	21.5	20.0	21.5	20.5	21.0	20.0	21.0	20.0
31	---	---	21.0	19.5	---	---	21.5	20.5	21.0	20.0	---	---
MONTH	---	---	---	---	22.0	18.5	---	---	---	---	21.5	19.5

11162800 REDWOOD CREEK AT REDWOOD CITY, CA

LOCATION.--Lat 37°26'58", long 122°13'57", in Pulgas Grant, San Mateo County, Hydrologic Unit 18050004, at Menlo Country Club, on right bank 200 ft upstream from Alameda de las Pulgas bridge and 2.5 mi south of Redwood City Old Post Office.

DRAINAGE AREA.--1.82 mi^2.

PERIOD OF RECORD.--September 1959 to current year.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 83.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Low flow at times affected by return flow from urban irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 644 ft^3/s, Jan. 31, 1963, gage height, 9.36 ft, from rating curve extended above 180 ft^3/s on basis of slope-area measurement of peak flow and computation of peak flow through culvert; maximum gage height, 11.55 ft, Nov. 29, 1970 (backwater from culvert trash racks); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 11	2400	*233	*5.51				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	e.02	.02	.26	1.9	1.3	e.72	.17	.06	.01	.01	.01
2	.00	e.02	.04	.42	.29	.73	e.64	.19	.04	.01	.01	.01
3	.00	e.01	.06	.19	.23	.64	e.58	.15	.04	.01	.01	.01
4	.00	e.01	.06	2.5	.21	.59	e.52	.17	.04	.01	.01	.01
5	.00	e.01	.07	7.3	.21	10	e.48	.17	.04	.01	.01	.01
6	.00	e.01	.06	2.2	.71	7.8	e.44	.14	.03	.02	.01	.09
7	.00	e.01	.04	5.0	.44	3.4	.43	.12	.03	.02	.01	.01
8	.00	.01	.04	.89	.29	1.7	.41	.13	.03	.02	.01	.15
9	.00	.01	.03	.55	1.1	1.3	.40	.12	.03	.01	.01	.01
10	.00	.01	.03	.44	11	1.1	.41	.11	.03	.02	.01	.01
11	.00	.01	.03	.38	25	1.1	.44	.10	.02	.02	.01	.01
12	.00	.01	.03	.33	47	1.0	.72	.08	.02	.02	.01	.01
13	.00	.01	.03	.29	9.3	.95	.44	.07	.03	.02	.01	.01
14	.00	.01	.03	.26	24	1.2	.40	.08	.03	.01	.01	.01
15	.00	.02	.04	.25	15	4.5	.39	.07	.03	.01	.01	.01
16	.00	.03	.04	.24	8.2	2.2	.40	.07	.02	.01	.01	.01
17	.00	3.5	.04	.31	3.1	1.3	.37	.07	.02	.01	.01	.01
18	.00	.45	.20	.24	2.1	1.0	.31	.06	.03	.01	.01	.01
19	.00	.08	.07	.19	4.5	.93	.27	.07	.03	.01	.02	.01
20	.00	.05	.07	.18	4.8	1.8	.27	.05	.02	.01	.02	.01
21	.00	.04	.07	.17	1.9	1.0	.25	.05	.02	.01	.01	.09
22	e.00	.04	.08	.16	1.4	8.1	.23	.07	.02	.02	.01	.39
23	e.00	.03	.08	.15	1.2	9.0	.22	.05	.02	.02	.01	.01
24	e.00	.03	.08	.16	.99	e3.0	.21	.05	.02	.02	.01	.01
25	e.03	.03	.08	.16	.91	e1.8	.21	.05	.02	.01	.01	.01
26	e7.8	.03	.07	.16	.84	e1.4	.20	.05	.02	.01	.02	.01
27	e.50	.03	1.6	.15	.77	e1.2	.19	.05	.02	.01	.02	.01
28	e.15	.03	5.3	.40	.72	e1.1	.17	.04	.02	.01	.01	.01
29	e.10	.02	13	.18	.71	e.98	.16	.06	.15	.01	.01	.01
30	e.07	.02	.78	.17	---	e.87	.17	.05	.08	.01	.01	.01
31	e.04	---	.36	.17	---	e.78	---	.05	---	.01	.01	---
TOTAL	8.69	4.59	22.53	24.45	168.82	73.77	11.05	2.76	1.01	0.41	0.35	0.98
MEAN	.28	.15	.73	.79	5.82	2.38	.37	.089	.034	.013	.011	.033
MAX	7.8	3.5	13	7.3	47	10	.72	.19	.15	.02	.02	.39
MIN	.00	.01	.02	.15	.21	.59	.16	.04	.02	.01	.01	.01
AC-FT	17	9.1	45	48	335	146	22	5.5	2.0	.8	.7	1.9

e Estimated.

11162800 REDWOOD CREEK AT REDWOOD CITY, CA --Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.23	.82	1.64	3.45	3.37	2.55	.96	.22	.088	.042	.032	.039
MAX	2.93	4.84	7.44	13.0	13.9	11.5	4.90	1.26	.32	.15	.10	.17
(WY)	1963	1974	1971	1967	1986	1983	1982	1983	1983	1983	1983	1982
MIN	.000	.003	.052	.065	.11	.18	.015	.003	.000	.000	.000	.000
(WY)	1960	1960	1960	1991	1977	1988	1977	1962	1961	1961	1961	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1960 - 1992	
ANNUAL TOTAL	239.33		319.41			
ANNUAL MEAN	.66		.87		1.11	
HIGHEST ANNUAL MEAN					3.67	1983
LOWEST ANNUAL MEAN					.096	1961
HIGHEST DAILY MEAN	23	Mar 4	47	Feb 12	211	Jan 21 1967
LOWEST DAILY MEAN	.00	Jun 26	.00	Oct 1	.00	Oct 1 1959
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 19	.00	Oct 1	.00	Oct 1 1959
INSTANTANEOUS PEAK FLOW			233	Feb 11	644	Jan 31 1963
INSTANTANEOUS PEAK STAGE			5.51	Feb 11	11.55	Nov 29 1970
ANNUAL RUNOFF (AC-FT)	475		634		804	
10 PERCENT EXCEEDS	1.0		1.3		1.5	
50 PERCENT EXCEEDS	.04		.05		.10	
90 PERCENT EXCEEDS	.00		.01		.00	

11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CA

LOCATION.--Lat 37°25'24", long 122°11'18", in San Francisquito Grant, Santa Clara County, Hydrologic Unit 18050003, at golf course on right bank 1.1 mi downstream from Los Trancos Creek, 1.1 mi west of Stanford University Post Office, and 5 mi downstream from Searsville Lake.

DRAINAGE AREA.--37.4 mi^2.

PERIOD OF RECORD.--October 1930 to September 1941, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 115.75 ft above National Geodetic Vertical Datum of 1929. Recording raingage at 345 Middlefield Road in Menlo Park, 2.5 mi northeast of gage.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Searsville Lake, capacity, 952 acre-ft. Diversions of about 800 acre-ft each year upstream from station to Los Trancos and Lagunita Canals for irrigation on Stanford University campus downstream from station. Low flow affected by wastewater from Stanford Linear Accelerator.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft^3/s, Dec. 22, 1955, gage height, 13.60 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0345	*2,580	*7.76				

Minimum daily, 0.02 ft^3/s, Oct. 1, 2, 4, 8, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.25	.28	2.0	6.9	14	11	1.5	.74	.70	.23	.16
2	.02	.29	.28	1.6	4.8	21	10	1.1	.78	.76	.24	.20
3	.06	.45	.34	1.4	3.6	16	9.3	1.0	.81	.63	.22	.18
4	.02	.79	.41	2.6	3.0	11	8.4	.87	.83	.60	.18	.18
5	.04	.87	.28	33	2.5	123	7.6	.89	.79	.49	.19	.22
6	.04	.26	.22	12	3.3	116	6.8	1.0	.74	.35	.14	.21
7	.05	.27	.30	29	4.1	70	5.5	.99	.72	.36	.16	.22
8	.02	.31	.29	6.4	3.3	41	4.2	1.1	.67	.31	.15	.16
9	.03	.60	.29	4.8	4.0	29	3.8	.95	.63	.31	.13	.11
10	.05	.76	.29	5.0	51	23	4.8	.62	.62	.25	.12	.16
11	.03	.78	.27	4.4	180	18	5.2	.41	.61	.28	.08	.19
12	.04	.80	.24	3.6	796	14	5.4	.40	.54	.34	.11	.16
13	.04	1.0	.22	3.0	185	11	6.7	.31	.50	.33	.10	.17
14	.05	1.2	.26	2.7	319	14	5.7	.29	.49	.26	.11	.11
15	.03	1.3	.32	2.4	389	40	5.2	.20	.48	.19	.10	.13
16	.02	1.5	.05	2.2	157	60	4.8	.13	.50	.21	.15	.13
17	.05	7.9	.12	2.1	76	37	4.4	.05	.50	.29	.17	.14
18	.03	6.1	.56	2.2	50	26	4.1	.04	.47	.37	.10	.17
19	.09	1.2	.27	2.0	47	20	3.5	.41	.40	.37	.11	.14
20	.07	.64	.20	1.8	129	19	2.9	.61	.43	.41	.12	.21
21	.05	.45	.18	1.7	61	21	3.3	.19	.38	.32	.14	.18
22	.03	.46	.19	1.6	40	59	1.8	.68	.36	.33	.06	.16
23	.09	.80	.19	1.5	30	80	.94	1.5	.37	.43	.08	.18
24	.24	.70	.19	1.5	24	41	1.1	1.6	.47	.77	.11	.19
25	.49	.41	.18	1.5	20	32	1.0	1.4	.43	.69	.11	.10
26	29	.44	.19	1.5	17	24	.91	1.2	.49	.42	.13	.09
27	2.4	.43	2.4	1.5	12	17	1.2	1.1	.54	.39	.12	.10
28	.76	1.1	8.8	2.2	8.4	16	1.4	1.0	.51	.29	.13	.14
29	.44	.55	66	2.0	9.0	14	1.6	.93	.56	.35	.17	.07
30	.34	.32	7.2	1.7	---	13	1.3	.81	1.0	.29	.25	.14
31	.29	---	3.0	1.7	---	.13	---	.76	---	.26	.18	---
TOTAL	34.93	32.93	94.01	142.6	2635.9	1053	133.85	24.04	17.36	12.35	4.39	4.70
MEAN	1.13	1.10	3.03	4.60	90.9	34.0	4.46	.78	.58	.40	.14	.16
MAX	29	7.9	66	33	796	123	11	1.6	1.0	.77	.25	.22
MIN	.02	.25	.05	1.4	2.5	11	.91	.04	.36	.19	.06	.07
AC-FT	69	65	186	283	5230	2090	265	48	34	24	8.7	9.3
a	1.29	0.43	1.85	1.40	5.19	3.25	0.06	0	0.02	0	0.05	0

a Precipitation, in inches.

11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.97	6.02	24.1	51.7	67.8	50.5	25.8	2.91	.66	.32	.21	.28
MAX	28.2	91.9	220	250	409	315	232	39.5	8.22	3.30	1.61	2.11
(WY)	1963	1951	1956	1952	1986	1983	1958	1983	1983	1983	1983	1973
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1931 - 1992	
ANNUAL TOTAL	2257.46		4190.06			
ANNUAL MEAN	6.18		11.4		19.0	
HIGHEST ANNUAL MEAN					83.4	1983
LOWEST ANNUAL MEAN					.000	1931
HIGHEST DAILY MEAN	401	Mar 26	796	Feb 12	2650	Dec 23 1955
LOWEST DAILY MEAN	.00	Jul 12	.02	Oct 1	.00	Oct 1 1930
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 13	.04	Oct 1	.00	Oct 1 1930
INSTANTANEOUS PEAK FLOW			2580	Feb 12	5560	Dec 22 1955
INSTANTANEOUS PEAK STAGE			7.76	Feb 12	13.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	4480		8310		13780	
10 PERCENT EXCEEDS	7.2		20		30	
50 PERCENT EXCEEDS	.45		.61		.32	
90 PERCENT EXCEEDS	.02		.11		.00	

11169000 GUADALUPE RIVER AT SAN JOSE, CA

LOCATION.--Lat 37°20'04", long 121°53'54", Santa Clara County, Hydrologic Unit 18050003, on right bank 150 ft upstream from St. John Street bridge, one block below Santa Clara Avenue, and 100 ft downstream from Los Gatos Creek.

DRAINAGE AREA.--146 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to 1945, published as Guadalupe Creek at San Jose.
CHEMICAL DATA: Water years 1979-91.
SEDIMENT DATA: Water years 1985-89.

REVISED RECORDS.--WSP 1315-B: 1943(M), 1945(M), 1949(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 72.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lexington Reservoir 12 mi upstream and by Calero (station 11166740), Almaden, and Guadalupe Reservoirs, and Lake Elsman (combined usable capacity, about 42,000 acre-ft), with water released during summer for percolation in spreading basins on tributaries. Transbasin diversions from San Luis Reservoir (part of San Felipe Project), from the South Bay Aqueduct, and from Hetch Hetchy Aqueduct during the current year amounted to 79,700 acre-ft, 42,800 acre-ft, and 52,600 acre-ft, respectively. Upstream diversions by San Jose Water Works for urban use amounted to 9,120 acre-ft during the current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,150 ft^3/s, Apr. 2, 1958, gage height, 16.55 ft; no flow several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,640 ft^3/s, Feb. 12, gage height, 8.27 ft; no flow, Aug. 25 to Sept. 26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	1.0	1.9	4.4	22	13	1.6	.83	.67	.70	.38	.00
2	1.0	.83	3.0	2.0	2.7	12	1.2	.84	.61	.59	.39	.00
3	.98	.95	3.2	1.3	1.3	6.1	1.1	.86	.55	.55	.38	.00
4	5.0	1.3	2.3	9.1	1.1	2.4	1.1	.93	.60	.51	.38	.00
5	.54	1.3	1.8	390	1.0	195	1.0	.83	.57	.50	.38	.00
6	.13	1.2	1.7	108	21	154	.99	.94	.55	.51	.35	.00
7	.07	1.2	12	165	8.5	20	.98	.86	.57	.49	.40	.00
8	.40	.79	3.1	11	4.7	7.6	.88	.81	.55	.51	.40	.00
9	.88	.35	.90	3.2	47	4.2	1.0	.62	.52	.49	.41	.00
10	.95	.52	.33	1.6	543	2.8	.98	.62	.52	.44	.44	.00
11	1.1	.71	.36	.80	897	1.9	.94	.67	.49	.51	.46	.00
12	1.1	.80	1.3	.45	1500	1.9	1.3	.66	.45	.51	.45	.00
13	1.3	.94	.83	.37	215	1.6	2.3	.67	.45	.50	.47	.00
14	1.2	.84	.90	.38	1030	2.0	1.2	.67	.45	.49	.49	.00
15	1.2	.56	.74	.39	1030	2.1	1.1	.69	.48	.48	.45	.00
16	1.3	.46	.54	.41	330	27	1.0	.79	2.0	.50	.45	.00
17	1.4	55	.85	.42	93	9.4	1.1	.67	3.4	.48	.59	.00
18	1.4	57	.61	.37	64	2.3	1.0	.66	3.2	.47	.47	.00
19	1.1	2.0	.83	.36	46	1.4	.95	.67	3.2	.47	.43	.00
20	.96	.78	1.5	.50	64	80	.88	.68	2.6	.50	.44	.00
21	.77	.47	1.7	.72	27	44	.86	.59	1.8	.52	.44	.00
22	.13	.32	1.1	1.1	19	142	.85	.62	1.3	.52	.44	.00
23	.22	.60	1.1	1.0	14	36	.78	.63	1.2	.53	.43	.00
24	.22	.64	.89	1.0	9.4	4.0	.88	.66	1.1	.56	.21	.00
25	.40	.95	1.7	1.0	2.5	21	.89	.67	1.1	.59	.00	.00
26	147	1.1	48	.96	1.8	8.7	.81	.64	.88	.52	.00	.00
27	22	1.5	130	.97	2.3	2.6	.78	.69	1.1	.48	.00	.16
28	8.8	2.3	160	23	2.3	1.5	.81	.73	.67	.42	.00	.22
29	2.4	1.6	827	3.4	2.0	1.2	.84	.77	.92	.32	.00	.26
30	1.5	1.1	35	1.4	---	2.8	.85	.79	1.8	.38	.00	.30
31	1.5	---	8.1	1.2	---	3.6	---	.71	---	.38	.00	---
TOTAL	207.62	139.11	1253.28	735.80	6001.6	814.1	30.95	22.47	34.30	15.42	10.13	0.94
MEAN	6.70	4.64	40.4	23.7	207	26.3	1.03	.72	1.14	.50	.33	.031
MAX	147	57	827	390	1500	195	2.3	.94	3.4	.70	.59	.30
MIN	.07	.32	.33	.36	1.0	1.2	.78	.59	.45	.32	.00	.00
AC-FT	412	276	2490	1460	11900	1610	61	45	68	31	20	1.9

11169000 GUADALUPE RIVER AT SAN JOSE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.89	14.3	38.2	81.2	142	121	66.4	8.13	2.56	2.46	2.26	2.69
MAX	129	123	311	683	1080	1165	847	219	23.5	23.4	22.3	31.0
(WY)	1963	1984	1932	1952	1938	1983	1982	1983	1984	1984	1984	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1930	1930	1930	1931	1930	1931	1930	1930	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1930 - 1992	
ANNUAL TOTAL	7052.05		9265.72			
ANNUAL MEAN	19.3		25.3		40.0	
HIGHEST ANNUAL MEAN					270	1983
LOWEST ANNUAL MEAN					.000	1931
HIGHEST DAILY MEAN	1120	Mar 24	1500	Feb 12	6660	Feb 19 1986
LOWEST DAILY MEAN	.00	Aug 24	.00	Aug 25	.00	Oct 1 1929
ANNUAL SEVEN-DAY MINIMUM	.07	Aug 18	.00	Aug 25	.00	Oct 1 1929
INSTANTANEOUS PEAK FLOW			4640	Feb 12	9150	Apr 2 1958
INSTANTANEOUS PEAK STAGE			8.27	Feb 12	16.55	Apr 2 1958
ANNUAL RUNOFF (AC-FT)	13990		18380		28970	
10 PERCENT EXCEEDS	12		20		39	
50 PERCENT EXCEEDS	1.3		.85		.30	
90 PERCENT EXCEEDS	.19		.15		.00	

11169500 SARATOGA CREEK AT SARATOGA, CA

LOCATION.--Lat 37°15'16", long 122°02'18", in Quito Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank on upstream side of private road bridge, 0.5 mi southwest of Saratoga, and 0.7 mi downstream from diversion dam.

DRAINAGE AREA.--9.22 mi^2.

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1951, published as Campbell Creek at Saratoga. CHEMICAL DATA: Water years 1972 to December 1972.

REVISED RECORDS.--WSP 1445: 1940, 1952(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 6, 1968, at site 40 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair except for daily discharges Mar. 15 to June 8 and July 4-15, which are poor. Water is diverted for municipal use by San Jose Water Works at diversion dam upstream from station. Low flows partially regulated by Lake McKenzie 8 mi upstream, usable capacity, 184 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft^3/s, Dec. 22, 1955, gage height, 6.40 ft, site and datum then in use, from rating curve extended above 510 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 7.03 ft, Jan. 24, 1983; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0415	*493	*4.91	Feb. 14	1715	392	4.65

Minimum daily, 0.08 ft^3/s, Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.49	.49	.62	2.2	6.9	4.0	2.4	1.9	.98	.28	.34
2	.22	.53	.49	.70	1.3	4.3	3.9	2.4	1.9	.89	.25	.32
3	.16	.56	.49	.76	1.2	4.1	4.0	2.3	1.9	.81	.24	.34
4	.18	.56	.49	1.4	1.2	4.0	4.1	2.3	2.0	1.3	.24	.39
5	.14	.54	.49	12	1.2	19	4.3	2.4	2.3	2.0	.21	.36
6	.13	.52	.49	5.3	1.5	26	4.4	2.5	2.3	2.6	.19	.27
7	.13	.54	.61	11	1.3	23	4.5	2.4	2.3	2.6	.18	.23
8	.12	.53	.63	3.8	1.2	16	3.6	2.4	1.9	2.6	.19	.18
9	.09	.49	.60	.83	2.8	12	3.0	2.2	1.4	2.5	.17	.16
10	.09	.47	.56	.60	53	9.5	2.9	2.2	1.4	1.9	.17	.19
11	.10	.46	.49	.60	64	7.8	2.8	2.4	1.4	.79	.17	.22
12	.12	.53	.49	.81	163	6.9	3.0	2.2	1.3	.70	.17	.21
13	.10	.56	.49	.65	49	6.0	2.8	2.4	1.3	.70	.17	.20
14	.09	.46	.44	.80	146	6.5	2.8	2.4	1.1	.64	.17	.27
15	.08	.46	.42	.68	103	19	2.7	2.4	1.0	.57	.15	.23
16	.09	.46	.42	.55	62	18	2.7	2.3	1.1	.55	.14	.27
17	.14	1.5	.57	.59	42	14	2.7	2.3	1.0	.51	.14	.29
18	.18	1.2	1.3	.57	29	12	2.6	2.2	.93	.50	.14	.33
19	.16	.73	1.0	.49	32	10	2.5	2.3	.92	.49	.14	.26
20	.16	.64	.82	.51	47	15	2.5	2.3	.88	.43	.14	.29
21	.16	.63	.72	.53	32	15	2.4	2.3	.81	.47	.14	.30
22	.16	.53	.72	.68	22	20	2.6	2.2	.79	.44	.14	.23
23	.23	.49	.72	.90	17	18	2.6	2.2	.73	.42	.14	.23
24	.30	.49	.66	.55	14	15	2.5	2.1	.74	.35	.11	.21
25	.43	.49	.63	.49	11	12	2.4	2.1	.79	.36	.13	.27
26	5.9	.49	.65	.65	7.5	13	2.4	2.1	.97	.39	.17	.31
27	1.0	.49	2.6	1.0	6.1	9.1	2.4	2.1	1.2	.37	.19	.35
28	.70	.49	8.0	1.4	4.6	6.7	2.4	2.0	.94	.35	.25	.32
29	.64	.44	28	1.2	4.2	5.5	2.4	1.9	1.3	.29	.38	.13
30	.55	.46	5.2	1.1	---	5.3	2.4	1.9	1.4	.27	.44	.17
31	.49	---	2.5	1.1	---	4.5	---	1.9	---	.29	.42	---
TOTAL	13.28	17.23	62.18	52.86	922.3	364.1	90.3	69.5	39.90	28.06	6.16	7.87
MEAN	.43	.57	2.01	1.71	31.8	11.7	3.01	2.24	1.33	.91	.20	.26
MAX	5.9	1.5	28	12	163	26	4.5	2.5	2.3	2.6	.44	.39
MIN	.08	.44	.42	.49	1.2	4.0	2.4	1.9	.73	.27	.11	.13
AC-FT	26	34	123	105	1830	722	179	138	79	56	12	16
a	0	0	0	49	52	139	210	121	10	0	0	0

a Diversion, in acre-feet, for municipal use, provided by San Jose Water Works.

11169500 SARATOGA CREEK AT SARATOGA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.88	2.81	9.30	20.3	29.1	22.5	14.1	3.76	1.24	.51	.32	.33
MAX	17.5	25.5	83.2	87.8	135	114	131	35.7	6.97	2.95	1.60	1.54
(WY)	1963	1951	1956	1952	1986	1983	1982	1983	1941	1941	1941	1974
MIN	.000	.037	.25	.31	.086	.32	.24	.065	.000	.000	.000	.000
(WY)	1950	1949	1957	1976	1964	1972	1972	1959	1950	1947	1934	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	1033.43		1673.74			
ANNUAL MEAN	2.83		4.57		8.65	
ANNUAL MEAN ADJUSTED a	3.54		5.37		9.90	
HIGHEST ANNUAL MEAN					32.5	1983
LOWEST ANNUAL MEAN					.54	1977
HIGHEST DAILY MEAN	124	Mar 24	163	Feb 12	1260	Feb 27 1940
LOWEST DAILY MEAN	.08	Oct 15	.08	Oct 15	.00	Oct 1 1933
ANNUAL SEVEN-DAY MINIMUM	.10	Oct 9	.10	Oct 9	.00	Oct 1 1933
INSTANTANEOUS PEAK FLOW			493	Feb 12	2730	Dec 22 1955
INSTANTANEOUS PEAK STAGE			4.91	Feb 12	6.40	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	2050		3320		6270	
10 PERCENT EXCEEDS	3.2		9.6		19	
50 PERCENT EXCEEDS	.54		.79		.80	
90 PERCENT EXCEEDS	.18		.17		.00	

a Adjusted for upstream diversions by San Jose Water Works.

11176000 ARROYO MOCHO NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'35", long 121°42'13", in NW 1/4 SE 1/4 sec.36, T.3 S., R.2 E., Alameda County, Hydrologic Unit 18050004, on right bank 40 ft downstream from Mines Road bridge, 2.4 mi upstream from small right-bank tributary, and 5.2 mi southeast of Livermore.

DRAINAGE AREA.--38.2 mi^2.

PERIOD OF RECORD.--January 1912 to September 1930, October 1963 to current year. Records for water year 1914 incomplete; yearly estimate and monthly discharge only for some months, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 746.49 ft above National Geodetic Vertical Datum of 1929. January 1912 to October 1914, at present site at different datum. November 1914 to Sept. 30, 1930, at site 1 mi upstream at different datum.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 2,250 ft^3/s, Jan. 24, 1983, gage height, 8.80 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 10.44 ft, Feb. 19, 1986, from floodmarks; no flow for parts of most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a discharge of 1,880 ft^3/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0530	492	6.71	Feb. 15	0030	*970	*8.82

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.25	3.2	1.9	.45	.05	.00	.00	.00
2	.00	.00	.00	.00	.26	4.0	1.6	.43	.04	.00	.00	.00
3	.00	.00	.00	.00	.25	3.7	1.5	.42	.04	.00	.00	.00
4	.00	.00	.00	.02	.18	2.9	1.3	.38	.03	.00	.00	.00
5	.00	.00	.00	13	.15	3.2	1.2	.35	.03	.00	.00	.00
6	.00	.00	.00	3.7	.20	28	1.1	.32	.02	.00	.00	.00
7	.00	.00	.00	6.3	.71	24	1.1	.31	.03	.00	.00	.00
8	.00	.00	.00	8.3	.55	13	.95	.22	.02	.00	.00	.00
9	.00	.00	.00	2.0	.38	8.0	.91	.28	.02	.00	.00	.00
10	.00	.00	.00	1.1	1.5	4.7	.84	.24	.02	.00	.00	.00
11	.00	.00	.00	.70	113	3.5	.84	.20	.02	.00	.00	.00
12	.00	.00	.00	.47	164	3.3	1.1	.20	.02	.00	.00	.00
13	.00	.00	.00	.35	16	3.0	1.5	.17	.01	.00	.00	.00
14	.00	.00	.00	.29	68	2.9	1.4	.19	.01	.00	.00	.00
15	.00	.00	.00	.22	287	3.2	1.1	.17	.01	.00	.00	.00
16	.00	.00	.00	.22	61	2.7	.91	.14	.01	.00	.00	.00
17	.00	.00	.00	.19	38	2.5	.82	.12	.01	.00	.00	.00
18	.00	.00	.00	.17	21	2.2	.74	.10	.01	.00	.00	.00
19	.00	.00	.00	.15	15	2.0	.63	.10	.00	.00	.00	.00
20	.00	.00	.00	.14	24	2.0	.59	.10	.00	.00	.00	.00
21	.00	.00	.00	.13	15	3.0	.54	.08	.00	.00	.00	.00
22	.00	.00	.00	.12	8.8	4.3	.50	.07	.00	.00	.00	.00
23	.00	.00	.00	.12	e7.0	11	.47	.07	.00	.00	.00	.00
24	.00	.00	.00	.12	e5.0	7.2	.47	.05	.00	.00	.00	.00
25	.00	.00	.00	.12	e4.5	4.8	.46	.05	.00	.00	.00	.00
26	.00	.00	.00	.12	4.1	7.9	.48	.06	.00	.00	.00	.00
27	.00	.00	.00	.13	3.6	5.2	.53	.07	.00	.00	.00	.00
28	.00	.00	.00	.22	3.3	3.5	.48	.07	.00	.00	.00	.00
29	.00	.00	.00	.33	3.1	2.8	.47	.06	.00	.00	.00	.00
30	.00	.00	.00	.30	---	2.5	.45	.05	.00	.00	.00	.00
31	.00	---	.00	.22	---	2.3	---	.05	---	.00	.00	---
TOTAL	0.00	0.00	0.00	39.25	865.83	176.5	26.88	5.57	0.40	0.00	0.00	0.00
MEAN	.000	.000	.000	1.27	29.9	5.69	.90	.18	.013	.000	.000	.000
MAX	.00	.00	.00	13	287	28	1.9	.45	.05	.00	.00	.00
MIN	.00	.00	.00	.00	.15	2.0	.45	.05	.00	.00	.00	.00
AC-FT	.00	.00	.00	78	1720	350	53	11	.8	.00	.00	.00

e Estimated.

11176000 ARROYO MOCHO NEAR LIVERMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.10	.91	3.71	12.4	21.1	12.7	4.76	1.47	.50	.18	.086	.076
MAX	1.55	11.6	33.2	122	100	155	41.8	21.5	6.96	4.04	2.57	2.47
(WY)	1984	1984	1984	1983	1915	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1913	1915	1919	1991	1991	1924	1924	1920	1913	1913	1913	1913

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1913 - 1992	
ANNUAL TOTAL	791.73		1114.43			
ANNUAL MEAN	2.17		3.04		4.83	
HIGHEST ANNUAL MEAN					38.8	1983
LOWEST ANNUAL MEAN					.035	1924
HIGHEST DAILY MEAN	221	Mar 24	287	Feb 15	1510	Mar 1 1983
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1912
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1912
INSTANTANEOUS PEAK FLOW			970	Feb 15	2250	Jan 24 1983
INSTANTANEOUS PEAK STAGE			8.82	Feb 15	10.44	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	1570		2210		3500	
10 PERCENT EXCEEDS	1.0		3.4		6.0	
50 PERCENT EXCEEDS	.00		.00		.20	
90 PERCENT EXCEEDS	.00		.00		.00	

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA

LOCATION.--Lat 37°33'41", long 121°40'58", in NE 1/4 NE 1/4 sec.30, T.4 S., R.3 E., Alameda County, Hydrologic Unit 18050004, on left bank 100 ft upstream from small left-bank tributary, 1.2 mi downstream from Lang Canyon, and 9.5 mi southeast of Livermore.

DRAINAGE AREA.--130 mi^2.

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1974, published as "above Lang Canyon, near Livermore."

GAGE.--Water-stage recorder. Concrete control since June 19, 1975. Elevation of gage is 750 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 19, 1975, at site 1.4 mi upstream at different datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,790 ft^3/s, Feb. 17, 1986, gage height, 7.36 ft, from rating curve extended above 1,000 ft^3/s on basis of slope-area measurements at gage heights 4.13, 5.40, and 7.36 ft; no flow at times in most years.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0945	1790	3.16	Feb. 15	0545	*2,130	*3.38

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	3.2	3.0	21	15	2.5	.00	.00	.00	.00
2	.00	.00	.00	2.0	3.4	23	13	2.5	.00	.00	.00	.00
3	.00	.00	.00	1.5	2.9	22	12	2.5	.00	.00	.00	.00
4	.00	.00	.00	.88	2.5	19	10	2.5	.00	.00	.00	.00
5	.00	.00	.00	26	2.5	20	9.7	2.3	.00	.00	.00	.00
6	.00	.00	.00	20	3.4	90	8.8	1.9	.00	.00	.00	.00
7	.00	.00	.00	34	6.0	76	8.4	1.9	.00	.00	.00	.00
8	.00	.00	.00	30	5.6	52	7.6	1.9	.00	.00	.00	.00
9	.00	.00	.00	12	4.9	38	7.6	1.7	.00	.00	.00	.00
10	.00	.00	.00	7.5	12	30	7.2	1.3	.00	.00	.00	.00
11	.00	.00	.00	5.6	239	25	6.6	1.1	.00	.00	.00	.00
12	.00	.00	.00	4.5	932	22	7.2	1.1	.00	.00	.00	.00
13	.00	.00	.00	3.8	292	18	8.8	1.0	.00	.00	.00	.00
14	.00	.00	.00	3.2	211	17	7.6	1.1	.00	.00	.00	.00
15	.00	.00	.00	3.1	1220	17	7.4	1.0	.00	.00	.00	.00
16	.00	.00	.00	3.1	395	17	6.6	1.0	.00	.00	.00	.00
17	.00	.00	.00	3.1	241	16	6.5	.94	.00	.00	.00	.00
18	.00	.00	.00	2.6	130	14	5.6	.84	.00	.00	.00	.00
19	.00	.02	.00	2.5	99	13	5.4	.74	.00	.00	.00	.00
20	.00	.11	.00	2.5	185	13	4.6	.74	.00	.00	.00	.00
21	.00	.02	.00	2.3	139	17	4.6	.74	.00	.00	.00	.00
22	.00	.00	.00	1.9	93	23	4.4	.66	.00	.00	.00	.00
23	.00	.00	.00	1.9	66	64	3.8	.56	.00	.00	.00	.00
24	.00	.00	.00	1.9	51	58	3.8	.47	.00	.00	.00	.00
25	.00	.00	.00	1.9	42	42	3.8	.33	.00	.00	.00	.00
26	.68	.00	.00	2.1	36	40	3.7	.27	.00	.00	.00	.00
27	2.9	.00	.00	1.9	31	34	3.1	.36	.00	.00	.00	.00
28	.17	.00	1.9	2.8	25	29	3.1	.22	.00	.00	.00	.00
29	.00	.00	17	3.1	23	23	3.1	.16	.00	.00	.00	.00
30	.00	.00	8.4	2.7	---	19	2.9	.07	.00	.00	.00	.00
31	.00	---	5.7	2.5	---	17	---	.00	---	.00	.00	---
TOTAL	3.75	0.15	33.00	196.08	4496.2	929	201.9	34.40	0.00	0.00	0.00	0.00
MEAN	.12	.005	1.06	6.33	155	30.0	6.73	1.11	.000	.000	.000	.000
MAX	2.9	.11	17	34	1220	90	15	2.5	.00	.00	.00	.00
MIN	.00	.00	.00	.88	2.5	13	2.9	.00	.00	.00	.00	.00
AC-FT	7.4	.3	65	389	8920	1840	400	68	.00	.00	.00	.00

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.26	8.21	32.3	91.6	126	92.5	39.3	8.27	2.25	.61	.20	.13
MAX	3.12	79.2	216	492	779	625	322	71.5	17.3	7.43	3.67	2.00
(WY)	1984	1983	1984	1983	1986	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.24	.82	.14	.001	.000	.000	.000	.000
(WY)	1965	1977	1990	1991	1991	1977	1977	1977	1976	1964	1964	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	5032.72		5894.48			
ANNUAL MEAN	13.8		16.1		33.0	
HIGHEST ANNUAL MEAN					174	1983
LOWEST ANNUAL MEAN					.24	1977
HIGHEST DAILY MEAN	928	Mar 25	1220	Feb 15	4860	Feb 19 1986
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1963
INSTANTANEOUS PEAK FLOW			2130	Feb 15	8790	Feb 17 1986
INSTANTANEOUS PEAK STAGE			3.38	Feb 15	7.36	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	9980		11690		23910	
10 PERCENT EXCEEDS	16		23		45	
50 PERCENT EXCEEDS	.00		.00		1.2	
90 PERCENT EXCEEDS	.00		.00		.00	

11176500 ARROYO VALLE NEAR LIVERMORE, CA

LOCATION.--Lat 37°37'24", long 121°45'28", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 900 ft downstream from highway bridge, 1.1 mi upstream from Dry Creek, 1.3 mi downstream from Del Valle Dam, 4.1 mi south of Livermore, and 6.9 mi southeast of Pleasanton.

DRAINAGE AREA.--147 mi^2.

PERIOD OF RECORD.--January 1912 to September 1930, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as Arroyo del Valle near Livermore, 1912-29.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 510.44 ft above National Geodetic Vertical Datum of 1929. Prior to November 1914, at site 900 ft upstream at different datum. Nov. 1, 1914, to Sept. 30, 1930, at site 300 ft upstream at different datum.

REMARKS.--Records fair. Flow regulated by Del Valle Reservoir 1.3 mi upstream beginning in September 1968, capacity, 77,100 acre-ft. Water from Sacramento-San Joaquin Delta imported through South Bay Aqueduct can be pumped into Del Valle Reservoir for storage and later released into the channel for downstream percolation or returned to the South Bay Aqueduct.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft^3/s, Apr. 2, 1958, gage height, 10.91 ft; no flow at times. Maximum discharge since construction of Del Valle Dam in 1968, 2,850 ft^3/s, Mar. 3, 1983, gage height, 8.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 13.9 ft from floodmarks, discharge, 18,200 ft^3/s, on basis of contracted-opening and slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.6 ft^3/s, Feb. 12, gage height, 2.60 ft; minimum daily, 0.24 ft^3/s, June 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.69	1.4	1.2	2.2	.74	.28	.28	.33	.53	.43	.80
2	.48	.69	1.4	.74	1.9	.82	.30	.29	.31	.53	.42	.82
3	.48	.63	1.4	.74	1.9	.79	.29	.27	.24	.54	.40	.82
4	.47	.48	1.0	1.0	1.9	.74	.33	.28	.30	.58	.44	.79
5	.50	.45	1.0	1.8	1.9	.88	.33	.28	.28	.61	.49	.66
6	.55	.43	1.1	.57	2.0	1.1	.39	.35	.27	.62	.53	.63
7	.49	.44	1.4	.57	1.8	.66	.41	.30	.30	.59	.60	.61
8	.47	.51	1.4	.50	.55	.55	.41	.28	.30	.48	.64	.58
9	.49	.52	1.4	.43	.49	.45	.41	.27	.38	.53	.56	.53
10	.44	.50	1.4	1.3	.66	.43	.40	.26	.39	.54	.50	.57
11	.52	.48	1.3	1.9	1.7	.43	.45	.27	.48	.57	.50	.62
12	.52	.50	1.2	1.9	2.7	.45	.65	.30	.53	.63	.53	.61
13	.52	.49	1.2	1.9	.98	.43	.58	.34	.52	.61	.52	.54
14	.50	.44	1.3	2.0	2.1	.43	.57	.35	.52	.55	.51	.57
15	.52	.44	1.4	1.9	2.7	.43	.59	.33	.61	.57	.49	.57
16	.55	.43	1.3	1.9	1.8	.43	.57	.30	.50	.69	.49	.66
17	.59	.55	1.3	1.7	1.1	.43	.59	.26	.38	.61	.51	.63
18	.63	.62	1.5	1.7	.88	.43	.47	.27	.40	.55	.51	.59
19	.59	.68	2.2	1.7	.69	.38	.39	.29	.44	.59	.48	.62
20	.58	.85	2.5	1.7	.62	.37	.27	.29	.44	1.6	.46	.60
21	.56	.65	2.2	1.7	.64	.42	.33	.27	.42	2.9	.50	.63
22	.46	.62	1.7	1.7	.62	.39	.33	.27	.44	3.0	.58	.64
23	.56	.65	1.6	1.7	.62	.34	.32	.28	.44	2.8	.81	.62
24	.57	.70	1.3	1.7	.62	.29	.31	.35	.42	2.1	.89	.62
25	.58	.71	1.3	1.7	.67	.29	.33	.29	.41	.49	.96	.55
26	2.7	.78	1.0	1.7	.72	.29	.30	.29	.41	.45	1.0	.51
27	.78	.91	1.5	1.8	.71	.29	.35	.30	.41	.41	.94	.53
28	.69	1.2	2.7	1.9	.64	.31	.34	.33	.41	.40	.89	.53
29	.73	1.4	2.0	1.9	.73	.28	.27	.36	.47	.44	.95	.54
30	.74	1.4	1.0	1.9	---	.30	.27	.33	.53	.45	.91	.51
31	.82	---	1.0	1.9	---	.32	---	.33	---	.45	.83	---
TOTAL	19.57	19.84	45.4	46.75	36.54	14.89	11.83	9.26	12.28	26.41	19.27	18.50
MEAN	.63	.66	1.46	1.51	1.26	.48	.39	.30	.41	.85	.62	.62
MAX	2.7	1.4	2.7	2.0	2.7	1.1	.65	.36	.61	3.0	1.0	.82
MIN	.44	.43	1.0	.43	.49	.28	.27	.26	.24	.40	.40	.51
AC-FT	39	39	90	93	72	30	23	18	24	52	38	37

11176500 ARROYO VALLE NEAR LIVERMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1968, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.016	2.63	18.0	87.6	146	51.4	47.2	7.37	1.83	.32	.089	.021
MAX	.15	69.2	125	851	522	280	620	57.8	9.47	2.28	.83	.24
(WY)	1967	1927	1965	1914	1915	1958	1958	1915	1967	1967	1958	1958
MIN	.000	.000	.000	.000	.000	.000	.000	.094	.000	.000	.000	.000
(WY)	1914	1914	1918	1918	1920	1924	1924	1924	1918	1914	1913	1913

SUMMARY STATISTICS	WATER YEARS 1912 - 1968		
ANNUAL MEAN	29.6		
HIGHEST ANNUAL MEAN	118		1914
LOWEST ANNUAL MEAN	.008		1924
HIGHEST DAILY MEAN	5930	Jan 25	1914
LOWEST DAILY MEAN	.00	Sep 22	1912
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 22	1912
INSTANTANEOUS PEAK FLOW	12200	Apr 2	1958
INSTANTANEOUS PEAK STAGE	10.91	Apr 2	1958
ANNUAL RUNOFF (AC-FT)	21460		
10 PERCENT EXCEEDS	35		
50 PERCENT EXCEEDS	.20		
90 PERCENT EXCEEDS	.00		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.47	8.70	9.15	31.3	80.2	61.6	23.8	6.86	10.0	15.0	13.9	10.8
MAX	43.2	39.4	35.9	440	549	653	334	30.8	51.7	46.0	54.3	48.1
(WY)	1971	1981	1981	1983	1986	1983	1982	1970	1980	1980	1981	1981
MIN	.17	.30	.36	.35	.30	.36	.22	.23	.15	.079	.11	.16
(WY)	1987	1987	1989	1990	1991	1977	1990	1990	1990	1985	1989	1984

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	2113.61		280.54			
ANNUAL MEAN	5.79		.77		23.1	
HIGHEST ANNUAL MEAN					131	1983
LOWEST ANNUAL MEAN					.44	1987
HIGHEST DAILY MEAN	939	Mar 25	3.0	Jul 22	2370	Mar 3 1983
LOWEST DAILY MEAN	.19	Jan 22	.24	Jun 3	.00	Jun 25 1983
ANNUAL SEVEN-DAY MINIMUM	.22	Jan 17	.28	May 17	.05	Jun 24 1983
INSTANTANEOUS PEAK FLOW			8.6	Feb 12	2850	Mar 3 1983
INSTANTANEOUS PEAK STAGE			2.60	Feb 12	8.89	Mar 3 1983
ANNUAL RUNOFF (AC-FT)	4190		556		16720	
10 PERCENT EXCEEDS	1.3		1.7		35	
50 PERCENT EXCEEDS	.51		.55		1.8	
90 PERCENT EXCEEDS	.26		.30		.24	

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA

LOCATION.--Lat 37°36'55", long 121°52'50", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi upstream from small left bank tributary, 0.8 mi downstream from highway bridge, and 3.2 mi south of Pleasanton.

DRAINAGE AREA.--405 mi^2.

PERIOD OF RECORD.--January 1912 to September 1930, October 1969 to September 1983, October 1987 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 248.40 ft above National Geodetic Vertical Datum of 1929. January 1912 to September 1917, at site 3.0 mi upstream at different datum. October 1917 to September 1930, at site 0.8 mi downstream at different datum. October 1969 to September 1983, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow partly regulated by Del Valle Reservoir 15 mi upstream, beginning in September 1968, capacity, 77,100 acre-ft. Water imported from Sacramento-San Joaquin Delta (see REMARKS for station 11176500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s, Jan. 5, 1982, gage height, 22.61 ft, present datum; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft^3/s, Oct. 26, gage height, 10.99 ft; minimum daily, 0.84 ft^3/s, July 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	5.6	2.8	4.8	65	39	6.8	3.5	4.1	4.0	2.7	4.6
2	2.6	5.2	3.0	3.1	21	71	6.5	3.3	4.0	2.2	2.7	4.1
3	2.7	4.4	3.3	1.9	9.6	22	5.3	3.3	4.0	1.4	2.6	5.3
4	2.4	5.1	3.4	1.2	6.2	14	5.1	3.4	3.7	1.2	2.7	11
5	2.4	4.8	3.2	323	5.1	133	6.0	3.2	3.7	1.1	2.7	8.9
6	2.2	4.0	3.0	67	26	153	6.4	3.0	3.7	.84	2.7	3.7
7	2.2	3.8	4.6	62	33	62	4.6	3.4	3.7	1.1	2.7	3.2
8	2.3	6.1	4.2	25	20	33	4.1	3.5	3.7	1.5	2.7	3.2
9	2.7	5.1	3.4	7.8	12	24	3.7	3.6	3.7	1.3	3.0	9.5
10	2.6	5.7	3.0	7.4	104	20	4.0	4.3	3.6	1.1	2.9	13
11	2.2	4.7	2.9	6.0	355	18	3.8	4.5	3.7	.90	2.6	13
12	2.3	4.0	2.9	5.4	951	16	33	4.8	3.1	1.0	2.4	8.1
13	2.2	3.5	2.9	4.9	160	15	25	5.2	3.1	1.4	2.4	3.7
14	2.2	3.2	2.8	4.4	508	24	9.3	4.3	2.9	1.4	2.4	3.2
15	2.2	3.2	2.7	4.2	952	38	5.0	4.2	3.2	1.1	3.2	8.5
16	2.2	3.2	2.7	4.0	372	49	4.3	4.0	3.1	1.0	2.5	12
17	2.2	38	2.8	4.0	95	22	3.9	4.3	2.9	1.5	2.2	7.8
18	2.2	45	20	4.3	51	14	3.3	4.8	3.4	1.5	2.2	9.7
19	2.2	13	8.9	3.7	88	9.9	3.2	4.2	3.0	1.6	2.2	7.6
20	1.9	5.5	4.6	3.7	95	9.6	4.1	4.7	3.1	1.6	2.4	3.4
21	2.1	3.9	3.4	3.6	43	12	3.9	3.9	2.7	1.8	2.4	3.2
22	2.2	3.3	3.7	3.5	27	79	3.5	3.4	2.4	2.1	2.4	4.9
23	2.2	3.0	4.9	3.2	20	53	5.5	3.5	2.2	2.1	2.4	4.2
24	2.2	2.8	4.9	3.2	18	19	4.7	3.9	2.2	2.2	2.6	3.3
25	2.6	3.1	4.9	3.2	17	13	4.6	3.9	2.0	2.3	2.9	3.0
26	892	3.3	5.2	4.5	15	12	5.3	4.2	1.6	2.5	2.8	3.9
27	74	2.9	21	5.4	15	11	7.2	4.6	1.6	2.6	3.2	2.7
28	17	2.9	107	20	15	8.8	4.9	4.7	1.6	2.5	2.9	2.2
29	9.2	2.7	250	12	15	8.8	4.1	4.8	1.9	2.7	3.8	7.4
30	6.6	2.7	33	6.6	---	8.9	3.6	4.7	19	2.7	3.5	6.5
31	6.4	---	8.2	5.9	---	7.2	---	4.4	---	3.6	3.4	---
TOTAL	1063.0	203.7	533.3	618.9	4113.9	1019.2	194.7	125.5	106.6	55.84	84.2	184.8
MEAN	34.3	6.79	17.2	20.0	142	32.9	6.49	4.05	3.55	1.80	2.72	6.16
MAX	892	45	250	323	952	153	33	5.2	19	4.0	3.8	13
MIN	1.9	2.7	2.7	1.2	5.1	7.2	3.2	3.0	1.6	.84	2.2	2.2
AC-FT	2110	404	1060	1230	8160	2020	386	249	211	111	167	367

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1930, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.43	1.96	15.9	174	234	59.5	18.5	8.67	3.52	2.06	1.36	1.19
MAX	9.90	13.4	105	1349	728	207	59.8	74.0	13.9	13.1	8.76	6.98
(WY)	1917	1927	1914	1914	1915	1919	1926	1915	1916	1916	1916	1916
MIN	.000	.000	.000	.000	.84	.53	.000	.000	.000	.000	.000	.000
(WY)	1914	1914	1919	1925	1924	1924	1929	1924	1918	1913	1913	1913

SUMMARY STATISTICS	WATER YEARS 1912 - 1930	
ANNUAL MEAN	42.5	
HIGHEST ANNUAL MEAN	180	1914
LOWEST ANNUAL MEAN	.69	1913
HIGHEST DAILY MEAN	9810	Jan 25 1914
LOWEST DAILY MEAN	.00	Jun 30 1913
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 30 1913
ANNUAL RUNOFF (AC-FT)	30800	
10 PERCENT EXCEEDS	33	
50 PERCENT EXCEEDS	.90	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.1	31.8	48.6	145	179	167	69.5	22.0	17.1	18.3	17.1	15.2
MAX	42.3	92.3	156	867	925	1510	517	116	43.0	40.6	43.5	41.1
(WY)	1971	1983	1983	1983	1983	1983	1982	1983	1983	1975	1981	1981
MIN	3.34	5.09	6.46	6.07	12.7	9.39	6.49	4.05	2.88	1.80	2.31	2.28
(WY)	1991	1991	1990	1991	1977	1988	1990	1992	1991	1992	1991	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	10217.41		8303.64			
ANNUAL MEAN	28.0		22.7		62.0	
HIGHEST ANNUAL MEAN					339	1983
LOWEST ANNUAL MEAN					11.6	1977
HIGHEST DAILY MEAN	1170	Mar 26	952	Feb 15	5270	Jan 5 1982
LOWEST DAILY MEAN	.81	Jul 9	.84	Jul 6	.33	Jul 11 1990
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 8	1.1	Jul 6	1.1	Jul 6 1992
INSTANTANEOUS PEAK FLOW			2450	Oct 26	11400	Jan 5 1982
INSTANTANEOUS PEAK STAGE			10.99	Oct 26	22.61	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	20270		16470		44910	
10 PERCENT EXCEEDS	33		26		68	
50 PERCENT EXCEEDS	4.0		3.9		16	
90 PERCENT EXCEEDS	2.0		2.2		3.9	

11179000 ALAMEDA CREEK NEAR NILES, CA

LOCATION.--Lat 37°35'14", long 121°57'35", in NW 1/4 sec.15, T.4 S., R.1 W., Alameda County, Hydrologic Unit 18050004, on right bank 0.3 mi downstream from railroad bridge, 1.2 mi northeast of Niles, and 8.3 mi downstream from James H. Turner Dam on San Antonio Creek.

DRAINAGE AREA.--633 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1891 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "at Niles Dam" 1891-1900 and as "at Sunolglen" 1901-21.

REVISED RECORDS.--WSP 1315-B: 1921. WSP 1515: 1951-52, 1956. WSP 1565: 1945. WDR CA-86-2: 1984(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 85.65 ft above National Geodetic Vertical Datum of 1929. Prior to 1901, nonrecording gage at site 1 mi upstream at different datum. From 1901 to Sept. 30, 1914, nonrecording gage; Oct. 1, 1914, to Sept. 30, 1916, water-stage recorder at site 4.5 mi upstream at different datum; Oct. 1, 1916, to Dec. 17, 1923, water-stage recorder at site 800 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1916 by Calaveras Reservoir, although dam not completed until 1925, usable capacity, 96,800 acre-ft, most of which is diverted for San Francisco water supply; since February 1965 by San Antonio Reservoir, capacity, 51,000 acre-ft; and since September 1968 by Del Valle Reservoir, 23 mi upstream, capacity, 77,100 acre-ft. Natural flow of stream affected by water imported from Delta-Mendota Canal beginning in 1962. Other diversions from ground-water basin for irrigation of 9,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft^3/s, Dec. 23, 1955, gage height, 14.9 ft; minimum (water years 1892-1962), no flow at times; minimum daily (water years 1963-92), 0.63 ft^3/s, Oct. 7-10, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,330 ft^3/s, Feb. 15, gage height, 7.07 ft; minimum daily, 1.4 ft^3/s, July 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	65	60	15	68	45	29	36	48	56	42	41
2	51	64	60	12	30	117	31	38	50	51	41	41
3	52	57	52	11	19	49	26	38	50	48	41	45
4	52	21	38	8.4	21	35	20	35	50	48	40	46
5	54	9.6	35	308	20	137	20	34	50	49	41	48
6	53	7.0	8.8	73	29	290	22	36	50	47	41	42
7	52	6.2	7.7	61	53	122	28	36	19	25	41	42
8	53	6.3	25	34	27	72	36	37	9.5	5.0	41	41
9	54	34	24	17	15	56	34	35	9.8	2.9	43	43
10	55	60	23	12	65	50	31	36	8.2	1.8	42	49
11	53	60	22	10	403	44	17	38	46	1.4	40	50
12	53	60	23	20	1160	41	35	37	50	1.6	41	49
13	54	60	23	19	222	36	52	31	49	1.6	41	43
14	54	60	23	19	519	35	33	12	49	39	42	41
15	54	59	23	19	1620	41	24	10	51	44	43	43
16	54	59	23	19	671	90	21	6.6	50	44	42	49
17	53	74	23	19	207	55	22	7.9	48	45	42	48
18	53	104	32	19	107	41	31	9.0	47	44	41	46
19	53	72	34	19	130	35	26	41	49	45	42	48
20	54	63	32	18	172	30	24	47	51	44	42	43
21	54	61	30	18	88	30	33	15	52	43	42	42
22	54	60	29	18	64	94	44	32	50	43	42	43
23	54	60	31	17	49	133	44	49	47	43	43	42
24	53	60	31	17	41	65	46	49	48	43	43	41
25	55	60	31	17	38	49	39	49	50	44	42	40
26	865	60	26	17	33	43	39	52	50	45	42	41
27	102	25	11	19	33	39	42	51	48	44	44	43
28	28	60	96	28	32	29	47	52	49	43	42	41
29	17	59	250	29	37	27	43	50	50	43	41	9.3
30	32	60	56	22	---	28	39	48	63	43	43	9.6
31	65	---	21	20	---	31	---	48	---	43	42	---
TOTAL	2436	1566.1	1203.5	954.4	5973	1989	978	1095.5	1341.5	1120.3	1295	1249.9
MEAN	78.6	52.2	38.8	30.8	206	64.2	32.6	35.3	44.7	36.1	41.8	41.7
MAX	865	104	250	308	1620	290	52	52	63	56	44	50
MIN	17	6.2	7.7	8.4	15	27	17	6.6	8.2	1.4	40	9.3
AC-FT	4830	3110	2390	1890	11850	3950	1940	2170	2660	2220	2570	2480

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1961, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.61	21.0	101	185	322	213	156	18.9	8.19	5.46	3.26	3.14
MAX	36.5	581	1469	2578	2431	1439	2323	95.5	46.1	50.1	47.5	48.9
(WY)	1936	1951	1956	1952	1938	1938	1958	1941	1938	1935	1935	1935
MIN	.000	.000	.000	.22	.71	.17	1.08	.11	.000	.000	.000	.000
(WY)	1925	1926	1931	1949	1948	1931	1929	1934	1931	1929	1925	1925

SUMMARY STATISTICS	WATER YEARS 1925 - 1961	
ANNUAL MEAN	85.4	
HIGHEST ANNUAL MEAN	401	1952
LOWEST ANNUAL MEAN	.90	1961
HIGHEST DAILY MEAN	23900	Dec 23 1955
LOWEST DAILY MEAN	.00	Oct 1 1924
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 1 1924
INSTANTANEOUS PEAK FLOW	29000	Dec 23 1955
INSTANTANEOUS PEAK STAGE	14.9	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	61830	
10 PERCENT EXCEEDS	91	
50 PERCENT EXCEEDS	2.7	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.8	57.1	101	207	356	318	143	55.9	47.6	43.2	42.1	34.1
MAX	78.6	247	434	1335	1928	2725	1163	318	154	62.9	65.9	62.1
(WY)	1992	1984	1984	1983	1983	1983	1982	1983	1973	1981	1972	1981
MIN	9.91	23.1	20.1	28.4	28.9	32.5	18.3	18.6	16.3	20.6	16.8	2.51
(WY)	1979	1970	1979	1985	1977	1977	1991	1971	1978	1974	1974	1984

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	21876.5		21202.2			
ANNUAL MEAN	59.9		57.9		118	
HIGHEST ANNUAL MEAN					621	1983
LOWEST ANNUAL MEAN					31.5	1977
HIGHEST DAILY MEAN	1510	Mar 26	1620	Feb 15	9360	Feb 19 1986
LOWEST DAILY MEAN	2.1	Jul 27	1.4	Jul 11	.63	Oct 7 1984
ANNUAL SEVEN-DAY MINIMUM	2.9	Jul 22	5.6	Jul 7	.66	Oct 4 1984
INSTANTANEOUS PEAK FLOW			3330	Feb 15	16400	Feb 19 1986
INSTANTANEOUS PEAK STAGE			7.07	Feb 15	14.77	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	43390		42050		85590	
10 PERCENT EXCEEDS	62		63		152	
50 PERCENT EXCEEDS	39		42		42	
90 PERCENT EXCEEDS	18		17		16	

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906, 1952-73, 1975 to current year.
CHEMICAL DATA: Water years 1906, 1952-67, 1969, 1975-79.
SPECIFIC CONDUCTANCE: Water years 1956-57, 1959-62, 1976 to current year.
WATER TEMPERATURE: Water years 1956-73, 1976-78.
SEDIMENT DATA: Water years 1957-73.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1956 to July 1957, August 1959 to September 1962, October 1975 to current year.
WATER TEMPERATURE: July 1956 to September 1973, October 1975 to September 1978.

INSTRUMENTATION.--Water-quality monitor since October 1975. Digital recorder set for 1-hour-interval punches.

REMARKS.--Interruptions in record were due to malfunction of recording instruments. Specific conductance affected by regulation of imported water.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1,530 microsiemens, Nov. 19, 1977; minimum recorded, 122 microsiemens, Jan. 22, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1,420 microsiemens, Nov. 9; minimum recorded, 137 microsiemens, Feb. 12.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	666	645	666	646	725	718	509	424	867	559	---	---
2	666	629	695	646	738	718	590	501	559	455	---	---
3	636	623	715	685	745	731	679	586	809	502	---	---
4	625	616	774	694	775	741	765	568	834	777	---	---
5	622	608	814	734	775	736	1030	167	791	781	---	---
6	610	604	843	774	763	737	---	---	790	784	---	---
7	608	592	1050	843	813	763	---	---	906	654	---	---
8	595	587	1170	1050	921	813	---	---	760	644	---	---
9	595	586	1420	782	871	843	---	---	770	746	---	---
10	589	586	782	702	865	840	828	789	943	490	---	---
11	592	589	712	691	854	835	989	828	490	211	---	---
12	592	588	711	681	860	849	999	913	389	137	---	---
13	589	588	691	670	849	826	913	898	478	321	901	871
14	588	586	683	670	841	826	912	903	562	146	982	891
15	588	584	680	671	839	823	913	888	367	146	1010	982
16	585	581	673	659	842	831	904	875	395	275	---	---
17	583	578	920	546	848	838	893	857	---	---	---	---
18	579	573	950	550	854	831	896	864	---	---	---	---
19	576	570	657	588	948	854	897	880	---	---	---	---
20	571	565	679	652	944	849	880	870	---	---	940	938
21	567	564	680	649	850	832	882	872	---	---	945	938
22	568	564	694	670	846	827	874	847	---	---	1060	938
23	572	568	706	693	869	842	854	837	---	---	939	926
24	573	571	711	706	887	869	837	826	---	---	929	922
25	572	565	719	711	893	887	832	820	---	---	922	912
26	565	221	734	715	894	809	831	822	---	---	914	904
27	678	396	832	727	883	823	904	829	---	---	916	905
28	843	678	832	719	949	395	925	871	---	---	920	912
29	1010	843	722	716	476	236	954	838	---	---	929	911
30	1140	777	726	720	348	298	854	810	---	---	---	---
31	777	646	---	---	428	348	810	778	---	---	---	---
MONTH	1140	221	1420	546	949	236	---	---	---	---	---	---

11179000 ALAMEDA CREEK NEAR NILES, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	622	607	581	574	983	816	812	774	786	781
2	---	---	624	603	585	575	826	813	829	797	799	785
3	---	---	624	603	586	575	822	808	836	817	794	787
4	---	---	623	613	588	575	816	807	837	812	841	787
5	---	---	648	615	587	575	817	808	824	812	884	841
6	---	---	636	592	583	575	818	808	814	812	857	836
7	---	---	603	580	605	581	826	812	817	812	836	825
8	---	---	605	597	641	605	842	826	821	815	825	776
9	---	---	608	595	877	641	858	842	823	819	777	771
10	---	---	608	602	931	877	885	856	825	820	795	745
11	---	---	614	602	1010	666	898	883	826	823	791	780
12	---	---	613	601	716	695	909	896	825	823	780	764
13	---	---	612	599	725	715	921	904	829	824	764	669
14	942	921	668	605	962	730	1050	848	831	827	680	674
15	921	896	953	668	731	723	848	823	830	824	682	676
16	896	890	971	947	752	729	827	800	847	824	772	680
17	892	857	962	942	755	750	830	811	835	816	766	751
18	857	832	---	---	755	750	830	825	818	806	751	620
19	832	817	---	---	772	755	834	824	812	795	705	632
20	817	789	---	---	772	765	870	834	802	783	699	683
21	789	757	---	---	786	766	876	867	791	776	---	---
22	758	734	919	584	789	783	878	870	782	773	---	---
23	734	704	584	545	803	789	882	878	779	770	---	---
24	716	702	557	544	808	803	883	867	776	771	---	---
25	720	714	555	549	806	786	879	872	777	769	---	---
26	718	715	558	549	801	792	875	859	778	771	---	---
27	716	712	571	557	803	796	866	817	785	776	---	---
28	718	712	577	569	808	800	836	826	791	783	---	---
29	715	633	581	569	810	807	833	824	790	784	---	---
30	642	616	585	572	1110	804	825	775	800	789	---	---
31	---	---	581	575	---	---	804	770	795	784	---	---
MONTH	---	---	---	---	1110	574	1050	770	847	769	---	---

11180500 DRY CREEK AT UNION CITY, CA

LOCATION.--Lat 37°36'22", long 122°01'22", in Arroyo de la Alameda Grant, Alameda County, Hydrologic Unit 18050004, on right bank 900 ft downstream from bridge on State Highway 238 in Decoto District in Union City and 1.7 mi upstream from mouth.

DRAINAGE AREA.--9.39 mi^2.

PERIOD OF RECORD.--October 1916 to September 1919 (published as "near Decoto"), April 1959 to current year.

REVISED RECORDS.--WSP 2129: 1962(M), 1963(P), 1965(P). WDR CA-76-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 85.12 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 1, 1959, at site 1.4 mi downstream at different datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft^3/s, Jan. 26, 1983, gage height, 5.14 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 5.27 ft, Oct. 13, 1962, from high-water marks past gage; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	1800	*121	*2.68				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.06	.97	.58	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	1.8	1.2	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.65	1.5	.00	.00	.00	.00	.00
4	.00	.00	.00	.05	.00	.28	.53	.00	.00	.00	.00	.00
5	.00	.00	.00	.03	.00	11	.84	.00	.00	.00	.00	.00
6	.00	.00	.00	.02	.00	17	1.8	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	6.1	1.3	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	3.9	.51	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	2.7	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.16	2.0	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.36	2.2	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	19	2.8	1.4	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	9.6	.85	1.4	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	31	1.2	.32	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	47	1.4	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	34	2.2	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	14	1.5	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	7.7	.90	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	10	.63	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	13	.59	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	7.5	.85	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	5.6	7.8	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	3.7	8.1	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	2.6	3.7	.00	.00	.00	.00	.00	.00
25	.12	.00	.00	.00	1.7	2.8	.00	.00	.00	.00	.00	.00
26	1.4	.00	.00	.00	1.1	2.1	.00	.00	.00	.00	.00	.00
27	.00	.00	.04	.00	.77	1.6	.00	.00	.00	.00	.00	.00
28	.00	.00	.02	.00	.57	1.1	.00	.00	.00	.00	.00	.00
29	.00	.00	.20	.00	.41	.92	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.91	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.77	---	.00	---	.00	.00	---
TOTAL	1.52	0.00	0.26	0.10	209.83	91.32	11.38	0.00	0.00	0.00	0.00	0.00
MEAN	.049	.000	.008	.003	7.24	2.95	.38	.000	.000	.000	.000	.000
MAX	1.4	.00	.20	.05	47	17	1.8	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	.00	.00
AC-FT	3.0	.00	.5	.2	416	181	23	.00	.00	.00	.00	.00

11180500 DRY CREEK AT UNION CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.18	.67	2.43	6.40	8.10	6.13	2.89	.55	.17	.031	.015	.005
MAX	6.31	11.3	21.0	31.7	36.8	58.2	20.1	6.45	2.87	.82	.51	.10
(WY)	1963	1984	1974	1973	1983	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1917	1917	1918	1918	1918	1972	1917	1917	1917	1917	1917	1917

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1917 - 1992	
ANNUAL TOTAL	124.33		314.41			
ANNUAL MEAN	.34		.86		2.28	
HIGHEST ANNUAL MEAN					13.0	1983
LOWEST ANNUAL MEAN					.002	1977
HIGHEST DAILY MEAN	44	Mar 26	47	Feb 15	335	Jan 21 1970
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1916
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1916
INSTANTANEOUS PEAK FLOW			121	Feb 14	1330	Jan 26 1983
INSTANTANEOUS PEAK STAGE			2.68	Feb 14	5.27	Oct 13 1962
ANNUAL RUNOFF (AC-FT)	247		624		1650	
10 PERCENT EXCEEDS	.00		1.4		3.7	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11180700 PATTERSON CREEK AT UNION CITY, CA

LOCATION.--Lat 37°55'09", long 122°02'50", in Potrero de Los Cerritos Grant, Alameda County, Hydrologic Unit 18050004, on right bank 0.1 mi downstream from effluence from Alameda Creek, 0.2 mi upstream from bridge on Interstate 880 (Nimitz Freeway), and 2.0 mi southwest of Decoto District in Union City.
PERIOD OF RECORD.--October 1958 to current year.
GAGE.--Water-stage recorder. Datum of gage is 4.13 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 26, 1966, at site 0.2 mi downstream at same datum.
REMARKS.--No estimated daily discharges. Records fair. This stream is a distributary of Alameda Creek. Diversion by Alameda County Water District to percolation ponds between station 11179000 and this station; additional percolation to ground water by placing check dams in channel.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, Feb. 19, 1986, gage height, 18.44 ft; no flow at times in each year.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,190 ft^3/s, Feb. 15, gage height, 10.74 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.54	5.6	1.5	.46	.24	.29	1.5	.00	.00
2	.00	.00	.00	.27	1.2	4.0	.38	.24	.10	.59	.00	.00
3	.00	.00	.00	.18	.45	.69	.34	.30	.01	.34	.00	.00
4	.00	.00	.00	.16	.30	.40	.32	.33	.00	.22	.00	.00
5	.00	.00	.00	7.6	.27	32	.29	.31	.02	.16	.00	.00
6	.00	.00	.00	6.1	.77	227	.26	.33	.08	.10	.00	.00
7	.00	.00	.00	4.4	1.7	33	.30	.29	.06	.09	.00	.00
8	.00	.00	.00	1.3	.60	6.1	.30	.30	.04	.10	.00	.00
9	.00	.00	.00	.40	.35	2.4	.32	.24	.03	.08	.00	.00
10	.00	.00	.00	.24	6.8	1.2	.42	.21	.01	.08	.00	.00
11	.00	.00	.00	.16	82	.97	.44	.19	.00	.17	.00	.00
12	.00	.00	.00	.10	1020	.80	3.3	.13	.00	.24	.00	.00
13	.00	.00	.00	.09	195	.54	2.6	.11	.00	.21	.00	.00
14	.00	.00	.00	.05	256	1.6	.70	.09	.00	.14	.00	.00
15	.00	.00	.00	.05	1500	2.2	.46	.05	.00	.10	.00	.00
16	.00	.00	.00	.05	585	3.2	.34	.12	.00	.08	.00	.00
17	.00	.00	.00	.07	151	1.6	.27	.08	.00	.05	.00	.00
18	.00	.60	.04	.10	8.8	.79	.21	.00	.00	.04	.00	.00
19	.00	.17	.03	.10	9.5	.65	.17	.00	.00	.03	.00	.00
20	.00	.01	.00	.09	12	.92	.15	.00	.07	.02	.00	.00
21	.00	.00	.00	.09	6.4	1.1	.14	.00	.22	.00	.00	.00
22	.00	.00	.00	.09	4.7	28	.12	.00	.07	.00	.00	.00
23	.00	.00	.00	.09	2.4	32	.11	.00	.08	.00	.00	.00
24	.00	.00	.00	.09	.87	30	.16	.00	3.5	.00	.00	.00
25	.00	.00	.00	.10	.38	20	.15	.04	2.0	.00	.00	.00
26	681	.00	.00	.10	.29	4.2	.10	.01	.44	.00	.00	.00
27	18	.00	.69	.10	.29	1.6	.11	.02	.18	.00	.00	.00
28	1.3	.00	31	.93	.27	.78	.12	.02	.14	.00	.00	.00
29	.31	.00	66	.77	.26	.47	.26	.00	.16	.00	.00	.00
30	.04	.00	10	.33	---	.53	.25	.00	1.9	.00	.00	.00
31	.00	---	1.8	.29	---	.59	---	.22	---	.00	.00	---
TOTAL	700.65	0.78	109.56	25.03	3853.20	440.83	13.55	3.87	9.40	4.34	0.00	0.00
MEAN	22.6	.026	3.53	.81	133	14.2	.45	.12	.31	.14	.000	.000
MAX	681	.60	66	7.6	1500	227	3.3	.33	3.5	1.5	.00	.00
MIN	.00	.00	.00	.05	.26	.40	.10	.00	.00	.00	.00	.00
AC-FT	1390	1.5	217	50	7640	874	27	7.7	19	8.6	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

MEAN	7.28	35.0	76.3	186	296	243	118	21.9	7.30	1.04	.46	1.33
MAX	53.0	404	557	1711	2150	3007	1091	312	120	9.14	8.73	19.1
(WY)	1963	1984	1984	1983	1983	1983	1982	1983	1973	1973	1970	1983
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1959	1959	1959	1959	1961	1960	1959	1959	1959	1959	1959	1959

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	5973.40		5161.21			
ANNUAL MEAN	16.4		14.1		81.7	
HIGHEST ANNUAL MEAN					703	1983
LOWEST ANNUAL MEAN					.000	1961
HIGHEST DAILY MEAN	1270	Mar 26	1500	Feb 15	11700	Feb 19 1986
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1958
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1958
INSTANTANEOUS PEAK FLOW			3190	Feb 15	22100	Feb 19 1986
INSTANTANEOUS PEAK STAGE			10.74	Feb 15	18.44	Feb 19 1986
ANNUAL RUNOFF (AC-FT)	11850		10240		59220	
10 PERCENT EXCEEDS	.65		2.5		115	
50 PERCENT EXCEEDS	.00		.04		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°41'42", long 122°02'38", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on left bank, 250 ft south of Interstate Highway 580, 0.4 mi southeast of Independent School, and 2.2 mi east of Castro Valley.

DRAINAGE AREA.--18.0 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Some regulation of low flow by ponds upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft^3/s, Feb. 18, 1986, gage height, 8.33 ft; maximum gage height, 9.50 ft, Jan. 24, 1983; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 275 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0830	295	3.48	Feb. 14	1730	*330	*3.68
Feb. 12	0315	313	3.58				

Minimum daily, 0.01 ft^3/s, Sept. 28, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.04	.03	.17	6.3	9.1	2.4	.98	.37	.24	.05	.03
2	.05	.06	.04	.18	.23	6.7	1.8	.87	.48	.11	.04	.03
3	.05	.04	.04	.21	.17	4.3	2.3	.79	.46	.09	.04	.03
4	.06	.04	.04	4.1	.25	3.8	1.9	.83	.34	.08	.05	.03
5	.07	.05	.05	14	.22	59	1.8	.91	.22	.05	.05	.03
6	.04	.04	.05	7.1	.77	35	2.1	.78	.22	.05	.05	.03
7	.04	.04	.62	3.2	.25	15	1.8	.73	.18	.06	.08	.03
8	.05	.04	.06	.69	.22	11	1.7	.78	.19	.05	.05	.02
9	.06	.04	.07	.52	1.3	8.6	1.6	.73	.17	.03	.06	.02
10	.04	.05	.07	.43	21	7.8	1.6	.55	.15	.04	.06	.03
11	.04	.05	.08	.34	21	6.5	1.7	.58	.15	.03	.05	.03
12	.03	.05	.10	.34	80	5.9	3.8	.62	.34	.04	.07	.02
13	.06	.05	.12	.34	15	5.4	1.3	.67	.16	.03	.05	.02
14	.03	.06	.11	.34	89	6.0	1.3	.68	.14	.03	.04	.02
15	.03	.06	.12	.34	121	9.6	1.4	.66	.14	.03	.04	.02
16	.05	.07	.09	.43	82	8.6	1.4	.67	.15	.03	.03	.02
17	.06	4.9	.17	.43	32	5.6	1.3	.66	.13	.03	.03	.02
18	.09	.31	2.1	.42	19	4.8	1.3	.63	.14	.03	.04	.03
19	.07	.03	.09	.34	24	4.2	1.2	.67	.14	.03	.04	.02
20	.04	.03	.06	.30	27	4.4	1.1	.73	.11	.03	.04	.02
21	.03	.03	.07	.27	17	3.9	1.1	.50	.07	.03	.04	.02
22	.05	.02	.10	.27	14	11	1.0	.49	.07	.03	.04	.02
23	.08	.02	.12	.27	11	7.1	1.0	.49	.06	.03	.04	.02
24	.08	.02	.12	.27	8.9	4.6	1.1	.48	.19	.03	.04	.02
25	5.5	.03	.13	.27	7.7	4.1	1.1	.39	.08	.03	.03	.02
26	61	.03	.13	.27	6.8	3.6	1.0	.38	.06	.03	.03	.02
27	.15	.08	12	.27	6.3	3.4	1.1	.38	.05	.04	.03	.02
28	.05	.03	8.3	1.5	6.1	3.0	1.0	.38	.05	.05	.03	.01
29	.15	.03	23	.26	5.9	2.8	1.0	.40	3.9	.07	.03	.01
30	.03	.03	.43	.23	---	2.9	.91	.34	2.1	.08	.03	.02
31	.04	---	.14	.26	---	2.8	---	.35	---	.09	.03	---
TOTAL	68.16	6.37	48.65	38.36	624.41	270.5	45.11	19.10	11.01	1.62	1.33	0.68
MEAN	2.20	.21	1.57	1.24	21.5	8.73	1.50	.62	.37	.052	.043	.023
MAX	61	4.9	23	14	121	59	3.8	.98	3.9	.24	.08	.03
MIN	.03	.02	.03	.17	.17	2.8	.91	.34	.05	.03	.03	.01
AC-FT	135	13	96	76	1240	537	89	38	22	3.2	2.6	1.3

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.01	3.85	7.28	10.5	21.1	18.9	7.41	2.57	1.01	.43	.19	.21
MAX	2.20	16.6	30.1	50.0	81.5	90.7	42.3	13.0	3.89	2.05	.69	.53
(WY)	1992	1984	1984	1982	1986	1983	1982	1983	1983	1983	1983	1986
MIN	.072	.21	.65	.16	.65	.47	.70	.19	.13	.023	.001	.000
(WY)	1989	1992	1990	1991	1989	1990	1990	1991	1990	1989	1988	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1981 - 1992	
ANNUAL TOTAL	581.08		1135.30			
ANNUAL MEAN	1.59		3.10		6.13	
HIGHEST ANNUAL MEAN					22.8	1983
LOWEST ANNUAL MEAN					.70	1989
HIGHEST DAILY MEAN	107	Mar 26	121	Feb 15	558	Jan 4 1982
LOWEST DAILY MEAN	.02	Nov 22	.01	Sep 28	.00	Aug 28 1981
ANNUAL SEVEN-DAY MINIMUM	.03	Nov 19	.02	Sep 23	.00	Sep 6 1981
INSTANTANEOUS PEAK FLOW			330	Feb 14	1460	Feb 18 1986
INSTANTANEOUS PEAK STAGE			3.68	Feb 14	9.50	Jan 24 1983
ANNUAL RUNOFF (AC-FT)	1150		2250		4440	
10 PERCENT EXCEEDS	1.6		6.4		11	
50 PERCENT EXCEEDS	.11		.14		.63	
90 PERCENT EXCEEDS	.03		.03		.03	

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1980 to current year (storm season only).
WATER TEMPERATURE: December 1980 to current year.
SEDIMENT DATA: December 1980 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1980 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1980 to current year.

REMARKS.--Sediment samples were collected on most days where water temperature is published. Zero-bedload discharge observed for flows less than 8.5 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 10,000 mg/L, Jan. 4, 1982; minimum daily mean, 0 mg/L, Feb. 26, 1989.
SEDIMENT LOAD (storm season only): Maximum daily, 19,800 tons, Jan. 4, 1982; minimum daily, 0 ton several days in most years.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 2,530 mg/L, Feb. 12; minimum daily mean, 7 mg/L, Jan. 3.
SEDIMENT LOAD (storm season only): Maximum daily, 1,260 tons, Feb. 12; 0 ton for many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT							
26...	0945	120	15.0	3790	1230	56	65
26...	0950	112	15.0	3930	1190	--	--
NOV							
17...	1410	31	13.0	1740	146	--	--
17...	1430	13	13.0	1350	47	--	--
17...	1435	11	13.0	1280	38	--	--
DEC							
28...	0925	18	10.0	183	8.9	--	--
29...	0900	20	9.0	295	16	--	--
JAN							
05...	0825	4.5	9.5	324	3.9	--	--
05...	0830	4.4	9.5	372	4.4	--	--
28...	1110	2.5	9.0	35	0.24	--	--
28...	1120	2.4	9.0	35	0.23	--	--
FEB							
10...	1730	55	12.0	1210	180	--	--
10...	1740	54	12.0	1110	162	--	--
13...	1545	8.4	12.0	133	3.0	--	--
15...	0930	84	9.5	686	156	50	56
16...	1115	100	10.0	490	132	--	--
16...	1120	101	10.0	491	134	--	--
MAR							
05...	1015	184	12.5	2530	1260	--	--
05...	1025	204	12.5	2640	1450	--	--
23...	1720	5.7	14.0	24	0.37	--	--
25...	1415	4.6	13.0	20	0.25	--	--

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT							
26...	80	92	97	99	100	--	--
26...	--	--	--	99	--	--	--
NOV							
17...	--	--	--	98	100	--	--
17...	--	--	--	100	--	--	--
17...	--	--	--	100	--	--	--
DEC							
28...	--	--	--	99	100	--	--
29...	--	--	--	100	--	--	--
JAN							
05...	--	--	--	100	--	--	--
05...	--	--	--	100	--	--	--
28...	--	--	--	67	--	--	--
28...	--	--	--	59	--	--	--
FEB							
10...	--	--	--	97	99	100	--
10...	--	--	--	97	--	--	--
13...	--	--	--	98	--	--	--
15...	66	80	90	96	99	100	--
16...	--	--	--	94	--	--	--
16...	--	--	--	93	--	--	--
MAR							
05...	--	--	--	73	90	98	100
05...	--	--	--	78	--	--	--
23...	--	--	--	94	--	--	--
25...	--	--	--	60	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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
APR						
12...	0940	5.0	14.0	60	0.81	97
12...	0950	6.4	14.0	77	1.3	97
27...	1545	1.1	16.0	44	0.13	69
29...	1455	0.92	16.0	12	0.03	56

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	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
OCT							
09...	1115	1	77.0	19	45	73	94
09...	1120	1	84.0	1	3	8	21
09...	1125	1	89.0	21	36	52	76
09...	1135	1	94.0	29	56	76	86
09...	1140	1	101	33	58	73	83
APR							
29...	1515	1	70.0	32	64	93	99
29...	1520	1	75.0	5	8	13	21
29...	1525	1	80.0	2	5	12	20
29...	1530	1	85.0	17	36	64	94
29...	1535	1	90.0	22	54	82	96
29...	1540	1	95.0	15	45	79	92
29...	1545	1	100	43	66	76	85
29...	1550	1	105	7	27	68	91

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT							
09...	96	98	98	99	100	--	--
09...	27	32	37	46	60	85	100
09...	92	98	99	100	--	--	--
09...	99	99	100	--	--	--	--
09...	96	100	--	--	--	--	--
APR							
29...	99	100	--	--	--	--	--
29...	27	34	44	61	83	100	--
29...	23	26	29	36	49	72	100
29...	99	99	100	--	--	--	--
29...	98	99	100	--	--	--	--
29...	96	98	100	--	--	--	--
29...	96	99	100	--	--	--	--
29...	96	98	99	100	--	--	--

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	11.0	8.5	---	11.0	13.5	---	---	---	---	---	---
2	---	---	---	8.0	8.0	13.0	14.0	---	---	---	---	---
3	14.0	11.0	8.0	---	---	---	---	---	---	---	---	---
4	---	---	---	10.0	8.5	13.0	---	---	---	---	---	---
5	15.0	12.0	7.0	10.0	---	12.5	13.0	---	---	---	---	---
6	---	---	---	10.0	8.5	---	---	---	---	---	---	---
7	16.0	13.0	9.5	9.0	11.0	12.0	14.0	---	---	---	---	---
8	---	---	---	7.5	---	---	---	---	---	---	---	---
9	17.0	14.0	6.5	---	11.0	14.0	13.0	---	---	---	---	---
10	---	---	---	8.0	11.5	---	---	---	---	---	---	---
11	18.0	13.0	7.0	---	11.5	---	---	---	---	---	---	---
12	---	---	---	7.0	12.0	11.5	14.0	---	---	---	---	---
13	16.0	12.0	7.0	---	12.0	---	14.0	---	---	---	---	---
14	---	---	---	6.0	11.5	12.0	---	---	---	---	---	---
15	16.0	10.0	6.5	---	9.5	12.0	---	---	---	---	---	---
16	---	---	---	6.5	11.0	12.0	---	---	---	---	---	---
17	16.0	13.0	7.0	---	11.0	---	---	---	---	---	---	---
18	---	11.0	10.0	7.5	9.5	12.5	---	---	---	---	---	---
19	15.0	10.0	8.0	---	13.5	---	---	---	---	---	---	---
20	---	---	---	6.0	14.0	12.0	15.0	---	---	---	---	---
21	16.0	11.5	6.0	---	---	---	---	---	---	---	---	---
22	---	---	---	6.0	14.0	---	12.0	---	---	---	---	---
23	14.0	10.0	7.5	6.5	---	14.0	---	---	---	---	---	---
24	---	---	---	---	13.0	---	11.5	---	---	---	---	---
25	15.0	10.0	---	6.5	---	13.0	---	---	---	---	---	---
26	15.0	---	9.0	---	---	---	---	---	---	---	---	---
27	12.0	9.5	9.0	8.0	12.5	15.5	16.0	---	---	---	---	---
28	11.0	---	10.0	9.0	---	---	---	---	---	---	---	---
29	---	8.5	10.0	9.0	13.5	13.0	16.0	---	---	---	---	---
30	11.0	---	10.0	9.0	---	---	---	---	---	---	---	---
31	---	---	---	---	---	14.0	---	---	---	---	---	---

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	.04	31	.00	.04	25	.00	.03	79	.01
2	.05	28	.00	.06	24	.00	.04	55	.01
3	.05	27	.00	.04	25	.00	.04	29	.00
4	.06	29	.00	.04	22	.00	.04	17	.00
5	.07	32	.01	.05	19	.00	.05	10	.00
6	.04	33	.00	.04	23	.00	.05	8	.00
7	.04	34	.00	.04	32	.00	.62	48	.16
8	.05	33	.00	.04	41	.00	.06	12	.00
9	.06	32	.01	.04	49	.01	.07	65	.01
10	.04	41	.00	.05	47	.01	.07	36	.01
11	.04	55	.01	.05	43	.01	.08	17	.00
12	.03	49	.00	.05	38	.01	.10	13	.00
13	.06	41	.01	.05	33	.00	.12	12	.00
14	.03	39	.00	.06	34	.01	.11	14	.00
15	.03	40	.00	.06	37	.01	.12	28	.01
16	.05	37	.00	.07	30	.01	.09	32	.01
17	.06	33	.01	4.9	367	12	.17	30	.01
18	.09	34	.01	.31	131	.25	2.1	21	.19
19	.07	36	.01	.03	37	.00	.09	10	.00
20	.04	41	.00	.03	21	.00	.06	21	.00
21	.03	45	.00	.03	14	.00	.07	42	.01
22	.05	22	.00	.02	24	.00	.10	50	.01
23	.08	8	.00	.02	47	.00	.12	54	.02
24	.08	9	.00	.02	50	.00	.12	43	.01
25	5.5	107	19	.03	45	.00	.13	31	.01
26	61	1950	731	.03	37	.00	.13	31	.01
27	.15	274	.13	.08	42	.01	12	1100	157
28	.05	103	.01	.03	38	.00	8.3	228	14
29	.15	52	.03	.03	36	.00	23	924	198
30	.03	45	.00	.03	53	.00	.43	169	.21
31	.04	34	.00	---	---	---	.14	67	.03
TOTAL	68.16	---	750.24	6.37	---	12.33	48.65	---	369.73
		JANUARY			FEBRUARY			MARCH	
1	.17	24	.01	6.3	478	28	9.1	88	4.2
2	.18	9	.00	.23	19	.01	6.7	98	2.0
3	.21	7	.00	.17	14	.01	4.3	29	.34
4	4.1	226	34	.25	21	.02	3.8	48	.50
5	14	789	120	.22	13	.01	59	730	256
6	7.1	418	15	.77	32	.10	35	259	30
7	3.2	66	.83	.25	25	.02	15	55	2.2
8	.69	24	.04	.22	21	.01	11	42	1.2
9	.52	16	.02	1.3	118	2.3	8.6	35	.81
10	.43	10	.01	21	448	66	7.8	32	.68
11	.34	9	.01	21	813	81	6.5	31	.54
12	.34	9	.01	80	2530	1260	5.9	30	.48
13	.34	8	.01	15	301	18	5.4	30	.44
14	.34	8	.01	89	1150	733	6.0	34	.57
15	.34	12	.01	121	1140	454	9.6	69	3.1
16	.43	17	.02	82	444	104	8.6	50	1.2
17	.43	15	.02	32	151	14	5.6	38	.57
18	.42	12	.01	19	96	5.1	4.8	43	.56
19	.34	15	.01	24	158	15	4.2	36	.41
20	.30	21	.02	27	142	12	4.4	29	.35
21	.27	19	.01	17	77	3.5	3.9	28	.29
22	.27	18	.01	14	55	2.1	11	89	4.1
23	.27	31	.02	11	35	1.0	7.1	33	.68
24	.27	41	.03	8.9	22	.52	4.6	28	.35
25	.27	48	.03	7.7	20	.41	4.1	26	.29
26	.27	35	.03	6.8	21	.38	3.6	27	.26
27	.27	23	.02	6.3	21	.37	3.4	34	.31
28	1.5	455	.71	6.1	19	.31	3.0	24	.20
29	.26	492	.39	5.9	17	.26	2.8	16	.12
30	.23	35	.02	---	---	---	2.9	18	.14
31	.26	27	.02	---	---	---	2.8	22	.17
TOTAL	38.36	---	171.33	624.41	---	2801.43	270.5	---	309.48

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	2.4	24	.16
2	1.8	24	.12
3	2.3	23	.14
4	1.9	20	.10
5	1.8	18	.09
6	2.1	15	.08
7	1.8	12	.06
8	1.7	13	.06
9	1.6	15	.07
10	1.6	15	.07
11	1.7	15	.07
12	3.8	65	.67
13	1.3	23	.08
14	1.3	16	.06
15	1.4	12	.04
16	1.4	12	.05
17	1.3	14	.05
18	1.3	14	.05
19	1.2	14	.05
20	1.1	14	.04
21	1.1	16	.05
22	1.0	19	.05
23	1.0	20	.05
24	1.1	21	.06
25	1.1	26	.08
26	1.0	33	.09
27	1.1	41	.12
28	1.0	36	.10
29	1.0	21	.06
30	.91	11	.03
31	---	---	---
TOTAL	45.11	---	2.80
PERIOD	1101.56		4417.34

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1991	68.16	750.24	9	759
NOVEMBER	6.37	12.33	0	12
DECEMBER	48.65	369.73	3	373
JANUARY 1992	38.36	171.33	2	173
FEBRUARY	624.41	2801.43	58	2859
MARCH	270.50	309.48	8	317
APRIL	45.11	2.80	0	3
PERIOD	1101.56	4417.34	80	4497

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°42'55", long 122°03'12", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 0.9 mi upstream from Cull Creek Dam and 1.1 mi northeast of Castro Valley Post Office.

DRAINAGE AREA.--5.79 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1978 to current year.

REVISED RECORDS.--WDR CA-80-2: 1979(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No storage or diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,690 ft^3/s, Jan. 5, 1982, gage height, 8.71 ft; no flow for many days each year.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0445	*186	*3.09				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.68	2.3	1.1	.32	.04	.02	.00	.00
2	.00	.00	.00	.00	.27	2.7	1.1	.28	.04	.01	.00	.00
3	.00	.00	.00	.00	.02	2.0	1.1	.26	.03	.01	.00	.00
4	.00	.00	.00	.02	.00	2.0	.98	.25	.03	.01	.00	.00
5	.00	.00	.00	1.2	.00	13	.98	.21	.03	.01	.00	.00
6	.00	.00	.00	.54	.01	12	.98	.21	.03	.00	.00	.00
7	.00	.00	.00	.33	.02	6.3	.98	.21	.03	.00	.00	.00
8	.00	.00	.00	.12	.02	4.0	.84	.18	.03	.00	.00	.00
9	.00	.00	.00	.00	.01	2.6	.79	.16	.03	.00	.00	.00
10	.00	.00	.00	.00	1.5	2.2	.71	.15	.03	.00	.00	.00
11	.00	.00	.00	.00	4.0	2.3	.71	.12	.03	.00	.00	.00
12	.00	.00	.00	.00	32	2.2	1.1	.12	.03	.00	.00	.00
13	.00	.00	.00	.00	5.3	2.1	.89	.12	.03	.00	.00	.00
14	.00	.00	.00	.00	12	2.7	.71	.12	.03	.00	.00	.00
15	.00	.00	.00	.00	20	3.7	.71	.12	.03	.00	.00	.00
16	.00	.00	.00	.00	14	5.0	.68	.12	.03	.00	.00	.00
17	.00	.00	.00	.00	3.5	2.6	.59	.12	.03	.00	.00	.00
18	.00	.00	.00	.00	2.2	2.2	.59	.12	.03	.00	.00	.00
19	.00	.00	.00	.00	5.2	2.0	.56	.12	.03	.00	.00	.00
20	.00	.00	.00	.00	9.0	2.1	.49	.12	.03	.00	.00	.00
21	.00	.00	.00	.00	4.0	2.3	.49	.12	.02	.00	.00	.00
22	.00	.00	.00	.00	3.6	3.7	.48	.10	.01	.00	.00	.00
23	.00	.00	.00	.00	2.8	3.0	.40	.09	.01	.00	.00	.00
24	.00	.00	.00	.00	1.8	2.2	.40	.09	.01	.00	.00	.00
25	.08	.00	.00	.00	1.9	1.8	.40	.08	.01	.00	.00	.00
26	3.1	.00	.00	.00	1.9	1.6	.40	.06	.01	.00	.00	.00
27	.00	.00	.02	.00	1.7	1.5	.40	.06	.00	.00	.00	.00
28	.00	.00	.06	.00	1.8	1.3	.40	.06	.00	.00	.00	.00
29	.00	.00	.46	.00	2.0	1.3	.36	.06	.03	.00	.00	.00
30	.00	.00	.00	.00	---	1.3	.32	.05	.04	.00	.00	.00
31	.00	---	.00	.00	---	1.3	---	.04	---	.00	.00	---
TOTAL	3.18	0.00	0.54	2.21	131.23	97.3	20.64	4.24	0.76	0.06	0.00	0.00
MEAN	.10	.000	.017	.071	4.53	3.14	.69	.14	.025	.002	.000	.000
MAX	3.1	.00	.46	1.2	32	13	1.1	.32	.04	.02	.00	.00
MIN	.00	.00	.00	.00	.00	1.3	.32	.04	.00	.00	.00	.00
AC-FT	6.3	.00	1.1	4.4	260	193	41	8.4	1.5	.1	.00	.00

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.061	1.09	2.73	6.04	11.7	8.92	2.73	.71	.21	.057	.012	.006
MAX	.45	6.00	14.0	35.5	39.7	54.3	16.8	3.56	.95	.25	.12	.079
(WY)	1983	1984	1984	1982	1982	1983	1982	1983	1983	1982	1983	1983
MIN	.000	.000	.001	.000	.045	.13	.055	.016	.007	.000	.000	.000
(WY)	1979	1987	1990	1991	1991	1988	1990	1988	1988	1981	1979	1979

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1979 - 1992	
ANNUAL TOTAL	137.09		260.16			
ANNUAL MEAN	.38		.71		2.81	
HIGHEST ANNUAL MEAN					10.3	1983
LOWEST ANNUAL MEAN					.054	1990
HIGHEST DAILY MEAN	30	Mar 26	32	Feb 12	445	Feb 15 1982
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Oct 1 1978
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1978
INSTANTANEOUS PEAK FLOW			186	Feb 12	1690	Jan 5 1982
INSTANTANEOUS PEAK STAGE			3.09	Feb 12	8.71	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	272		516		2040	
10 PERCENT EXCEEDS	.57		2.0		4.3	
50 PERCENT EXCEEDS	.00		.00		.08	
90 PERCENT EXCEEDS	.00		.00		.00	

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year (storm season only).
WATER TEMPERATURE: Water years 1979 to current year.
SEDIMENT DATA: Water years 1979 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1978 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1978 to current year.

REMARKS.--Zero bedload discharge observed at flows less than 3.6 ft^3/s. Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 22,400 mg/L, Feb. 17, 1986; minimum daily mean, no flow many days during most years.
SEDIMENT LOAD: Maximum daily, 26,400 tons, Feb. 17, 1986; minimum daily, 0 ton many days during most years.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 5,430 mg/L, Feb. 12; minimum daily mean, no flow on many days.
SEDIMENT LOAD: (storm season only): Maximum daily, 930 tons, Feb. 12; minimum daily, 0 ton on many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
26...	1530	1.5	14.0	954	3.9	--	--	--
DEC								
28...	0900	0.24	9.0	67	0.04	--	--	--
JAN								
05...	1035	1.7	8.0	262	1.2	--	--	--
FEB								
01...	1000	0.95	9.0	32	0.08	--	--	--
11...	1200	1.9	11.5	216	1.1	--	--	--
12...	1000	28	11.0	5160	390	32	39	44
12...	1110	24	11.5	3890	252	35	43	50
13...	1305	3.6	12.0	136	1.3	--	--	--
15...	0755	20	8.0	1040	56	--	--	--
16...	0930	19	9.5	1150	59	33	41	49
22...	1105	3.4	13.0	74	0.68	--	--	--
MAR								
02...	1530	2.4	14.5	40	0.26	--	--	--
05...	1325	19	13.0	4130	212	--	--	--
14...	0905	2.6	10.0	30	0.21	--	--	--
16...	1555	5.5	12.5	724	11	--	--	--
23...	1620	2.4	15.0	26	0.17	--	--	--
25...	1615	1.8	15.0	129	0.63	--	--	--
26...	1105	1.5	12.0	32	0.13	--	--	--
APR								
28...	1430	0.40	--	6	0.01	--	--	--

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
26...	--	--	100	--	--	--	--
DEC							
28...	--	--	98	--	--	--	--
JAN							
05...	--	--	83	91	99	100	--
FEB							
01...	--	--	96	--	--	--	--
11...	--	--	99	100	--	--	--
12...	56	68	77	86	94	99	100
12...	63	75	84	91	96	99	100
13...	--	--	97	--	--	--	--
15...	--	--	86	93	98	100	--
16...	50	69	79	87	95	99	100
22...	--	--	96	--	--	--	--
MAR							
02...	--	--	94	--	--	--	--
05...	--	--	83	89	95	99	100
14...	--	--	74	--	--	--	--
16...	--	--	99	99	99	100	--
23...	--	--	96	--	--	--	--
25...	--	--	84	--	--	--	--
26...	--	--	54	--	--	--	--
APR							
28...	--	--	65	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	TEMPERATURE WATER (DEG C)	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	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
APR								
29...	1115	13.5	1	0.40	16	36	61	73
29...	1120	13.5	1	0.40	10	32	75	97
29...	1125	13.5	1	0.40	4	11	28	42
29...	1130	13.5	1	0.40	1	2	4	9
29...	1135	13.5	1	0.40	2	6	18	32
29...	1140	13.5	1	0.40	8	28	70	92
29...	1145	13.5	1	0.40	7	18	40	62

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
APR							
29...	88	96	98	100	--	--	--
29...	99	100	--	--	--	--	--
29...	47	61	83	96	100	--	--
29...	16	27	40	55	82	93	100
29...	38	40	43	46	51	57	100
29...	98	98	99	100	--	--	--
29...	81	94	96	97	98	100	--

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)
FEB									
12...	1020	1000	1120	0.250	0	1015	1030	30	0.5
12...	1100	1000	1120	0.250	0	1045	1115	30	0.5

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
FEB									
12...	1	25	25	0.50	32	11.0	0.72	9.0	2
12...	1	25	25	0.50	25	11.0	1.13	14	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB									
12...	15	32	41	48	57	70	82	97	100
12...	8	17	22	27	34	49	69	94	100

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	9.0	12.0	---	---	---	---	---	---
2	---	---	---	---	6.0	14.5	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	8.0	---	13.0	---	---	---	---	---	---
6	---	---	---	8.5	---	12.5	---	---	---	---	---	---
7	---	---	---	7.5	---	9.5	---	---	---	---	---	---
8	---	---	---	---	---	13.5	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	12.0	---	---	---	---	---	---	---
11	---	---	---	---	11.5	15.0	---	---	---	---	---	---
12	---	---	---	---	11.5	---	13.5	---	---	---	---	---
13	---	---	---	---	12.0	---	---	---	---	---	---	---
14	---	---	---	---	10.0	11.5	---	---	---	---	---	---
15	---	---	---	---	10.0	12.5	15.5	---	---	---	---	---
16	---	---	---	---	11.0	12.5	---	---	---	---	---	---
17	---	---	---	---	10.0	13.5	---	---	---	---	---	---
18	---	---	---	---	---	---	16.5	---	---	---	---	---
19	---	---	---	---	11.0	---	---	---	---	---	---	---
20	---	---	---	---	13.5	12.0	---	---	---	---	---	---
21	---	---	---	---	13.0	---	---	---	---	---	---	---
22	---	---	---	---	13.0	12.5	---	---	---	---	---	---
23	---	---	---	---	---	15.0	---	---	---	---	---	---
24	---	---	---	---	9.0	---	---	---	---	---	---	---
25	---	---	---	---	---	15.0	---	---	---	---	---	---
26	14.0	---	---	---	15.0	12.0	---	---	---	---	---	---
27	---	---	---	---	---	17.0	---	---	---	---	---	---
28	---	---	9.0	8.0	15.5	---	---	---	---	---	---	---
29	---	---	8.5	---	---	---	13.5	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	.00	0	.00	.00	0	.00	.00	0	.00
2	.00	0	.00	.00	0	.00	.00	0	.00
3	.00	0	.00	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	.00	0	.00
6	.00	0	.00	.00	0	.00	.00	0	.00
7	.00	0	.00	.00	0	.00	.00	0	.00
8	.00	0	.00	.00	0	.00	.00	0	.00
9	.00	0	.00	.00	0	.00	.00	0	.00
10	.00	0	.00	.00	0	.00	.00	0	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	.00	0	.00	.00	0	.00
19	.00	0	.00	.00	0	.00	.00	0	.00
20	.00	0	.00	.00	0	.00	.00	0	.00
21	.00	0	.00	.00	0	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.08	43	.20	.00	0	.00	.00	0	.00
26	3.1	2120	46	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.02	3	.00
28	.00	0	.00	.00	0	.00	.06	13	.01
29	.00	0	.00	.00	0	.00	.46	176	.45
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	3.18	---	46.20	0.00	---	0.00	0.54	---	0.46
		JANUARY			FEBRUARY			MARCH	
1	.00	0	.00	.68	10	.02	2.3	32	.26
2	.00	0	.00	.27	5	.00	2.7	44	.33
3	.00	0	.00	.02	2	.00	2.0	18	.10
4	.02	3	.00	.00	0	.00	2.0	16	.09
5	1.2	278	1.7	.00	0	.00	13	2750	155
6	.54	27	.06	.01	2	.00	12	946	39
7	.33	7	.01	.02	3	.00	6.3	185	3.5
8	.12	2	.00	.02	3	.00	4.0	83	.95
9	.00	0	.00	.01	2	.00	2.6	38	.28
10	.00	0	.00	1.5	277	5.4	2.2	52	.34
11	.00	0	.00	4.0	881	19	2.3	25	.16
12	.00	0	.00	32	5430	970	2.2	21	.12
13	.00	0	.00	5.3	295	6.4	2.1	24	.14
14	.00	0	.00	12	635	56	2.7	29	.21
15	.00	0	.00	20	1260	78	3.7	62	1.3
16	.00	0	.00	14	783	36	5.0	428	7.5
17	.00	0	.00	3.5	166	1.7	2.6	55	.42
18	.00	0	.00	2.2	82	.51	2.2	21	.12
19	.00	0	.00	5.2	252	7.2	2.0	20	.11
20	.00	0	.00	9.0	518	17	2.1	21	.11
21	.00	0	.00	4.0	107	1.2	2.3	25	.16
22	.00	0	.00	3.6	69	.68	3.7	162	2.4
23	.00	0	.00	2.8	34	.26	3.0	95	.91
24	.00	0	.00	1.8	21	.10	2.2	28	.16
25	.00	0	.00	1.9	22	.12	1.8	30	.15
26	.00	0	.00	1.9	36	.19	1.6	32	.13
27	.00	0	.00	1.7	34	.16	1.5	33	.13
28	.00	0	.00	1.8	26	.13	1.3	31	.11
29	.00	0	.00	2.0	14	.08	1.3	29	.10
30	.00	0	.00	---	---	---	1.3	26	.09
31	.00	0	.00	---	---	---	1.3	24	.08
TOTAL	2.21	---	1.77	131.23	---	1199.02	97.3	---	214.31

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	1.1	22	.07
2	1.1	21	.06
3	1.1	20	.06
4	.98	18	.05
5	.98	17	.05
6	.98	16	.04
7	.98	15	.04
8	.84	14	.03
9	.79	13	.03
10	.71	12	.02
11	.71	12	.02
12	1.1	21	.07
13	.89	11	.03
14	.71	8	.01
15	.71	5	.01
16	.68	5	.01
17	.59	5	.01
18	.59	5	.01
19	.56	5	.01
20	.49	5	.01
21	.49	5	.01
22	.48	5	.01
23	.40	7	.01
24	.40	11	.01
25	.40	18	.02
26	.40	15	.02
27	.40	10	.01
28	.40	7	.01
29	.36	7	.01
30	.32	5	.00
31	---	---	---
TOTAL	20.64	---	0.75
PERIOD	255.10		1463.79

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1991	3.18	46.20	0	46
NOVEMBER	0.00	0.00	0	0
DECEMBER	0.54	0.46	0	0
JANUARY 1992	2.21	1.77	0	2
FEBRUARY	131.23	1200.15	32	1230
MARCH	97.30	214.46	4	218
APRIL	20.64	0.75	0	1
PERIOD	255.10	1463.79	36	1497

11181006 CASTRO VALLEY CREEK AT KNOX STREET, AT CASTRO VALLEY, CA

LOCATION.--Lat 37°40'56", long 122°04'44", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank at Knox Street, 1.0 mi southeast of Castro Valley Post Office.

DRAINAGE AREA.--2.20 mi^2.

PERIOD OF RECORD.--October 1978 to September 1980, October 1989 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 130 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 873 ft^3/s, Oct. 23, 1989, gage height, 6.69 ft, from rating curve extended above 160 ft^3/s; no flow some days in most years.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0745	*303	*4.29				

No flow Oct. 6, 7, 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.03	.03	.08	8.1	3.5	.22	.09	.06	.12	.05	.02
2	.02	.03	.03	.07	.13	1.8	.21	.15	.07	.05	.05	.02
3	.02	.03	.07	.05	.09	.46	.17	.09	.07	.05	.05	.01
4	.02	.03	.04	3.7	.07	.35	.16	.09	.07	.05	.03	.02
5	.01	.05	.03	7.6	.06	16	.18	.11	.04	.04	.03	.01
6	.00	.06	.03	7.3	.83	5.6	.16	.09	.03	.03	.04	.02
7	.00	.06	.37	e2.1	.51	1.1	.14	.07	.03	.16	.05	.02
8	.01	.06	.03	.27	.13	.63	.16	.08	.03	.07	.03	.02
9	.01	.05	.02	.11	1.1	.48	.19	.08	.03	.02	.03	.03
10	.01	.04	.02	.11	19	.41	.15	.07	.03	.05	.04	.03
11	.01	.05	.06	.07	12	.39	.70	.08	.05	.02	.04	.03
12	.01	.05	.03	.06	34	.35	4.0	.08	.76	.02	.05	.01
13	.02	.06	.01	.23	6.4	.33	.25	.08	.09	.02	.05	.01
14	.01	.06	.01	.07	e22	3.6	.13	.06	.03	.04	.04	.01
15	.01	.03	.03	.08	e15	e5.9	.13	.13	.16	.05	.04	.02
16	.02	.03	.06	.08	11	2.2	.13	.06	.22	.05	.03	.02
17	.00	3.1	.02	.06	1.8	.73	.13	.04	.62	.06	.03	.01
18	.00	.27	.27	.07	2.7	.49	.10	.04	.06	.05	.02	.02
19	.01	.06	.01	.07	3.9	.39	.09	.05	.05	.05	.03	.02
20	.02	.04	.01	.07	1.7	.94	.10	.05	.04	.06	.03	.02
21	.01	.06	.01	.07	1.3	.41	.13	.06	.03	.05	.03	.04
22	.02	.03	.02	.06	.72	11	.13	.05	.12	.03	.04	.02
23	.03	.02	.03	.06	.55	4.4	.11	.05	.03	.03	.05	.02
24	.04	.03	.03	.07	.45	.52	.11	.06	.03	.04	.05	.03
25	7.7	.04	.03	.08	.40	.37	.13	.06	.05	.06	.06	.04
26	27	.04	.05	.05	.32	.31	.11	.06	.16	.06	.05	.01
27	.12	.27	8.7	.05	.32	.28	.10	.05	.03	.07	.04	.01
28	.04	.03	10	1.2	.32	.25	.09	.05	.15	.04	.02	.02
29	.31	.06	11	.08	.30	.19	.09	.05	7.9	.03	.01	.01
30	.04	.03	.34	.05	---	.28	.09	.07	e.33	.04	.02	.02
31	.03	---	.10	.05	---	.28	---	.06	---	.06	.02	---
TOTAL	35.58	4.80	31.49	24.07	145.20	63.94	8.59	2.21	11.37	1.57	1.15	0.59
MEAN	1.15	.16	1.02	.78	5.01	2.06	.29	.071	.38	.051	.037	.020
MAX	27	3.1	11	7.6	34	16	4.0	.15	7.9	.16	.06	.04
MIN	.00	.02	.01	.05	.06	.19	.09	.04	.03	.02	.01	.01
AC-FT	71	9.5	62	48	288	127	17	4.4	23	3.1	2.3	1.2

e Estimated.

11181006 CASTRO VALLEY CREEK AT KNOX STREET, AT CASTRO VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.72	.46	.88	1.83	3.95	1.84	.32	.37	.14	.042	.041	.024
MAX	1.55	.85	2.43	4.27	7.56	4.16	.40	1.05	.38	.068	.071	.035
(WY)	1990	1990	1980	1979	1980	1991	1979	1990	1992	1990	1991	1990
MIN	.015	.098	.028	.098	1.14	.41	.28	.071	.028	.016	.019	.019
(WY)	1979	1991	1990	1991	1990	1990	1990	1992	1979	1979	1979	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1979 - 1992	
ANNUAL TOTAL	279.56		330.56			
ANNUAL MEAN	.77		.90		.75	
HIGHEST ANNUAL MEAN					.91	1979
LOWEST ANNUAL MEAN					.55	1990
HIGHEST DAILY MEAN	28	Feb 4	34	Feb 12	62	Feb 19 1980
LOWEST DAILY MEAN	.00	Sep 4	.00	Oct 6	.00	Sep 18 1990
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 5	.01	Oct 5	.00	Oct 8 1990
INSTANTANEOUS PEAK FLOW			303	Oct 26	873	Oct 23 1989
INSTANTANEOUS PEAK STAGE			4.29	Oct 26	6.69	Oct 23 1989
ANNUAL RUNOFF (AC-FT)	555		656		544	
10 PERCENT EXCEEDS	.57		1.1		1.2	
50 PERCENT EXCEEDS	.05		.06		.06	
90 PERCENT EXCEEDS	.01		.02		.01	

11181008 CASTRO VALLEY CREEK AT HAYWARD, CA

LOCATION.--Lat 37°40'48", long 122°04'46", in San Lorenzo (Castro) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 500 ft east of Hayward City Hall, 700 ft upstream from mouth, and 700 ft downstream from small left-bank tributary.

DRAINAGE AREA.--5.51 mi^2.

PERIOD OF RECORD.--October 1971 to current year (seasonal records only, water years 1975-77).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft^3/s, Jan. 23, 1983, gage height, 8.51 ft, from rating curve extended above 61 ft^3/s on basis of slope-area measurement at gage height 3.92 ft and step-backwater computation to gage height 10.40 ft; no flow at times.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0310	*473	*5.10				

Minimum daily, 0.09 ft^3/s, Oct. 14, 15, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.20	.12	.33	15	12	.73	.41	.23	.28	.22	.25
2	.17	.19	.17	.28	.47	4.1	.66	.43	.26	.22	.21	.25
3	.16	.18	.18	.29	.38	1.2	.62	.37	.30	.22	.22	.23
4	.21	.19	.18	13	.33	.88	.63	.39	.23	.23	.24	.20
5	.15	.18	.17	14	.31	36	.59	.38	.22	.19	.25	.17
6	.24	.22	.17	16	3.0	23	.59	.36	.23	.21	.22	.16
7	.15	.18	1.7	6.7	1.1	3.7	.56	.33	.21	.23	.22	.35
8	e.14	.18	.17	.72	.45	2.1	.55	.33	.22	.22	.22	.21
9	.21	.17	.15	.46	3.4	1.6	.55	.30	.24	.19	.21	.18
10	.13	.17	.15	.40	46	1.3	.84	.28	.24	.24	.22	.17
11	.13	.17	e.23	.34	38	1.2	1.8	.28	.24	.19	.24	.18
12	.11	.17	.17	.32	94	1.1	6.6	.31	1.2	.19	.19	.20
13	.10	.19	.13	.90	20	.99	.75	.31	.20	.19	1.1	.17
14	.09	.19	.15	.29	60	5.9	.71	.26	.20	.18	.17	.25
15	.09	.17	.17	.26	43	16	.74	.31	.33	.17	.15	.16
16	.13	.16	.21	.26	27	4.5	.55	.26	.26	.18	.16	.16
17	.09	9.2	.18	.28	4.8	1.4	.68	.25	.45	.19	.15	.16
18	.10	.51	1.0	.28	8.2	1.1	.50	.26	.20	.18	.19	.15
19	.10	.22	.16	.24	13	1.0	.48	.26	.20	.18	.25	.17
20	.11	.19	.19	.23	5.4	2.1	.47	.28	.20	.19	.19	.15
21	.10	.21	.13	.24	3.6	1.0	.57	.30	.19	.18	.16	.19
22	.10	.19	.14	.22	2.1	23	.42	.25	.23	.18	.21	.20
23	.10	.16	.12	.24	1.7	2.8	.38	.29	.19	.18	.16	.18
24	.11	.17	.12	.24	1.3	1.4	.42	.29	.20	.18	.16	.19
25	24	.19	.11	.24	1.2	1.3	.42	.25	.20	.20	.20	.16
26	66	.19	.13	.25	1.1	1.1	.39	.30	.28	.19	.15	.17
27	.55	1.0	21	.24	1.0	1.0	.63	.28	.17	.20	.17	.13
28	.34	.16	22	3.1	.95	.85	.63	.25	.34	.22	.20	.15
29	1.0	.16	35	.32	.96	.81	.39	.26	14	.29	.21	.22
30	.23	.12	.95	.28	---	.93	.38	.24	.90	.94	.22	.15
31	.22	---	.47	.27	---	.76	---	.22	---	.46	.23	---
TOTAL	95.54	15.58	85.92	61.22	397.75	156.12	24.23	9.29	22.56	7.29	7.09	5.66
MEAN	3.08	.52	2.77	1.97	13.7	5.04	.81	.30	.75	.24	.23	.19
MAX	66	9.2	35	16	94	36	6.6	.43	14	.94	1.1	.35
MIN	.09	.12	.11	.22	.31	.76	.38	.22	.17	.17	.15	.13
AC-FT	190	31	170	121	789	310	48	18	45	14	14	11

e Estimated.

11181008 CASTRO VALLEY CREEK AT HAYWARD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.77	4.90	4.83	7.72	9.52	7.78	2.81	.86	.51	.38	.35	.57
MAX	4.97	19.0	12.8	24.6	25.5	34.6	12.3	3.23	.78	1.15	1.50	1.62
(WY)	1976	1974	1984	1982	1986	1983	1974	1990	1974	1974	1983	1983
MIN	.15	.42	.24	.39	1.06	.60	.20	.30	.28	.17	.14	.12
(WY)	1978	1981	1990	1991	1977	1988	1977	1992	1980	1991	1980	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1972 - 1992	
ANNUAL TOTAL	752.43		888.25			
ANNUAL MEAN	2.06		2.43		3.74	
HIGHEST ANNUAL MEAN					8.76	1983
LOWEST ANNUAL MEAN					1.51	1972
HIGHEST DAILY MEAN	66	Oct 26	94	Feb 12	322	Jan 4 1982
LOWEST DAILY MEAN	.08	Aug 21	.09	Oct 14	.00	Oct 11 1977
ANNUAL SEVEN-DAY MINIMUM	.09	Aug 21	.10	Oct 13	.00	Oct 11 1977
INSTANTANEOUS PEAK FLOW			473	Feb 12	1350	Jan 23 1983
INSTANTANEOUS PEAK STAGE			5.10	Feb 12	8.51	Jan 23 1983
ANNUAL RUNOFF (AC-FT)	1490		1760		2710	
10 PERCENT EXCEEDS	1.4		3.0		5.9	
50 PERCENT EXCEEDS	.21		.24		.45	
90 PERCENT EXCEEDS	.11		.15		.17	

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA

LOCATION.--Lat 37°41'03", long 122°08'20", in San Lorenzo (Soto) Grant, Alameda County, Hydrologic Unit 18050004, on left bank 400 ft downstream from Washington Avenue bridge in San Lorenzo and 1.6 mi upstream from mouth.

DRAINAGE AREA.--44.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to September 1978, October 1987 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6.13 ft above National Geodetic Vertical Datum of 1929 (levels by Alameda County Flood Control and Water Conservation District).

REMARKS.--No estimated daily discharges. Records good. Flow partly regulated by Cull Creek Reservoir beginning in October 1962 (capacity, 310 acre-ft) and Don Castro Reservoir (capacity, 380 acre-ft) 7 mi upstream beginning in January 1965. A few very small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft^3/s, Apr. 1, 1974, gage height, 8.22 ft from rating curve extended above 1,200 ft^3/s; minimum daily, 0.01 ft^3/s, several days in June and July, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0815	*3,830	*8.10	Feb. 14	1720	2,140	6.61
Dec. 29	0120	1,840	6.31	Mar. 5	1055	1,330	5.79
Feb. 12	0330	3,560	7.89				

Minimum daily, 0.33 ft^3/s, Oct. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.91	.88	2.8	45	38	7.7	3.6	1.6	.81	.48	.40
2	.55	.84	.95	2.4	2.2	27	7.0	3.4	1.4	.62	.44	.42
3	.50	.81	.95	2.2	1.6	11	6.7	3.2	1.4	.58	.44	.40
4	.53	.78	.97	32	1.5	11	6.5	3.3	1.3	.54	.60	.44
5	.50	.75	.88	88	1.4	214	6.3	3.3	1.2	.55	.61	.43
6	.55	.75	1.3	46	3.8	123	5.7	3.5	1.3	.52	.49	.43
7	.50	.70	3.8	22	2.3	38	5.6	3.3	2.7	.55	.51	.54
8	.50	.67	1.5	4.6	1.6	23	5.1	3.4	2.5	.59	.48	.43
9	.55	.70	1.4	2.9	5.7	17	4.6	3.7	1.9	.64	.48	.43
10	.48	.71	1.0	2.3	218	14	4.6	3.2	1.4	.69	.51	.36
11	.50	.67	.83	2.1	167	13	4.3	2.9	1.4	.59	.67	.35
12	.48	.60	.62	2.0	919	12	7.7	2.9	2.0	.55	.63	.39
13	.46	.62	.55	2.3	73	11	7.4	2.8	.71	.57	1.3	.37
14	.45	.65	.55	1.8	459	25	3.6	2.9	.65	.70	.77	.51
15	.42	.55	.56	1.8	450	35	3.0	3.1	.66	.70	.58	.44
16	.47	.60	.69	1.7	189	41	3.0	3.0	.75	.71	.57	.44
17	.41	19	.66	1.7	58	18	2.9	3.2	.96	.69	.62	.45
18	.41	6.8	1.9	1.7	45	11	2.8	3.0	.83	.67	.71	.45
19	.43	2.0	1.0	1.6	60	10	2.8	3.5	.91	.63	.76	.52
20	.40	1.7	.94	1.5	63	12	2.9	2.8	.98	.78	.61	.48
21	.39	2.2	.88	1.6	39	11	3.0	2.8	1.0	.94	.62	.49
22	.39	1.9	.78	1.6	26	20	3.0	2.5	1.2	1.2	.68	.51
23	.33	1.5	.76	1.4	19	24	3.1	2.3	1.1	1.1	.70	.53
24	.37	1.2	.76	1.4	15	11	3.1	2.3	1.2	.78	.64	.53
25	119	1.2	.76	1.4	12	9.0	3.1	2.3	1.4	.80	.64	.46
26	796	1.0	.76	1.3	10	8.7	3.2	1.9	1.5	.68	.52	.42
27	2.0	1.8	76	1.6	10	8.5	3.5	1.9	.98	.44	.51	.40
28	1.6	1.1	56	5.9	9.8	8.4	4.7	1.9	.96	.66	.53	.40
29	3.1	1.0	277	1.6	8.8	8.1	3.7	1.8	24	.52	.47	.50
30	1.4	.94	7.1	1.3	---	8.1	3.4	1.7	11	.86	.41	.48
31	1.2	---	3.5	1.3	---	8.4	---	1.5	---	.78	.40	---
TOTAL	935.41	54.65	446.23	243.8	2915.7	829.2	134.0	86.9	70.89	21.44	18.38	13.40
MEAN	30.2	1.82	14.4	7.86	101	26.7	4.47	2.80	2.36	.69	.59	.45
MAX	796	19	277	88	919	214	7.7	3.7	24	1.2	1.3	.54
MIN	.33	.55	.55	1.3	1.4	8.1	2.8	1.5	.65	.44	.40	.35
AC-FT	1860	108	885	484	5780	1640	266	172	141	43	36	27

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.64	8.19	20.7	50.9	46.3	37.5	19.7	5.53	2.60	1.39	1.34	1.87
MAX	30.2	38.1	106	181	183	92.7	108	14.2	9.67	2.84	3.25	4.58
(WY)	1992	1974	1971	1970	1969	1975	1974	1974	1975	1974	1969	1975
MIN	.23	1.49	1.41	1.14	2.15	1.83	2.07	.85	.066	.64	.11	.35
(WY)	1978	1991	1990	1991	1977	1972	1976	1972	1977	1990	1977	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1968 - 1992	
ANNUAL TOTAL	3730.23		5770.00			
ANNUAL MEAN	10.2		15.8		16.7	
HIGHEST ANNUAL MEAN					40.9	1974
LOWEST ANNUAL MEAN					2.38	1977
HIGHEST DAILY MEAN	796	Oct 26	919	Feb 12	2400	Jan 21 1970
LOWEST DAILY MEAN	.33	Oct 23	.33	Oct 23	.01	Jun 12 1977
ANNUAL SEVEN-DAY MINIMUM	.39	Oct 18	.39	Oct 18	.01	Jun 10 1977
INSTANTANEOUS PEAK FLOW			3830	Oct 26	3960	Apr 1 1974
INSTANTANEOUS PEAK STAGE			8.10	Oct 26	8.22	Apr 1 1974
ANNUAL RUNOFF (AC-FT)	7400		11440		12090	
10 PERCENT EXCEEDS	10		19		37	
50 PERCENT EXCEEDS	.92		1.4		2.0	
90 PERCENT EXCEEDS	.54		.47		.54	

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1989 to current year (storm season only).
WATER TEMPERATURE: October 1989 to current year.
SEDIMENT DATA: October 1989 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1989 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1989 to current year.

REMARKS.--Sediment samples were collected on most days where water temperature is published. Zero-bedload discharge observed for flows less than 24 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 1,230 mg/L, Feb. 12, 1992; minimum daily mean, 1 mg/L, Feb. 20, 21, 1990, many days in 1991 and 1992.
SEDIMENT LOAD (storm season only): Maximum daily, 5,720 tons, Feb. 12, 1992; minimum daily, 0 ton many days in 1991 and 1992.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 1,230 mg/L, Feb. 12; minimum daily mean, 1 mg/L on many days.
SEDIMENT LOAD (storm season only): Maximum daily, 5,720 tons, Feb. 12; minimum daily, 0 ton many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
DEC								
27...	1200	7.0	10.5	14	0.26	74	--	--
28...	1435	24	11.5	36	2.3	97	99	100
JAN								
07...	1520	19	10.5	24	1.2	100	--	--
FEB								
12...	1725	88	13.5	466	111	100	--	--
12...	1735	88	13.5	520	124	99	--	--
13...	1030	53	12.0	176	25	100	--	--
25...	1445	12	17.5	20	0.65	98	--	--
MAR								
10...	1620	14	17.5	16	0.60	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE 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
OCT								
02...	1400	1	0.60	24.5	6	20	61	86
28...	1400	1	1.4	15.5	--	--	--	--

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
OCT								
02...	96	99	100	--	--	--	--	--
28...	--	1	3	6	17	44	57	100

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	---	---	---	---	12.0	---	---
2	21.0	---	---	---	12.5	14.0	19.0
3	---	16.0	9.0	11.5	---	17.0	---
4	21.0	---	---	---	12.0	---	20.5
5	---	---	---	11.0	---	14.5	---
6	20.5	---	11.5	11.0	12.5	---	---
7	---	18.5	12.5	10.5	---	15.0	---
8	21.5	---	---	---	14.5	16.0	---
9	---	16.5	---	9.0	---	15.0	19.0
10	---	---	8.0	8.0	12.5	17.5	---
11	21.0	---	---	---	13.0	---	---
12	---	---	8.5	---	13.5	17.0	15.5
13	---	15.5	---	---	12.0	16.5	23.5
14	23.5	---	8.0	6.5	11.0	15.0	22.0
15	---	12.0	---	---	12.5	16.5	---
16	---	13.0	8.0	---	---	---	---
17	18.0	15.5	---	---	13.5	15.0	---
18	---	13.5	13.0	---	13.0	15.5	18.0
19	---	---	8.0	8.0	---	17.5	---
20	19.5	14.5	---	---	13.0	---	22.0
21	---	---	7.0	9.5	14.0	16.5	---
22	---	10.5	---	---	16.5	16.5	---
23	16.0	---	9.5	---	16.0	18.5	16.0
24	---	---	---	7.0	---	18.0	---
25	16.0	13.0	11.5	---	17.5	16.5	---
26	16.0	---	---	---	---	16.0	18.0
27	12.5	12.0	10.5	11.0	19.0	---	---
28	15.5	---	10.0	---	16.0	19.0	22.0
29	16.0	---	10.0	---	14.5	---	---
30	---	7.5	12.0	---	---	---	26.0
31	13.0	---	9.0	11.5	---	14.5	---

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	.54	6	.01	.91	3	.01	.88	2	.00
2	.55	8	.01	.84	3	.01	.95	1	.00
3	.50	11	.02	.81	4	.01	.95	1	.00
4	.53	14	.02	.78	4	.01	.97	1	.00
5	.50	14	.02	.75	5	.01	.88	2	.00
6	.55	13	.02	.75	5	.01	1.3	2	.01
7	.50	8	.01	.70	6	.01	3.8	8	.17
8	.50	4	.00	.67	5	.01	1.5	2	.01
9	.55	4	.01	.70	9	.02	1.4	4	.02
10	.48	5	.01	.71	4	.01	1.0	5	.01
11	.50	6	.01	.67	7	.01	.83	5	.01
12	.48	6	.01	.60	6	.01	.62	4	.01
13	.46	6	.01	.62	5	.01	.55	3	.00
14	.45	6	.01	.65	4	.01	.55	2	.00
15	.42	4	.00	.55	4	.01	.56	2	.00
16	.47	2	.00	.60	4	.01	.69	1	.00
17	.41	1	.00	19	60	6.1	.66	1	.00
18	.41	3	.00	6.8	14	.40	1.9	6	.05
19	.43	7	.01	2.0	1	.01	1.0	4	.01
20	.40	12	.01	1.7	1	.00	.94	8	.02
21	.39	12	.01	2.2	1	.01	.88	10	.02
22	.39	11	.01	1.9	1	.00	.78	8	.02
23	.33	10	.01	1.5	1	.00	.76	7	.02
24	.37	8	.01	1.2	1	.00	.76	5	.01
25	119	161	340	1.2	1	.00	.76	3	.01
26	796	323	1160	1.0	1	.00	.76	2	.00
27	2.0	74	.40	1.8	6	.06	76	55	40
28	1.6	22	.10	1.1	1	.00	56	54	18
29	3.1	15	.18	1.0	1	.00	277	71	139
30	1.4	4	.02	.94	2	.00	7.1	18	.37
31	1.2	3	.01	---	---	---	3.5	6	.05
TOTAL	935.41	---	1500.94	54.65	---	6.75	446.23	---	197.82

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	2.8	5	.04	45	49	21	38	47	22
2	2.4	8	.05	2.2	1	.01	27	90	8.6
3	2.2	11	.07	1.6	1	.00	11	13	.39
4	32	35	29	1.5	1	.00	11	5	.17
5	88	56	25	1.4	1	.00	214	488	517
6	46	59	11	3.8	16	.45	123	216	103
7	22	30	2.4	2.3	3	.02	38	67	7.0
8	4.6	8	.11	1.6	2	.01	23	43	2.8
9	2.9	5	.04	5.7	4	.27	17	25	1.2
10	2.3	6	.04	218	95	169	14	18	.69
11	2.1	4	.02	167	185	280	13	14	.48
12	2.0	3	.02	919	1230	5720	12	11	.35
13	2.3	4	.03	73	284	90	11	7	.20
14	1.8	3	.02	459	435	1270	25	24	2.0
15	1.8	3	.02	450	807	1320	35	71	14
16	1.7	3	.01	189	457	255	41	46	5.1
17	1.7	3	.01	58	206	33	18	29	1.5
18	1.7	3	.01	45	120	16	11	12	.38
19	1.6	3	.01	60	101	23	10	9	.24
20	1.5	3	.01	63	147	26	12	13	.46
21	1.6	6	.02	39	67	7.1	11	6	.18
22	1.6	4	.02	26	41	2.9	20	11	.71
23	1.4	2	.01	19	29	1.5	24	23	1.6
24	1.4	1	.00	15	24	.96	11	9	.28
25	1.4	1	.00	12	21	.70	9.0	11	.26
26	1.3	1	.00	10	17	.46	8.7	7	.17
27	1.6	3	.02	10	12	.33	8.5	5	.11
28	5.9	15	.88	9.8	10	.25	8.4	3	.08
29	1.6	1	.01	8.8	8	.19	8.1	4	.09
30	1.3	1	.00	---	---	---	8.1	6	.12
31	1.3	1	.00	---	---	---	8.4	8	.18
TOTAL	243.8	---	68.87	2915.7	---	9238.15	829.2	---	691.34

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA--Continued

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	7.7	9	.18
2	7.0	8	.15
3	6.7	8	.15
4	6.5	9	.15
5	6.3	8	.14
6	5.7	8	.12
7	5.6	7	.11
8	5.1	7	.09
9	4.6	7	.09
10	4.6	8	.10
11	4.3	8	.10
12	7.7	47	1.0
13	7.4	8	.16
14	3.6	8	.08
15	3.0	7	.06
16	3.0	7	.06
17	2.9	8	.06
18	2.8	8	.06
19	2.8	6	.05
20	2.9	4	.03
21	3.0	3	.03
22	3.0	3	.02
23	3.1	2	.02
24	3.1	2	.02
25	3.1	2	.02
26	3.2	2	.02
27	3.5	2	.02
28	4.7	1	.01
29	3.7	1	.01
30	3.4	1	.01
31	---	---	---
TOTAL	134.0	---	3.12
PERIOD	5558.99		11706.99

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1991	935.41	1500.94	100	1600
NOVEMBER	54.65	6.75	0	7
DECEMBER	446.23	197.82	59	257
JANUARY 1992	243.80	68.87	7	76
FEBRUARY	2915.70	9238.15	371	9610
MARCH	829.20	691.34	7	698
APRIL	134.00	3.12	0	3
PERIOD	5558.99	11706.99	544	12251

11181330 TEMESCAL CREEK ABOVE LAKE TEMESCAL, AT OAKLAND, CA

LOCATION.--Lat 37°50'38", long 122°13'35, in San Antonio (V and D Peralta) Grant, Alameda County, Hydrologic Unit 18050002, on right bank at Oakland, 0.1 mi upstream of inflow to Lake Temescal.

DRAINAGE AREA.--1.74 mi^2.

PERIOD OF RECORD.--October 1979 to September 1981, June 1989 to current year.
CHEMICAL DATA: Water years 1979-80.
SEDIMENT DATA: Water years 1979-81.

GAGE.--Water-stage recorder. Elevation of gage is 395 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. No diversion or regulation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 146 ft^3/s, Oct. 26, 1991, gage height, 4.48 ft; no flow Sept. 30, 1990, and several days in 1991 and 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0645	*146	*4.48	Feb. 19	1930	104	3.67
Dec. 29	0015	77	3.12	Mar. 5	2230	103	3.65
Feb. 12	0115	119	3.96	Mar. 15	1615	79	3.15
Feb. 14	1600	134	4.26	Mar. 22	1815	83	3.24

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.03	.09	.37	2.9	3.2	.39	.21	.11	.17	.19	.24
2	.00	.01	.09	.36	.07	1.4	.39	.20	.11	.16	.19	.21
3	.01	.01	.09	.35	.06	.87	.36	.20	.11	.14	.20	.21
4	.01	.02	.08	3.0	.05	.86	.33	.21	.14	.13	.21	.19
5	.00	.01	.09	3.7	.05	14	.34	.17	.16	.15	.19	.22
6	.00	.01	.09	.92	.10	8.9	.32	.16	.15	.16	.19	.20
7	.00	.01	.38	.87	.06	1.8	.32	.16	.13	.13	.21	.19
8	.00	.01	.07	.22	.14	1.2	.32	.15	.13	.14	.19	.18
9	.01	.01	.08	.18	.14	.91	e.32	.14	.13	.12	.18	.19
10	.00	.01	.07	.16	11	.72	e.34	.14	.14	.11	.20	.21
11	.00	.01	.05	.15	13	.64	e.36	.17	.15	.13	.22	.22
12	.00	.01	.05	.13	19	.58	e.32	.17	.14	.13	.21	.23
13	.00	.01	.05	.13	4.5	.53	e.29	.17	.12	.15	.21	.22
14	.00	.00	.05	.13	22	2.1	e.28	.15	.12	.18	.21	.31
15	.00	.00	.06	.13	9.3	4.6	e.27	.14	.11	.15	.20	.27
16	.00	.00	.06	.13	8.6	2.4	e.26	.14	.12	.14	.17	.23
17	.00	2.7	.29	.15	2.7	.99	e.26	.14	.14	.14	.16	.22
18	.00	.20	.98	.12	2.5	.79	e.25	.14	.14	.14	.18	.23
19	.00	.14	.07	.13	17	.68	e.24	.14	.16	.14	.20	.23
20	.05	.13	.05	.12	5.3	.62	e.22	.14	.16	.15	.19	.23
21	.20	.11	.06	.11	2.2	.57	e.21	.14	.17	.15	.20	.24
22	.01	.11	.08	.11	1.5	6.9	e.20	.14	.19	.15	.20	.24
23	.00	.10	.07	.11	1.1	.91	e.20	.15	.19	.18	.17	.22
24	.00	.10	.07	.11	.93	.63	e.21	.14	.14	.20	.18	.21
25	8.3	.13	.18	.12	.79	.59	e.20	.13	.13	.21	.17	.21
26	30	.10	.04	.11	.67	.56	e.19	.13	.13	.21	.19	.20
27	.13	.14	1.6	.12	.60	.51	e.19	.14	.11	.23	.22	.19
28	.13	.13	5.9	.23	.54	.48	.20	.12	.14	.22	.23	.20
29	.08	.10	4.7	.11	.52	.47	.21	.12	2.2	.18	.22	.23
30	.05	.10	.53	.11	---	.43	.21	.12	.99	.16	.21	.21
31	.04	---	.41	.11	---	.42	---	.11	---	.17	.25	---
TOTAL	39.02	4.45	16.48	12.80	127.32	60.26	8.20	4.68	7.06	4.92	6.14	6.58
MEAN	1.26	.15	.53	.41	4.39	1.94	.27	.15	.24	.16	.20	.22
MAX	30	2.7	5.9	3.7	22	14	.39	.21	2.2	.23	.25	.31
MIN	.00	.00	.04	.11	.05	.42	.19	.11	.11	.11	.16	.18
AC-FT	77	8.8	33	25	253	120	16	9.3	14	9.8	12	13

e Estimated.

11181330 TEMESCAL CREEK ABOVE LAKE TEMESCAL, AT OAKLAND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.50	.38	.70	1.26	2.26	1.55	.33	.31	.14	.10	.099	.10
MAX	1.26	.74	1.87	2.84	4.57	2.76	.76	.80	.25	.20	.20	.22
(WY)	1992	1990	1980	1980	1980	1991	1980	1990	1980	1980	1992	1992
MIN	.084	.14	.18	.11	.35	.37	.18	.11	.057	.025	.019	.014
(WY)	1991	1991	1990	1991	1981	1990	1990	1991	1989	1989	1991	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	184.93		297.91			
ANNUAL MEAN	.51		.81		.64	
HIGHEST ANNUAL MEAN					1.10	1980
LOWEST ANNUAL MEAN					.39	1991
HIGHEST DAILY MEAN	30	Oct 26	30	Oct 26	30	Oct 26 1991
LOWEST DAILY MEAN	.00	Aug 31	.00	Oct 1	.00	Sep 30 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 10	.00	Oct 10	.00	Oct 10 1991
INSTANTANEOUS PEAK FLOW			146	Oct 26	146	Oct 26 1991
INSTANTANEOUS PEAK STAGE			4.48	Oct 26	4.48	Oct 26 1991
ANNUAL RUNOFF (AC-FT)	367		591		464	
10 PERCENT EXCEEDS	.52		.98		.73	
50 PERCENT EXCEEDS	.06		.17		.14	
90 PERCENT EXCEEDS	.01		.02		.02	

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA

LOCATION.--Lat 37°57'53", long 122°25'42", in NW 1/4 sec.3, T.1 N., R.5 W., Contra Costa County, Hydrologic Unit 18050002, on north end of Port of Richmond Pier on west side of Point San Pablo.

GAGE-HEIGHT RECORDS

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1989 to current year (gage height only).

GAGE.--Water-stage recorder. Datum of gage is 10.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 14.91 ft, Feb. 15, 1992; minimum gage height recorded, 5.11 ft, Dec. 30, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 14.91 ft, Feb. 15; minimum gage height recorded, 5.54 ft, Dec. 20.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.43	6.77	12.99	7.51	13.39	7.23	13.91	6.76	14.25	7.32	13.92	8.09
2	13.40	7.28	13.31	7.94	13.56	6.84	13.94	6.77	13.85	7.16	13.78	8.06
3	13.47	7.40	13.37	7.22	13.71	6.61	14.23	6.99	13.73	7.41	13.58	7.98
4	13.41	7.51	13.47	6.75	13.75	6.60	14.25	7.50	13.76	7.58	13.48	8.28
5	13.32	7.72	13.54	6.60	---	---	14.32	7.37	13.68	8.06	13.62	8.78
6	13.45	7.74	13.80	6.56	---	---	13.87	7.04	13.54	8.53	13.78	8.85
7	13.74	7.44	13.86	6.59	---	---	13.32	7.04	13.57	8.92	13.69	8.49
8	13.87	7.19	13.70	6.89	13.56	6.83	12.94	7.24	13.61	9.27	13.85	8.32
9	13.89	7.13	13.49	6.95	13.20	7.02	12.45	7.80	13.86	9.65	13.70	8.06
10	13.95	7.34	13.33	7.29	13.12	7.53	12.72	8.26	14.52	9.83	13.41	7.63
11	13.91	7.55	12.91	7.44	12.68	7.75	12.72	8.50	14.32	8.90	13.33	7.62
12	13.52	7.70	12.44	7.72	12.48	7.91	12.89	8.91	14.58	8.61	13.24	7.43
13	13.15	7.89	12.24	7.95	12.45	8.25	13.08	8.25	14.56	7.89	13.58	7.48
14	12.78	8.03	12.28	7.99	12.72	8.75	13.41	7.80	14.81	7.39	13.98	6.75
15	12.60	8.22	12.29	8.00	13.01	8.69	13.70	7.12	14.91	7.21	14.29	7.21
16	12.48	8.33	12.65	8.36	13.46	8.11	14.02	6.66	14.85	6.54	14.01	7.14
17	12.57	8.35	13.55	8.45	14.00	7.76	14.54	6.44	14.54	6.50	13.70	7.33
18	12.61	8.22	13.27	7.41	14.41	7.05	14.79	6.19	14.34	6.89	13.95	7.85
19	12.86	8.31	13.38	6.61	14.15	6.02	14.69	5.95	14.14	7.74	14.04	7.65
20	13.45	8.62	13.70	6.29	14.33	5.54	14.53	6.01	13.99	7.85	14.39	7.68
21	13.78	8.26	13.74	6.01	14.55	5.70	14.10	6.25	13.81	7.94	14.63	7.75
22	14.12	7.64	14.25	5.85	14.51	5.67	---	---	13.79	7.70	14.52	7.88
23	13.95	6.97	14.18	5.72	14.25	5.93	---	---	13.56	7.76	14.38	7.82
24	14.09	6.72	14.08	5.94	13.79	6.36	---	---	13.39	7.79	14.06	7.93
25	14.20	7.07	13.82	6.32	13.18	6.93	---	---	13.16	8.00	13.77	8.63
26	14.35	6.69	13.40	6.79	13.28	7.89	---	---	13.13	7.78	13.52	8.77
27	13.51	6.27	12.88	6.87	13.84	9.02	---	---	13.06	7.56	13.46	8.81
28	13.32	6.60	12.68	7.44	14.26	8.99	13.71	7.60	13.33	7.77	13.26	8.56
29	12.90	6.75	13.12	7.68	14.46	8.46	13.63	7.36	13.68	8.10	13.24	8.53
30	12.41	6.91	12.96	7.62	14.02	7.63	13.79	7.37	---	---	13.17	8.37
31	12.58	6.99	---	---	13.85	6.95	14.22	7.60	---	---	13.46	8.60
MONTH	14.35	6.27	14.25	5.72	---	---	---	---	14.91	6.50	14.63	6.75

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.73	8.81	13.53	6.85	14.67	6.37	14.47	5.95	13.53	6.76	13.89	7.73
2	13.75	8.48	13.84	6.62	14.65	6.39	14.31	6.09	13.56	7.44	13.67	7.65
3	13.70	7.96	13.95	6.49	14.46	6.36	13.99	6.46	13.72	8.08	13.39	7.69
4	13.67	7.45	14.00	6.34	14.22	6.69	13.45	6.86	13.77	7.89	13.28	7.67
5	13.47	6.87	14.09	6.53	14.01	7.11	13.40	7.35	13.67	7.93	13.06	7.63
6	13.41	6.69	14.01	6.63	13.55	7.51	13.57	8.02	13.74	7.75	13.10	7.48
7	13.60	6.75	13.59	6.51	13.57	7.77	13.76	8.26	13.70	7.58	13.11	7.40
8	13.53	7.06	13.16	6.89	13.62	8.30	13.87	7.91	13.69	7.39	13.27	7.49
9	13.42	7.16	12.88	7.12	13.88	8.39	13.99	7.51	13.67	7.19	13.20	7.73
10	13.21	7.31	13.27	7.68	13.92	7.78	14.15	7.26	13.62	7.08	13.00	7.75
11	13.29	7.53	13.51	8.01	13.78	7.13	14.22	7.21	13.69	7.11	12.87	7.94
12	13.38	7.82	13.79	8.18	13.69	6.59	14.08	6.98	13.60	7.22	12.85	8.20
13	13.39	7.60	13.91	7.44	13.69	6.18	14.01	6.83	13.39	7.43	13.22	8.40
14	13.70	7.89	13.94	6.93	13.58	6.08	13.82	6.84	13.39	7.56	13.39	8.25
15	13.98	7.50	14.08	6.59	13.50	6.11	13.75	6.96	13.07	7.77	13.46	8.19
16	13.97	7.05	14.06	6.45	13.46	6.18	13.61	7.06	12.98	8.29	13.47	8.08
17	13.82	6.60	13.95	6.37	13.28	6.42	13.27	7.27	13.06	8.50	13.50	8.10
18	13.68	6.20	13.80	6.36	13.17	6.74	12.87	7.52	13.15	8.73	13.45	7.93
19	13.80	6.38	13.69	6.68	12.75	7.10	12.73	7.83	13.21	8.48	13.45	7.80
20	13.67	6.58	13.35	6.89	12.68	7.61	12.87	8.35	13.30	8.32	13.53	7.78
21	13.47	6.73	12.82	7.07	12.84	8.18	13.03	8.68	13.39	8.01	13.60	7.57
22	12.77	6.82	12.47	7.46	12.95	8.52	13.18	8.52	13.52	7.94	13.56	7.40
23	12.29	7.20	12.61	7.88	13.08	8.99	13.51	8.48	13.86	7.44	13.60	7.28
24	12.08	7.65	12.77	8.35	13.37	8.84	13.71	8.04	13.95	7.15	13.46	7.28
25	12.40	7.91	12.93	8.77	13.52	8.16	14.01	7.47	14.09	6.75	13.64	7.43
26	12.46	8.07	13.24	9.00	13.83	7.48	14.29	7.03	14.13	6.63	14.03	7.50
27	12.59	8.21	13.67	8.54	14.11	7.00	14.52	6.61	14.02	6.54	14.30	7.24
28	13.03	8.50	13.96	8.19	14.45	6.54	14.56	6.41	13.96	6.86	14.30	7.26
29	13.22	8.13	14.14	7.54	14.64	6.26	14.45	6.19	13.65	7.27	14.19	7.31
30	13.29	7.54	14.37	7.13	14.54	6.08	14.32	6.24	13.69	7.56	13.93	7.43
31	---	---	14.53	6.66	---	---	14.05	6.41	13.86	7.64	---	---
MONTH	13.98	6.20	14.53	6.34	14.67	6.08	14.56	5.95	14.13	6.54	14.30	7.24

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1989 to current year.
WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1989.

REMARKS.--Interruptions in record were due to malfunction of the sensing and/or recording instruments. Upper probe is set at 3.6 ft below Mean Lower Low Water (MLLW). Lower probe is set at 24.8 ft below MLLW. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,900 microsiemens, Aug. 25, 28, 1992; minimum recorded, 14,700 microsiemens, Apr. 4, 1991.
(Lower probe) Maximum recorded, 50,100 microsiemens, July 23, 1990; minimum recorded 15,400 microsiemens, Apr. 3, 1991.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 22.5°C, July 15, 18, 19, 1992; minimum recorded, 4.5°C, Dec. 23, 1990.
(Lower probe) Maximum recorded, 22.0°C, July 18, 19, 1992; minimum recorded 5.0°C, Dec. 21, 23, 1990.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,900 microsiemens, Aug. 25, 28; minimum recorded, 20,400 microsiemens, Feb. 27.
(Lower probe) Maximum recorded, 49,500 microsiemens, June 15; minimum recorded, 26,200 microsiemens, Feb. 18.
WATER TEMPERATURE: (Upper probe) Maximum recorded, 22.5°C, July 15, 18, 19; minimum recorded, 6.5°C, Jan. 23, 24.
(Lower probe) Maximum recorded, 22.0°C, July 18, 19; minimum recorded, 7.0°C, Jan. 23, 24.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	46700	40100	46400	39500	46700	40500	46500	38300	43400	36600	39300	27500
2	46500	40200	46600	41300	47000	40500	47000	38000	43900	36600	39600	27700
3	46600	39100	46500	40200	47100	40300	46900	38600	43300	36300	39500	29400
4	46000	39100	46300	40000	46900	40900	47200	38700	42900	36900	39700	28600
5	44700	38600	46300	39700	47500	41000	46600	38900	43300	36900	40000	28000
6	45200	38900	46200	39700	47200	41300	46100	39000	43500	37000	40100	29000
7	48200	38600	46200	40100	47100	41200	46200	38100	43100	37200	39900	28500
8	46300	38600	47000	40300	47400	41200	46000	36800	43300	38100	40500	29000
9	46900	38300	46600	40500	47100	40500	45300	36100	43500	37200	40100	28300
10	49500	37900	46700	40400	47300	40700	45300	36100	44000	36800	38400	26100
11	46700	38800	46200	40200	46600	40100	44800	37200	43700	36000	38600	25500
12	46900	39700	45900	37700	46400	39200	45400	37200	43300	35800	39900	26100
13	47000	39100	46000	37500	46100	38200	45500	36400	43300	34800	---	---
14	46800	37900	46000	40800	46500	38900	46200	38000	43200	32400	---	---
15	47100	38000	46100	40300	46400	37200	45600	37200	42500	31600	---	---
16	47600	37800	46100	37700	46500	37900	46100	37100	42400	28300	39800	27800
17	47500	39900	46700	39300	46500	38500	46000	37800	41700	27300	39600	28100
18	47000	39500	46600	41000	46700	39300	46100	38100	41400	28300	39800	27700
19	47000	39400	46500	40100	46200	40400	46200	38000	---	---	39600	28000
20	46900	39200	46600	39800	47400	42300	46200	38300	---	---	40400	28200
21	46700	39900	46800	40500	47400	40100	45800	38200	---	---	40600	28700
22	48400	40100	46900	40900	47500	40700	46100	36600	---	---	40200	26800
23	47400	39600	47200	39700	47600	41600	44800	35800	---	---	40100	27200
24	47200	42000	46600	42900	47400	40800	43500	35500	---	---	38600	26300
25	47800	41400	47100	40600	47000	40700	42600	34900	---	---	39500	26400
26	47500	41800	47100	41100	47300	40100	41300	34200	---	---	38900	27300
27	47300	41300	46700	41000	47400	40100	41200	34900	35300	20400	39300	26200
28	47200	41000	47000	41800	46900	41100	43300	35100	38000	24500	40000	27200
29	46900	40100	46500	41500	47000	39900	42900	35700	38200	26200	40000	27300
30	46700	40500	46700	41900	47100	39100	43200	35600	---	---	40300	29700
31	46200	39500	---	---	47100	39000	43500	36000	---	---	40200	29800
MONTH	49500	37800	47200	37500	47600	37200	47200	34200	---	---	---	---

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	40400	30600	46500	39300	49900	41600	49300	44000	49700	42900	50200	43700
2	40800	30800	46100	38600	49900	41200	49400	42400	49700	43700	49900	43700
3	41500	32000	46400	38200	49800	41900	49100	41000	49700	43400	49700	44200
4	41000	33200	46400	37900	49500	41200	49200	42900	50200	43700	49500	45900
5	42000	33000	46000	38800	49500	41500	49000	43500	50300	43000	49200	43500
6	42100	31400	47400	39800	49100	41600	48700	43000	50100	43400	49200	42800
7	43000	32000	47000	39800	48600	41300	49300	42700	50100	43900	49200	42400
8	43800	34000	46400	40200	49100	40300	49700	42200	49900	43600	48900	42800
9	44100	34700	46600	39900	48500	40800	50000	42400	49900	42700	49400	42800
10	45300	34100	47400	39900	48800	41800	50300	42100	50100	42800	49400	44000
11	45100	34800	47600	41300	49400	43000	50600	43400	49900	43300	48900	43400
12	45300	34200	47700	41900	48900	43300	50500	44200	49800	43000	48900	43400
13	45400	34800	48100	41700	49900	42700	50500	43000	49800	43700	48800	42200
14	45300	36200	48000	41700	49900	42000	50600	46300	49800	43200	48700	43100
15	45600	36300	48500	42300	49200	42800	---	---	49400	43500	48600	42000
16	46100	35500	49300	42100	48800	40000	---	---	49900	42900	48400	41600
17	46500	34400	49300	42200	48800	41600	---	---	49600	43100	48000	41500
18	46800	37000	49300	40400	48700	40700	---	---	49800	43900	47800	41900
19	46600	35500	48900	41900	48600	40400	---	---	49400	44000	47500	42000
20	47000	35200	48900	42500	48500	41600	49300	44900	49700	44100	47400	41400
21	46100	36400	48200	41400	48500	42100	49400	43200	49500	44200	47500	41000
22	46700	35800	48200	39800	49200	42000	49100	41300	50000	44900	47800	41000
23	47500	33500	48300	40400	49000	41400	49100	43200	50500	43800	47600	40400
24	47200	33100	48100	40300	48900	41000	49800	43600	50500	43300	47500	41000
25	46900	32500	48000	41100	49100	42300	50000	44600	50900	44000	47400	43100
26	46800	34300	49100	41100	49500	42600	50200	42700	50300	44300	47500	41500
27	46800	36300	49500	40900	49700	42200	50100	43000	50700	43300	47700	41800
28	46600	38400	49600	42300	49700	42800	50200	43600	50900	44600	47700	41100
29	46900	37500	49600	41700	49700	42000	50300	43300	50700	44200	48100	41100
30	46800	39300	49500	41200	49300	42100	50300	43400	50200	44300	47700	40600
31	---	---	49600	41100	---	---	49800	43700	50100	44600	---	---
MONTH	47500	30600	49600	37900	49900	40000	---	---	50900	42700	50200	40400

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	47000	39800	46100	37100	46600	40500	46800	37600	46000	37500	---	---
2	46900	39800	46200	36100	46700	40000	46900	37000	45500	37500	---	---
3	47200	39500	46500	39800	46900	39400	46900	37600	45500	34800	---	---
4	47100	39000	46600	39400	47000	40000	47000	38400	44800	37400	---	---
5	46700	39700	46800	39700	47300	40100	46700	38200	45000	37800	---	---
6	46700	38900	47000	40300	47100	40400	46100	38200	44500	37800	---	---
7	46500	39600	47200	39800	47400	40700	46000	37300	44700	37500	---	---
8	47200	40000	47300	40000	47300	40100	45800	36300	44700	39600	---	---
9	49000	39100	47300	40200	47200	39900	45400	34400	45400	36300	---	---
10	49400	39700	47000	40200	47300	40200	44800	36100	45300	34100	---	---
11	48700	40900	46800	40100	46900	39400	45000	34200	45000	36400	---	---
12	47800	41300	46800	38500	46200	38500	45000	34700	44900	35700	---	---
13	48500	41000	46300	38600	46300	37400	44600	34700	44700	35400	41300	37100
14	48200	39500	46400	40200	46400	38700	45600	35100	44500	32700	---	---
15	48300	39100	47100	39900	46200	37100	45700	36400	44100	31100	---	---
16	48000	39900	46200	38200	46500	37200	46200	36100	43700	28000	42800	29300
17	47900	40700	46800	39600	46700	37800	46100	36800	42900	26900	42700	29900
18	47600	40600	46500	40500	46800	38300	46500	36400	42300	26200	42500	29200
19	47200	40500	46500	40200	46900	40700	46300	36800	---	---	42400	29800
20	47100	40000	46700	39000	47300	40900	46200	36700	---	---	43000	30400
21	46700	41000	46900	40000	47200	40700	46300	36100	---	---	43000	29900
22	48400	40400	46900	40500	47300	39800	45900	36200	---	---	43200	29200
23	47200	39200	47100	39400	47400	40500	44900	35100	---	---	42700	28200
24	47200	42000	45800	42200	47300	39700	44800	36600	---	---	42700	27400
25	47600	40800	47000	39700	46800	39300	44800	37200	---	---	43300	29700
26	47500	39200	47200	40300	47000	39400	44500	37300	---	---	42900	30100
27	46700	36500	46600	40300	47100	41000	45200	36200	---	---	42200	28900
28	47300	40100	46400	40900	46700	40400	45200	35900	---	---	42200	31700
29	47200	39900	45900	40800	46700	38900	45400	36700	---	---	41800	27700
30	46400	40600	46200	40700	46800	38200	44700	36500	---	---	42200	32000
31	46000	39200	---	---	46800	38000	45300	36800	---	---	41900	32100
MONTH	49400	36500	47300	36100	47400	37100	47000	34200	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	42300	31300	45100	37600	47500	40400	46700	41600	---	---	---	---
2	42600	31800	45400	35800	45200	38200	46600	39600	---	---	---	---
3	43200	32600	45600	36500	45000	38000	46400	38700	---	---	---	---
4	43100	34400	45400	36600	44100	37200	46400	40500	---	---	---	---
5	43500	33800	44400	36800	45000	37800	46200	41000	---	---	---	---
6	43600	31500	45600	37500	45300	38300	45900	40800	---	---	---	---
7	44000	31500	45100	37400	44100	38000	46300	40600	---	---	---	---
8	44100	32600	44900	38800	44800	38300	46500	38900	---	---	---	---
9	44500	33500	45400	37300	45900	38700	46700	39400	---	---	---	---
10	44200	33100	45700	37500	46300	40000	46600	39000	---	---	---	---
11	44100	32400	46000	38100	48700	40800	46500	39700	---	---	---	---
12	43700	32000	46400	38300	47800	41100	46000	39500	---	---	---	---
13	43500	32500	46600	39200	47000	40300	46200	38300	---	---	---	---
14	43800	34200	46800	38400	47000	38900	45800	41600	---	---	---	---
15	43900	34900	46800	38700	49500	40500	---	---	---	---	---	---
16	44200	33200	46500	38300	48300	38900	---	---	---	---	---	---
17	44600	32000	46600	39200	47600	41200	---	---	---	---	---	---
18	44600	34600	46500	39000	47100	39000	---	---	---	---	---	---
19	44900	32700	46600	39800	47200	38800	---	---	---	---	---	---
20	44800	32400	46200	40800	46900	40000	---	---	---	---	---	---
21	44700	33700	46400	40500	46800	40300	---	---	---	---	---	---
22	45100	34000	45700	42700	47200	40400	---	---	---	---	---	---
23	44800	30600	---	---	46900	39800	---	---	---	---	---	---
24	44600	31100	---	---	46100	40200	---	---	---	---	---	---
25	44600	29200	45900	44000	46700	40000	---	---	---	---	---	---
26	44400	31400	46700	40100	47000	39300	---	---	---	---	---	---
27	44400	34400	47000	39100	47100	40000	---	---	---	---	---	---
28	44600	36700	47300	40300	47200	41000	---	---	---	---	---	---
29	45000	35200	47600	36200	47200	40600	---	---	---	---	---	---
30	44900	37500	47500	39600	46800	40900	---	---	---	---	---	---
31	---	---	47600	39300	---	---	---	---	---	---	---	---
MONTH	45100	29200	---	---	49500	37200	---	---	---	---	---	---

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	17.0	15.5	14.0	11.5	10.0	10.0	9.0	11.0	9.5	14.5	13.5
2	19.5	17.0	16.0	14.5	11.5	11.0	10.0	9.0	10.5	9.5	14.5	14.0
3	19.0	17.0	15.5	14.5	11.5	11.0	10.0	9.0	10.5	9.5	15.5	14.0
4	19.5	17.5	16.0	14.5	11.5	11.0	10.5	9.5	10.5	9.5	15.0	14.0
5	20.0	17.5	16.0	14.5	11.5	10.5	10.5	9.5	11.0	9.5	14.5	14.0
6	20.0	17.5	16.5	14.5	11.5	10.5	10.5	9.5	11.0	10.0	15.0	13.5
7	20.0	17.0	16.0	14.5	11.5	11.0	10.5	9.0	11.0	10.0	15.0	14.0
8	20.0	17.0	15.5	14.0	11.0	10.5	10.5	9.0	11.0	10.5	15.0	14.0
9	20.0	17.0	15.5	14.5	11.0	10.0	10.5	9.0	11.0	10.5	15.5	14.0
10	20.0	17.0	15.5	14.0	11.0	10.0	10.0	8.5	11.0	10.5	15.5	14.5
11	19.5	17.0	15.5	14.5	11.0	10.0	10.0	9.0	11.5	11.0	16.0	14.5
12	19.5	17.5	15.5	14.5	10.5	9.5	10.0	8.5	12.0	11.0	16.0	14.5
13	19.5	17.5	15.5	14.5	10.5	9.0	10.0	8.5	12.0	11.0	15.0	14.0
14	19.5	17.5	15.0	13.0	10.5	8.5	10.0	9.0	11.5	11.0	14.5	14.0
15	19.5	17.5	14.5	12.0	10.0	8.5	10.0	9.0	11.5	11.0	14.5	14.0
16	19.5	17.5	14.5	13.0	10.0	8.0	10.0	8.5	12.0	11.0	15.0	13.5
17	19.0	17.0	14.0	13.0	9.5	8.0	10.0	9.0	12.5	11.0	15.5	13.5
18	19.0	17.0	13.5	13.0	10.0	8.5	10.0	9.0	---	---	15.5	14.0
19	19.0	17.0	13.5	13.0	9.5	8.5	10.0	8.5	---	---	15.5	14.0
20	19.0	17.0	13.5	13.0	9.5	8.5	10.0	8.0	---	---	15.5	14.5
21	19.0	17.0	13.5	12.5	10.0	8.0	10.0	8.0	---	---	15.5	14.5
22	18.0	16.5	13.0	12.5	10.0	8.0	10.0	7.0	---	---	15.5	14.5
23	17.5	16.0	13.0	12.0	10.0	8.5	10.0	6.5	---	---	15.5	14.5
24	17.0	16.0	13.0	12.0	10.0	8.5	9.5	6.5	---	---	15.5	14.5
25	17.0	16.0	13.0	12.5	10.0	8.5	9.5	7.0	---	---	16.0	15.0
26	16.5	16.0	13.5	12.5	10.0	8.5	9.5	8.0	---	---	17.0	15.0
27	16.5	13.5	13.5	13.0	10.0	8.5	9.5	7.5	---	---	17.5	15.0
28	16.0	14.0	13.0	11.5	10.0	9.0	9.5	7.5	14.5	13.5	17.0	15.0
29	16.0	15.5	12.5	11.0	10.0	9.0	10.0	8.5	14.5	13.5	16.0	15.0
30	15.5	13.0	12.0	9.5	10.0	9.0	10.0	8.5	---	---	15.5	15.0
31	15.5	14.0	---	---	10.5	9.5	10.0	9.0	---	---	16.5	14.5
MONTH	20.0	13.0	16.5	9.5	11.5	8.0	10.5	6.5	---	---	17.5	13.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	15.0	19.0	15.5	19.5	16.0	21.0	17.5	20.5	17.5	20.5	17.0
2	17.0	15.5	20.0	15.5	19.0	16.5	20.5	17.5	20.5	18.0	21.0	17.5
3	17.5	15.5	19.5	15.5	19.5	16.5	20.5	18.0	20.0	18.0	20.0	17.5
4	17.0	15.0	19.0	15.5	19.0	16.5	20.0	18.0	20.0	17.5	20.0	18.0
5	17.0	14.5	19.0	15.5	19.0	16.5	21.0	18.0	20.0	17.5	20.5	18.0
6	16.5	14.5	18.5	15.5	19.0	16.5	20.5	18.5	19.5	17.5	20.5	18.0
7	17.0	15.0	18.5	15.5	19.0	17.0	21.0	18.5	19.5	17.5	20.5	18.0
8	17.0	15.5	18.5	16.0	19.5	17.0	22.0	18.5	20.0	18.0	20.5	18.0
9	17.0	15.5	19.5	16.0	19.0	17.5	22.0	18.5	21.5	18.0	20.0	18.0
10	17.5	15.0	19.0	16.5	20.0	17.5	22.0	18.0	21.0	17.5	20.0	17.5
11	16.5	15.0	19.0	16.0	19.5	17.0	21.5	18.0	21.0	18.0	20.5	17.5
12	16.0	15.0	18.5	16.0	19.5	17.5	21.5	18.5	21.5	18.0	20.5	17.5
13	17.5	15.0	19.0	16.0	20.0	17.0	21.5	18.0	21.5	18.0	20.5	17.5
14	18.0	15.0	19.0	16.0	19.5	17.0	22.0	18.5	21.0	18.0	19.5	17.5
15	17.5	15.5	18.0	16.0	19.0	17.0	22.5	19.0	21.5	18.0	19.5	17.5
16	17.5	15.5	19.0	15.5	19.5	17.0	22.0	19.5	21.0	18.0	19.5	17.5
17	19.0	15.5	19.0	16.0	19.5	17.0	22.0	19.0	20.5	18.0	19.0	17.5
18	18.0	16.0	19.5	16.0	18.5	17.0	22.5	19.5	20.5	18.0	19.0	17.5
19	18.0	16.0	19.0	16.5	18.5	17.0	22.5	19.5	20.5	18.0	19.0	17.5
20	18.0	16.0	19.0	16.5	19.0	17.0	22.0	19.5	20.0	18.0	19.0	17.5
21	18.0	16.0	20.0	17.0	18.5	17.0	22.0	19.5	20.0	18.0	19.0	16.5
22	17.5	16.0	19.0	17.0	19.5	16.5	21.5	19.5	20.0	18.0	19.5	17.5
23	18.0	15.5	19.0	17.0	19.5	16.5	21.5	19.5	20.5	17.5	20.0	17.5
24	18.5	15.0	19.0	17.0	20.0	17.0	21.0	18.5	20.0	17.0	20.5	17.5
25	18.5	15.0	19.5	17.0	20.0	17.0	20.5	18.0	20.0	17.0	20.5	17.5
26	18.5	15.0	19.5	17.0	20.0	17.0	21.0	17.5	21.0	17.0	21.0	17.5
27	20.0	15.0	18.5	16.5	20.5	17.0	21.0	18.0	21.0	17.0	21.0	17.5
28	19.5	15.5	18.5	16.5	20.5	17.0	21.0	17.5	20.5	17.0	20.0	17.5
29	18.5	15.5	19.0	16.5	19.5	17.0	21.0	17.5	19.5	17.0	19.5	17.0
30	19.5	15.5	19.5	16.5	20.0	17.0	20.5	17.5	19.0	17.0	20.0	17.5
31	---	---	19.0	16.5	---	---	21.0	17.5	20.0	17.0	---	---
MONTH	20.0	14.5	20.0	15.5	20.5	16.0	22.5	17.5	21.5	17.0	21.0	16.5

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	17.0	15.5	15.0	11.5	10.0	10.0	9.5	11.0	9.5	14.5	13.5
2	19.0	17.0	16.0	14.5	11.5	11.0	10.5	9.0	10.5	9.5	14.5	14.0
3	19.0	17.0	16.0	14.5	11.5	11.0	10.0	9.5	10.5	9.5	15.0	14.0
4	19.0	16.5	16.0	14.5	11.5	11.0	10.5	9.5	10.5	9.5	15.0	14.0
5	18.5	16.5	16.0	14.5	11.5	10.5	10.5	9.5	11.0	9.5	14.5	14.0
6	19.0	16.5	16.5	15.0	11.5	10.5	10.5	9.5	11.0	10.0	14.5	13.5
7	19.0	16.5	16.0	14.5	11.5	11.0	10.5	9.0	11.0	10.0	14.5	13.5
8	19.0	16.5	15.5	14.5	11.0	10.5	10.5	9.0	11.0	10.5	15.0	14.0
9	19.5	16.5	16.0	14.5	11.0	10.5	10.5	9.0	11.0	10.5	15.0	14.0
10	19.5	16.5	15.5	14.5	11.0	10.5	10.5	9.0	11.0	10.5	15.0	14.0
11	19.0	16.5	15.5	14.5	11.0	10.5	10.5	9.0	11.5	10.5	15.0	14.0
12	18.5	17.0	15.5	14.5	11.0	10.0	10.0	8.5	12.0	11.0	15.5	14.0
13	18.5	16.5	15.5	14.5	10.5	9.5	10.0	9.0	12.0	11.0	15.0	14.0
14	19.0	16.5	15.0	13.0	10.5	8.5	10.0	9.0	11.5	11.0	14.5	14.0
15	19.0	17.0	14.5	12.0	10.0	8.5	10.5	9.0	11.5	11.0	14.5	14.0
16	18.5	17.0	14.5	13.0	10.0	8.5	10.5	8.5	12.0	11.0	14.5	13.5
17	18.5	16.5	14.0	13.0	10.0	8.0	10.0	9.0	12.5	11.0	15.5	14.0
18	18.0	16.5	14.0	13.0	10.0	8.5	10.0	9.0	---	---	15.0	14.0
19	18.5	16.5	14.0	13.0	10.0	9.0	10.0	8.5	---	---	15.0	14.5
20	18.5	16.5	13.5	13.0	10.0	8.5	10.0	8.0	---	---	15.0	14.5
21	18.5	16.5	13.5	13.0	10.0	8.0	10.0	8.0	---	---	15.5	14.5
22	17.5	16.0	13.0	12.5	10.0	8.5	10.0	7.5	---	---	15.5	14.5
23	17.5	16.0	13.0	12.5	10.0	9.0	10.0	7.0	---	---	15.0	14.5
24	17.0	16.0	13.0	12.5	10.0	9.0	9.5	7.0	---	---	15.5	14.5
25	17.0	16.0	13.0	12.5	10.0	9.0	9.5	7.5	---	---	15.5	14.5
26	16.5	16.0	13.0	12.5	10.0	9.0	9.5	8.0	---	---	16.5	14.5
27	16.5	13.5	13.0	12.5	10.0	9.0	9.5	8.0	14.5	13.5	17.0	15.0
28	16.0	14.5	13.0	11.5	10.0	9.0	10.0	8.0	14.5	13.5	16.5	15.0
29	16.0	15.5	12.5	11.5	10.0	9.0	10.0	9.0	14.5	13.5	16.0	15.0
30	16.0	13.5	12.0	9.5	10.0	9.0	10.0	8.5	---	---	15.5	15.0
31	15.5	14.0	---	---	10.5	9.5	10.0	9.0	---	---	16.5	15.0
MONTH	19.5	13.5	16.5	9.5	11.5	8.0	10.5	7.0	---	---	17.0	13.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.0	15.0	18.5	15.5	19.5	16.0	20.5	17.0	20.0	17.5	20.5	17.0
2	17.0	15.5	18.5	15.5	19.0	16.5	20.0	17.5	20.0	17.5	20.5	17.5
3	17.0	15.5	19.0	15.5	19.5	16.5	20.0	17.5	20.0	17.5	19.5	17.5
4	17.0	15.5	18.5	15.5	19.0	16.5	20.0	17.5	20.0	17.0	20.0	17.5
5	16.5	14.5	18.5	15.5	19.0	16.5	20.5	18.0	19.5	17.0	20.5	18.0
6	16.5	15.0	18.5	15.5	19.0	17.0	20.5	18.5	19.0	17.0	20.0	18.0
7	16.0	15.0	18.5	15.5	19.0	17.0	20.5	18.0	19.5	17.5	20.0	18.0
8	16.5	15.0	18.5	15.5	19.0	17.0	21.5	18.0	19.5	17.5	20.0	18.0
9	16.5	15.0	19.0	15.5	19.0	17.0	21.5	18.0	20.0	17.5	19.5	18.0
10	17.5	15.0	19.0	16.0	19.5	17.5	21.5	18.0	20.5	17.5	19.5	17.5
11	16.5	15.0	19.0	16.0	19.5	17.0	21.0	18.0	20.5	17.5	20.5	17.5
12	16.0	15.0	18.5	16.0	19.5	17.0	20.5	18.0	21.0	17.5	20.0	17.5
13	17.0	15.0	18.5	16.0	19.0	17.0	21.0	18.0	21.0	18.0	20.0	17.5
14	17.5	15.0	18.5	16.0	19.0	17.0	21.5	18.0	21.0	18.0	19.5	17.5
15	17.0	15.5	18.5	16.0	18.0	16.5	21.0	19.0	21.0	18.0	19.5	17.5
16	17.0	15.0	19.0	16.0	18.5	16.5	21.0	19.0	21.0	18.0	19.5	17.5
17	18.0	15.5	19.0	16.0	19.0	17.0	21.0	19.0	20.5	18.0	19.5	17.5
18	17.5	15.5	19.5	16.0	18.5	17.0	22.0	19.0	20.5	18.0	19.5	17.5
19	18.0	15.5	18.5	16.0	18.5	16.5	22.0	19.0	20.5	18.0	19.0	18.0
20	17.5	16.0	19.0	16.5	18.5	16.5	21.5	19.0	20.0	18.0	19.5	17.5
21	17.0	15.5	19.5	16.5	18.5	17.0	21.5	19.0	20.0	18.0	19.5	17.5
22	17.0	15.5	19.0	17.0	19.0	16.5	21.0	19.0	20.0	17.5	19.0	17.5
23	17.5	15.5	18.5	16.5	19.5	16.5	21.0	19.0	20.5	17.5	19.5	17.5
24	18.0	15.0	18.5	16.5	19.0	16.5	21.0	18.5	20.0	17.0	20.0	17.5
25	18.5	15.0	19.0	17.0	19.0	17.0	20.5	18.0	20.0	17.0	20.5	18.0
26	18.0	15.0	18.5	16.5	19.5	16.5	20.5	17.5	20.5	17.0	21.0	17.5
27	20.0	15.0	18.5	16.5	20.5	17.0	20.5	17.5	20.5	17.0	21.0	17.5
28	19.5	15.5	18.5	16.5	20.5	17.0	21.0	17.5	20.5	17.0	20.0	17.5
29	18.0	15.5	18.5	16.5	19.5	17.0	20.5	17.5	19.5	17.0	19.5	17.0
30	19.0	15.5	19.0	16.5	20.0	17.0	20.0	17.0	19.5	17.0	20.0	17.5
31	---	---	18.5	16.5	---	---	20.5	17.0	20.0	17.0	---	---
MONTH	20.0	14.5	19.5	15.5	20.5	16.0	22.0	17.0	21.0	17.0	21.0	17.0

11181390 WILDCAT CREEK AT VALE ROAD, AT RICHMOND, CA

LOCATION.--Lat 37°57'12", long 122°20'14", in San Pablo Grant, Contra Costa County, Hydrologic Unit 18050002, on left bank at upstream side of Vale Road bridge at Richmond, 3.6 mi upstream from mouth.

DRAINAGE AREA.--7.79 mi^2.

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR CA-81-2: 1979-80(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 65.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Minor storage in Lake Anza and Jewel Lake 5 mi upstream. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft^3/s, Jan. 4, 1982, gage height, 14.68 ft recorded, 15.80 ft from floodmarks, from rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in 1979, 1987-92.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0430	247	5.14	Feb. 19	2230	*300	*5.51

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.03	.23	2.2	1.1	1.3	.09	.00	.01	.01	.00
2	.01	.00	.03	.13	.74	.97	1.1	.09	.01	.01	.01	.01
3	.01	.01	.03	.10	.54	.48	1.1	.07	.02	.01	.01	.01
4	.01	.00	.06	8.5	.50	.28	.85	.07	.01	.01	.01	.01
5	.01	.00	.07	8.7	.45	17	.63	.05	.01	.01	.02	.00
6	.01	.00	.06	4.8	.67	70	.55	.05	.01	.01	.02	.01
7	.01	.01	.07	5.3	.67	12	.53	.04	.01	.01	.02	.01
8	.01	.01	.06	1.4	.70	6.8	.53	.04	.01	.01	.02	.01
9	.02	.00	.04	.93	2.0	5.1	.51	.04	.01	.01	.02	.01
10	.02	.00	.04	.65	8.1	4.0	.46	.02	.01	.02	.02	.01
11	.03	.00	.04	.50	21	3.2	.52	.02	.01	.02	.02	.01
12	.06	.01	.06	.42	66	3.2	.75	.02	.01	.02	.02	.01
13	.02	.02	.08	.37	4.7	3.0	.61	.01	.01	.03	.02	.01
14	.02	.02	.08	.29	35	4.1	.42	.01	.01	.03	.01	.01
15	.02	.01	.08	.21	38	3.5	.35	.01	.01	.03	.01	.00
16	.01	.00	.07	.18	47	6.3	.35	.00	.01	.03	.00	.01
17	.01	9.1	.11	.25	9.9	4.4	.35	.00	.01	.03	.00	.00
18	.01	.04	.21	.24	5.9	3.0	.35	.00	.01	.04	.00	.00
19	.01	.03	.06	.20	41	2.6	.34	.00	.01	.04	.00	.00
20	.02	.04	.06	.17	59	2.3	.29	.01	.01	.03	.00	.01
21	.03	.03	.06	.13	7.6	1.9	.22	.01	.01	.03	.00	.01
22	.01	.03	.06	.10	3.7	15	.25	.01	.01	.03	.00	.01
23	.01	.03	.06	.07	2.1	9.8	.15	.01	.01	.02	.00	.05
24	.01	.03	.06	.07	1.5	4.1	.13	.00	.01	.01	.00	.03
25	.98	.03	.06	.06	1.2	2.9	.11	.00	.01	.01	.00	.00
26	5.0	.03	.06	.09	.89	2.4	.13	.00	.01	.01	.00	.12
27	.01	.03	1.8	.08	.72	2.1	.13	.00	.01	.01	.00	.13
28	.01	.03	5.2	.18	.64	1.8	.13	.00	.01	.01	.00	.11
29	.00	.03	6.9	.05	.55	1.6	.13	.00	.38	.01	.00	.12
30	.01	.03	1.3	.04	---	1.5	.09	.00	.01	.01	.00	.16
31	.01	---	.54	.04	---	1.4	---	.00	---	.01	.00	---
TOTAL	6.41	9.60	17.44	34.48	362.97	197.83	13.36	0.67	0.67	0.57	0.24	0.88
MEAN	.21	.32	.56	1.11	12.5	6.38	.45	.022	.022	.018	.008	.029
MAX	5.0	9.1	6.9	8.7	66	70	1.3	.09	.38	.04	.02	.16
MIN	.00	.00	.03	.04	.45	.28	.09	.00	.00	.01	.00	.00
AC-FT	13	19	35	68	720	392	26	1.3	1.3	1.1	.5	1.7

11181390 WILDCAT CREEK AT VALE ROAD, AT RICHMOND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.52	2.47	5.61	10.2	16.0	13.2	4.55	.82	.32	.19	.14	.20
MAX	2.20	8.89	27.8	49.2	77.8	63.4	36.1	4.68	1.52	.83	.47	.88
(WY)	1987	1982	1982	1982	1986	1983	1982	1983	1983	1983	1983	1986
MIN	.005	.091	.14	.064	.60	.28	.14	.022	.004	.001	.004	.000
(WY)	1989	1991	1990	1991	1989	1988	1990	1992	1987	1989	1987	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	589.02		645.12			
ANNUAL MEAN	1.61		1.76		4.46	
HIGHEST ANNUAL MEAN					15.3	1982
LOWEST ANNUAL MEAN					.43	1976
HIGHEST DAILY MEAN	119	Mar 26	70	Mar 6	1010	Jan 4 1982
LOWEST DAILY MEAN	.00	Jun 7	.00	Oct 29	.00	Aug 31 1979
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 14	.00	May 24	.00	Jun 11 1987
INSTANTANEOUS PEAK FLOW			300	Feb 19	2050	Jan 4 1982
INSTANTANEOUS PEAK STAGE			5.51	Feb 19	15.80	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	1170		1280		3230	
10 PERCENT EXCEEDS	2.7		3.1		7.1	
50 PERCENT EXCEEDS	.03		.03		.26	
90 PERCENT EXCEEDS	.01		.00		.01	

11182500 SAN RAMON CREEK AT SAN RAMON, CA

LOCATION.--Lat 37°46'23", long 121°59'37", in sec.8, T.2 S., R.1 W., Contra Costa County, Hydrologic Unit 18050001, on right bank 0.2 mi downstream from Bollinger Creek and 1.0 mi southwest of San Ramon.

DRAINAGE AREA.--5.89 mi^2.

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1445: 1953-54(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s, Oct. 13, 1962, gage height, 16.98 ft, from rating curve extended above 200 ft^3/s on basis of culvert computations at gage heights 11.80, 12.09, 14.20, and 16.98 ft; no flow for parts of most years.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0415	*189	*3.65				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.00	.01	.78	2.2	1.1	.35	.16	.12	e.01	e.00
2	.01	.00	.00	.01	.18	2.5	1.0	.28	.15	.06	e.01	e.00
3	.01	.00	.00	.01	.11	1.3	.99	.27	.11	.05	e.01	e.00
4	.01	.00	.00	.07	.07	1.1	.93	.32	.06	.04	e.01	e.00
5	.01	.00	.00	2.5	.07	11	.88	.29	.07	.04	e.01	e.00
6	.01	.00	.00	.51	.15	13	.84	.29	.11	.04	e.01	e.00
7	.00	.00	.00	.66	.18	4.5	.83	.33	.13	.03	e.01	e.00
8	.00	.00	.00	.28	.10	3.5	.79	.33	.14	.03	e.00	e.00
9	.00	.00	.00	.14	.12	2.8	.78	.28	.13	.02	e.00	e.00
10	.00	.00	.00	.13	2.1	2.4	.76	.15	.10	.02	e.00	e.00
11	.00	.00	.01	.10	4.7	2.2	.76	.17	.12	.02	e.00	.00
12	.00	.00	.00	.07	37	2.0	1.1	.25	.06	.02	e.00	.00
13	.00	.00	.00	.05	3.5	1.8	.85	.27	.06	.03	e.00	.00
14	.00	.00	.00	.04	20	1.8	.67	.28	.05	.03	e.00	.01
15	.00	.00	.00	.03	18	3.7	.66	.27	.09	.03	e.00	.00
16	.00	.00	.00	.05	13	5.3	.63	.24	.13	e.03	e.00	.00
17	.00	.02	.00	.05	5.0	2.7	.60	.16	.09	e.03	e.00	.00
18	.00	.00	.02	.06	3.3	2.0	.58	.25	.08	e.03	e.00	.00
19	.00	.00	.00	.03	8.0	1.7	.54	.26	.10	e.02	e.00	.00
20	.00	.00	.00	.03	17	1.7	.52	.27	.07	e.02	e.00	.00
21	.00	.00	.00	.03	5.4	1.5	.44	.27	.04	e.02	e.00	.00
22	.00	.00	.00	.03	3.8	3.5	.41	.18	.04	e.02	e.00	.00
23	.00	.00	.00	.03	2.8	3.2	.40	.20	.04	e.01	e.00	.00
24	.00	.00	.00	.04	2.2	1.9	.46	.20	.04	e.01	e.00	.01
25	.06	.00	.00	.05	1.9	1.7	.37	.22	.04	e.01	e.00	.00
26	10	.00	.00	.05	1.6	1.5	.32	.23	.04	e.01	e.00	.00
27	.02	.00	.03	.05	1.4	1.4	.33	.17	.04	e.01	e.00	.00
28	.00	.00	.17	.09	1.3	1.2	.37	.12	.05	e.01	e.00	.01
29	.00	.00	1.8	.09	1.3	1.2	.35	.13	.08	e.01	e.00	.01
30	.00	.00	.14	.06	---	1.2	.34	.18	.45	e.01	e.00	.01
31	.00	---	.03	.05	---	1.2	---	.16	---	e.01	e.00	---
TOTAL	10.14	0.02	2.20	5.40	155.06	88.7	19.60	7.37	2.87	0.84	0.07	0.05
MEAN	.33	.001	.071	.17	5.35	2.86	.65	.24	.096	.027	.002	.002
MAX	10	.02	1.8	2.5	37	13	1.1	.35	.45	.12	.01	.01
MIN	.00	.00	.00	.01	.07	1.1	.32	.12	.04	.01	.00	.00
AC-FT	20	.04	4.4	11	308	176	39	15	5.7	1.7	.1	.1

e Estimated.

11182500 SAN RAMON CREEK AT SAN RAMON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.56	.64	3.39	7.92	9.04	7.34	4.90	1.30	.50	.19	.075	.051
MAX	17.0	5.49	27.2	30.8	45.4	60.6	44.9	4.92	1.99	.83	.40	.33
(WY)	1963	1984	1956	1956	1986	1983	1958	1967	1967	1958	1983	1982
MIN	.000	.000	.001	.002	.039	.17	.016	.000	.000	.000	.000	.000
(WY)	1953	1956	1977	1991	1991	1977	1977	1977	1976	1955	1954	1954

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1953 - 1992	
ANNUAL TOTAL	109.06		292.32			
ANNUAL MEAN	.30		.80		2.96	
HIGHEST ANNUAL MEAN					12.4	1983
LOWEST ANNUAL MEAN					.029	1977
HIGHEST DAILY MEAN	25	Mar 26	37	Feb 12	411	Oct 13 1962
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 7	.00	Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 10	.00	Oct 7	.00	Oct 1 1952
INSTANTANEOUS PEAK FLOW			189	Feb 12	1600	Oct 13 1962
INSTANTANEOUS PEAK STAGE			3.65	Feb 12	16.98	Oct 13 1962
ANNUAL RUNOFF (AC-FT)	216		580		2150	
10 PERCENT EXCEEDS	.23		1.8		5.7	
50 PERCENT EXCEEDS	.00		.04		.26	
90 PERCENT EXCEEDS	.00		.00		.00	

11182800 SAN RAMON CREEK NEAR WALNUT CREEK, CA

LOCATION.--Lat 37°52'38", long 122°02'52", in San Ramon Grant, Contra Costa County, Hydrologic Unit 18050001, on left bank 600 ft upstream from Rudgear Road, near south city limits of town of Walnut Creek.

DRAINAGE AREA.--47.9 mi^2.

PERIOD OF RECORD.--October 1973 to September 1992 (discontinued). Prior to October 1987, published as San Ramon Creek at Walnut Creek. Records collected at station 11183000 from October 1953 to September 1973 are not equivalent.

REVISED RECORDS.--WDR CA-79-2: 1978. WDR CA-84-2: 1974-75(P), 1978-80(P). WDR CA-88-2: 1974-75(P), 1978-80(P), 1982-87(P).

GAGE.--Water-stage recorder and crest-stage gage. Concrete control. Datum of gage is 169.98 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. No regulation, pumping for irrigation upstream from station during periods of low flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft^3/s, Jan. 5, 1982, gage height, 15.55 ft, from rating curve extended above 1,400 ft^3/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 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0845	1,930	5.60	Feb. 14	1915	1,050	4.53
Feb. 12	0430	*2,040	*5.72				

Minimum daily, 0.39 ft^3/s, Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	2.9	1.7	3.5	40	36	7.3	6.0	2.4	5.1	.45	.73
2	1.7	2.7	1.7	3.0	6.1	44	7.1	5.6	2.3	3.4	.45	.99
3	.95	2.6	1.6	3.0	3.9	16	6.5	5.4	2.1	2.8	.44	.87
4	.80	2.3	1.5	5.0	3.4	13	6.3	5.4	2.0	2.5	.45	.88
5	.74	2.2	1.5	143	3.2	154	6.2	5.0	2.0	2.1	.45	.85
6	.74	2.0	1.5	20	12	119	5.6	4.2	1.9	1.8	.56	.89
7	.74	2.0	1.6	31	9.8	36	5.6	4.6	2.0	1.6	.78	.93
8	.74	2.0	1.6	8.4	6.3	26	5.6	4.4	2.0	1.5	.74	.87
9	.74	2.6	1.8	5.1	4.4	22	6.4	4.3	2.0	1.4	.72	.92
10	.68	2.8	1.9	4.4	77	20	6.9	4.3	2.1	1.4	.68	1.0
11	.67	2.5	1.9	4.0	114	18	7.4	4.1	2.3	1.3	.54	1.1
12	.74	2.4	1.9	3.8	497	18	28	4.2	2.3	1.2	.42	1.0
13	.74	2.5	1.8	3.4	51	17	17	4.1	2.4	1.1	.42	1.0
14	.74	2.5	1.8	3.3	236	24	9.8	4.1	2.3	1.0	.42	1.2
15	.74	2.4	1.8	3.2	248	51	8.5	4.0	2.3	1.0	.45	1.2
16	.84	2.3	1.8	2.9	168	52	7.3	4.0	2.4	1.1	.56	1.4
17	.88	10	1.8	3.1	40	24	6.9	3.8	2.4	.94	.55	1.5
18	.82	13	14	3.4	29	20	6.4	3.8	2.6	.81	.52	1.5
19	.74	4.1	4.5	3.1	92	18	5.8	3.7	2.7	.81	.56	1.5
20	.74	2.7	2.4	2.9	128	18	5.6	3.6	2.8	.73	.71	1.4
21	.74	2.0	2.6	2.7	35	18	5.4	3.6	2.7	.69	.68	1.3
22	.74	2.0	2.5	2.8	25	58	5.0	3.6	2.5	.68	.53	1.3
23	.74	2.1	2.3	5.5	19	35	4.7	3.5	2.4	.63	.50	1.1
24	.75	2.0	2.2	3.5	17	17	4.6	3.3	2.3	.56	.50	1.0
25	2.4	2.0	2.2	2.9	15	11	4.5	3.2	2.3	.59	.46	.95
26	466	1.9	2.2	2.9	14	8.1	4.1	3.1	2.2	.62	.40	.92
27	12	1.9	18	2.9	12	7.4	3.9	2.9	2.6	.57	.41	.74
28	5.3	1.9	43	8.8	12	7.3	4.8	2.8	2.6	.56	.39	.68
29	4.1	1.9	104	4.5	12	6.6	4.5	2.6	3.0	.61	.41	.67
30	3.2	1.8	8.1	3.5	---	7.4	5.1	2.5	15	.51	.56	.74
31	2.9	---	4.8	3.2	---	7.8	---	2.5	---	.45	.66	---
TOTAL	515.18	88.0	242.0	302.7	1930.1	929.6	212.8	122.2	82.9	40.06	16.37	31.13
MEAN	16.6	2.93	7.81	9.76	66.6	30.0	7.09	3.94	2.76	1.29	.53	1.04
MAX	466	13	104	143	497	154	28	6.0	15	5.1	.78	1.5
MIN	.67	1.8	1.5	2.7	3.2	6.6	3.9	2.5	1.9	.45	.39	.67
AC-FT	1020	175	480	600	3830	1840	422	242	164	79	32	62

11182800 SAN RAMON CREEK NEAR WALNUT CREEK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.88	15.4	23.3	44.9	67.2	64.5	30.6	8.61	5.06	3.79	3.04	3.19
MAX	16.6	54.5	102	173	282	415	218	27.5	14.1	10.7	8.71	8.02
(WY)	1992	1984	1984	1982	1986	1983	1983	1983	1983	1983	1983	1983
MIN	.18	2.33	3.12	2.46	5.20	4.97	2.13	1.51	1.03	.27	.078	.083
(WY)	1978	1981	1976	1991	1976	1976	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1974 - 1992	
ANNUAL TOTAL	3702.08		4513.04			
ANNUAL MEAN	10.1		12.3		22.7	
HIGHEST ANNUAL MEAN					99.9	1983
LOWEST ANNUAL MEAN					2.80	1977
HIGHEST DAILY MEAN	466	Oct 26	497	Feb 12	2240	Feb 17 1986
LOWEST DAILY MEAN	.56	Sep 21	.39	Aug 28	.00	Sep 1 1977
ANNUAL SEVEN-DAY MINIMUM	.58	Sep 21	.44	Aug 23	.00	Aug 31 1977
INSTANTANEOUS PEAK FLOW			2040	Feb 12	7400	Jan 5 1982
INSTANTANEOUS PEAK STAGE			5.72	Feb 12	15.55	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	7340		8950		16470	
10 PERCENT EXCEEDS	11		19		34	
50 PERCENT EXCEEDS	2.2		2.6		4.7	
90 PERCENT EXCEEDS	.94		.68		1.3	

11183600 WALNUT CREEK AT CONCORD, CA

LOCATION.--Lat 37°56'43", long 122°02'55", in Arroyo de las Nueces y Bolbones Grant, Contra Costa County, Hydrologic Unit 18050001, on right bank at southwest city limits of Concord, 0.2 mi upstream from Southern Pacific railroad bridge, 3.8 mi downstream from confluence of San Ramon and Las Trampas Creeks, and 10 mi downstream from Lafayette Reservoir.

DRAINAGE AREA.--85.2 mi^2.

PERIOD OF RECORD.--October 1968 to September 1992 (discontinued).

REVISED RECORDS.--WDR CA-79-2: Drainage area. WDR CA-82-2: 1969(M), 1970(M), 1973(P), 1975(M), 1978(M), 1980(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 35.44 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good. Flow slightly regulated by Lafayette Reservoir, capacity, 4,240 acre-ft. Some small diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft^3/s, Jan. 5, 1982, gage height, 19.1 ft, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.70 ft^3/s, Oct. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 26	0845	3,320	7.86	Feb. 12	0430	*4,730	*9.33

Minimum daily, 1.8 ft^3/s, Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.8	4.1	7.5	70	57	14	6.1	4.4	9.2	e2.8	e2.7
2	3.7	4.7	4.1	6.6	13	73	14	6.2	4.4	6.3	e2.8	e2.7
3	3.1	4.5	4.1	6.2	8.0	26	13	5.9	4.5	5.7	e2.7	e2.6
4	2.5	4.4	4.1	16	7.2	21	12	5.7	4.5	4.3	e2.7	e2.6
5	2.3	4.2	4.1	222	6.8	174	12	5.5	4.3	4.0	e2.7	e2.6
6	2.3	4.1	4.4	44	21	196	12	5.1	4.4	3.9	e2.6	e2.6
7	2.2	3.9	5.2	58	21	51	12	5.2	4.5	3.8	e2.6	e2.6
8	2.2	3.8	5.2	18	12	28	11	5.0	4.5	3.8	e2.6	e2.5
9	2.2	3.8	5.0	10	11	21	11	4.9	4.1	3.8	e2.6	e2.5
10	2.2	4.0	5.3	9.0	161	18	12	4.6	4.0	3.9	e2.6	e2.5
11	10	3.9	5.3	8.1	239	17	13	4.8	3.9	4.1	e2.6	e2.5
12	2.2	3.9	4.8	7.5	1150	17	40	5.3	3.8	5.1	e2.5	e2.5
13	2.1	3.9	4.2	7.0	99	17	28	5.4	3.9	6.8	e2.5	e2.4
14	8.8	3.9	3.9	7.0	387	27	14	5.6	4.0	9.6	e2.5	e2.3
15	2.1	3.9	4.0	6.6	343	55	13	5.6	4.6	12	e2.5	e2.4
16	2.1	3.7	3.9	6.6	236	56	12	5.5	5.4	14	e2.6	e2.3
17	2.3	33	4.0	7.9	71	25	12	5.7	4.4	13	e2.6	e2.2
18	2.2	26	25	7.4	47	20	11	5.7	3.7	e13	e2.6	e2.1
19	2.1	7.3	9.5	6.8	161	19	10	5.8	4.5	e10	e2.6	2.0
20	2.1	5.8	5.0	6.5	229	19	9.5	5.5	4.7	e7.1	e2.6	1.9
21	2.0	5.0	4.8	6.2	64	19	9.5	5.5	4.7	e4.5	e2.5	2.0
22	6.7	4.7	4.8	6.2	43	63	9.0	5.6	4.2	e4.0	e2.5	2.1
23	2.1	4.5	4.5	8.0	32	36	8.4	5.1	4.1	e3.6	e2.5	2.2
24	2.1	4.7	4.5	7.5	28	17	8.4	4.8	3.7	e3.5	e2.5	2.0
25	16	4.5	4.5	6.2	25	14	8.1	4.7	3.8	e3.2	e2.5	2.0
26	803	4.5	4.5	6.1	23	14	7.7	4.1	3.8	e3.1	e2.7	1.9
27	22	4.5	36	5.8	21	14	8.9	4.1	3.7	e3.0	e2.7	2.0
28	9.4	4.3	98	15	20	15	8.7	4.2	3.9	e3.0	e2.7	1.8
29	6.9	4.1	208	9.4	20	14	7.1	4.1	12	e2.8	e2.7	1.8
30	5.8	4.1	19	7.0	---	15	6.4	4.1	24	e2.8	e2.7	1.8
31	4.5	---	9.9	6.6	---	16	---	4.3	---	e2.8	e2.7	---
TOTAL	941.7	182.4	513.7	552.7	3569.0	1174	367.7	159.7	154.4	179.7	81.0	68.1
MEAN	30.4	6.08	16.6	17.8	123	37.9	12.3	5.15	5.15	5.80	2.61	2.27
MAX	803	33	208	222	1150	196	40	6.2	24	14	2.8	2.7
MIN	2.0	3.7	3.9	5.8	6.8	14	6.4	4.1	3.7	2.8	2.5	1.8
AC-FT	1870	362	1020	1100	7080	2330	729	317	306	356	161	135

e Estimated.

11183600 WALNUT CREEK AT CONCORD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.3	32.5	52.1	113	132	108	52.3	19.1	12.3	9.52	8.26	8.77
MAX	30.4	114	182	386	617	665	283	48.0	29.4	18.5	17.4	22.4
(WY)	1992	1984	1984	1982	1986	1983	1982	1983	1982	1983	1983	1986
MIN	3.44	6.08	8.93	6.77	11.9	6.88	6.14	5.15	4.34	3.31	1.83	2.27
(WY)	1978	1992	1976	1991	1977	1972	1977	1992	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1969 - 1992	
ANNUAL TOTAL	6903.6		7944.1			
ANNUAL MEAN	18.9		21.7		46.4	
HIGHEST ANNUAL MEAN					168	1983
LOWEST ANNUAL MEAN					8.46	1977
HIGHEST DAILY MEAN	803	Oct 26	1150	Feb 12	6260	Feb 17 1986
LOWEST DAILY MEAN	2.0	Oct 21	1.8	Sep 28	.70	Oct 7 1977
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 15	1.9	Sep 24	1.1	Nov 10 1977
INSTANTANEOUS PEAK FLOW			4730	Feb 12	13300	Jan 5 1982
INSTANTANEOUS PEAK STAGE			9.33	Feb 12	19.10	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	13690		15760		33610	
10 PERCENT EXCEEDS	25		27		79	
50 PERCENT EXCEEDS	5.2		4.9		12	
90 PERCENT EXCEEDS	2.6		2.5		4.7	

11456000 NAPA RIVER NEAR ST. HELENA, CA

LOCATION.--Lat 38°29'52", long 122°25'37", in Carne Humana Grant, Napa County, Hydrologic Unit 18050002, on right bank 0.2 mi upstream from highway bridge, 1.3 mi northeast of Zinfandel, and 2.5 mi east of St. Helena.

DRAINAGE AREA.--81.4 mi^2.

PERIOD OF RECORD.--October 1929 to September 1932, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1929: Drainage area. WDR CA-78-2: 1977(M).

GAGE.--Water-stage recorder. Datum of gage is 170.12 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1958, at datum 3.00 ft higher. Nov. 22, 1958, to July 22, 1976, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good above 10 ft^3/s and fair below. Some regulation by Kimball Creek Reservoir, capacity 344 acre-ft, since 1939, and Bell Canyon Reservoir, capacity, 2,530 acre-ft, since 1959. Small diversions upstream from station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s, Feb. 17, 1986, gage height, 18.52 ft, from rating curve extended above 11,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	0115	*2,890	*9.65				

Minimum daily, 0.10 ft^3/s, Sept. 25, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.83	1.2	8.5	10	58	50	17	6.7	7.2	.69	.23
2	.24	.83	1.2	6.4	9.2	58	47	17	6.1	4.9	.62	.25
3	.22	.86	1.4	5.4	5.9	49	44	17	5.9	4.3	.58	.26
4	.22	.92	1.6	7.1	5.3	45	41	17	5.4	3.4	.48	.26
5	.26	.95	1.4	45	4.9	312	38	16	5.4	3.2	.48	.25
6	.30	1.0	1.4	25	4.7	210	35	16	4.3	3.1	.44	.23
7	.32	1.1	1.7	30	4.6	131	32	15	4.7	2.3	.40	.22
8	.36	1.2	1.8	23	4.6	99	32	14	4.8	2.0	.42	.22
9	.46	1.1	2.0	16	5.8	79	32	13	4.4	2.0	.36	.23
10	.50	1.1	1.7	13	80	65	32	14	4.3	2.0	.36	.24
11	.53	1.2	1.7	10	169	60	33	14	4.1	1.8	.35	.24
12	.63	1.1	1.7	8.6	637	57	63	13	4.9	1.8	.35	.23
13	.66	.95	1.8	7.7	167	53	54	13	4.7	1.5	.45	.23
14	.66	.95	2.1	6.8	473	104	41	13	4.3	1.3	.53	.21
15	.64	1.0	2.0	6.0	440	528	35	13	4.0	1.3	.62	.20
16	.57	1.1	1.8	5.3	577	577	33	12	4.2	1.3	.55	.20
17	.43	7.6	1.7	4.9	294	345	34	12	3.9	1.3	.47	.20
18	.43	12	3.0	4.9	220	228	38	11	3.2	1.2	.53	.18
19	.47	5.7	5.1	4.4	843	164	33	11	2.8	.93	.59	.17
20	.65	2.6	3.0	4.4	1300	129	31	10	3.1	.76	.55	.15
21	.77	2.0	2.1	4.4	416	106	28	9.7	2.3	.83	.52	.14
22	.77	1.6	2.0	4.4	290	118	27	9.2	2.2	.92	.49	.13
23	.70	1.6	2.0	4.4	192	118	26	9.1	2.6	1.0	.41	.13
24	.66	1.6	2.1	3.8	133	98	25	9.1	2.7	1.1	.36	.12
25	.65	1.6	2.2	3.5	100	83	22	8.6	2.5	.94	.36	.10
26	8.6	1.6	2.2	3.5	83	75	21	8.6	2.8	.83	.36	.10
27	8.1	1.6	2.9	3.5	72	67	21	7.8	2.4	.86	.39	.11
28	2.4	1.5	28	4.1	63	60	20	6.7	2.5	.89	.38	.12
29	1.3	1.3	60	4.8	58	56	20	6.8	6.0	1.7	.31	.15
30	1.0	1.3	17	4.0	---	54	19	7.0	10	.95	.25	.19
31	.89	---	11	4.0	---	54	---	7.2	---	.81	.23	---
TOTAL	34.65	59.79	170.8	286.8	6662.0	4240	1007	367.8	127.2	58.42	13.88	5.69
MEAN	1.12	1.99	5.51	9.25	230	137	33.6	11.9	4.24	1.88	.45	.19
MAX	8.6	12	60	45	1300	577	63	17	10	7.2	.69	.26
MIN	.22	.83	1.2	3.5	4.6	45	19	6.7	2.2	.76	.23	.10
AC-FT	69	119	339	569	13210	8410	2000	730	252	116	28	11

11456000 NAPA RIVER NEAR ST. HELENA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.50	38.6	180	286	304	194	91.6	21.8	7.26	2.52	1.28	.98
MAX	179	415	1088	1338	1798	1144	584	93.0	27.3	7.66	4.43	6.44
(WY)	1963	1974	1956	1970	1986	1983	1982	1983	1967	1941	1941	1982
MIN	.000	.10	.24	2.17	4.34	7.45	1.81	.89	.081	.000	.000	.000
(WY)	1978	1932	1940	1991	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1930 - 1992	
ANNUAL TOTAL	17714.94		13034.03			
ANNUAL MEAN	48.5		35.6		93.6	
HIGHEST ANNUAL MEAN					270	1983
LOWEST ANNUAL MEAN					1.90	1977
HIGHEST DAILY MEAN	3600	Mar 4	1300	Feb 20	13700	Feb 17 1986
LOWEST DAILY MEAN	.22	Oct 3	.10	Sep 25	.00	Sep 23 1947
ANNUAL SEVEN-DAY MINIMUM	.25	Sep 29	.12	Sep 22	.00	Sep 23 1947
INSTANTANEOUS PEAK FLOW			2890	Feb 20	16900	Feb 17 1986
INSTANTANEOUS PEAK STAGE			9.65	Feb 20	18.52	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	35140		25850		67780	
10 PERCENT EXCEEDS	63		68		181	
50 PERCENT EXCEEDS	2.2		3.5		7.3	
90 PERCENT EXCEEDS	.42		.26		.44	

11458000 NAPA RIVER NEAR NAPA, CA
(National stream quality accounting network station)

LOCATION.--Lat 38°22'06", long 122°18'08", in Yajome Grant, Napa County, Hydrologic Unit 18050002, on left bank at downstream side of Oak Knoll Avenue bridge, 0.4 mi downstream from Dry Creek, 5 mi north of Napa, and 12.8 mi downstream from Conn Dam.

DRAINAGE AREA.--218 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to September 1932, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1315-B: 1930(M). WDR CA-87-2: 1963(M), 1965(M), 1967(M), 1982-85.

GAGE.--Water-stage recorder. Datum of gage is 24.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Hennessey beginning in December 1945, 12.8 mi upstream, capacity 31,000 acre-ft; Rector Reservoir beginning in 1948, 12.4 mi upstream, capacity 4,400 acre-ft; Bell Canyon Reservoir beginning in 1959, 19.6 mi upstream, capacity 2,530 acre-ft. Diversions for irrigation upstream from station of about 10,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft^3/s, Feb. 18, 1986, gage height, 30.20 ft, from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,660 ft^3/s, Feb. 20, gage height, 14.73 ft; no flow, Sept. 8, 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	1.3	.53	11	10	125	122	41	14	11	2.3	.61
2	.92	1.3	.87	9.6	14	127	114	38	13	9.5	1.9	.56
3	.87	1.2	.87	8.6	13	110	107	39	12	7.4	1.7	.56
4	.82	1.1	.97	8.9	9.7	100	100	38	11	5.1	1.8	.49
5	.68	1.1	1.4	53	8.0	977	95	36	10	5.7	1.6	.39
6	1.9	1.1	.83	58	7.7	877	91	34	9.4	6.2	1.5	.31
7	.80	1.0	.67	45	7.4	495	86	32	10	6.2	1.6	.01
8	.66	.87	.60	53	6.5	344	82	31	10	5.0	1.8	.00
9	.54	.97	.52	35	6.5	246	77	31	10	4.3	2.2	.55
10	.45	1.0	.64	26	29	207	75	29	9.6	2.1	2.1	.80
11	.46	.88	.65	21	318	175	74	29	8.6	2.9	2.0	.89
12	.42	.87	.52	18	1190	155	103	28	8.3	3.4	2.1	.81
13	.39	.87	.56	16	350	139	104	28	9.6	3.7	2.1	.82
14	.59	1.0	.38	15	796	204	88	26	7.6	2.7	1.8	.77
15	.46	1.0	.57	14	1280	904	76	24	7.3	2.6	1.5	.79
16	.56	1.1	.66	13	938	1270	73	24	5.6	1.9	1.5	.83
17	.50	2.6	.70	12	562	710	70	23	5.0	1.3	1.4	.67
18	.52	2.1	1.2	12	343	475	71	23	4.8	1.4	1.4	.23
19	.45	4.0	1.0	12	1220	363	66	22	4.7	3.5	1.5	.16
20	.28	4.8	2.3	10	2970	300	63	21	6.0	2.8	1.4	.18
21	.12	2.9	3.7	8.5	860	252	60	20	7.1	2.5	1.6	.23
22	.19	1.9	2.3	8.5	572	288	56	19	6.7	.86	1.8	.24
23	.41	1.4	1.7	8.1	393	432	55	18	5.0	.95	1.2	.26
24	.53	1.3	1.3	7.9	296	297	54	17	3.3	1.0	1.2	.20
25	1.2	1.3	1.6	7.3	211	246	52	17	4.4	.95	1.2	.08
26	8.9	1.3	1.9	7.2	176	212	51	17	3.6	1.4	1.9	.35
27	4.7	1.3	1.8	6.9	153	185	47	16	3.1	3.5	.65	.17
28	1.1	1.1	3.4	7.1	137	161	45	15	2.8	4.0	.56	.00
29	1.0	.63	65	7.5	127	146	44	14	3.6	3.0	.56	.00
30	1.0	.52	46	8.2	---	131	43	14	7.9	2.4	.96	.00
31	1.0	---	20	7.7	---	132	---	14	---	2.5	1.2	---
TOTAL	33.38	43.81	165.14	536.0	13003.8	10785	2244	778	224.0	111.76	48.03	11.96
MEAN	1.08	1.46	5.33	17.3	448	348	74.8	25.1	7.47	3.61	1.55	.40
MAX	8.9	4.8	65	58	2970	1270	122	41	14	11	2.3	.89
MIN	.12	.52	.38	6.9	6.5	100	43	14	2.8	.86	.56	.00
AC-FT	66	87	328	1060	25790	21390	4450	1540	444	222	95	24

11458000 NAPA RIVER NEAR NAPA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.3	92.2	282	613	649	461	190	44.3	13.9	5.00	2.75	2.42
MAX	338	616	1474	2672	4089	2598	1341	226	55.6	19.4	9.43	10.7
(WY)	1963	1974	1984	1970	1986	1983	1982	1983	1967	1983	1983	1982
MIN	.000	1.10	.73	2.17	.42	2.60	.20	.000	.000	.000	.000	.000
(WY)	1961	1991	1977	1991	1977	1977	1977	1977	1977	1961	1960	1960

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1960 - 1992	
ANNUAL TOTAL	33268.43		27984.88			
ANNUAL MEAN	91.1		76.5		196	
HIGHEST ANNUAL MEAN					585	1983
LOWEST ANNUAL MEAN					.72	1977
HIGHEST DAILY MEAN	5790	Mar 4	2970	Feb 20	26200	Feb 17 1986
LOWEST DAILY MEAN	.00	Feb 26	.00	Sep 8	.00	Jul 14 1960
ANNUAL SEVEN-DAY MINIMUM	.35	Oct 17	.11	Sep 24	.00	Jul 14 1960
INSTANTANEOUS PEAK FLOW			4660	Feb 20	37100	Feb 18 1986
INSTANTANEOUS PEAK STAGE			14.73	Feb 20	30.20	Feb 18 1986
ANNUAL RUNOFF (AC-FT)	65990		55510		141600	
10 PERCENT EXCEEDS	137		175		404	
50 PERCENT EXCEEDS	2.6		5.1		12	
90 PERCENT EXCEEDS	.76		.54		.45	

11458000 NAPA RIVER NEAR NAPA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1973 to current year.
CHEMICAL DATA: Water years 1973 to current year.
BIOLOGICAL DATA: Water years 1978-81.
SPECIFIC CONDUCTANCE: Water years 1978-81.
WATER TEMPERATURE: Water years 1977-81.
SEDIMENT DATA: Water years 1971, 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981.
WATER TEMPERATURE: October 1976 to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: October 1976 to September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 500 microsiemens, Sep. 1, 1981; minimum recorded, 81 microsiemens, Mar. 1, 1979.
WATER TEMPERATURE: Maximum recorded, 28.0°C, July 13, 1979; minimum recorded, 3.0°C, Dec. 31, 1978, Jan 1, 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
20...	1215	4.8	477	7.6	11.0	1.0	771	9.4	84	43	66
JAN											
24...	1215	7.7	471	8.0	7.0	0.50	766	--	--	K8	K12
MAR											
25...	1515	238	294	7.4	14.5	6.5	760	9.8	96	72	59
MAY											
27...	1030	16	433	7.4	19.0	1.1	757	8.1	88	41	130
JUL											
16...	1200	2.3	494	7.8	20.5	0.50	759	7.1	79	66	150
SEP											
02...	1030	0.56	494	8.1	18.5	1.0	764	7.0	75	49	29

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)
NOV											
20...	210	12	32	31	22	19	0.7	2.5	239	0	196
JAN											
24...	170	26	30	24	33	29	1	2.3	180	0	147
MAR											
25...	110	13	21	14	16	24	0.7	2.0	118	0	97
MAY											
27...	170	17	30	24	23	22	0.8	2.3	191	0	157
JUL											
16...	200	9	32	28	26	22	0.8	2.2	227	0	186
SEP											
02...	220	22	35	33	26	20	0.8	2.6	246	0	201

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
20...	36	27	0.20	12	313	282	0.43	0.020	<0.010	0.210
JAN										
24...	49	42	0.40	27	293	302	0.40	<0.010	0.010	0.420
MAR										
25...	33	13	0.20	30	180	195	0.24	0.010	0.010	1.80
MAY										
27...	43	26	0.30	33	284	281	0.39	<0.010	<0.010	1.20
JUL										
16...	44	27	0.20	32	300	304	0.41	0.010	<0.010	0.220
SEP										
02...	45	28	0.30	32	310	323	0.42	<0.010	<0.010	<0.050

11458000 NAPA RIVER NEAR NAPA, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
NOV 20...	0.230	0.020	0.020	0.30	0.100	0.070	0.060	0.060	20	61
JAN 24...	--	<0.010	--	<0.20	0.030	--	0.020	--	<10	69
MAR 25...	1.80	0.010	0.010	<0.20	0.050	0.070	0.060	0.050	--	--
MAY 27...	1.20	0.020	0.020	<0.20	0.060	0.060	0.040	0.050	<10	72
JUL 16...	0.210	0.020	0.020	<0.20	0.050	0.040	0.050	0.050	--	--
SEP 02...	<0.050	0.010	0.020	<0.20	0.060	0.050	0.050	0.050	<10	87

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV 20...	<3	36	--	6	<10	3	<1	<1.0	170	<6
JAN 24...	<3	11	77	10	<10	2	<1	<1.0	190	<6
MAR 25...	--	--	--	--	--	--	--	--	--	--
MAY 27...	<3	11	43	14	<10	1	<1	<1.0	210	<6
JUL 16...	--	--	--	--	--	--	--	--	--	--
SEP 02...	<3	6	36	24	<10	2	<1	<1.0	250	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
25...*	1340	3.10	5.00	295	7.1	14.5	760	10.0	98	10	97
25...*	1350	3.30	11.0	295	7.2	14.5	760	9.8	96	10	98
25...*	1400	3.60	15.0	296	7.3	14.5	760	9.7	95	10	99
25...*	1410	3.20	20.0	295	7.3	14.5	760	9.6	94	10	100
25...*	1420	1.00	32.0	299	7.4	14.5	760	9.6	94	10	100

* Instantaneous streamflow at the time of cross-sectional measurement: Mar. 25, 240 ft^3/s

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 20...	1215	4.8	11.0	2	0.03	83
JAN 24...	1215	7.7	7.0	2	0.04	81
MAR 25...	1515	238	14.5	10	6.4	99
MAY 27...	1030	16	19.0	4	0.17	98
JUL 16...	1200	2.3	20.5	2	0.01	98
SEP 02...	1030	0.56	18.5	1	0.00	100

11459500 NOVATO CREEK AT NOVATO, CA

LOCATION.--Lat 38°06'28", long 122°34'44", in Novato Grant, Marin County, Hydrologic Unit 18050002, on left bank in Novato, 100 ft upstream from 7th Street Bridge, and 3.9 mi downstream from Novato Creek Dam.

DRAINAGE AREA.--17.6 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Prior to October 1966, published as "near Novato."

GAGE.--Water-stage recorder. Datum of gage is 14.76 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 23, 1967, at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Stafford Lake beginning Dec. 1, 1951, capacity, 4,500 acre-ft since Oct. 18, 1954; contents, 2,110 acre-ft, Sept. 30, 1992. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952, and amounted to 1,621 acre-ft for the current year. No diversion from Russian River into Stafford Lake during the current year.

COOPERATION.--Records of diversions and storage were provided by North Marin Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s, Jan. 4, 1982, gage height, 14.52 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 764 ft^3/s, Mar. 5, gage height, 7.90 ft; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.24	.00	.56	1.7	12	6.4	.96	.38	.00	.00	.16
2	.12	.15	.00	.49	.55	7.3	7.4	.93	.35	.00	.00	.89
3	.07	.11	.00	.68	.51	4.7	7.7	.86	.34	.01	.00	.43
4	.02	.16	.03	16	.48	4.2	7.2	1.6	1.5	.00	.00	.53
5	.00	.09	.03	6.2	.48	178	6.0	1.3	.53	.00	.00	.16
6	.00	.08	.04	2.8	.62	46	5.1	1.1	.35	.00	.00	.08
7	.02	.06	.10	13	.53	25	4.9	.85	.26	.00	.01	.08
8	.03	.07	.04	1.8	.49	17	4.9	.84	.26	.00	.02	.07
9	.01	.07	.02	1.1	5.8	13	4.6	.72	.47	.00	.00	.10
10	.45	.07	.02	.85	10	11	4.4	.66	.25	.00	.00	.14
11	.45	.07	.02	.77	84	9.5	7.3	.63	.23	.00	.00	.19
12	.14	.06	.02	.70	83	8.4	14	.64	.19	.00	.07	.04
13	.20	.05	.03	.61	20	7.6	9.4	.58	.18	.00	.31	.03
14	.18	.03	.03	.60	150	15	7.5	.18	.17	.00	.34	.04
15	.39	.03	.04	.56	60	48	6.0	.20	.36	.00	.34	.02
16	.41	.03	.05	.54	50	31	5.1	.55	.01	.00	.28	.03
17	.89	3.0	2.2	1.5	21	16	5.0	.57	.00	.00	.26	.03
18	.48	.51	1.6	.61	32	13	4.3	.57	.00	.00	.31	.03
19	.11	.22	.25	.54	93	11	3.5	.59	.00	.00	.30	.03
20	.02	.19	.14	.54	55	10	4.9	.56	.01	.00	.22	.03
21	.48	.15	.10	.49	30	9.2	4.6	.54	.00	.00	.30	.02
22	.98	.13	.10	.48	19	29	3.2	.55	.01	.00	.27	2.6
23	.94	.12	.08	.48	14	17	1.6	.52	.01	.00	.16	1.3
24	.38	.12	.07	.48	9.9	11	1.4	.53	.00	.01	.11	.56
25	3.4	.09	.07	.48	7.5	9.4	1.3	.50	.00	.00	.08	.22
26	27	.07	.07	.48	5.8	8.6	1.2	.49	.00	.00	.09	.03
27	.57	.08	7.0	.45	5.0	8.1	1.3	.47	.00	.00	.07	.01
28	.89	.05	33	1.2	4.4	7.5	1.1	.44	.00	.00	.10	.02
29	.30	.04	7.2	.61	4.2	7.0	.97	.48	1.9	.00	.11	.04
30	.24	.02	1.2	.50	---	7.2	1.0	.41	.03	.00	.23	.05
31	.22	---	.72	.54	---	6.6	---	.40	---	.00	.25	---
TOTAL	39.58	6.16	54.27	56.64	768.96	608.3	143.27	20.22	7.79	0.02	4.23	7.96
MEAN	1.28	.21	1.75	1.83	26.5	19.6	4.78	.65	.26	.001	.14	.27
MAX	27	3.0	33	16	150	178	14	1.6	1.9	.01	.34	2.6
MIN	.00	.02	.00	.45	.48	4.2	.97	.18	.00	.00	.00	.01
AC-FT	79	12	108	112	1530	1210	284	40	15	.04	8.4	16

11459500 NOVATO CREEK AT NOVATO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.75	3.30	15.7	44.0	41.0	24.6	9.72	1.40	.69	.61	.37	.30
MAX	9.07	17.2	117	189	239	207	81.3	12.9	7.73	8.61	8.53	5.40
(WY)	1963	1974	1956	1970	1986	1983	1958	1983	1980	1980	1980	1967
MIN	.000	.000	.000	.26	.35	.84	.17	.016	.000	.000	.000	.000
(WY)	1947	1948	1950	1948	1948	1976	1977	1961	1951	1947	1947	1947

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1947 - 1992	
ANNUAL TOTAL	1049.09		1717.40			
ANNUAL MEAN	2.87		4.69		11.8	
HIGHEST ANNUAL MEAN					47.9	1983
LOWEST ANNUAL MEAN					.40	1976
HIGHEST DAILY MEAN	140	Mar 24	178	Mar 5	2850	Jan 4 1982
LOWEST DAILY MEAN	.00	Aug 25	.00	Oct 5	.00	Oct 1 1946
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 30	.00	Jul 4	.00	Oct 1 1946
INSTANTANEOUS PEAK FLOW			764	Mar 5	5000	Jan 4 1982
INSTANTANEOUS PEAK STAGE			7.90	Mar 5	14.52	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	2080		3410		8510	
10 PERCENT EXCEEDS	4.5		9.9		20	
50 PERCENT EXCEEDS	.47		.38		.53	
90 PERCENT EXCEEDS	.03		.00		.00	

11460000 CORTE MADERA CREEK AT ROSS, CA

LOCATION.--Lat 37°57'45", long 122°33'20", in Punta de Quentin Grant, Marin County, Hydrologic Unit 18050002, on left bank behind fire station at Ross, 1.7 mi southwest of San Rafael, 1.7 mi below Phoenix Lake, and 4 mi upstream from mouth.

DRAINAGE AREA.--18.1 mi^2.

PERIOD OF RECORD.--February 1951 to current year.

REVISED RECORDS.--WDR CA-85-2: 1982(M).

GAGE.--Water-stage recorder. Datum of gage is 7.97 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Flow slightly regulated by Phoenix Lake, capacity 612 acre-ft. Diversion on tributary upstream from station by Marin Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,200 ft^3/s, Jan. 4, 1982, gage height, 19.81 ft, from rating curve extended above 2,700 ft^3/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 11	2400	1,260	11.40	Feb. 19	2115	*1,790	*13.32
Feb. 14	1545	1,100	10.83				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.06	.50	2.9	4.4	28	5.9	2.1	.42	.15	.01	.00
2	.00	.06	.56	2.6	2.0	21	5.5	2.0	.40	.12	.01	.00
3	.00	.06	.56	2.4	2.0	14	5.1	1.9	.36	.10	.03	.00
4	.00	.06	.56	22	2.0	11	4.6	1.9	.37	.10	.03	.00
5	.00	.06	.56	25	1.9	250	4.4	1.8	.31	.10	.01	.00
6	.00	.05	.56	9.9	2.2	151	4.2	1.7	.29	.10	.01	.00
7	.00	.04	.68	41	2.0	76	4.1	1.6	.30	.09	.00	.00
8	.00	.04	.56	11	2.0	48	3.9	1.6	.28	.09	.00	.00
9	.00	.05	.56	6.1	10	32	3.8	1.4	.24	.07	.00	.00
10	.00	.05	.59	4.3	21	24	3.9	1.4	.25	.06	.00	.00
11	.00	.06	.56	3.6	193	20	4.3	1.3	.19	.06	.00	.00
12	.00	.06	.55	3.1	256	16	19	1.2	.18	.06	.00	.00
13	.00	.06	.55	2.9	73	14	6.8	1.2	.21	.08	.00	.00
14	.00	.06	.56	2.8	421	35	4.9	1.1	.28	.06	.00	.00
15	.00	.06	.56	2.6	209	135	4.1	1.1	.33	.04	.00	.00
16	.00	.06	.60	2.5	98	112	3.9	1.1	.30	.03	.00	.00
17	.00	8.9	3.1	3.6	54	67	3.8	.96	.31	.03	.00	.00
18	.00	1.0	3.6	2.5	49	45	3.6	.96	.28	.03	.00	.00
19	.00	.44	.51	2.3	527	33	3.5	.92	.27	.03	.00	.00
20	.00	.41	.41	2.3	420	25	3.5	.86	.21	.03	.00	.00
21	.00	.40	.39	2.3	105	20	3.2	.86	.19	.03	.00	.00
22	.00	.39	.39	2.3	53	26	3.0	.78	.18	.03	.00	.00
23	.00	.37	.36	2.2	33	18	3.0	.73	.17	.03	.00	.00
24	.00	.39	.35	2.1	23	15	2.8	.77	.17	.03	.00	.00
25	.60	.39	.35	2.0	18	12	2.8	.70	.15	.03	.00	.00
26	14	.39	.35	2.0	15	10	2.6	.68	.11	.02	.00	.00
27	.07	.39	11	2.0	12	8.5	2.4	.68	.10	.02	.00	.00
28	.05	.40	55	2.8	10	7.3	2.4	.60	.08	.02	.00	.00
29	.04	.53	37	2.0	9.3	6.6	2.2	.59	10	.03	.00	.00
30	.04	.50	5.8	2.0	---	7.2	2.1	.54	.55	.02	.00	.00
31	.04	---	3.5	2.1	---	6.3	---	.43	---	.02	.00	---
TOTAL	14.84	15.79	131.18	179.2	2627.8	1293.9	129.3	35.46	17.48	1.71	0.10	0.00
MEAN	.48	.53	4.23	5.78	90.6	41.7	4.31	1.14	.58	.055	.003	.000
MAX	14	8.9	55	41	527	250	19	2.1	10	.15	.03	.00
MIN	.00	.04	.35	2.0	1.9	6.3	2.1	.43	.08	.02	.00	.00
AC-FT	29	31	260	355	5210	2570	256	70	35	3.4	.2	.00

11460000 CORTE MADERA CREEK AT ROSS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.14	17.3	52.2	85.5	84.2	54.5	21.3	4.41	1.60	.65	.35	.54
MAX	39.5	135	293	338	410	344	153	24.7	10.7	2.98	1.45	3.73
(WY)	1963	1974	1956	1970	1986	1983	1958	1957	1967	1967	1958	1959
MIN	.001	.043	.46	.22	1.62	2.25	1.71	.68	.12	.002	.000	.000
(WY)	1991	1991	1991	1991	1977	1988	1990	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	4325.50		4446.76			
ANNUAL MEAN	11.9		12.1		26.9	
HIGHEST ANNUAL MEAN					77.0	1983
LOWEST ANNUAL MEAN					1.25	1977
HIGHEST DAILY MEAN	615	Mar 24	527	Feb 19	3840	Jan 4 1982
LOWEST DAILY MEAN	.00	Jul 27	.00	Oct 1	.00	Jul 20 1956
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 27	.00	Oct 1	.00	Jul 20 1956
INSTANTANEOUS PEAK FLOW			1790	Feb 19	7200	Jan 4 1982
INSTANTANEOUS PEAK STAGE			13.32	Feb 19	19.81	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	8580		8820		19520	
10 PERCENT EXCEEDS	13		20		50	
50 PERCENT EXCEEDS	.33		.47		1.9	
90 PERCENT EXCEEDS	.00		.00		.10	

11460400 LAGUNITAS CREEK AT SAMUEL P. TAYLOR STATE PARK, CA

LOCATION.--Lat 38°01'37", long 122°44'07", Marin County, Hydrologic Unit 18050005, in Samuel P. Taylor State Park, on left bank 300 ft upstream from Deadmans Gulch, 0.9 mi downstream from park entrance, 2.1 mi northwest of Lagunitas, and 3.4 mi downstream from Kent Lake.

DRAINAGE AREA.--34.3 mi^2.

PERIOD OF RECORD.--December 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 102.89 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Kent Lake, capacity, 16,680 acre-ft, and Alpine Lake, capacity, 8,890 acre-ft, both of which divert for domestic and industrial use in Marin County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,470 ft^3/s, Feb. 18, 1986, gage height, 8.44 ft; minimum daily, 3.8 ft^3/s, Oct. 16-18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s, Feb. 19, gage height, 6.73 ft; minimum daily, 4.4 ft^3/s, Aug. 19, Sept. 26-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	16	16	39	26	33	21	18	7.3	5.9	4.7	5.1
2	6.4	15	16	36	24	36	19	18	7.3	5.6	4.6	5.2
3	6.4	15	16	29	23	25	17	17	7.3	5.5	4.6	5.3
4	6.4	15	16	27	20	24	16	17	6.9	5.3	4.6	5.3
5	6.4	15	16	62	19	378	16	17	6.3	5.1	4.8	5.2
6	6.4	15	16	39	19	142	15	17	6.3	5.2	4.7	5.1
7	6.4	15	16	84	19	85	15	16	6.1	5.8	4.6	5.1
8	6.4	15	16	42	18	59	14	14	6.1	5.2	4.9	5.1
9	6.4	15	16	26	24	44	14	14	6.1	4.8	5.0	5.1
10	6.4	15	16	19	50	35	14	14	6.3	4.6	4.9	5.1
11	6.8	15	16	21	114	30	15	14	6.7	4.8	4.9	5.1
12	6.9	15	16	26	241	27	35	14	6.7	4.9	5.1	5.1
13	7.0	15	16	24	90	25	26	14	6.7	4.9	5.1	5.1
14	7.0	15	16	23	321	52	18	14	6.7	4.9	5.1	5.1
15	7.0	15	16	22	213	108	16	13	6.7	4.9	5.1	5.1
16	8.2	15	16	29	118	110	16	13	6.7	4.9	4.9	5.1
17	12	37	16	29	73	78	17	13	6.7	4.9	4.6	5.1
18	11	24	22	25	57	57	18	13	6.7	4.9	4.6	5.1
19	8.1	19	18	24	460	44	17	13	6.7	4.9	4.4	5.1
20	7.9	18	17	24	382	37	16	16	6.6	4.8	4.5	5.3
21	13	17	17	23	115	31	16	13	6.7	4.6	4.6	4.8
22	19	17	16	23	69	30	15	8.4	6.6	4.6	4.6	4.6
23	19	16	16	23	49	27	14	10	6.2	4.6	4.6	4.6
24	19	16	16	23	38	25	14	10	6.3	4.6	5.0	4.6
25	22	16	16	23	31	24	14	10	6.1	4.6	5.3	4.6
26	52	16	16	23	26	25	14	9.6	6.1	4.6	5.1	4.4
27	12	16	25	23	24	28	17	8.4	6.1	4.6	4.9	4.4
28	17	16	81	24	23	28	19	8.4	6.2	4.6	4.8	4.4
29	16	16	118	23	23	28	17	8.5	8.7	4.6	5.1	4.4
30	16	16	38	23	---	28	18	8.4	8.2	4.6	5.1	4.4
31	16	---	32	23	---	24	---	7.5	---	4.7	5.2	---
TOTAL	366.9	501	720	904	2709	1727	513	401.2	200.1	152.5	150.0	148.0
MEAN	11.8	16.7	23.2	29.2	93.4	55.7	17.1	12.9	6.67	4.92	4.84	4.93
MAX	52	37	118	84	460	378	35	18	8.7	5.9	5.3	5.3
MIN	6.4	15	16	19	18	24	14	7.5	6.1	4.6	4.4	4.4
AC-FT	728	994	1430	1790	5370	3430	1020	796	397	302	298	294

11460400 LAGUNITAS CREEK AT SAMUEL P. TAYLOR STATE PARK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.92	21.8	40.8	47.7	114	113	18.5	14.7	7.96	6.37	5.57	5.51
MAX	13.4	66.3	173	136	421	503	67.3	40.7	10.3	7.61	7.05	6.53
(WY)	1990	1985	1984	1983	1986	1983	1983	1983	1990	1991	1991	1991
MIN	4.34	4.74	6.84	14.5	11.2	13.6	8.39	7.43	6.30	4.92	4.44	4.29
(WY)	1987	1987	1987	1991	1989	1988	1987	1987	1987	1992	1984	1984

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	7499.1		8492.7			
ANNUAL MEAN	20.5		23.2		25.4	
HIGHEST ANNUAL MEAN					65.2	1986
LOWEST ANNUAL MEAN					14.7	1987
HIGHEST DAILY MEAN	647	Mar 3	460	Feb 19	2350	Feb 17 1986
LOWEST DAILY MEAN	6.3	Sep 29	4.4	Aug 19	3.8	Oct 16 1986
ANNUAL SEVEN-DAY MINIMUM	6.4	Sep 23	4.5	Sep 24	4.0	Oct 16 1986
INSTANTANEOUS PEAK FLOW			1680	Feb 19	3470	Feb 18 1986
INSTANTANEOUS PEAK STAGE			6.73	Feb 19	8.44	Feb 18 1986
ANNUAL RUNOFF (AC-FT)	14870		16850		18370	
10 PERCENT EXCEEDS	30		37		44	
50 PERCENT EXCEEDS	10		15		9.6	
90 PERCENT EXCEEDS	6.9		4.8		5.0	

11460600 LAGUNITAS CREEK NEAR POINT REYES STATION, CA

LOCATION.--Lat 38°04'49", long 122°47'00", in Nicasio (Black) Grant, Marin County, Hydrologic Unit 18050005, on right bank at upstream side of road bridge, 300 ft downstream from small right-bank tributary, 1.4 mi northeast of town of Point Reyes Station, and 2.5 mi downstream from Nicasio Dam.

DRAINAGE AREA.--81.7 mi^2.

PERIOD OF RECORD.--October 1974 to current year.
WATER TEMPERATURE: October 1989 to September 1990.
SEDIMENT DATA: October 1989 to September 1990.

REVISED RECORDS.--WDR CA-79-2: 1975, 1978. WDR CA-82-2: 1975(M), 1978(M), 1980(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Nicasio Reservoir, capacity, 22,450 acre-ft; Kent Lake, capacity, 16,680 acre-ft; and Alpine Lake, capacity, 8,890 acre-ft, all of which divert water for domestic and industrial use in Marin County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,100 ft^3/s, Jan. 4, 1982, gage height, 26.96 ft, from rating curve extended above 6,200 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.01 ft^3/s, Sept. 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,320 ft^3/s, Feb. 20, gage height, 10.88 ft; minimum daily, 4.9 ft^3/s, Sept. 27-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	16	17	48	30	42	28	20	9.2	8.6	6.2	5.6
2	6.2	16	17	44	28	63	26	20	9.4	7.8	6.2	5.6
3	6.3	16	17	36	27	41	24	20	9.2	7.4	6.2	5.6
4	6.2	16	17	34	25	37	22	20	8.9	7.4	6.1	5.6
5	6.2	16	17	102	23	544	21	20	8.0	7.2	5.8	5.6
6	6.2	16	17	64	23	249	21	20	7.8	7.2	5.8	5.5
7	6.2	16	17	143	22	145	20	19	7.8	7.4	5.8	5.6
8	6.2	16	17	79	22	97	20	17	7.7	7.3	5.8	5.5
9	6.2	16	17	48	24	72	19	17	7.6	6.7	5.8	5.3
10	6.2	16	17	34	74	57	19	17	7.6	6.5	5.8	5.3
11	6.4	16	17	29	144	48	19	16	7.6	6.4	5.7	5.3
12	6.7	16	17	35	488	42	38	16	7.6	6.6	6.0	5.3
13	6.8	16	17	32	168	39	36	16	7.6	6.6	5.8	5.3
14	6.8	16	17	30	504	75	25	16	7.4	6.6	5.6	5.3
15	6.8	16	17	28	413	178	21	16	7.4	6.4	5.5	5.3
16	6.9	16	17	31	240	187	21	16	7.4	6.4	5.6	5.4
17	9.5	36	17	38	137	138	21	16	7.4	6.4	5.5	5.4
18	11	29	23	31	98	146	22	16	7.4	6.4	5.5	5.3
19	8.1	21	20	29	469	128	21	16	7.4	6.3	5.6	5.2
20	7.7	19	19	28	895	107	20	17	7.4	6.4	5.1	5.3
21	8.0	19	18	28	224	85	19	18	7.0	6.2	5.4	5.7
22	16	18	18	27	132	79	19	10	7.4	6.2	5.3	5.3
23	17	18	18	27	89	83	18	12	7.1	6.2	5.4	5.3
24	17	17	18	27	67	63	18	12	7.0	6.2	5.4	5.3
25	19	17	18	27	53	49	17	12	7.0	6.2	5.3	5.1
26	71	17	18	26	44	41	17	12	7.0	6.2	5.3	5.1
27	17	17	22	26	39	38	18	10	6.8	6.2	5.3	4.9
28	19	17	86	27	36	37	22	9.7	6.8	6.2	5.3	4.9
29	19	17	234	27	34	35	21	9.8	8.5	6.2	5.5	4.9
30	18	17	63	26	---	36	20	9.8	13	6.2	5.8	4.9
31	17	---	41	26	---	33	---	9.2	---	6.3	5.7	---
TOTAL	376.8	535	905	1237	4572	3014	653	475.5	235.4	206.3	175.1	159.7
MEAN	12.2	17.8	29.2	39.9	158	97.2	21.8	15.3	7.85	6.65	5.65	5.32
MAX	71	36	234	143	895	544	38	20	13	8.6	6.2	5.7
MIN	6.2	16	17	26	22	33	17	9.2	6.8	6.2	5.1	4.9
AC-FT	747	1060	1800	2450	9070	5980	1300	943	467	409	347	317

11460600 LAGUNITAS CREEK NEAR POINT REYES STATION, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.29	39.4	96.0	180	270	219	62.4	15.1	6.33	4.94	4.26	4.02
MAX	19.2	177	542	991	1193	1109	531	86.4	14.1	8.68	6.95	6.34
(WY)	1984	1983	1984	1982	1986	1983	1982	1983	1983	1983	1991	1991
MIN	.19	1.35	1.51	2.37	3.52	7.40	1.59	.67	.45	1.77	1.47	1.12
(WY)	1977	1977	1977	1976	1977	1977	1977	1977	1977	1976	1976	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	9626.7		12544.8			
ANNUAL MEAN	26.4		34.3		74.6	
HIGHEST ANNUAL MEAN					269	1983
LOWEST ANNUAL MEAN					2.54	1977
HIGHEST DAILY MEAN	773	Mar 3	895	Feb 20	10700	Jan 4 1982
LOWEST DAILY MEAN	6.0	Sep 25	4.9	Sep 27	.01	Sep 26 1977
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 20	5.0	Sep 24	.02	Oct 14 1977
INSTANTANEOUS PEAK FLOW			2320	Feb 20	22100	Jan 4 1982
INSTANTANEOUS PEAK STAGE			10.88	Feb 20	26.96	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	19090		24880		54070	
10 PERCENT EXCEEDS	38		65		118	
50 PERCENT EXCEEDS	12		17		7.7	
90 PERCENT EXCEEDS	6.6		5.6		2.1	

11460750 WALKER CREEK NEAR MARSHALL, CA

LOCATION.--Lat 38°10'33", long 122°49'02", in Soulajule (Vasquez) Grant, Marin County, Hydrologic Unit 18050005, on right bank 0.8 mi downstream from Verde Canyon, 2.8 mi below confluence of Arroyo Sausal and Salmon Creek, and 4.0 mi east of Marshall.

DRAINAGE AREA.--31.1 mi^2.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow affected by regulation and diversions and by Soulajule Reservoir on Arroyo Sausal; reservoir capacity, 10,570 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft^3/s, Feb. 17, 1986, gage height, 10.79 ft, from rating curve extended above 1,100 ft^3/s on basis of comparison with discontinued downstream station Walker Creek near Tomales; minimum daily, 0.73 ft^3/s, Nov. 26, 1991.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Jan. 4, 1982, reached a stage of 15.9 ft, present datum, from floodmarks, discharge, 14,600 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 499 ft^3/s, Feb. 19, gage height, 3.18 ft; minimum daily, 0.73 ft^3/s, Nov. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.6	1.0	6.2	12	15	15	6.4	5.3	5.0	4.8	4.8
2	1.3	1.6	1.1	6.0	11	17	13	6.2	5.3	4.8	4.8	4.8
3	1.3	1.5	1.0	5.8	9.8	12	12	6.2	5.2	4.8	4.8	4.8
4	1.4	1.5	1.1	8.0	8.7	10	11	6.2	5.1	4.8	4.8	4.9
5	1.5	1.5	1.1	17	8.5	78	10	6.2	5.1	4.8	4.8	5.1
6	1.5	1.4	1.1	14	8.1	133	9.1	6.2	5.1	4.8	4.8	5.1
7	1.6	1.4	1.2	38	7.4	74	8.2	6.3	5.1	4.8	4.8	5.1
8	1.6	1.4	1.1	18	7.0	50	8.2	6.2	5.1	4.8	4.8	5.1
9	1.7	1.4	1.1	12	8.9	35	7.5	6.2	5.1	4.8	4.8	5.1
10	1.7	1.4	1.1	12	26	28	7.4	6.2	4.9	4.8	4.8	5.1
11	1.8	1.4	1.1	13	58	23	7.9	6.0	4.6	4.8	4.8	5.1
12	1.9	1.5	1.1	12	137	20	14	6.1	4.6	4.8	4.8	5.1
13	1.9	1.4	1.1	12	57	16	10	6.0	4.6	4.8	4.8	5.1
14	2.0	1.5	1.1	11	220	40	9.0	6.0	4.6	4.8	4.8	5.1
15	2.0	1.4	1.1	11	115	94	8.6	6.0	4.6	4.8	4.8	5.1
16	2.2	1.4	1.2	11	83	113	8.7	6.0	4.6	4.8	4.8	5.1
17	2.2	2.6	1.3	12	49	71	8.8	6.0	4.6	4.8	4.8	5.2
18	2.3	.98	2.2	11	59	51	8.2	6.0	4.6	4.8	4.8	5.3
19	2.4	.94	1.6	11	234	38	8.2	5.8	4.6	4.8	4.8	5.3
20	2.4	.90	1.5	10	198	30	7.9	5.4	4.6	4.8	4.8	5.3
21	2.5	.89	1.4	10	97	25	7.7	5.3	4.6	4.8	4.8	5.3
22	2.7	.83	1.4	10	69	48	7.3	5.3	4.6	4.8	4.8	5.2
23	2.9	.83	1.4	10	45	37	6.9	5.3	4.6	5.1	4.8	5.1
24	2.9	.77	1.4	10	33	25	6.7	5.3	4.6	5.2	4.8	5.1
25	3.8	.76	1.5	10	24	23	6.8	5.2	4.6	4.9	4.8	5.1
26	9.3	.73	1.5	10	19	21	6.9	5.1	4.6	4.8	4.8	5.1
27	3.4	.77	3.2	10	16	21	6.7	5.1	4.6	4.8	4.8	5.1
28	1.8	.82	11	11	13	19	6.7	5.4	4.8	4.8	4.8	5.1
29	1.8	.76	20	11	12	18	6.7	5.4	6.5	4.8	4.8	5.0
30	1.7	.94	6.4	11	---	19	6.6	5.3	5.3	4.8	4.8	4.8
31	1.7	---	6.9	11	---	17	---	5.3	---	4.8	4.8	---
TOTAL	70.4	36.82	80.3	365.0	1645.4	1221	261.7	179.6	146.1	149.8	148.8	152.5
MEAN	2.27	1.23	2.59	11.8	56.7	39.4	8.72	5.79	4.87	4.83	4.80	5.08
MAX	9.3	2.6	20	38	234	133	15	6.4	6.5	5.2	4.8	5.3
MIN	1.2	.73	1.0	5.8	7.0	10	6.6	5.1	4.6	4.8	4.8	4.8
AC-FT	140	73	159	724	3260	2420	519	356	290	297	295	302

11460750 WALKER CREEK NEAR MARSHALL, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.58	12.3	38.2	29.1	91.2	47.4	8.67	5.36	4.53	4.41	4.43	4.49
MAX	6.27	46.3	247	95.4	588	140	14.1	6.76	5.56	5.80	5.80	5.80
(WY)	1990	1984	1984	1988	1986	1986	1985	1984	1984	1984	1984	1984
MIN	1.35	1.23	1.85	1.71	2.14	10.4	5.52	2.18	1.90	1.42	1.42	1.22
(WY)	1991	1992	1991	1991	1991	1988	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	2753.21		4457.42			
ANNUAL MEAN	7.54		12.2		20.9	
HIGHEST ANNUAL MEAN					67.5	1986
LOWEST ANNUAL MEAN					7.41	1991
HIGHEST DAILY MEAN	329	Mar 4	234	Feb 19	4940	Feb 17 1986
LOWEST DAILY MEAN	.73	Nov 26	.73	Nov 26	.73	Nov 26 1991
ANNUAL SEVEN-DAY MINIMUM	.78	Nov 23	.78	Nov 23	.78	Nov 23 1991
INSTANTANEOUS PEAK FLOW			499	Feb 19	7050	Feb 17 1986
INSTANTANEOUS PEAK STAGE			3.18	Feb 19	10.79	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	5460		8840		15120	
10 PERCENT EXCEEDS	9.2		22		26	
50 PERCENT EXCEEDS	1.7		5.1		5.6	
90 PERCENT EXCEEDS	1.1		1.4		2.0	

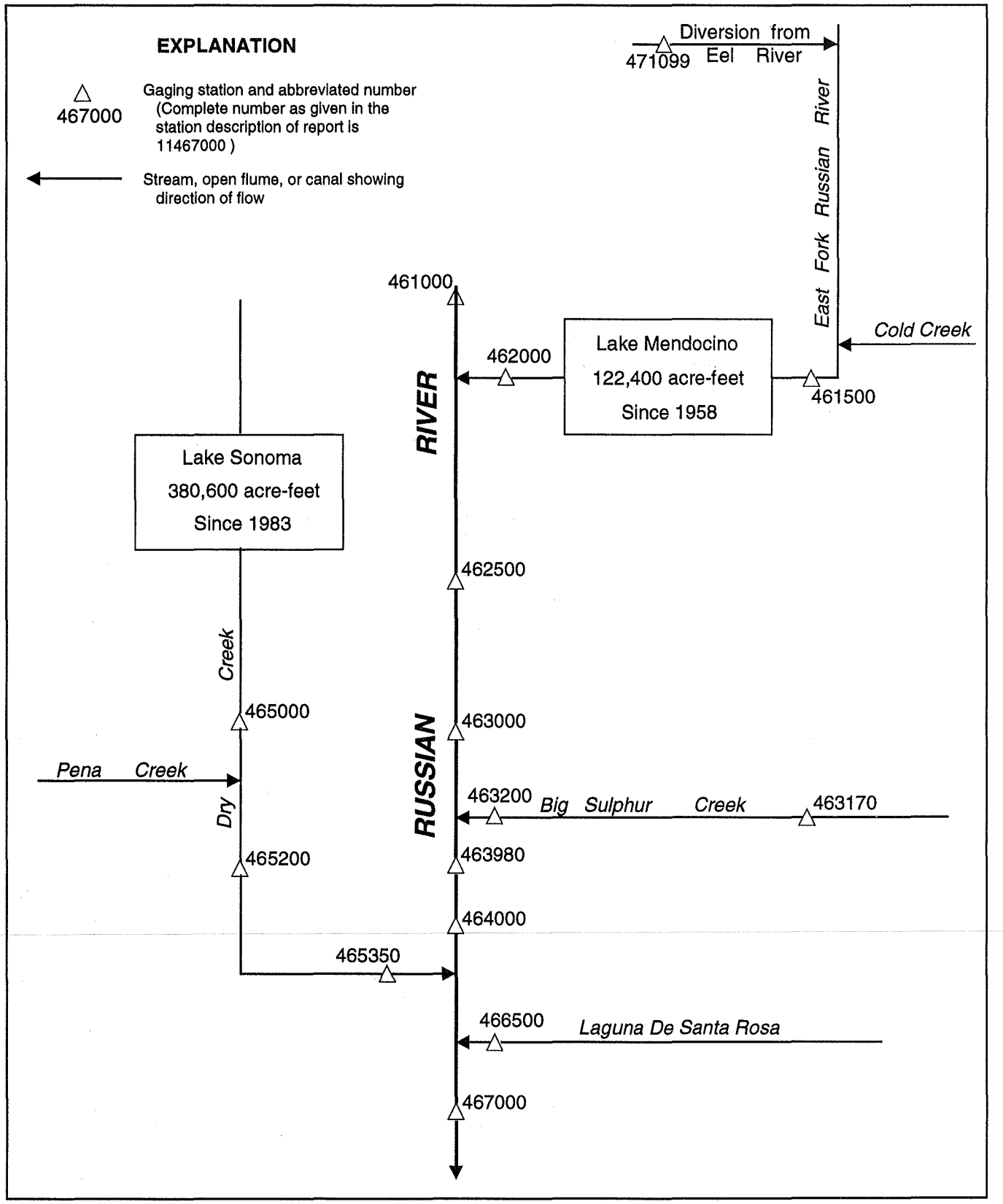


Figure 24. Diversions and storage in Russian River basin.

11461000 RUSSIAN RIVER NEAR UKIAH, CA

LOCATION.--Lat 39°11'44", long 123°11'38", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, on right bank 20 ft downstream from bridge on Lake Mendocino Drive, 0.4 mi upstream from East Fork, 0.6 mi downstream from York Creek, and 3.2 mi north of Ukiah.

DRAINAGE AREA.--100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1913, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 599.22 ft above National Geodetic Vertical Datum of 1929. Prior to October 1952, nonrecording gage at bridge 20 ft upstream at different datum. Oct. 1, 1952, to Nov. 8, 1971, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation. Diversions upstream from station for irrigation of about 1,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft^3/s, Dec. 21, 1955, gage height, 19.0 ft, site and datum then in use; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0245	*4,440	*12.93	Feb. 14	1515	4,380	12.88

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.48	4.1	27	143	176	65	18	2.3	3.5	.14	.00
2	.10	.48	4.1	17	87	175	57	15	2.2	2.8	.07	.00
3	.10	.57	4.1	12	60	136	51	13	1.7	2.3	.09	.00
4	.09	.62	4.1	32	46	114	45	11	1.1	2.2	.08	.01
5	.08	.54	4.1	604	35	368	38	9.8	1.4	2.3	.07	.04
6	.07	.60	4.4	844	29	235	30	8.4	1.6	2.1	.04	.06
7	.09	.78	7.1	337	24	195	31	8.0	2.0	1.5	.00	.13
8	.09	.80	6.2	183	21	158	29	6.8	2.1	1.4	.00	.09
9	.10	.88	9.0	108	22	134	28	6.2	1.9	1.5	.00	.05
10	.11	1.9	5.5	73	609	116	27	6.6	1.2	1.3	.00	.01
11	.11	1.4	5.0	53	1340	103	28	6.4	1.8	1.2	.00	.00
12	.11	1.3	4.7	39	1820	92	55	5.5	2.9	.89	.00	.00
13	.09	1.6	4.3	31	1020	84	75	5.2	2.0	.86	.00	.00
14	.08	2.6	4.1	25	2020	125	56	5.1	2.2	.73	.00	.02
15	.08	2.9	4.1	22	1130	1400	41	5.2	2.2	.59	.00	.04
16	.08	2.9	4.1	18	1470	1570	42	5.4	1.6	.24	.00	.41
17	.06	13	4.4	17	833	771	238	5.0	1.5	.19	.00	.68
18	.00	24	17	16	1130	465	142	4.6	1.8	.21	.00	.39
19	.01	7.7	56	14	1460	331	94	5.0	2.4	.22	.00	.07
20	.00	31	20	12	1290	262	72	7.5	1.9	.30	.00	.15
21	.06	28	11	11	1230	214	59	6.5	1.7	.47	.00	.13
22	.12	9.9	9.0	10	886	186	49	4.9	1.8	.60	.00	.06
23	.11	6.8	7.8	9.7	571	161	40	4.4	1.7	.40	.00	.08
24	.12	5.5	6.9	9.1	397	140	34	3.7	1.7	.28	.00	.04
25	1.5	4.8	6.3	8.5	304	124	28	3.5	2.2	.36	.00	.05
26	7.7	4.4	6.1	8.5	241	111	24	3.3	2.4	.42	.00	.09
27	3.1	4.8	13	9.5	187	96	22	3.0	2.4	.26	.00	.12
28	1.3	4.8	232	216	156	85	20	2.4	2.5	.14	.00	1.2
29	.59	4.5	513	97	135	77	18	2.5	7.7	.25	.00	6.8
30	.30	4.3	122	54	---	81	21	2.6	11	.28	.00	6.3
31	.40	---	52	39	---	76	---	2.6	---	.17	.00	---
TOTAL	16.86	173.85	1155.5	2956.3	18696	8361	1559	197.1	72.9	29.96	0.49	17.02
MEAN	.54	5.79	37.3	95.4	645	270	52.0	6.36	2.43	.97	.016	.57
MAX	7.7	31	513	844	2020	1570	238	18	11	3.5	.14	6.8
MIN	.00	.48	4.1	8.5	21	76	18	2.4	1.1	.14	.00	.00
AC-FT	33	345	2290	5860	37080	16580	3090	391	145	59	1.0	34

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.65	128	349	520	480	357	159	38.2	9.54	2.02	.47	.52
MAX	147	682	1663	1765	1975	1436	770	149	40.6	10.8	2.52	2.70
(WY)	1963	1974	1965	1970	1958	1983	1963	1983	1990	1983	1983	1983
MIN	.000	.15	1.77	3.82	14.3	20.0	4.33	3.15	.22	.000	.000	.000
(WY)	1953	1953	1960	1991	1977	1988	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1912 - 1992	
ANNUAL TOTAL	18960.78		33235.98			
ANNUAL MEAN	51.9		90.8		170	
HIGHEST ANNUAL MEAN					420	1983
LOWEST ANNUAL MEAN					5.76	1977
HIGHEST DAILY MEAN	1570	Mar 4	2020	Feb 14	13300	Dec 22 1964
LOWEST DAILY MEAN	.00	Jul 14	.00	Oct 18	.00	Oct 1 1911
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 14	.00	Aug 7	.00	Oct 1 1911
INSTANTANEOUS PEAK FLOW			4440	Feb 12	18900	Dec 21 1955
INSTANTANEOUS PEAK STAGE			12.93	Feb 12	19.00	Dec 21 1955
ANNUAL RUNOFF (AC-FT)	37610		65920		123000	
10 PERCENT EXCEEDS	68		184		402	
50 PERCENT EXCEEDS	3.6		4.4		12	
90 PERCENT EXCEEDS	.09		.02		.10	

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1977-79, October 1990 to September 1992 (storm season only).
CHEMICAL DATA: Water years 1977-79.
BIOLOGICAL DATA: Water years 1977-79.
WATER TEMPERATURE: Water years 1965-68.
SEDIMENT DATA: Water years 1964-68, October 1990 to September 1992 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1964 to September 1968.
SUSPENDED-SEDIMENT DISCHARGE: January 1964 to September 1968.

REMARKS.--Zero-bedload discharge observed at flows less than 39 ft^3/s.
Bed Material sample on Sept. 10 taken at site 0.6 mi upstream.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
FEB										
05...	1130	34	7.5	3	0.28	98	--	--	--	--
12...	1400	1280	10.5	287	992	92	98	100	--	--
MAR										
16...	1245	1700	13.0	304	1400	82	91	96	98	99
APR										
24...	0955	35	13.5	2	0.19	97	--	--	--	--

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
FEB									
12...	1250	1000	1100	0.250	0	1230	1310	30	5.0
MAR									
16...	1325	1000	1100	0.250	0	1310	1340	30	5.0
16...	1415	1000	1100	0.250	0	1400	1429	30	5.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VERTICALS IN COMPOSITE SAMPLE (NUM)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COMPOSITE SAMPLE T/D/FT	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
FEB									
12...	1	11	11	22.0	1390	10.5	0.92	51	--
MAR									
16...	2	15	15	10.0	1620	13.0	6.55	491	1
16...	2	15	15	10.0	1540	13.0	5.80	435	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB								
12...	1	5	14	32	57	86	97	100
MAR								
16...	3	8	15	30	51	81	100	--
16...	2	6	10	20	42	72	93	100

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	TEMPERATURE WATER (DEG C)	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
NOV								
26...	1305	8.5	1	85.0	4.4	--	--	2
26...	1310	8.5	1	90.0	4.4	--	--	1
26...	1315	8.5	1	95.0	4.4	--	--	1
26...	1324	8.5	1	100	4.4	--	--	1
26...	1329	8.5	1	105	4.4	--	--	--
26...	1333	8.5	1	110	4.4	2	3	5
26...	1340	8.5	1	115	4.4	--	--	1
26...	1356	8.5	1	120	4.4	2	4	6
26...	1359	8.5	1	125	4.4	1	2	5
26...	1402	8.5	1	130	4.4	1	1	4
26...	1405	8.5	1	135	4.4	1	1	2
26...	1408	8.5	1	140	4.4	--	1	2
26...	1411	8.5	1	145	4.4	--	1	3
26...	1414	8.5	1	150	4.4	--	1	3
26...	1420	8.5	1	155	4.4	1	1	3
26...	1424	8.5	1	160	4.4	1	2	4
26...	1428	8.5	1	165	4.4	1	2	9
26...	1432	8.5	1	170	4.4	13	37	79
26...	1436	8.5	1	175	4.4	31	68	90

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV								
26...	6	13	20	30	46	74	95	100
26...	3	8	17	30	46	74	100	--
26...	3	8	15	29	52	72	94	100
26...	3	9	16	25	37	58	93	100
26...	1	5	8	14	24	45	64	100
26...	8	12	16	27	49	73	100	--
26...	3	7	9	18	36	52	68	100
26...	7	8	10	23	51	79	100	--
26...	8	14	23	38	63	92	100	--
26...	9	16	26	39	62	91	100	--
26...	5	10	20	36	58	81	100	--
26...	6	9	14	24	44	68	76	100
26...	10	15	24	45	74	89	100	--
26...	8	15	23	36	55	78	100	--
26...	11	19	27	41	60	82	100	--
26...	10	18	32	54	76	95	100	--
26...	23	30	39	62	84	98	100	--
26...	93	96	98	100	--	--	--	--
26...	96	99	100	--	--	--	--	--

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	TEMPER-ATURE WATER (DEG C)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM
FEB								
12...	1425	10.5	1	80.0	1250	--	--	--
12...	1430	10.5	1	85.0	1240	--	--	--
12...	1435	10.5	1	90.0	1240	--	--	1
12...	1440	10.5	1	95.0	1230	--	--	--
12...	1445	10.5	1	100	1220	--	--	--
12...	1450	10.5	1	105	1210	--	--	1
12...	1455	10.5	1	110	1210	--	--	1
12...	1500	10.5	1	115	1200	--	--	--
12...	1505	10.5	1	120	1200	--	--	1
12...	1510	10.5	1	125	1190	--	1	4
12...	1515	10.5	1	130	1190	--	1	4
APR								
24...	1256	13.5	1	85.0	34	--	1	2
24...	1258	13.5	1	95.0	34	--	1	2
24...	1300	13.5	1	105	34	--	--	1
24...	1302	13.5	1	115	34	1	2	3
24...	1304	13.5	1	125	34	1	2	2
24...	1306	13.5	1	135	34	2	4	8
24...	1308	13.5	1	145	34	--	1	2
24...	1310	13.5	1	155	34	1	2	6
24...	1312	13.5	1	165	34	5	17	42
24...	1314	13.5	1	175	34	18	53	87
24...	1316	13.5	1	185	34	28	54	68

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
FEB								
12...	1	2	2	2	4	29	100	--
12...	1	4	14	28	44	59	70	100
12...	4	8	17	31	52	73	100	--
12...	--	3	9	21	46	79	100	--
12...	--	3	10	23	45	85	100	--
12...	2	7	14	25	45	87	100	--
12...	3	13	19	27	43	84	100	--
12...	2	5	6	11	32	57	100	--
12...	2	4	7	16	33	67	100	--
12...	5	7	9	26	69	100	--	--
12...	5	6	6	25	78	93	100	--
APR								
24...	4	16	30	42	57	78	100	--
24...	2	4	9	22	41	59	100	--
24...	1	2	2	3	7	15	30	100
24...	3	3	4	17	41	70	100	--
24...	2	2	3	37	83	100	--	--
24...	10	11	17	38	75	93	100	--
24...	4	5	6	12	31	68	100	--
24...	11	19	27	44	65	92	100	--
24...	62	67	73	84	94	100	--	--
24...	95	98	100	--	--	--	--	--
24...	74	82	92	100	--	--	--	--

11461000 RUSSIAN RIVER NEAR UKIAH, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	DISCHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
SEP							
10...	1500	1	99.0	0.0	--	1	5
10...	1502	1	104	0.0	--	1	3
10...	1504	1	106	0.0	--	1	3
10...	1506	1	114	0.0	--	--	1
10...	1508	1	119	0.0	--	1	3
10...	1510	1	124	0.0	--	--	1
10...	1512	1	129	0.0	1	1	2

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP							
10...	11	18	23	31	42	74	100
10...	9	16	21	26	34	62	100
10...	9	41	80	89	95	100	--
10...	3	4	6	9	14	21	100
10...	8	15	24	34	51	73	100
10...	2	4	8	17	42	68	100
10...	5	13	26	44	80	100	--

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA

LOCATION.--Lat 39°14'48", long 123°07'45", in NW 1/4 NW 1/4 sec.18, T.16 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.1 mi downstream from Cold Creek and 3.9 mi east of Calpella.

DRAINAGE AREA.--92.2 mi^2.

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 787.87 ft above National Geodetic Vertical Datum of 1929. Prior to May 28, 1957, at site 1.3 mi downstream at different datum. May 28, 1957, to Apr. 5, 1966, at site 0.4 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow greatly affected by diversion from Eel River through Potter Valley Powerplant Intake and Tailrace (stations 11471000, 11471099, respectively). Diversion for irrigation of about 8,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s, Dec. 22, 1964, gage height, 20.21 ft, site then in use; minimum daily, 1.7 ft^3/s, July 23, 1990.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0145	*5,750	*15.70	Feb. 14	1500	5,270	15.17

Minimum daily, 47 ft^3/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	309	111	97	294	359	331	241	110	174	109	66
2	142	311	102	100	204	378	328	242	105	170	108	50
3	134	311	70	121	174	358	333	246	101	156	108	47
4	135	311	73	231	156	352	334	235	100	146	106	52
5	123	311	73	421	145	595	315	230	92	145	113	134
6	131	309	75	502	141	441	296	219	87	140	117	120
7	129	309	84	379	138	404	319	207	92	122	117	125
8	133	312	82	251	136	384	313	205	100	119	114	122
9	130	313	78	206	147	369	272	198	97	118	113	120
10	148	311	75	172	624	358	269	197	91	113	112	116
11	199	311	76	159	1210	353	205	208	90	104	110	120
12	254	275	74	157	2150	349	242	201	87	104	112	111
13	294	101	75	150	802	345	243	197	88	104	109	114
14	294	103	73	144	2170	369	244	195	102	97	99	121
15	295	105	73	142	1050	1390	233	193	110	90	96	118
16	289	104	72	140	1520	1370	225	195	123	97	109	117
17	288	121	73	140	750	699	293	205	127	97	112	115
18	294	125	96	138	1260	526	265	204	127	97	110	116
19	295	113	100	134	1380	463	263	209	118	100	114	115
20	297	141	90	131	815	430	258	213	109	100	123	119
21	299	138	81	129	847	403	254	213	98	110	120	120
22	297	119	80	127	744	390	250	204	104	120	119	115
23	311	114	78	127	552	375	240	130	113	119	115	103
24	306	115	78	125	475	364	243	136	113	123	106	115
25	328	144	77	128	425	360	241	132	108	119	112	121
26	354	221	75	128	400	356	230	125	107	107	113	116
27	317	114	83	125	381	349	235	125	100	117	116	117
28	315	113	170	266	367	345	234	100	111	112	119	126
29	313	111	260	188	178	339	230	100	149	107	122	114
30	306	109	142	158	---	343	232	101	183	106	125	132
31	306	---	110	145	---	338	---	100	---	109	136	---
TOTAL	7589	5904	2859	5561	19635	14254	7970	5706	3242	3642	3514	3297
MEAN	245	197	92.2	179	677	460	266	184	108	117	113	110
MAX	354	313	260	502	2170	1390	334	246	183	174	136	134
MIN	123	101	70	97	136	338	205	100	87	90	96	47
AC-FT	15050	11710	5670	11030	38950	28270	15810	11320	6430	7220	6970	6540

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	234	297	478	607	605	518	352	230	159	141	142	193
MAX	352	738	1476	1720	1755	1611	847	422	303	275	276	298
(WY)	1963	1982	1965	1970	1958	1983	1982	1983	1953	1967	1952	1967
MIN	4.89	74.0	30.2	42.2	21.5	42.7	11.9	23.5	15.3	8.25	19.0	23.9
(WY)	1960	1978	1960	1991	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1942 - 1992	
ANNUAL TOTAL	67507		83173			
ANNUAL MEAN	185		227		328	
HIGHEST ANNUAL MEAN					586	1983
LOWEST ANNUAL MEAN					76.8	1977
HIGHEST DAILY MEAN	1970	Mar 23	2170	Feb 14	12500	Dec 22 1964
LOWEST DAILY MEAN	27	Feb 25	47	Sep 3	1.7	Jul 23 1990
ANNUAL SEVEN-DAY MINIMUM	31	Jan 23	74	Dec 11	3.2	Jul 11 1977
INSTANTANEOUS PEAK FLOW			5750	Feb 12	18700	Dec 22 1964
INSTANTANEOUS PEAK STAGE			15.70	Feb 12	20.21	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	133900		165000		238000	
10 PERCENT EXCEEDS	323		369		546	
50 PERCENT EXCEEDS	112		135		257	
90 PERCENT EXCEEDS	44		96		78	

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA

LOCATION.--Lat 39°11'51", long 123°11'11", in Yokaya Grant, Mendocino County, Hydrologic Unit 18010110, on right bank of outlet channel, 500 ft downstream from Coyote Dam, 1,300 ft upstream from mouth, and 3.2 mi northeast of Ukiah.

DRAINAGE AREA.--105 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1913, October 1951 to June 1956, October 1957 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 614.41 ft above National Geodetic Vertical Datum of 1929. Prior to October 1951, nonrecording gage at site 0.5 mi upstream at different datum. October 1951 to June 1956, water-stage recorder at site 1.0 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by diversion from Eel River through Potter Valley Powerplant Intake (station 11471000) and since November 1958 by storage in Lake Mendocino, capacity, 122,400 acre-ft, 500 ft upstream. Diversions upstream from station for irrigation of about 8,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Prior to regulation by Lake Mendocino, maximum discharge, 13,300 ft^3/s, Dec. 21, 1955, gage height, 16.86 ft, site and datum then in use, from rating curve extended above 6,300 ft^3/s on basis of maximum flow at station upstream which was defined to 8,600 ft^3/s; no flow Aug. 13-15, 1913. Maximum discharge (water years 1959-92), 7,350 ft^3/s, Jan. 24, 1970, gage height, 10.84 ft; minimum daily, 0.02 ft^3/s, Apr. 17, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,380 ft^3/s, Feb. 15, gage height, 4.42 ft; minimum daily, 70 ft^3/s, Dec. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	128	125	173	104	102	298	254	222	242	271	256
2	205	128	125	127	78	102	259	254	222	239	271	242
3	208	128	108	114	136	102	199	254	222	240	271	242
4	217	126	99	150	175	102	199	254	233	242	269	242
5	218	125	99	150	173	102	199	254	242	242	267	238
6	218	124	99	302	173	102	201	254	242	244	267	238
7	216	125	99	399	174	102	282	254	242	246	275	238
8	211	128	99	400	173	105	326	226	242	243	280	243
9	211	127	87	361	173	104	323	200	242	253	280	244
10	215	126	73	231	201	102	273	202	244	263	280	234
11	216	128	73	150	705	102	200	202	246	263	280	231
12	221	126	71	150	1430	102	257	202	246	263	280	230
13	222	107	70	150	1120	107	298	202	246	263	280	230
14	222	96	72	150	978	116	298	202	246	263	280	230
15	222	94	75	150	1270	116	269	202	246	263	280	231
16	222	94	75	150	1650	117	219	202	246	263	277	231
17	222	96	75	150	1600	296	217	207	246	270	276	232
18	222	96	73	150	624	402	256	210	246	276	276	226
19	222	96	73	150	811	434	254	199	246	276	276	226
20	222	96	74	150	710	452	269	199	246	276	279	226
21	222	110	76	150	1140	452	276	199	246	276	286	226
22	222	123	75	150	928	452	278	199	245	276	289	226
23	209	125	75	150	739	353	280	199	241	276	289	226
24	200	125	75	147	438	293	271	199	239	276	287	226
25	192	121	75	146	193	293	254	199	242	276	287	216
26	170	122	75	146	100	293	254	199	242	276	288	234
27	170	127	75	149	102	294	254	199	242	276	287	240
28	150	125	75	153	102	294	254	210	242	276	285	241
29	122	125	75	153	102	297	254	222	242	276	293	246
30	125	125	182	153	---	298	254	222	211	276	284	246
31	125	---	213	153	---	298	---	222	---	276	286	---
TOTAL	6249	3522	2815	5557	16302	6886	7725	6702	7205	8166	8676	7037
MEAN	202	117	90.8	179	562	222	257	216	240	263	280	235
MAX	222	128	213	400	1650	452	326	254	246	276	293	256
MIN	122	94	70	114	78	102	199	199	211	239	267	216
AC-FT	12390	6990	5580	11020	32340	13660	15320	13290	14290	16200	17210	13960

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1958, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200	271	576	871	649	461	399	309	213	162	166	161
MAX	316	437	1138	1289	1784	709	775	367	307	260	272	266
(WY)	1958	1913	1956	1956	1958	1958	1958	1912	1953	1953	1953	1954
MIN	20.0	21.0	40.0	258	105	182	214	226	102	65.0	23.8	2.03
(WY)	1912	1912	1912	1912	1913	1913	1955	1913	1913	1912	1913	1913

SUMMARY STATISTICS	WATER YEARS 1911 - 1958		
ANNUAL MEAN	356		
HIGHEST ANNUAL MEAN	526		1958
LOWEST ANNUAL MEAN	183		1912
HIGHEST DAILY MEAN	7300	Dec 22	1955
LOWEST DAILY MEAN	.00	Aug 13	1913
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 13	1913
INSTANTANEOUS PEAK FLOW	13300	Dec 21	1955
INSTANTANEOUS PEAK STAGE	16.86	Dec 21	1955
ANNUAL RUNOFF (AC-FT)	257700		
10 PERCENT EXCEEDS	647		
50 PERCENT EXCEEDS	286		
90 PERCENT EXCEEDS	63		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	223	258	395	596	598	462	314	216	217	254	262	241
MAX	379	635	1175	1905	1934	1780	1026	419	283	336	388	416
(WY)	1975	1984	1965	1970	1986	1983	1982	1983	1982	1961	1961	1974
MIN	42.3	13.4	6.97	20.7	17.9	13.3	52.6	76.3	104	179	163	92.7
(WY)	1978	1978	1978	1977	1977	1977	1977	1968	1988	1988	1988	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1960 - 1992	
ANNUAL TOTAL	67373		86842			
ANNUAL MEAN	185		237		335	
HIGHEST ANNUAL MEAN					598	1983
LOWEST ANNUAL MEAN					103	1977
HIGHEST DAILY MEAN	1770	Mar 26	1650	Feb 16	6620	Jan 25 1970
LOWEST DAILY MEAN	24	Feb 3	70	Dec 13	.02	Apr 17 1973
ANNUAL SEVEN-DAY MINIMUM	25	Feb 9	73	Dec 10	.14	Jan 2 1971
INSTANTANEOUS PEAK FLOW			2380	Feb 15	7350	Jan 24 1970
INSTANTANEOUS PEAK STAGE			4.42	Feb 15	10.84	Jan 24 1970
ANNUAL RUNOFF (AC-FT)	133600		172300		242900	
10 PERCENT EXCEEDS	305		293		526	
50 PERCENT EXCEEDS	182		222		233	
90 PERCENT EXCEEDS	37		102		58	

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-55, 1964-68, 1973 to current year.
CHEMICAL DATA: Water years 1953-55, 1973-82.
BIOLOGICAL DATA: Water year 1977-78.
WATER TEMPERATURE: Water years 1953-55, 1965-68, 1973 to current year.
SEDIMENT DATA: Water years 1953-55, 1964-68.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1952 to March 1955, October 1964 to September 1968, October 1972 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1952 to March 1955, January 1964 to September 1968.

INSTRUMENTATION.--Water-temperature recorder since October 1972. Digital recorder set for 1-hour interval punches.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 23.5°C on several days in 1977; minimum recorded, 7.0°C, Jan. 14, 1973, many days in 1984, several days in 1989, Feb. 23, 25-28, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 21.5°C, Sept. 24; minimum recorded, 8.5°C, Jan. 11-Feb. 11.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	17.5	17.0	13.5	13.0	10.0	10.0	9.0	8.5	10.0	9.5
2	---	---	17.0	16.5	13.5	13.0	10.0	10.0	9.0	8.5	10.0	9.5
3	19.5	19.0	17.0	16.5	13.0	12.5	10.0	10.0	9.0	8.5	10.0	9.5
4	20.0	19.0	16.5	16.0	12.5	12.5	10.0	9.5	9.0	8.5	10.0	9.5
5	20.0	19.5	16.5	16.0	12.5	12.5	10.0	9.5	9.0	8.5	10.0	9.5
6	20.0	19.5	16.5	16.0	12.5	12.0	10.0	10.0	9.0	8.5	10.0	9.5
7	20.0	19.5	16.5	16.0	12.5	12.0	10.0	9.5	9.0	8.5	10.0	9.5
8	20.5	20.0	16.0	16.0	12.5	12.0	9.5	9.5	9.0	8.5	10.0	9.5
9	20.5	20.0	16.5	16.0	12.5	12.0	9.5	9.5	9.0	8.5	10.0	9.5
10	20.5	20.0	16.5	16.0	12.5	12.0	9.0	9.0	9.0	8.5	10.5	9.5
11	20.5	20.5	16.5	16.0	12.5	12.0	9.0	8.5	9.5	8.5	10.5	9.5
12	20.5	20.5	16.5	15.5	12.5	11.5	9.0	8.5	9.5	9.0	10.5	9.5
13	21.0	20.5	16.5	15.5	12.0	11.5	9.0	8.5	9.5	9.0	10.0	9.5
14	21.0	20.5	16.0	15.5	12.0	11.5	9.0	8.5	9.5	9.0	10.5	10.0
15	20.5	20.5	16.0	15.5	11.5	11.5	9.0	8.5	9.5	9.0	10.0	9.5
16	20.5	20.5	16.0	15.5	11.5	11.0	8.5	8.5	10.0	9.5	10.5	10.0
17	20.5	20.5	16.0	15.5	11.5	11.0	8.5	8.5	10.0	9.5	10.5	9.5
18	21.0	20.5	15.5	15.0	11.5	11.0	8.5	8.5	9.5	9.5	10.5	10.0
19	20.5	20.5	15.5	15.0	11.5	11.0	9.0	8.5	10.0	9.5	10.5	10.0
20	20.5	20.0	15.0	14.5	11.5	11.0	8.5	8.5	9.5	9.5	10.5	9.5
21	20.5	20.0	15.0	14.5	11.0	11.0	8.5	8.5	10.0	9.5	10.5	10.0
22	20.5	20.0	14.5	14.5	11.0	11.0	9.0	8.5	9.5	9.5	10.5	10.0
23	20.0	20.0	14.5	14.5	11.0	10.5	8.5	8.5	10.0	9.5	10.5	10.0
24	20.0	19.5	14.5	14.0	10.5	10.5	8.5	8.5	9.5	9.5	10.5	10.0
25	19.5	19.0	14.0	14.0	10.5	10.0	8.5	8.5	10.0	9.5	10.5	10.0
26	19.0	19.0	14.0	14.0	10.5	10.0	8.5	8.5	10.0	9.5	10.5	10.0
27	19.0	18.5	14.0	13.5	10.0	10.0	8.5	8.5	10.0	9.5	10.5	10.0
28	18.5	18.0	13.5	13.5	10.5	10.0	8.5	8.5	9.5	9.5	10.5	10.0
29	18.0	17.5	14.0	13.5	10.5	10.0	9.0	8.5	10.0	9.5	10.5	10.0
30	18.0	17.5	13.5	13.5	10.5	10.0	8.5	8.5	---	---	10.5	10.5
31	18.0	17.0	---	---	10.5	10.0	9.0	8.5	---	---	11.0	10.5
MONTH	---	---	17.5	13.5	13.5	10.0	10.0	8.5	10.0	8.5	11.0	9.5

11462000 EAST FORK RUSSIAN RIVER NEAR UKIAH, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	10.5	11.5	11.0	12.5	11.5	12.5	12.0	15.0	14.0	19.0	18.0
2	11.0	10.5	11.5	11.0	12.5	12.0	13.0	12.5	15.0	14.0	19.0	18.0
3	11.0	10.5	11.5	11.0	12.5	11.5	13.0	12.5	15.0	14.0	18.5	18.5
4	11.0	10.5	11.5	11.0	12.5	12.0	13.0	12.5	15.0	14.5	19.0	18.5
5	11.0	10.5	11.5	11.0	12.5	12.0	13.0	12.5	15.0	14.5	19.0	18.5
6	11.0	10.5	12.0	11.0	12.5	12.0	13.0	12.5	15.5	14.5	19.5	19.0
7	11.0	10.5	12.0	11.5	12.5	12.0	13.0	12.5	15.5	14.5	19.5	19.0
8	11.0	10.5	11.5	11.5	12.5	12.0	13.0	12.5	15.5	15.0	19.5	19.0
9	11.0	10.5	12.0	11.0	12.5	12.0	13.0	12.5	15.5	15.0	19.5	19.5
10	11.0	10.5	12.0	11.0	12.5	11.5	13.5	12.5	16.0	15.0	20.0	19.0
11	10.5	10.5	12.0	11.5	12.5	12.0	13.5	13.0	16.0	15.0	20.0	19.5
12	10.5	10.5	11.5	11.0	12.5	12.0	13.5	13.0	16.0	15.0	20.0	19.5
13	11.0	10.5	12.0	11.0	12.5	12.0	13.5	13.0	16.0	15.5	20.0	19.5
14	11.0	10.5	12.0	11.0	12.5	12.0	13.5	13.0	16.5	15.5	20.0	19.5
15	11.0	11.0	12.0	11.5	12.5	12.0	13.5	13.0	16.0	15.5	20.5	19.5
16	11.0	10.5	12.0	11.5	12.5	12.0	13.5	13.0	16.5	16.0	20.5	20.0
17	11.0	10.5	12.0	11.5	12.5	12.0	14.0	13.0	16.5	16.0	20.5	20.0
18	11.0	10.5	12.0	11.5	12.5	12.0	13.5	13.5	16.5	16.0	21.0	20.0
19	11.0	10.5	12.0	11.5	12.5	12.0	14.0	13.5	17.0	16.0	21.0	20.5
20	11.0	10.5	12.0	11.5	12.5	12.0	14.0	13.5	17.5	16.0	20.5	20.5
21	11.0	11.0	12.0	11.5	13.0	12.0	14.0	13.5	17.5	16.5	21.0	20.0
22	11.5	11.0	12.0	11.5	13.0	12.0	14.0	13.5	17.5	16.5	21.0	20.5
23	11.0	11.0	12.0	11.5	13.0	12.0	14.0	13.5	17.5	16.5	21.0	20.5
24	11.5	11.0	12.0	11.5	12.5	12.0	14.0	13.5	17.5	17.0	21.5	20.5
25	11.5	11.0	12.0	11.5	12.5	12.0	14.0	13.5	17.5	17.0	21.0	21.0
26	11.5	11.0	12.0	11.5	12.5	12.0	14.5	13.5	18.0	17.0	21.0	21.0
27	11.5	11.0	12.0	11.5	12.5	12.0	14.0	13.5	18.0	17.5	21.0	21.0
28	11.5	11.0	12.0	11.5	12.5	12.0	14.5	13.5	18.0	17.5	21.0	21.0
29	11.5	11.0	12.0	11.5	12.5	12.0	14.5	14.0	18.5	18.0	21.0	21.0
30	11.5	11.0	12.0	12.0	13.5	12.5	14.5	14.0	18.5	18.0	21.0	21.0
31	---	---	12.5	12.0	---	---	14.5	14.0	18.5	18.0	---	---
MONTH	11.5	10.5	12.5	11.0	13.5	11.5	14.5	12.0	18.5	14.0	21.5	18.0

11462500 RUSSIAN RIVER NEAR HOPLAND, CA

LOCATION.--Lat 39°01'36", long 123°07'46", in Rancho de Sanel Grant, Mendocino County, Hydrologic Unit 18010110, on right bank at abandoned highway bridge, 0.2 mi downstream from McNab Creek, 4 mi north of Hopland, and 15.2 mi downstream from Coyote Valley Dam on the East Fork Russian River.

DRAINAGE AREA.--362 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1041: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 497.61 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 9, 1943, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 11,800 acres upstream from station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino, capacity, 129,600 acre-feet, 15.2 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft^3/s, Dec. 22, 1955, gage height, 27.00 ft; minimum daily, 9.1 ft^3/s, Apr. 20, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 30.0 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,840 ft^3/s, Feb. 14, gage height, 12.46 ft; minimum daily, 72 ft^3/s, Dec. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	109	129	811	249	428	409	288	189	216	213	238
2	189	108	129	811	231	447	390	280	187	213	217	216
3	185	108	124	420	218	371	324	276	189	212	222	212
4	186	108	104	206	258	333	310	271	190	212	227	205
5	184	108	103	883	248	758	298	271	186	212	217	191
6	180	107	102	1620	241	585	285	264	202	211	218	203
7	187	109	106	925	236	503	318	260	199	211	223	208
8	180	110	106	694	234	431	370	247	205	201	236	210
9	174	111	106	561	235	378	370	209	202	197	234	212
10	186	112	84	402	1100	340	358	208	200	205	229	205
11	184	113	80	272	3160	319	285	208	200	212	230	200
12	182	113	78	246	5080	299	330	207	200	214	227	205
13	189	106	73	232	3120	283	393	204	202	215	221	202
14	190	86	72	223	5130	339	377	199	202	208	225	201
15	188	83	75	215	4760	2510	349	196	207	207	221	197
16	192	83	78	209	4590	2950	315	196	208	205	227	203
17	193	101	78	205	4060	1790	398	194	200	204	226	204
18	193	115	86	203	2800	1310	410	207	196	200	223	194
19	186	102	109	199	3520	1070	370	197	211	207	221	188
20	177	131	103	196	3180	964	353	200	209	217	216	195
21	185	140	93	192	3090	864	350	195	205	223	225	201
22	189	132	88	190	2590	801	337	196	206	226	229	196
23	185	126	86	186	1890	693	329	195	197	225	236	196
24	168	123	83	185	1360	541	325	188	199	226	240	198
25	181	121	83	185	821	505	306	189	205	224	241	189
26	193	122	83	184	560	483	301	190	201	222	241	187
27	163	130	92	184	465	459	297	178	197	220	240	208
28	157	129	228	433	410	442	293	171	200	221	229	211
29	118	129	972	311	374	427	290	192	225	217	241	210
30	113	129	811	259	---	425	291	188	215	221	241	209
31	108	---	811	241	---	421	---	183	---	215	243	---
TOTAL	5464	3404	5355	12083	54210	22469	10131	6647	6034	6619	7079	6094
MEAN	176	113	173	390	1869	725	338	214	201	214	228	203
MAX	193	140	972	1620	5130	2950	410	288	225	226	243	238
MIN	108	83	72	184	218	283	285	171	186	197	213	187
AC-FT	10840	6750	10620	23970	107500	44570	20090	13180	11970	13130	14040	12090

11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	231	449	1172	1714	1720	1268	721	316	210	197	206	207
MAX	555	1656	4849	5856	6799	5361	2572	820	382	326	369	383
(WY)	1958	1984	1965	1970	1958	1983	1982	1983	1953	1961	1961	1974
MIN	35.1	96.5	87.6	37.2	28.7	57.1	44.1	77.0	59.6	79.7	105	78.9
(WY)	1978	1978	1991	1977	1977	1977	1977	1977	1949	1948	1950	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	101303		145589			
ANNUAL MEAN	278		398		697	
HIGHEST ANNUAL MEAN					1587	1983
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	4700	Mar 26	5130	Feb 14	33800	Dec 22 1955
LOWEST DAILY MEAN	21	Feb 23	72	Dec 14	9.1	Apr 20 1977
ANNUAL SEVEN-DAY MINIMUM	28	Feb 17	76	Dec 11	13	Apr 15 1977
INSTANTANEOUS PEAK FLOW			8840	Feb 14	45000	Dec 22 1955
INSTANTANEOUS PEAK STAGE			12.46	Feb 14	27.00	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	200900		288800		504700	
10 PERCENT EXCEEDS	414		568		1530	
50 PERCENT EXCEEDS	167		209		253	
90 PERCENT EXCEEDS	78		109		135	

11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to March 1979, October 1989 to current year.
CHEMICAL DATA: Water years 1951-66.
WATER TEMPERATURE: Water years 1965-79.
SEDIMENT DATA: October 1989 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: September 1965 to March 1979.

REMARKS.--Zero-bedload discharge observed at flows less than 306 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
FEB									
05...	1545	245	9.0	4	2.6	98	--	--	--
13...	1415	3200	10.5	230	1990	91	96	99	100
APR									
24...	1545	326	14.5	6	5.3	97	--	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAM-PLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)
FEB									
13...	1548	1000	1100	0.250	0	1523	1613	30	7.0

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
FEB									
13...	1	19	19	92.5	3440	10.5	3.34	306	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
FEB								
13...	2	10	23	43	65	83	95	100

11462500 RUSSIAN RIVER NEAR HOPLAND, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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
NOV							
27...	1145	105	129	--	2	15	45
27...	1150	120	129	--	--	1	5
27...	1155	130	129	--	--	--	--
27...	1200	145	129	--	--	2	3
27...	1205	160	129	--	1	2	3
27...	1210	175	129	1	2	4	4
27...	1215	190	129	7	14	23	27
27...	1220	205	129	1	2	6	9
27...	1225	220	129	17	40	85	98

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
NOV							
27...	50	54	60	67	79	100	--
27...	10	17	31	53	75	87	100
27...	--	2	8	19	38	66	100
27...	9	18	30	44	67	100	--
27...	5	15	30	51	82	100	--
27...	5	13	38	75	97	100	--
27...	29	33	42	56	76	95	100
27...	9	13	22	40	69	87	100
27...	99	100	--	--	--	--	--

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA

LOCATION.--Lat 38°52'46", long 123°03'09", in NW 1/4 NW 1/4 sec.23, T.12 N., R.11 W., Mendocino County, Hydrologic Unit 18010110, on left bank 0.3 mi downstream from Cummisky Creek, 5.5 mi northwest of Cloverdale, and 28 mi downstream from Coyote Dam.

DRAINAGE AREA.--503 mi^2.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 350 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 30, 1970, at site 0.2 mi upstream at different datum.

REMARKS.--Records fair. Diversions for irrigation of about 15,000 acres upstream from station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft^3/s, Dec. 22, 1964, gage height, 31.60 ft, site and datum then in use; minimum daily, 12 ft^3/s, Apr. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft^3/s, Feb. 15, gage height, 13.48 ft; minimum daily, 81 ft^3/s, Dec. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	e112	e130	292	414	836	582	333	179	194	204	240
2	165	e112	e125	253	333	918	556	323	174	209	201	202
3	163	e112	e120	182	260	684	453	318	172	207	210	195
4	165	e112	114	256	290	581	416	310	165	206	217	198
5	168	e112	108	1430	279	1750	386	303	180	207	203	179
6	167	e111	106	2030	269	1270	361	293	189	206	198	181
7	175	e111	108	1350	260	982	371	290	187	204	201	200
8	172	111	108	979	255	815	457	286	197	197	206	208
9	161	112	108	757	303	690	466	240	196	186	211	204
10	168	112	101	567	2290	592	466	223	192	181	212	194
11	171	112	90	384	5410	532	374	224	191	179	212	196
12	173	113	87	317	8690	485	501	222	189	189	211	196
13	171	112	84	284	e6000	e480	593	215	188	205	210	195
14	179	97	81	263	e7000	e800	520	211	176	193	206	192
15	167	90	82	247	e8000	e4000	471	206	193	192	209	192
16	165	88	84	236	6980	e5000	411	205	188	187	214	197
17	175	100	85	230	4850	3140	471	203	179	186	219	205
18	185	118	94	224	4110	2250	556	217	176	189	217	193
19	181	107	103	215	5830	1770	482	211	185	190	203	189
20	169	107	112	209	5800	1560	445	216	182	206	207	184
21	171	126	102	202	4590	1390	437	210	179	209	213	194
22	175	126	98	199	3940	1260	418	210	192	211	220	188
23	179	125	94	196	2750	1160	404	207	184	215	227	189
24	169	123	92	192	2120	903	396	198	176	212	236	191
25	171	120	92	191	1440	812	371	199	182	217	237	184
26	196	120	91	189	1080	747	354	198	185	219	238	175
27	169	125	108	187	875	693	346	184	179	213	222	202
28	159	129	324	399	740	647	339	154	177	206	221	207
29	137	130	1320	412	651	612	331	165	207	200	227	185
30	121	130	476	306	---	611	332	176	238	203	236	190
31	112	---	387	272	---	609	---	171	---	191	240	---
TOTAL	5161	3415	5214	13450	85809	38579	13066	7121	5577	6209	6688	5845
MEAN	166	114	168	434	2959	1244	436	230	186	200	216	195
MAX	196	130	1320	2030	8690	5000	593	333	238	219	240	240
MIN	112	88	81	182	255	480	331	154	165	179	198	175
AC-FT	10240	6770	10340	26680	170200	76520	25920	14120	11060	12320	13270	11590

e Estimated.

11463000 RUSSIAN RIVER NEAR CLOVERDALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	251	627	1611	2486	2432	1774	928	369	228	213	222	217
MAX	659	2636	6398	8162	9387	7015	3708	1156	400	312	359	385
(WY)	1963	1984	1965	1970	1958	1983	1982	1983	1967	1961	1961	1974
MIN	34.5	114	97.8	53.7	44.5	97.2	47.3	80.7	99.9	117	118	72.5
(WY)	1978	1992	1991	1977	1977	1977	1977	1977	1988	1988	1988	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	150980		196134			
ANNUAL MEAN	414		536		941	
HIGHEST ANNUAL MEAN					2144	1983
LOWEST ANNUAL MEAN					99.2	1977
HIGHEST DAILY MEAN	9790	Mar 4	8690	Feb 12	42800	Dec 22 1964
LOWEST DAILY MEAN	25	Feb 23	81	Dec 14	12	Apr 22 1977
ANNUAL SEVEN-DAY MINIMUM	31	Feb 20	85	Dec 11	16	Apr 16 1977
INSTANTANEOUS PEAK FLOW			13100	Feb 15	55200	Dec 22 1964
INSTANTANEOUS PEAK STAGE			13.48	Feb 15	31.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	299500		389000		681400	
10 PERCENT EXCEEDS	583		883		2230	
50 PERCENT EXCEEDS	157		205		265	
90 PERCENT EXCEEDS	82		112		154	

11463170 BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE, CA

LOCATION.--Lat 38°47'52", long 122°48'05", in NW 1/4 NW 1/4 sec.19, T.11 N., R.8 W., Sonoma County, Hydrologic Unit 18010110, on left bank 400 ft downstream from unnamed tributary and 12 mi east of Cloverdale.

DRAINAGE AREA.--13.1 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversion for industrial use 150 ft upstream from station when flows are above 10 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft^3/s, Feb. 17, 1986, gage height, 8.98 ft, from rating curve extended above 1,200 ft^3/s on basis of culvert computation of peak flow; minimum daily, 0.08 ft^3/s, Aug. 31, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	1915	*1,370	*6.44				

Minimum daily, 0.75 ft^3/s, Oct. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	1.0	1.6	7.4	19	43	15	11	5.2	5.1	1.6	.90
2	.83	1.0	1.7	5.6	7.3	28	14	10	4.7	4.4	1.6	.90
3	.90	1.0	1.7	5.1	6.2	21	14	9.7	4.7	4.1	1.6	.90
4	.90	1.0	1.7	29	5.7	21	13	9.6	4.7	3.8	1.6	.90
5	.90	1.0	1.7	110	5.1	100	13	9.0	4.4	3.8	1.6	.90
6	.90	.99	1.7	40	5.0	64	12	8.6	4.4	3.5	1.5	.90
7	.90	1.0	2.0	28	5.0	48	12	8.6	4.4	3.5	1.5	.90
8	.95	1.0	1.8	14	7.4	39	12	8.5	4.4	3.5	1.4	.90
9	.87	1.0	1.7	12	18	31	12	8.3	4.0	3.3	1.4	.90
10	.90	1.0	1.7	11	291	26	12	8.0	3.8	3.2	1.3	.90
11	.90	1.0	1.7	11	402	23	12	8.1	3.8	2.8	1.3	.90
12	.90	.97	1.7	9.6	501	19	72	7.6	3.7	2.7	1.3	.90
13	.88	.90	1.7	8.6	245	16	34	8.2	3.8	2.7	1.2	.90
14	.79	.90	1.7	7.9	434	64	20	9.0	3.7	2.7	1.2	1.0
15	.75	.98	1.7	7.2	325	522	18	9.0	3.8	2.7	1.2	1.0
16	.81	1.0	1.6	7.2	254	261	17	8.7	3.8	2.6	1.2	1.0
17	.81	18	2.2	6.7	132	136	20	7.6	3.7	2.5	1.2	1.0
18	.81	8.4	18	6.5	109	90	16	7.5	3.6	2.3	1.2	1.0
19	.81	3.1	5.2	6.2	497	64	16	7.9	3.5	2.3	1.2	1.0
20	.79	2.5	3.5	5.9	389	49	15	7.3	3.4	2.3	1.2	1.0
21	.95	2.5	2.8	5.2	171	39	14	7.5	3.2	2.1	1.1	1.0
22	1.1	2.1	2.3	5.0	108	34	13	7.1	3.1	2.1	.93	1.0
23	1.1	1.9	2.3	4.7	74	38	13	7.1	3.2	2.1	.97	1.0
24	1.1	1.9	2.3	4.7	54	26	13	6.6	3.2	2.1	.97	1.0
25	2.2	1.7	2.1	4.7	42	23	12	6.4	3.0	2.1	.90	1.0
26	13	1.7	2.1	4.7	32	20	12	6.6	3.0	2.0	.90	1.1
27	2.1	1.6	4.6	4.5	27	17	12	6.2	3.0	1.9	.90	1.2
28	1.4	1.4	73	7.1	23	14	12	6.0	3.2	1.8	.95	1.2
29	1.2	1.4	67	5.5	20	12	11	5.8	19	1.9	.82	1.2
30	1.0	1.4	11	5.0	---	12	11	5.8	7.7	1.6	.81	1.2
31	1.0	---	9.0	5.1	---	12	---	5.4	---	1.6	.82	---
TOTAL	43.33	65.34	234.8	395.1	4208.7	1912	492	242.7	133.1	85.1	37.37	29.60
MEAN	1.40	2.18	7.57	12.7	145	61.7	16.4	7.83	4.44	2.75	1.21	.99
MAX	13	18	73	110	501	522	72	11	19	5.1	1.6	1.2
MIN	.75	.90	1.6	4.5	5.0	12	11	5.4	3.0	1.6	.81	.90
AC-FT	86	130	466	784	8350	3790	976	481	264	169	74	59

11463170 BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.07	35.5	68.3	58.1	112	112	31.5	15.9	5.17	2.18	1.18	1.30
MAX	20.9	146	243	142	571	297	162	81.6	17.1	4.39	2.13	2.90
(WY)	1990	1984	1984	1983	1986	1983	1982	1990	1990	1990	1990	1985
MIN	.74	1.22	1.81	2.52	7.34	8.57	8.44	4.79	2.62	.86	.70	.65
(WY)	1989	1981	1991	1991	1989	1988	1990	1986	1987	1984	1988	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1981 - 1992	
ANNUAL TOTAL	10014.31		7879.14			
ANNUAL MEAN	27.4		21.5		37.0	
HIGHEST ANNUAL MEAN					86.8	1983
LOWEST ANNUAL MEAN					17.4	1985
HIGHEST DAILY MEAN	1690	Mar 4	522	Mar 15	3920	Feb 17 1986
LOWEST DAILY MEAN	.74	Sep 20	.75	Oct 15	.08	Aug 31 1983
ANNUAL SEVEN-DAY MINIMUM	.80	Oct 14	.80	Oct 14	.24	Oct 13 1983
INSTANTANEOUS PEAK FLOW			1370	Feb 19	5700	Feb 17 1986
INSTANTANEOUS PEAK STAGE			6.44	Feb 19	8.98	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	19860		15630		26770	
10 PERCENT EXCEEDS	32		34		80	
50 PERCENT EXCEEDS	2.4		3.7		5.4	
90 PERCENT EXCEEDS	.90		.90		.90	

11463200 BIG SULPHUR CREEK NEAR CLOVERDALE, CA

LOCATION.--Lat 38°49'34", long 122°59'45", in Rincon de Masalacon Grant, Sonoma County, Hydrologic Unit 18010110, on right bank 900 ft downstream from unnamed tributary, 1.0 mi upstream of Russian River and 1.8 mi northeast of Cloverdale.

DRAINAGE AREA.--85.5 mi^2.

PERIOD OF RECORD.--July 1957 to September 1972. October 1989 to current year (since October 1989, low flow only).

REVISED RECORDS.--WSP 1929: 1958-60.

GAGE.--Water-stage recorder. Elevation of gage is 350 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1972, at site 0.8 mi upstream at different datum.

REMARKS.--Records poor. Diversions for irrigation and geothermal recharge upstream from station. No flow computed above 200 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1958-72), 15,700 ft^3/s, Dec. 22, 1964, gage height, 15.08 ft, site and datum then in use, from rating curve extended above 5,700 ft^3/s on basis of slope-area measurement at gage height 16.8 ft; minimum daily, 1.3 ft^3/s, Sept. 27, 1991.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 16.8 ft from floodmarks, site and datum then in use, discharge, 20,000 ft^3/s, by slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	4.9	7.2	18	24	---	101	39	16	23	6.2	1.7
2	1.3	4.7	7.2	14	37	168	95	36	15	15	5.6	1.9
3	1.3	4.6	7.2	12	40	128	89	33	14	13	4.9	1.8
4	1.0	4.7	7.3	198	26	146	82	32	13	11	3.0	2.1
5	1.2	4.5	7.2	---	23	---	76	30	13	10	2.9	2.4
6	e1.6	4.4	7.3	---	21	---	70	29	13	9.1	2.6	2.0
7	e1.2	4.3	9.5	---	20	---	66	28	13	8.6	2.5	1.7
8	1.0	4.6	9.1	105	21	---	61	28	13	13	2.1	1.7
9	1.1	4.6	7.5	76	31	174	58	26	13	19	2.1	1.5
10	.98	4.9	6.7	e66	---	152	57	24	12	17	2.0	1.5
11	.46	4.7	6.3	55	---	136	56	24	13	14	1.8	1.5
12	.56	4.6	6.0	41	---	122	---	24	12	14	1.7	2.2
13	.56	4.4	6.0	36	---	109	---	24	13	13	1.6	2.4
14	.84	4.6	5.9	32	---	---	127	25	12	12	1.6	2.4
15	.81	4.6	5.7	29	---	---	102	24	12	11	1.5	2.2
16	.94	4.9	5.7	27	---	---	94	24	12	12	1.5	2.4
17	.46	27	6.5	26	---	---	112	23	12	12	1.3	2.4
18	.39	50	39	24	---	---	94	22	11	11	1.0	2.4
19	.63	22	26	21	---	---	80	22	11	11	.88	2.6
20	.87	15	14	18	---	---	73	23	10	10	.78	2.3
21	.44	13	11	17	---	e169	66	21	9.0	10	.23	2.1
22	.53	11	8.5	16	---	e143	59	20	8.0	9.2	.70	2.1
23	.42	9.0	7.3	16	---	e169	56	19	8.1	8.3	.90	2.2
24	2.2	8.0	6.7	16	---	e160	54	21	8.5	8.2	.57	2.5
25	4.9	8.1	6.5	16	---	e151	50	20	8.3	7.5	.60	2.7
26	36	7.9	6.2	15	193	e143	47	19	8.4	7.1	.61	2.8
27	26	8.0	14	15	162	e133	45	19	8.4	7.3	.62	2.4
28	12	8.2	---	15	142	e121	43	18	8.7	7.3	.70	2.2
29	7.7	7.5	---	15	130	e115	42	18	17	6.6	1.1	2.2
30	6.4	7.4	49	15	---	e109	42	17	73	5.6	.90	2.4
31	5.4	---	24	16	---	109	---	16	---	5.8	1.1	---
TOTAL	120.69	276.1	---	---	---	---	---	748	410.4	341.6	55.59	64.7
MEAN	3.89	9.20	---	---	---	---	---	24.1	13.7	11.0	1.79	2.16
MAX	36	50	---	---	---	---	---	39	73	23	6.2	2.8
MIN	.39	4.3	---	---	---	---	---	16	8.0	5.6	.23	1.5
AC-FT	239	548	---	---	---	---	---	1480	814	678	110	128

e Estimated.

11463200 BIG SULPHUR CREEK NEAR CLOVERDALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1972, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	38.2	99.8	387	611	564	286	224	60.0	26.3	10.7	6.26	8.21
MAX	290	283	1228	1972	1962	747	726	175	67.0	22.0	11.9	51.4
(WY)	1963	1967	1965	1970	1958	1958	1958	1963	1967	1963	1967	1957
MIN	4.08	4.15	6.82	94.0	81.7	66.4	37.9	21.9	11.0	4.23	3.13	2.79
(WY)	1967	1960	1960	1962	1964	1964	1964	1959	1959	1959	1959	1970

SUMMARY STATISTICS	WATER YEARS 1957 - 1972	
ANNUAL MEAN	192	
HIGHEST ANNUAL MEAN	376	1958
LOWEST ANNUAL MEAN	53.1	1972
HIGHEST DAILY MEAN	10400	Dec 22 1964
LOWEST DAILY MEAN	1.8	Oct 20 1964
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 15 1964
INSTANTANEOUS PEAK FLOW	15700	Dec 22 1964
INSTANTANEOUS PEAK STAGE	15.08	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	138800	
10 PERCENT EXCEEDS	395	
50 PERCENT EXCEEDS	33	
90 PERCENT EXCEEDS	4.2	

11463980 RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG, CA

LOCATION.--Lat 38°37'59", long 122°51'16", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on right bank, 1,800 ft downstream from unnamed tributary and 1.6 mi northeast of Healdsburg.

DRAINAGE AREA.--791 mi^2.

PERIOD OF RECORD.--October 1988 to current year (low flow only). Records for October 1985 to September 1988 are in the files of the U.S. Geological Survey.

GAGE.--Water-stage recorder. Elevation of gage is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No records computed above 300 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	135	148	---	---	---	---	---	216	277	191	223
2	153	126	148	---	---	---	---	---	220	245	194	221
3	155	123	149	---	---	---	---	---	216	236	195	200
4	153	123	148	---	---	---	---	---	212	231	200	194
5	155	122	139	---	---	---	---	---	209	230	201	186
6	157	122	134	---	---	---	---	---	213	227	195	172
7	157	118	137	---	---	---	---	---	217	223	190	174
8	162	121	134	---	---	---	---	---	218	221	192	184
9	161	123	133	---	---	---	---	---	222	213	196	186
10	153	120	133	---	---	---	---	---	217	199	200	186
11	150	122	128	---	---	---	---	---	217	194	193	183
12	152	123	118	---	---	---	---	---	219	191	195	183
13	155	126	112	---	---	---	---	---	219	197	198	181
14	157	127	107	---	---	---	---	297	215	205	197	180
15	158	118	104	---	---	---	---	292	214	199	195	178
16	152	107	103	---	---	---	---	286	218	194	198	176
17	153	132	106	---	---	---	---	281	214	192	203	176
18	161	147	124	---	---	---	---	275	206	192	207	181
19	168	166	142	---	---	---	---	279	202	193	201	175
20	166	149	144	---	---	---	---	275	202	195	193	170
21	163	145	144	293	---	---	---	273	199	196	195	167
22	165	152	136	279	---	---	---	266	198	196	199	173
23	171	155	131	266	---	---	---	259	202	198	205	172
24	173	152	125	263	---	---	---	255	198	201	210	171
25	175	148	122	263	---	---	---	249	195	200	216	170
26	205	146	119	257	---	---	---	247	201	203	220	165
27	219	148	128	252	---	---	---	242	202	206	217	160
28	197	145	274	273	---	---	---	231	199	203	211	173
29	182	147	---	---	---	---	---	214	215	199	208	181
30	165	147	---	---	---	---	---	215	265	195	216	173
31	145	---	---	---	---	---	---	218	---	196	222	---
TOTAL	5089	4035	---	---	---	---	---	---	6360	6447	6253	5414
MEAN	164	134	---	---	---	---	---	---	212	208	202	180
MAX	219	166	---	---	---	---	---	---	265	277	222	223
MIN	145	107	---	---	---	---	---	---	195	191	190	160
AC-FT	10090	8000	---	---	---	---	---	---	12620	12790	12400	10740

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA

LOCATION.--Lat 38°36'48", long 122°50'07", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on left bank 2 mi east of Healdsburg and 3.5 mi upstream from Dry Creek.

DRAINAGE AREA.--793 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 981: 1942. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 77.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several diversions for irrigation of about 17,800 acres upstream from station. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations) and since November 1958 by storage in Lake Mendocino 63 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,300 ft^3/s, Dec. 23, 1964, gage height, 27.00 ft; maximum gage height, 30.0 ft, Feb. 28, 1940; minimum daily discharge, 12 ft^3/s, June 14, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 30.8 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,500 ft^3/s, Feb. 20, gage height, 10.53 ft.; minimum daily, 95 ft^3/s, Nov. 16, and Dec. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	124	137	457	358	1180	872	454	194	262	176	199
2	140	115	137	372	476	1480	804	439	197	227	181	201
3	140	112	137	326	387	1200	758	425	192	218	181	177
4	139	111	137	281	332	989	680	415	187	219	182	e160
5	140	112	130	1280	336	1990	634	408	181	219	182	e155
6	142	110	124	2050	328	2470	593	401	188	215	179	e155
7	142	108	127	2080	314	1760	563	389	193	213	176	e160
8	147	108	123	1500	303	1460	573	382	193	204	171	e165
9	147	109	122	1070	306	1240	603	368	190	198	179	172
10	139	108	121	869	1790	1070	607	330	157	184	182	171
11	136	108	118	672	7000	952	590	318	176	175	174	168
12	139	109	109	516	11800	886	758	309	189	175	178	169
13	141	112	103	441	7770	795	1070	303	193	177	182	168
14	142	110	100	395	8040	1140	859	299	193	187	180	172
15	144	102	96	364	10600	6060	739	294	188	185	179	170
16	139	95	95	339	8740	7390	683	289	196	181	181	169
17	139	122	97	323	6750	5330	678	286	193	176	178	171
18	147	133	114	310	5170	3610	728	284	184	175	185	176
19	154	152	129	295	8360	2820	710	e275	181	175	179	175
20	152	139	131	281	11400	2370	658	e280	175	177	164	170
21	150	132	132	272	6420	2060	618	252	173	177	166	168
22	151	139	125	262	5790	1860	595	251	175	177	171	208
23	156	140	119	254	4190	1780	573	245	179	177	179	170
24	160	139	113	250	3340	1520	555	238	179	181	183	170
25	161	136	111	247	2470	1310	537	238	173	181	191	166
26	187	134	108	242	1880	1210	508	236	175	185	198	162
27	205	133	114	239	1510	1110	496	230	178	190	200	159
28	182	133	223	251	1280	1030	484	221	175	187	183	174
29	168	137	1130	410	1110	976	470	199	189	181	186	183
30	151	137	1160	398	---	963	462	194	230	181	192	177
31	134	---	562	343	---	952	---	201	---	181	197	---
TOTAL	4653	3659	6284	17389	118550	60963	19458	9453	5566	5940	5615	5160
MEAN	150	122	203	561	4088	1967	649	305	186	192	181	172
MAX	205	152	1160	2080	11800	7390	1070	454	230	262	200	208
MIN	134	95	95	239	303	795	462	194	157	175	164	155
AC-FT	9230	7260	12460	34490	235100	120900	38590	18750	11040	11780	11140	10230

e Estimated.

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	283	831	2488	3785	3832	2756	1485	534	252	185	186	192
MAX	1605	5293	8945	13670	14650	11810	6592	1638	518	300	331	360
(WY)	1958	1974	1956	1970	1986	1983	1982	1983	1967	1961	1974	1974
MIN	33.7	122	111	90.9	58.7	146	55.7	85.1	81.3	70.5	82.8	67.4
(WY)	1978	1992	1991	1977	1977	1977	1977	1977	1977	1947	1947	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	240173		262690			
ANNUAL MEAN	658		718		1390	
HIGHEST ANNUAL MEAN					3277	1983
LOWEST ANNUAL MEAN					101	1977
HIGHEST DAILY MEAN	22900	Mar 4	11800	Feb 12	62700	Dec 23 1964
LOWEST DAILY MEAN	49	Feb 27	95	Nov 16	12	Jun 14 1988
ANNUAL SEVEN-DAY MINIMUM	64	Feb 22	102	Dec 12	21	Apr 20 1977
INSTANTANEOUS PEAK FLOW			15500	Feb 20	71300	Dec 23 1964
INSTANTANEOUS PEAK STAGE			10.53	Feb 20	30.00	Feb 28 1940
ANNUAL RUNOFF (AC-FT)	476400		521000		1007000	
10 PERCENT EXCEEDS	1160		1350		3300	
50 PERCENT EXCEEDS	143		191		311	
90 PERCENT EXCEEDS	95		128		140	

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL DATA: Water years 1951-66, 1980.
WATER TEMPERATURE: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965 provides hourly recordings.

REMARKS.--Interruptions in record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 28.0°C, at times in some years; minimum recorded, 3.0°C, Dec. 23, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 25.5°C, several days; minimum recorded, 7.5°C, Dec. 23.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.5	14.5	21.0	17.5	25.0	20.5	23.5	20.0	24.5	22.0	23.0	21.0
2	17.5	15.5	21.5	18.0	25.5	21.0	24.5	21.0	24.5	22.5	23.0	21.0
3	18.0	15.5	22.5	18.5	25.5	21.0	24.0	22.0	24.5	22.0	22.5	20.5
4	17.0	14.5	22.5	19.5	25.5	21.0	24.0	22.0	24.5	22.0	22.0	19.5
5	16.5	14.0	22.5	19.5	24.0	21.0	23.5	21.0	24.5	22.0	22.0	20.5
6	16.5	13.5	22.0	19.5	23.5	20.5	24.5	21.5	25.0	22.5	22.5	20.5
7	17.5	14.5	22.0	19.5	24.5	20.0	25.0	22.0	25.0	23.0	22.5	21.0
8	18.0	15.0	23.0	19.0	25.0	20.0	25.5	22.5	25.0	23.0	22.5	20.5
9	17.5	15.0	23.0	20.0	25.5	20.5	25.0	23.0	25.5	23.0	23.0	20.5
10	18.0	15.5	23.5	19.0	23.5	20.5	25.0	23.0	25.5	23.5	23.0	20.5
11	17.0	15.5	23.0	19.0	22.5	20.0	24.5	22.5	25.0	23.0	23.0	20.5
12	15.5	14.5	22.0	18.5	21.5	19.5	24.5	22.0	25.0	23.0	23.0	20.5
13	17.0	14.5	22.0	18.0	21.5	19.0	25.0	22.5	25.0	23.0	22.5	20.5
14	18.0	15.5	21.5	17.5	21.5	18.5	25.5	23.0	25.0	23.0	22.0	20.0
15	16.5	16.0	22.0	17.5	21.0	18.5	25.0	23.0	25.0	22.5	21.5	19.0
16	16.5	16.0	22.5	18.0	22.5	19.0	25.0	23.0	25.0	23.0	21.5	19.5
17	19.0	16.0	23.5	18.5	23.5	20.5	25.0	22.5	25.0	22.5	21.5	19.5
18	18.5	15.5	23.5	19.0	23.5	21.0	25.0	22.5	24.5	22.0	21.5	19.5
19	19.5	16.5	22.5	19.0	24.0	21.0	25.0	23.0	24.5	22.0	21.5	19.5
20	19.5	17.5	23.0	19.0	24.5	21.5	25.0	23.0	24.0	22.0	21.5	19.5
21	18.0	16.0	23.0	19.0	24.5	22.5	25.0	22.5	24.0	22.0	21.5	19.5
22	17.5	15.0	23.5	19.0	24.5	22.0	25.0	22.5	23.0	21.0	21.5	20.0
23	18.0	15.0	24.0	20.0	24.0	22.5	25.0	22.0	23.0	21.0	23.5	19.5
24	19.0	16.0	23.5	20.0	24.0	21.5	25.0	22.5	23.0	21.0	22.5	19.5
25	20.0	17.0	23.5	19.5	24.0	22.0	24.5	22.5	22.5	20.5	22.5	18.0
26	19.5	17.0	24.5	20.0	23.0	21.0	24.5	22.5	23.0	20.5	22.5	18.0
27	21.0	17.5	24.5	20.5	23.0	21.5	25.0	22.5	23.0	21.0	22.5	18.5
28	21.5	18.5	24.5	20.0	22.5	21.5	25.0	22.5	23.0	21.0	22.5	18.5
29	20.0	18.0	25.0	20.5	21.5	20.0	24.5	22.0	22.5	21.0	22.0	18.5
30	20.5	17.0	25.5	21.0	22.0	19.5	24.0	21.5	22.5	21.0	21.5	19.5
31	---	---	25.0	20.5	---	---	23.5	21.5	22.5	20.5	---	---
MONTH	21.5	13.5	25.5	17.5	25.5	18.5	25.5	20.0	25.5	20.5	23.5	18.0

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°43'11", long 122°59'58", in Tzabaco Grant, Sonoma County, Hydrologic Unit 18010110, on right bank of outlet channel, 500 ft downstream from Warm Springs Dam, 500 ft upstream from county road bridge, and 5.0 mi west of Geyserville.

DRAINAGE AREA.--131 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1942 (published as "Dry Creek near Healdsburg"), October 1981 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 188.21 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1942, nonrecording gage at site 500 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow affected by storage in Lake Sonoma, capacity, 380,600 acre-ft, beginning October 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft^3/s, Feb. 28, 1940, gage height, 16.9 ft, datum then in use; no flow Oct. 1 to Dec. 8, 1939. Maximum discharge since regulation by Lake Sonoma, 3,050 ft^3/s (revised), Dec. 27, 1983, gage height, 8.37 ft; minimum daily, 6.3 ft^3/s, July 10, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 21.8 ft from floodmarks, discharge about 25,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 535 ft^3/s, Mar. 12, gage height, 6.34 ft; minimum daily, 27 ft^3/s, May 22, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	108	88	80	83	94	57	79	111	118	104	108
2	64	107	89	81	81	94	74	62	112	118	103	109
3	52	107	92	81	81	93	73	42	116	118	104	112
4	44	107	94	85	81	93	73	32	113	118	105	112
5	49	106	94	82	81	94	73	30	115	118	107	113
6	49	97	94	79	81	91	73	30	113	118	107	111
7	50	90	93	80	82	91	73	29	108	119	106	110
8	50	91	93	79	81	90	73	29	109	120	105	111
9	56	90	94	81	82	90	72	33	110	120	104	112
10	58	90	94	79	86	90	71	33	113	120	105	112
11	56	90	95	79	89	99	72	28	120	120	109	108
12	55	90	93	79	86	116	72	28	119	119	110	107
13	55	90	90	82	85	95	71	28	119	119	110	107
14	55	90	87	83	88	95	71	30	117	119	109	107
15	53	90	85	83	85	96	71	33	118	119	109	106
16	58	91	84	82	85	97	71	34	120	118	107	105
17	58	94	85	82	85	101	71	33	119	117	109	101
18	58	89	86	82	87	94	71	28	121	117	111	94
19	58	90	86	82	89	91	71	29	120	117	111	105
20	58	91	86	81	86	82	71	29	120	118	110	105
21	59	91	86	81	87	70	71	29	119	120	110	105
22	58	90	86	79	87	76	71	27	118	110	109	105
23	58	90	86	81	87	78	80	32	116	99	108	108
24	58	90	86	82	87	81	84	31	116	104	109	109
25	58	90	85	82	84	83	81	31	116	103	110	109
26	58	90	85	83	81	82	82	27	116	103	111	109
27	58	91	86	83	95	70	88	28	116	104	111	109
28	58	90	89	84	94	73	92	28	116	105	110	112
29	58	89	87	85	94	81	93	46	116	105	110	115
30	58	88	84	84	---	82	93	92	116	105	110	117
31	59	---	81	84	---	71	---	97	---	104	109	---
TOTAL	1741	2797	2743	2530	2480	2733	2259	1167	3478	3532	3352	3253
MEAN	56.2	93.2	88.5	81.6	85.5	88.2	75.3	37.6	116	114	108	108
MAX	65	108	95	85	95	116	93	97	121	120	111	117
MIN	44	88	81	79	81	70	57	27	108	99	103	94
AC-FT	3450	5550	5440	5020	4920	5420	4480	2310	6900	7010	6650	6450

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	63.6	182	253	157	96.6	259	89.3	74.9	100	115	101	79.9
MAX	104	524	1501	541	147	1089	263	161	196	274	169	122
(WY)	1989	1984	1984	1984	1984	1986	1984	1984	1987	1987	1987	1988
MIN	7.70	50.8	49.8	49.3	73.3	25.0	23.0	26.1	25.1	27.0	42.0	39.0
(WY)	1984	1986	1986	1986	1988	1985	1985	1985	1985	1985	1985	1985

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	26878		32065			
ANNUAL MEAN	73.6		87.6		131	
HIGHEST ANNUAL MEAN					297	1984
LOWEST ANNUAL MEAN					46.0	1985
HIGHEST DAILY MEAN	128	Jun 20	121	Jun 18	2850	Dec 28 1983
LOWEST DAILY MEAN	27	Apr 12	27	May 22	6.1	Oct 21 1983
ANNUAL SEVEN-DAY MINIMUM	28	Apr 8	29	May 22	6.3	Oct 18 1983
INSTANTANEOUS PEAK FLOW			535	Mar 12	3050	Dec 27 1983
INSTANTANEOUS PEAK STAGE			6.34	Mar 12	8.60	Mar 15 1986
ANNUAL RUNOFF (AC-FT)	53310		63600		95220	
10 PERCENT EXCEEDS	99		116		162	
50 PERCENT EXCEEDS	84		90		88	
90 PERCENT EXCEEDS	28		55		30	

11465000 DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURE: November 1981 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1981 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Water temperature is affected by regulation from Warm Springs Dam. Interruptions in record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 27.0°C, several days in 1983; minimum recorded, 6.5°C, Jan. 20, 1982.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 16.0°C, September 30; minimum recorded, 9.5°C, on Oct. 2, 3, and several days in January.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.5	10.0	12.0	11.5	13.0	12.0	11.0	10.5	10.5	10.0	11.0	10.5
2	10.5	9.5	12.0	11.5	12.5	12.0	10.5	10.5	10.5	10.0	11.5	11.0
3	12.0	9.5	12.0	11.5	12.5	12.0	10.5	10.5	10.5	10.0	11.5	11.0
4	12.5	11.5	12.0	12.0	12.5	12.0	10.5	10.0	10.5	10.0	11.0	11.0
5	12.5	12.0	12.0	11.5	12.5	12.0	10.5	10.5	10.5	10.0	11.5	11.0
6	12.5	11.5	12.0	12.0	12.0	12.0	10.5	10.5	10.5	10.0	11.5	11.0
7	12.5	11.5	12.0	12.0	12.5	12.0	10.5	10.0	10.5	10.0	11.5	11.0
8	12.5	11.5	12.0	12.0	13.0	12.5	10.5	10.0	10.5	10.0	11.5	11.0
9	12.5	12.0	12.5	12.0	13.0	12.5	10.5	10.0	10.0	10.0	11.5	10.5
10	12.5	12.0	12.0	12.0	12.5	12.0	10.5	10.0	10.5	10.0	11.5	11.0
11	12.5	12.0	12.0	12.0	12.5	12.0	10.5	10.0	11.0	10.0	12.0	10.5
12	12.5	12.0	12.0	12.0	12.5	12.0	10.5	10.0	11.0	10.0	11.5	10.5
13	12.5	12.0	12.5	12.0	12.0	12.0	10.5	10.0	10.5	10.0	11.0	11.0
14	12.5	12.0	12.0	11.5	12.0	11.5	10.5	10.0	10.5	10.0	11.5	11.0
15	12.5	11.5	12.0	11.5	12.0	11.5	10.0	10.0	10.5	10.0	11.5	11.0
16	12.5	11.5	12.0	11.5	12.0	11.5	10.0	10.0	10.5	10.0	12.0	11.0
17	12.5	12.0	12.0	11.5	11.5	11.5	10.0	10.0	10.5	10.0	---	---
18	12.5	12.0	12.0	11.5	12.0	11.5	10.5	10.0	10.5	10.5	---	---
19	12.5	11.5	12.0	11.5	11.5	11.5	10.0	10.0	11.0	10.5	---	---
20	12.5	12.0	12.0	11.5	11.5	11.0	10.0	9.5	10.5	10.0	---	---
21	12.5	11.5	12.0	11.5	11.5	11.0	10.0	9.5	10.5	10.5	---	---
22	12.5	12.0	12.0	11.5	11.5	11.0	10.0	9.5	11.0	10.5	---	---
23	12.0	11.5	12.0	11.5	11.5	11.0	10.0	9.5	11.5	10.5	---	---
24	12.0	11.5	12.0	11.5	11.5	11.0	10.0	9.5	11.5	10.5	---	---
25	12.0	11.5	12.0	11.5	11.0	11.0	10.0	9.5	11.5	10.5	---	---
26	12.5	11.5	12.0	11.5	11.0	11.0	10.5	10.0	11.5	11.0	---	---
27	12.0	11.5	13.0	11.5	11.0	11.0	10.0	10.0	11.0	10.5	---	---
28	12.0	11.5	12.5	12.0	11.0	10.0	10.0	10.0	11.0	10.0	---	---
29	12.5	11.5	13.5	12.5	11.0	10.5	10.0	10.0	11.0	11.0	---	---
30	12.0	11.5	13.0	12.5	11.0	10.5	10.0	10.0	---	---	---	---
31	12.0	11.5	---	---	11.0	10.5	10.0	10.0	---	---	---	---
MONTH	12.5	9.5	13.5	11.5	13.0	10.0	11.0	9.5	11.5	10.0	---	---

11465000 DRY CREEK BELOW WARM SPRINGS DAM NEAR GEYSERVILLE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	13.0	12.0	13.0	12.5	14.0	13.0	14.5	14.0	12.5	11.5
2	---	---	13.0	12.0	13.0	12.5	14.0	13.0	14.5	14.0	12.5	11.5
3	---	---	13.5	12.0	13.0	12.5	14.0	13.0	14.5	14.0	12.0	11.5
4	---	---	14.0	12.0	13.0	12.5	13.5	13.0	14.5	13.5	12.5	11.5
5	---	---	14.0	11.5	13.0	12.5	14.5	13.5	14.5	14.0	12.5	11.5
6	---	---	14.0	12.0	13.0	12.5	14.0	13.5	15.0	13.5	12.5	11.5
7	---	---	14.0	12.0	13.0	12.5	14.0	13.5	15.0	14.0	12.5	11.5
8	---	---	14.0	12.0	13.0	12.5	14.0	13.0	15.0	13.5	12.5	11.5
9	---	---	14.0	12.0	13.5	12.5	14.0	13.5	15.0	13.5	12.5	11.5
10	---	---	14.0	12.0	13.5	12.5	14.0	13.5	14.5	14.0	13.0	11.5
11	---	---	14.5	12.0	13.0	12.5	14.0	13.5	14.5	14.0	---	---
12	---	---	14.0	12.0	13.0	12.5	14.0	13.5	14.5	14.0	---	---
13	---	---	14.0	12.0	13.5	12.5	14.5	13.5	14.5	14.0	---	---
14	---	---	14.0	11.5	13.5	12.5	14.5	13.5	14.5	14.0	---	---
15	---	---	13.5	12.0	13.0	12.5	14.0	13.5	14.5	14.0	11.5	11.0
16	12.0	11.5	13.5	12.0	13.0	12.5	14.0	14.0	15.0	14.0	---	---
17	12.5	11.5	13.5	12.0	13.0	12.5	14.0	13.5	14.5	14.0	14.5	11.0
18	12.5	11.5	14.5	12.0	13.0	12.5	14.5	14.0	14.5	14.0	15.0	12.0
19	12.5	11.5	14.5	12.0	13.0	12.5	14.5	14.0	15.0	14.0	12.5	11.5
20	12.5	11.5	14.5	12.0	13.5	13.0	14.5	13.5	15.0	14.0	12.5	11.5
21	13.0	12.0	14.5	12.0	13.5	13.0	14.5	14.0	14.5	12.0	12.5	11.5
22	13.0	12.0	14.5	12.0	13.5	13.0	14.5	14.0	12.5	11.5	12.5	11.5
23	12.5	12.0	13.5	12.0	13.5	13.0	14.5	13.5	12.5	11.5	12.5	11.5
24	12.5	11.5	13.5	12.0	13.5	13.0	14.5	13.5	12.5	11.5	12.5	12.0
25	12.5	11.5	14.0	12.0	13.5	13.0	14.5	13.5	12.5	11.5	12.5	11.5
26	12.0	11.5	15.0	12.0	13.5	13.0	14.5	13.5	12.5	11.5	12.5	11.5
27	12.5	11.5	14.5	12.5	13.5	13.0	14.5	13.5	12.5	11.5	12.5	11.5
28	12.5	11.5	14.5	12.0	13.5	13.0	14.5	14.0	12.5	11.5	12.0	11.5
29	12.0	12.0	14.5	12.0	13.5	13.0	14.5	13.5	12.5	11.5	15.0	11.5
30	12.5	11.5	13.0	12.5	14.0	13.0	14.5	14.0	12.0	11.5	16.0	12.0
31	---	---	13.0	12.0	---	---	14.5	14.0	12.5	11.5	---	---
MONTH	---	---	15.0	11.5	14.0	12.5	14.5	13.0	15.0	11.5	---	---

11465200 DRY CREEK NEAR GEYSERVILLE, CA

LOCATION.--Lat 38°41'55", long 122°57'25", in Tzabaco Grant, Sonoma County, Hydrologic Unit 18010110, on left bank pier of bridge 0.3 mi downstream from Pena Creek, 3.0 mi downstream from Warm Springs Dam, and 3 mi west of Geyserville.

DRAINAGE AREA.--162 mi^2.

PERIOD OF RECORD.--October 1959 to current year.
CHEMICAL DATA: Water years 1971-81.
WATER TEMPERATURE: Water years 1964-86.
SEDIMENT DATA: Water years 1964-87.
TURBIDITY: Water years 1964-86.

REVISED RECORDS.--WDR CA-65-1: 1962(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 156.40 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, at datum 4.00 ft higher. Oct. 1, 1964, to Apr. 8, 1976, at datum 3.00 ft higher; Apr. 9, 1976, to Sept. 30, 1982, at datum 2.00 ft higher.

REMARKS.--Records fair. Small diversions upstream from station for irrigation of about 1,200 acres. Flow affected by storage in Lake Sonoma, 3.0 mi upstream, capacity 380,600 acre-ft, beginning October 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s, Jan. 31, 1963, gage height, 20.50 ft, present datum; no flow at times. Maximum discharge since regulation by Lake Sonoma, 5,280 ft^3/s, gage height, 10.41 ft, Feb. 17, 1986; minimum daily, 19 ft^3/s, Oct. 18-25, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,640 ft^3/s, Feb. 12, gage height, 10.20 ft; minimum daily, 27 ft^3/s, May 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	85	81	88	88	144	82	74	107	122	97	106
2	57	92	82	86	84	149	91	63	110	123	97	106
3	51	94	86	87	85	130	88	48	115	122	97	106
4	41	94	89	100	86	125	87	38	114	121	96	104
5	45	94	90	188	85	194	86	37	119	122	99	107
6	45	87	90	132	84	187	84	35	119	122	98	106
7	45	77	91	139	84	165	84	35	109	121	98	106
8	45	79	90	116	84	152	83	36	108	120	98	107
9	48	77	92	106	89	140	82	36	109	120	98	105
10	49	75	92	97	296	131	81	36	113	120	98	106
11	47	76	93	94	584	133	81	33	124	121	102	106
12	46	76	91	91	954	146	117	e31	125	121	106	106
13	46	77	86	93	399	122	99	e32	127	121	106	106
14	45	77	83	94	643	158	82	e34	126	121	106	112
15	43	76	80	94	489	567	77	e34	127	121	106	108
16	47	78	79	92	372	414	75	e33	126	121	104	108
17	47	90	80	92	266	301	75	e29	127	120	104	104
18	47	81	85	91	274	248	72	e29	127	120	104	e112
19	47	80	82	90	743	207	70	e28	126	121	105	e120
20	48	82	82	90	691	175	68	e27	127	120	104	e122
21	48	82	82	88	382	145	67	e31	127	120	104	e122
22	48	81	81	86	298	141	67	e31	125	109	104	e124
23	49	81	81	87	236	133	71	31	120	89	105	e124
24	50	80	82	88	197	127	76	31	120	97	106	e124
25	51	80	81	89	165	122	72	31	120	96	105	e124
26	52	83	82	88	144	121	73	28	120	96	106	e124
27	51	84	87	88	143	106	77	28	120	97	106	e124
28	51	83	123	89	128	104	80	28	119	97	106	e124
29	51	83	208	87	122	105	80	35	123	98	106	e124
30	51	82	111	87	---	110	81	79	123	97	106	e123
31	52	---	94	88	---	96	---	89	---	97	106	---
TOTAL	1500	2466	2836	3025	8295	5298	2408	1190	3602	3513	3183	3400
MEAN	48.4	82.2	91.5	97.6	286	171	80.3	38.4	120	113	103	113
MAX	57	94	208	188	954	567	117	89	127	123	106	124
MIN	41	75	79	86	84	96	67	27	107	89	96	104
AC-FT	2980	4890	5630	6000	16450	10510	4780	2360	7140	6970	6310	6740

e Estimated.

11465200 DRY CREEK NEAR GEYSERVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1983, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.5	240	610	1178	959	666	345	80.3	23.3	6.01	1.70	1.35
MAX	323	1619	2035	3930	2038	3095	1499	369	76.0	20.9	8.91	8.61
(WY)	1963	1974	1965	1970	1983	1983	1982	1983	1983	1983	1983	1983
MIN	.000	.54	4.31	22.7	27.1	34.1	9.58	5.64	.25	.000	.000	.000
(WY)	1961	1981	1977	1976	1977	1977	1977	1977	1977	1977	1972	1972

SUMMARY STATISTICS	WATER YEARS 1960 - 1983	
ANNUAL MEAN	342	
HIGHEST ANNUAL MEAN	790	1983
LOWEST ANNUAL MEAN	8.81	1977
HIGHEST DAILY MEAN	19400	Jan 16 1974
LOWEST DAILY MEAN	.00	Sep 17 1960
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 17 1960
INSTANTANEOUS PEAK FLOW	32400	Jan 31 1963
INSTANTANEOUS PEAK STAGE	20.50	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	247800	
10 PERCENT EXCEEDS	868	
50 PERCENT EXCEEDS	32	
90 PERCENT EXCEEDS	.08	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.1	148	125	173	248	468	90.6	76.9	118	142	119	91.0
MAX	107	459	232	544	897	1455	143	122	199	296	180	128
(WY)	1989	1987	1988	1988	1986	1986	1987	1987	1987	1987	1987	1988
MIN	42.2	60.4	88.2	83.0	85.4	86.0	38.5	36.6	93.5	96.9	96.1	44.1
(WY)	1991	1986	1991	1991	1991	1988	1990	1991	1989	1990	1990	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1986 - 1992	
ANNUAL TOTAL	37412		40716			
ANNUAL MEAN	102		111		156	
HIGHEST ANNUAL MEAN					278	1986
LOWEST ANNUAL MEAN					90.5	1990
HIGHEST DAILY MEAN	2080	Mar 4	954	Feb 12	4230	Feb 17 1986
LOWEST DAILY MEAN	34	May 10	27	May 20	27	May 20 1992
ANNUAL SEVEN-DAY MINIMUM	35	May 6	29	May 17	29	May 17 1992
INSTANTANEOUS PEAK FLOW			3640	Feb 12	5280	Feb 17 1986
INSTANTANEOUS PEAK STAGE			10.20	Feb 12	10.41	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	74210		80760		113100	
10 PERCENT EXCEEDS	124		140		218	
50 PERCENT EXCEEDS	82		96		101	
90 PERCENT EXCEEDS	39		47		48	

11465350 DRY CREEK NEAR MOUTH, NEAR HEALDSBURG, CA

LOCATION.--Lat 38°35'15", long 122°51'40", in Sotoyome Grant, Sonoma County, Hydrologic Unit 18010110, on right bank 0.25 mi upstream from mouth, 0.4 mi downstream from Mill Creek, 1.7 mi south of Healdsburg, and 13.5 mi downstream from Warm Springs Dam.

DRAINAGE AREA.--217 mi^2.

PERIOD OF RECORD.--November 1980 to current year (low flow only).

GAGE.--Water-stage recorder. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No records computed above 200 ft^3/s. Some diversions for irrigation upstream from station. Flow regulated by Lake Sonoma 13.5 mi upstream beginning October 1983.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	65	74	99	102	---	116	83	77	108	84	91
2	53	85	74	91	84	---	111	72	83	106	84	91
3	54	94	76	87	82	---	110	62	91	106	85	92
4	37	98	81	137	81	---	105	50	91	105	84	92
5	34	99	83	---	80	---	100	44	94	107	84	91
6	36	97	83	---	78	---	97	39	95	107	84	90
7	36	82	86	---	77	---	94	37	93	105	84	90
8	35	79	84	181	77	---	94	35	90	105	85	89
9	36	80	83	139	103	---	91	34	85	105	85	89
10	40	77	84	121	---	---	90	34	86	104	85	88
11	40	77	85	109	---	---	90	33	95	105	84	90
12	37	77	86	102	---	---	---	31	100	107	88	90
13	36	77	81	96	---	---	184	31	101	106	90	90
14	36	77	79	100	---	---	135	30	102	108	90	91
15	34	76	75	96	---	---	119	30	104	107	90	95
16	37	75	74	94	---	---	113	31	103	106	91	93
17	39	134	75	94	---	---	107	31	104	106	91	93
18	38	83	99	87	---	---	99	30	103	106	91	84
19	37	77	83	84	---	---	95	27	100	107	91	85
20	37	78	81	83	---	---	92	26	100	105	92	89
21	38	79	80	81	---	---	88	25	103	101	90	89
22	38	77	80	79	---	---	85	24	105	100	90	90
23	38	77	81	77	---	---	83	22	99	84	91	91
24	38	77	81	79	---	---	90	24	99	83	91	89
25	41	77	81	80	---	185	85	25	98	85	90	89
26	54	76	81	80	---	178	83	24	100	86	92	86
27	45	76	106	78	---	156	84	22	100	86	90	85
28	43	75	---	86	---	144	87	22	100	86	91	90
29	42	75	---	81	---	139	87	21	107	86	91	90
30	42	75	168	80	---	145	88	42	109	84	92	95
31	42	---	118	80	---	129	---	61	---	84	92	---
TOTAL	1241	2451	---	---	---	---	---	1102	2917	3086	2742	2697
MEAN	40.0	81.7	---	---	---	---	---	35.5	97.2	99.5	88.5	89.9
MAX	54	134	---	---	---	---	---	83	109	108	92	95
MIN	34	65	---	---	---	---	---	21	77	83	84	84
AC-FT	2460	4860	---	---	---	---	---	2190	5790	6120	5440	5350

11466500 LAGUNA DE SANTA ROSA NEAR GRATON, CA

LOCATION.--Lat 38°27'10", long 122°50'03", in Molinos Grant, Sonoma County, Hydrologic Unit 18010110, on downstream side of left bank pier of highway bridge, 0.2 mi downstream from Santa Rosa Creek, and 2 mi northeast of Graton.

PERIOD OF RECORD.--February 1940 to September 1949 (contents only), October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Dec. 31, 1958, at site 75 ft downstream at same datum.

REMARKS.--The laguna is a natural water channel and overflow basin connecting Santa Rosa Creek, Mark West Creek, and other smaller creeks with the Russian River. During floods, directions of flow may be either to or from the Russian River, and the laguna acts as a natural regulator of floods on the lower Russian River. Figures given represent only those days when the elevation was above 55.0 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 74.6 ft, Feb. 18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 59.6 ft, Feb. 20.

ELEVATION, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	55.1	---	---	---	---	---	---
6	---	---	---	---	---	55.7	---	---	---	---	---	---
7	---	---	---	---	---	55.1	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	56.4	---	---	---	---	---	---	---
12	---	---	---	---	57.2	---	---	---	---	---	---	---
13	---	---	---	---	56.4	---	---	---	---	---	---	---
14	---	---	---	---	57.9	---	---	---	---	---	---	---
15	---	---	---	---	57.8	55.7	---	---	---	---	---	---
16	---	---	---	---	57.4	56.7	---	---	---	---	---	---
17	---	---	---	---	56.4	56.1	---	---	---	---	---	---
18	---	---	---	---	56.4	55.1	---	---	---	---	---	---
19	---	---	---	---	58.8	---	---	---	---	---	---	---
20	---	---	---	---	58.6	---	---	---	---	---	---	---
21	---	---	---	---	57.1	---	---	---	---	---	---	---
22	---	---	---	---	56.3	---	---	---	---	---	---	---
23	---	---	---	---	55.6	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA
(National stream quality accounting network station)

LOCATION.--Lat 38°30'31", long 122°55'36", in NE 1/4 SE 1/4 sec.26, T.8 N., R.10 W., Sonoma County, Hydrologic Unit 18010110, on right bank at downstream side of Hacienda bridge, 0.1 mi upstream from Hobson Creek, and 3.8 mi east of Guerneville.

DRAINAGE AREA.--1,338 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1954, published as "at Guerneville."

REVISED RECORDS.--WSP 1395: Drainage area at former site. WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 20.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1954, nonrecording gage at bridge 5.3 mi downstream at datum 8.58 ft lower. Oct. 1, 1954, to Oct. 23, 1974, at site 0.7 mi downstream at datum 2.75 ft lower. Supplementary water-stage recorder 2.1 mi downstream used during periods of low flow, 1948-54.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Mendocino 77 mi upstream, beginning November 1958, and by Lake Sonoma 26 mi upstream, beginning October 1983. Many diversions upstream from station for irrigation of about 29,000 acres. Flow also affected by diversion into basin (see REMARKS for East Fork Russian River stations), and by diversion for municipal use at Wohler pumping plant 4.0 mi upstream beginning in May 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,000 ft^3/s, Feb. 18, 1986, gage height, 48.56 ft, from rating curve extended above 39,000 ft^3/s; maximum gage height, 49.7 ft, Dec. 23, 1955, site and datum then in use, from floodmarks; minimum daily discharge, 0.75 ft^3/s, May 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,000 ft^3/s, Feb. 20, gage height, 25.29 ft; minimum daily, 101 ft^3/s, Oct 12, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	164	195	834	537	1850	1200	510	201	318	176	214
2	118	165	190	700	628	2310	1130	481	215	285	175	215
3	121	155	172	595	576	1960	1090	454	190	267	174	206
4	112	153	184	524	515	1650	989	425	151	265	178	192
5	102	152	197	1620	505	2500	920	398	148	259	178	189
6	105	162	178	2540	490	4140	855	395	153	249	178	179
7	108	159	200	3030	468	3270	807	384	179	238	177	163
8	110	142	212	2290	417	2560	786	373	209	230	173	251
9	111	119	203	1630	566	2090	809	367	209	221	177	248
10	110	141	194	1310	2040	1790	802	334	183	208	188	194
11	103	145	173	1110	8290	1580	788	308	180	192	177	185
12	101	145	162	912	17200	1440	1320	301	209	194	176	180
13	109	132	154	780	15000	1330	1680	279	213	193	181	180
14	101	123	165	698	11700	1890	1330	293	209	198	184	173
15	102	139	161	633	19800	6390	1140	289	206	196	188	171
16	103	140	159	586	15700	12400	1030	262	211	193	191	171
17	109	302	158	560	12200	9480	977	272	208	192	191	173
18	107	279	221	536	8720	6250	1010	246	207	190	192	172
19	111	258	219	499	12700	4560	972	201	196	192	193	170
20	114	226	203	470	24700	3620	884	164	193	196	185	171
21	117	209	194	441	13300	3030	821	223	188	188	182	165
22	120	205	189	362	10300	2650	780	224	192	191	179	165
23	121	212	195	325	7390	2500	730	217	188	179	189	198
24	139	211	191	345	5470	2280	578	198	189	171	192	160
25	144	189	188	348	4190	1970	652	210	185	177	195	158
26	220	179	182	349	3160	1770	619	177	185	182	202	155
27	244	184	194	345	2480	1600	596	168	192	182	205	147
28	209	192	745	362	2090	1470	581	174	191	183	201	151
29	193	193	1440	465	1820	1360	560	144	221	178	200	169
30	178	196	1870	531	---	1310	538	141	318	178	202	173
31	166	---	1050	465	---	1270	---	165	---	177	217	---
TOTAL	4020	5371	10138	26195	202952	94270	26974	8777	5919	6462	5796	5438
MEAN	130	179	327	845	6998	3041	899	283	197	208	187	181
MAX	244	302	1870	3030	24700	12400	1680	510	318	318	217	251
MIN	101	119	154	325	417	1270	538	141	148	171	173	147
AC-FT	7970	10650	20110	51960	402600	187000	53500	17410	11740	12820	11500	10790

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	321	1267	4164	6413	6549	4502	2340	695	283	174	166	182
MAX	2515	9425	17410	25210	26020	23290	11700	2798	681	348	308	344
(WY)	1963	1974	1956	1970	1958	1983	1982	1983	1967	1987	1961	1961
MIN	25.3	140	116	127	88.2	201	48.2	39.0	22.6	32.0	36.7	35.9
(WY)	1978	1940	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	387484		402312			
ANNUAL MEAN	1062		1099		2236	
HIGHEST ANNUAL MEAN					5898	1983
LOWEST ANNUAL MEAN					88.7	1977
HIGHEST DAILY MEAN	39600	Mar 4	24700	Feb 20	97700	Feb 18 1986
LOWEST DAILY MEAN	77	Jun 17	101	Oct 12	.75	May 6 1977
ANNUAL SEVEN-DAY MINIMUM	84	Feb 20	104	Oct 11	5.9	Jul 29 1977
INSTANTANEOUS PEAK FLOW			28000	Feb 20	102000	Feb 18 1986
INSTANTANEOUS PEAK STAGE			25.29	Feb 20	49.70	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	768600		798000		1620000	
10 PERCENT EXCEEDS	1780		2090		5330	
50 PERCENT EXCEEDS	170		208		350	
90 PERCENT EXCEEDS	106		146		138	

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.
CHEMICAL DATA: Water years 1951 to current year. Published as "at Guerneville" in 1961-65.
BIOLOGICAL DATA: Water years 1975-81.
SPECIFIC CONDUCTANCE: Water years 1974-81.
WATER TEMPERATURE: Water years 1964 to current year.
SEDIMENT DATA: Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1973 to September 1981.
WATER TEMPERATURE: January 1964 to current year.
SUSPENDED-SEDIMENT DISCHARGE: April to September 1967, October 1969 to September 1986.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
19...	1115	262	232	7.5	12.0	5.2	772	9.0	82	930	1300
JAN											
23...	1215	288	320	7.9	8.0	1.9	770	11.8	99	K18	28
MAR											
24...	1345	2240	263	7.2	13.0	13	763	8.8	83	K41	K72
MAY											
28...	1000	181	295	7.7	22.0	2.1	758	8.0	92	K19	27
JUL											
14...	1030	198	249	7.5	22.5	2.2	763	7.5	87	K22	160
SEP											
01...	1200	214	208	8.3	20.5	1.7	761	8.2	91	--	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB DISSOLVED FLD. AS CACO3 (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)
NOV											
19...	90	0	18	11	11	21	0.5	2.0	118	0	97
JAN											
23...	130	2	27	14	17	22	0.7	2.3	151	0	124
MAR											
24...	110	1	22	13	11	18	0.5	1.9	131	0	108
MAY											
28...	140	5	28	16	12	--	0.4	--	160	0	131
JUL											
14...	110	0	22	13	11	18	0.5	1.1	138	0	113
SEP											
01...	100	0	22	12	9.2	16	0.4	1.1	128	2	108

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
19...	13	9.7	0.10	12	142	135	0.19	<0.010	<0.010	<0.050
JAN										
23...	21	20	0.20	13	176	191	0.24	0.010	<0.010	0.970
MAR										
24...	18	11	<0.10	15	145	160	0.20	0.020	0.020	0.700
MAY										
28...	17	9.5	0.10	13	176	--	--	<0.010	<0.010	0.220
JUL										
14...	14	8.4	<0.10	10	157	147	0.21	<0.010	<0.010	<0.050
SEP										
01...	12	7.0	0.10	12	130	141	0.18	<0.010	<0.010	<0.050

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
NOV										
19...	<0.050	<0.010	0.020	<0.20	0.050	0.050	0.040	0.040	<10	52
JAN										
23...	0.420	0.030	<0.010	0.30	0.310	0.030	0.270	0.020	<10	69
MAR										
24...	0.720	0.030	0.020	<0.20	0.130	0.150	0.150	0.140	--	--
MAY										
28...	0.220	0.020	0.020	0.20	0.050	0.060	0.030	0.030	20	87
JUL										
14...	<0.050	0.020	0.020	<0.20	0.030	<0.010	0.020	0.020	--	--
SEP										
01...	<0.050	0.010	0.020	<0.20	0.030	0.020	0.020	0.020	<10	74

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV										
19...	<3	4	--	<1	<10	2	<1	<1.0	--	<6
JAN										
23...	<3	17	6	22	<10	2	<1	<1.0	230	<6
MAR										
24...	--	--	--	--	--	--	--	--	--	--
MAY										
28...	<3	4	5	<1	<10	3	<1	<1.0	270	<6
JUL										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	<3	9	<4	8	<10	1	<1	<1.0	220	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
24...*	1435	16.0	15.0	264	7.1	13.5	763	8.8	84	28	93
24...*	1442	20.0	26.0	264	7.2	13.5	763	8.9	85	36	94
24...*	1451	18.5	37.0	263	7.3	13.5	763	8.8	84	27	92
24...*	1455	16.9	50.0	263	7.3	13.5	763	8.8	84	27	92
24...*	1501	13.5	65.0	263	7.3	13.5	763	8.8	84	26	90
JUL											
14...*	1340	1.55	14.5	240	7.9	23.5	763	8.2	97	2	100
14...*	1343	1.81	27.0	247	7.6	23.5	763	8.2	96	5	92
14...*	1346	1.90	38.0	249	7.6	23.0	763	8.3	97	5	97
14...*	1348	1.64	50.0	249	7.7	23.0	763	8.4	98	5	98
14...*	1350	1.92	61.0	249	7.7	23.0	763	8.1	94	7	88

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 24, 2,220 ft^3/s; July 14, 198 ft^3/s.

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
19...	1115	262	12.0	15	11	92
JAN						
23...	1215	288	8.0	5	3.9	84
MAR						
24...	1345	2240	13.0	29	175	92
MAY						
28...	1000	181	22.0	6	2.9	96
JUL						
14...	1030	198	22.5	8	4.3	72
14...	1345	198	23.5	4	2.1	96
SEP						
01...	1200	214	20.5	6	3.5	96

11467500 SOUTH FORK GUALALA RIVER NEAR ANNAPOLIS, CA

LOCATION.--Lat 38°42'18", long 123°25'19", in German Grant, Sonoma County, Hydrologic Unit 18010109, on left bank 0.5 mi downstream from Wheatfield Fork of Gualala River, and 3.0 mi west of Annapolis.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--October 1950 to September 1971, June 1991 to current year (since June 1991, flows below 1,000 ft^3/s only).

GAGE.--Water-stage recorder. Elevation of gage is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 30, 1962, at site 2,100 ft upstream at different datum. Aug. 31, 1962 to September 1971, at site 420 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. Beginning June 1991, no records computed above 1,000 ft^3/s.

EXTREMES FOR PERIOD OF RECORD (1951-71).--Maximum discharge, 55,000 ft^3/s, Dec. 22, 1955, gage height, 24.57 ft, site and datum then in use, from rating extended above 13,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.4 ft^3/s, Sept. 13, 1951.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	8.8	10	212	246	579	177	83	23	46	3.7	1.6
2	1.2	7.8	9.5	146	238	592	161	77	22	29	3.7	1.5
3	.79	7.0	9.0	109	173	442	151	71	21	22	3.7	1.6
4	.87	6.4	9.0	96	137	368	140	66	21	17	3.7	1.5
5	.55	6.3	8.6	653	108	---	129	63	20	12	3.7	1.4
6	.84	6.2	9.3	817	91	---	120	59	20	12	3.7	1.4
7	.96	5.8	17	740	80	687	115	54	20	14	3.7	1.4
8	.90	5.9	23	508	73	552	108	55	19	14	3.7	1.6
9	.79	5.9	20	355	81	447	104	54	18	13	3.6	1.5
10	.69	5.8	16	267	---	371	101	50	19	13	3.6	1.5
11	.71	5.7	14	207	---	318	103	47	17	12	3.7	1.5
12	.94	5.6	13	160	---	279	623	47	17	11	3.6	1.5
13	1.5	5.6	12	125	---	248	578	47	17	11	3.4	1.5
14	1.6	5.1	11	102	---	920	332	45	17	11	3.6	1.7
15	1.5	4.7	10	88	---	---	255	45	16	11	3.4	1.6
16	1.7	4.9	10	77	---	---	232	44	16	10	3.4	1.7
17	1.6	131	11	73	---	---	272	43	16	9.5	3.1	1.7
18	1.6	145	84	77	---	---	243	40	16	9.5	2.9	1.6
19	.47	55	95	64	---	---	205	39	15	8.9	2.7	1.7
20	1.0	34	50	57	---	600	178	39	14	7.5	2.5	1.6
21	1.5	32	36	52	---	492	159	38	11	6.6	2.6	1.7
22	1.5	27	29	47	---	425	144	36	9.2	7.0	2.2	1.8
23	1.8	21	25	43	---	408	129	35	10	6.2	2.0	1.7
24	2.0	18	21	41	---	339	120	31	10	5.4	2.0	1.6
25	2.8	16	19	41	589	294	111	31	12	5.4	2.0	1.6
26	196	14	18	39	468	264	103	31	13	5.4	2.0	1.5
27	87	15	261	37	383	238	98	29	13	4.8	1.9	1.4
28	32	16	---	126	321	216	92	27	13	3.7	1.7	1.3
29	21	14	---	143	282	195	87	27	29	4.2	1.7	1.3
30	15	12	---	95	---	216	89	26	111	3.8	1.7	1.4
31	11	---	328	78	---	203	---	25	---	4.0	1.5	---
TOTAL	393.01	647.5	---	5675	---	---	5459	1404	595.2	349.9	90.4	46.4
MEAN	12.7	21.6	---	183	---	---	182	45.3	19.8	11.3	2.92	1.55
MAX	196	145	---	817	---	---	623	83	111	46	3.7	1.8
MIN	.47	4.7	---	37	---	---	87	25	9.2	3.7	1.5	1.3
AC-FT	780	1280	---	11260	---	---	10830	2780	1180	694	179	92

11467500 SOUTH FORK GUALALA RIVER NEAR ANNAPOLIS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1971, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	76.9	245	1026	1471	1158	626	410	117	37.1	13.4	7.16	10.4
MAX	736	879	3060	4152	4407	1188	1401	660	103	23.9	24.5	90.0
(WY)	1958	1964	1956	1970	1958	1960	1963	1957	1957	1957	1954	1957
MIN	1.02	8.08	13.3	260	132	83.2	55.8	31.6	14.0	2.85	1.72	1.68
(WY)	1967	1960	1960	1962	1971	1955	1964	1964	1970	1970	1970	1970

SUMMARY STATISTICS	WATER YEARS 1951 - 1971	
ANNUAL MEAN	431	
HIGHEST ANNUAL MEAN	774	1958
LOWEST ANNUAL MEAN	190	1964
HIGHEST DAILY MEAN	25500	Dec 22 1955
LOWEST DAILY MEAN	.49	Oct 2 1970
ANNUAL SEVEN-DAY MINIMUM	.51	Sep 30 1970
INSTANTANEOUS PEAK FLOW	55000	Dec 22 1955
INSTANTANEOUS PEAK STAGE	24.57	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	311900	
10 PERCENT EXCEEDS	1040	
50 PERCENT EXCEEDS	57	
90 PERCENT EXCEEDS	4.8	

11467510 SOUTH FORK GUALALA RIVER NEAR THE SEA RANCH, CA

LOCATION.--Lat 38°42'33", long 123°25'32", in German Grant, Sonoma County, Hydrologic Unit 18010109, on left bank 0.8 mi downstream from Wheatfield Fork of Gualala River, and 2.0 mi north of The Sea Ranch.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--June 1991 to September 1992 (low flow only) (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Some pumpage for domestic use between this station and South Fork Gualala River near Annapolis (station 11467500). No records computed above 30 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	e8.0	e9.2	---	---	---	---	---	22	---	3.8	1.4
2	.54	e7.2	e8.8	---	---	---	---	---	22	---	3.9	1.1
3	.37	e6.8	e8.0	---	---	---	---	---	20	19	3.5	1.1
4	.41	e5.9	e8.0	---	---	---	---	---	19	14	3.4	1.3
5	.29	e5.8	e7.8	---	---	---	---	---	19	9.8	3.5	1.0
6	.33	e5.7	e9.2	---	---	---	---	---	18	11	3.0	1.0
7	.44	e5.3	e17	---	---	---	---	---	19	12	2.7	1.0
8	e.50	e5.2	e21	---	---	---	---	---	18	12	2.6	.99
9	e.48	e5.0	e19	---	---	---	---	---	18	11	2.6	.79
10	e.42	e5.0	e15	---	---	---	---	---	17	10	2.7	.88
11	e.45	e4.9	e13	---	---	---	---	---	16	9.8	2.3	.66
12	e.52	e4.8	e12	---	---	---	---	---	16	9.6	2.3	.62
13	e1.1	e4.8	e11	---	---	---	---	---	16	9.3	2.4	.60
14	e1.4	e4.7	e11	---	---	---	---	---	15	9.3	2.6	.90
15	e1.3	e4.5	e9.6	---	---	---	---	---	15	9.1	2.2	.85
16	e1.4	e4.2	e9.0	---	---	---	---	---	15	8.6	2.0	.98
17	e1.4	---	e10	---	---	---	---	---	14	8.0	2.0	.90
18	e1.2	---	---	---	---	---	---	---	14	7.6	2.0	.83
19	e.25	---	---	---	---	---	---	---	13	7.4	1.7	.73
20	e.80	---	---	---	---	---	---	e30	13	6.8	1.7	.65
21	e1.3	---	---	---	---	---	---	e29	9.1	6.4	1.6	.75
22	e1.4	e27	e29	---	---	---	---	e28	8.5	6.5	1.5	.85
23	e1.7	e20	e25	---	---	---	---	e26	8.7	5.8	1.4	.83
24	e2.0	e17	e20	---	---	---	---	26	9.3	5.8	1.6	.86
25	e3.2	e16	e18	---	---	---	---	26	11	5.1	1.1	.99
26	---	e14	e17	---	---	---	---	26	12	4.9	1.3	.94
27	---	e14	---	---	---	---	---	26	11	4.7	1.1	.84
28	---	e13	---	---	---	---	---	25	12	4.2	1.3	1.1
29	e19	e11	---	---	---	---	---	25	24	4.0	1.2	1.2
30	e14	e10	---	---	---	---	---	24	---	3.7	1.2	1.0
31	e10	---	---	---	---	---	---	23	---	3.8	.91	---
TOTAL	---	---	---	---	---	---	---	---	---	---	67.11	27.64
MEAN	---	---	---	---	---	---	---	---	---	---	2.16	.92
MAX	---	---	---	---	---	---	---	---	---	---	3.9	1.4
MIN	---	---	---	---	---	---	---	---	---	---	.91	.60
AC-FT	---	---	---	---	---	---	---	---	---	---	133	55

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA

LOCATION.--Lat 39°10'20", long 123°40'06", in SE 1/4 sec.7, T.15 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on right bank 2.9 mi downstream from North Fork, 5.2 mi upstream from mouth, and 6.8 mi west of Navarro.

DRAINAGE AREA.--303 mi^2.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1445: 1954(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4.79 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1969, at site 0.2 mi upstream at datum 1.86 ft higher.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,500 ft^3/s, Dec. 22, 1955, gage height, 40.60 ft, site and datum then in use, from rating curve extended above 19,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.23 ft^3/s, July 13, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 38.2 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 14	1830	*11,300	*18.34				

Minimum daily, 0.77 ft^3/s, Oct. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	5.3	13	165	397	e500	262	109	e26	52	4.4	2.4
2	1.4	4.3	12	121	372	e455	231	98	26	36	4.4	2.4
3	1.5	3.8	12	99	283	e415	215	e90	23	e27	4.3	2.4
4	1.6	3.3	12	97	230	398	200	77	22	e25	4.2	2.4
5	1.6	3.1	12	893	188	902	182	69	23	22	4.1	2.4
6	1.5	3.0	13	1680	159	804	170	67	20	21	4.2	2.4
7	1.5	2.8	24	870	139	676	163	63	19	21	4.2	2.4
8	1.4	2.8	31	566	125	565	161	60	19	19	4.1	2.3
9	1.4	2.8	30	375	122	486	154	59	19	18	4.0	2.4
10	1.4	3.1	24	282	1450	427	e151	56	18	14	3.8	2.5
11	1.3	3.3	21	221	4040	385	152	55	18	12	3.7	2.5
12	1.2	3.2	18	177	6110	365	e210	51	19	9.7	3.6	2.5
13	1.1	3.0	16	148	5000	332	e294	50	18	9.3	3.4	2.4
14	1.3	2.9	15	128	6360	450	e220	48	17	9.0	3.3	2.4
15	1.2	2.8	14	113	5550	3770	e190	e48	18	9.4	3.2	2.4
16	1.1	3.1	14	102	4130	5180	e178	e47	18	8.5	3.0	2.8
17	.89	11	15	96	2810	3560	196	e46	17	8.3	2.8	2.9
18	.82	70	31	94	e2350	2020	197	45	16	e8.0	2.7	3.1
19	.77	75	79	88	e4200	1280	172	e44	16	7.8	2.7	3.2
20	.86	54	78	81	e4400	932	159	e43	14	7.6	2.5	3.1
21	.86	60	57	76	e2100	737	149	41	14	7.6	2.4	2.9
22	.86	53	44	72	e1450	611	140	39	13	e7.5	2.4	2.8
23	.86	36	36	68	e1000	539	133	e37	13	7.4	2.3	2.8
24	.92	29	31	65	e850	468	136	e35	12	7.4	2.3	2.8
25	2.1	23	27	64	e750	415	129	e34	12	6.8	2.3	2.8
26	47	20	24	62	e700	391	124	e32	12	6.3	2.3	2.8
27	84	21	50	61	e650	356	118	e30	12	e6.0	2.3	2.8
28	34	18	443	186	e610	326	117	27	12	e5.6	2.3	2.7
29	19	17	1480	265	e550	289	e118	27	20	e5.6	2.3	2.8
30	11	14	502	188	---	287	116	27	55	e5.1	2.3	2.8
31	7.0	---	255	155	---	294	---	e27	---	4.4	2.4	---
TOTAL	232.84	553.6	3433	7658	57075	28615	5137	1581	561	414.3	98.2	79.3
MEAN	7.51	18.5	111	247	1968	923	171	51.0	18.7	13.4	3.17	2.64
MAX	84	75	1480	1680	6360	5180	294	109	55	52	4.4	3.2
MIN	.77	2.8	12	61	122	287	116	27	12	4.4	2.3	2.3
AC-FT	462	1100	6810	15190	113200	56760	10190	3140	1110	822	195	157

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	44.3	297	986	1525	1423	1039	503	128	46.5	19.7	10.9	10.5
MAX	367	2033	4396	5464	5522	4280	2517	499	121	46.7	26.8	32.6
(WY)	1958	1974	1965	1970	1958	1983	1982	1983	1990	1983	1983	1957
MIN	3.10	9.06	18.5	24.0	58.6	69.8	34.2	14.1	4.23	.62	.67	1.33
(WY)	1989	1991	1977	1991	1977	1988	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	70432.54		105438.24			
ANNUAL MEAN	193		288		499	
HIGHEST ANNUAL MEAN					1310	1983
LOWEST ANNUAL MEAN					25.0	1977
HIGHEST DAILY MEAN	6590	Mar 4	6360	Feb 14	45100	Jan 16 1974
LOWEST DAILY MEAN	.77	Oct 19	.77	Oct 19	.23	Jul 13 1977
ANNUAL SEVEN-DAY MINIMUM	.85	Oct 17	.85	Oct 17	.28	Jul 8 1977
INSTANTANEOUS PEAK FLOW			11300	Feb 14	64500	Dec 22 1955
INSTANTANEOUS PEAK STAGE			18.34	Feb 14	40.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	139700		209100		361400	
10 PERCENT EXCEEDS	350		554		1200	
50 PERCENT EXCEEDS	18		25		59	
90 PERCENT EXCEEDS	1.4		2.4		7.6	

11468500 NOYO RIVER NEAR FORT BRAGG, CA

LOCATION.--Lat 39°25'42", long 123°44'12", in NE 1/4 sec.15, T.18 N., R.17 W., Mendocino County, Hydrologic Unit 18010108, on right bank 0.7 mi downstream from South Fork and 3.5 mi east of Fort Bragg.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--August 1951 to current year.

REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 11.73 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft^3/s, Mar. 29, 1974, gage height, 27.14 ft, from rating curve extended above 4,500 ft^3/s on basis of slope-conveyance study; minimum daily, 0.79 ft^3/s, Sept. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	0230	*2,110	*9.67				

Minimum daily, 3.1 ft^3/s, Oct. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	5.5	9.6	51	94	134	74	51	16	25	5.9	4.6
2	3.9	5.2	9.0	41	102	129	68	46	15	16	5.8	4.6
3	3.9	5.2	8.7	33	92	115	64	42	15	12	5.6	5.3
4	3.9	5.1	8.4	47	81	101	60	40	14	10	5.2	5.6
5	3.9	5.1	8.1	172	70	120	56	38	14	10	5.0	5.7
6	3.8	5.1	10	605	60	120	53	37	13	14	5.3	5.7
7	3.7	5.1	32	299	53	117	50	35	13	13	5.4	5.3
8	3.6	5.3	31	195	47	108	48	33	13	12	5.4	5.2
9	3.7	5.3	21	141	45	96	46	25	13	11	5.0	4.9
10	3.7	5.3	17	106	78	86	47	30	13	10	4.8	4.7
11	3.6	5.4	14	84	305	79	47	29	13	9.9	4.7	4.9
12	3.4	5.4	13	69	738	74	64	28	13	9.9	4.6	5.0
13	3.3	5.3	12	58	782	69	64	27	13	9.7	4.5	5.0
14	3.1	5.1	11	50	940	96	55	26	13	9.6	4.3	5.0
15	3.5	5.1	10	45	1250	436	51	26	12	9.6	4.0	5.2
16	3.8	5.4	9.9	41	1160	1430	52	25	12	9.3	4.0	5.3
17	4.1	19	11	40	931	1030	183	25	11	9.1	3.8	5.4
18	4.7	47	42	38	719	576	191	23	11	9.2	3.5	5.5
19	5.5	28	50	33	974	376	153	23	11	8.6	3.7	5.5
20	5.7	28	38	29	1710	281	127	22	10	8.9	4.0	5.2
21	5.6	36	29	26	970	226	108	22	10	8.9	3.8	4.8
22	5.3	26	23	24	681	190	91	22	10	8.7	3.7	4.7
23	4.9	18	19	22	499	165	80	21	9.6	8.2	3.6	4.6
24	5.1	13	16	21	364	144	71	20	9.6	8.3	3.5	4.7
25	8.1	11	14	21	278	126	65	19	9.7	7.2	3.5	4.7
26	56	10	13	20	222	113	60	19	9.8	4.5	3.7	4.9
27	29	13	24	19	183	102	56	18	9.8	6.9	4.1	4.9
28	13	13	89	54	155	92	53	18	10	6.0	4.6	4.7
29	9.9	12	157	71	136	83	50	17	28	5.6	4.7	4.5
30	7.5	10	106	61	---	89	56	17	48	5.7	4.7	4.7
31	6.3	---	69	56	---	82	---	16	---	5.9	5.0	---
TOTAL	229.5	367.9	924.7	2572	13719	6985	2243	840	412.5	302.7	139.4	150.8
MEAN	7.40	12.3	29.8	83.0	473	225	74.8	27.1	13.7	9.76	4.50	5.03
MAX	56	47	157	605	1710	1430	191	51	48	25	5.9	5.7
MIN	3.1	5.1	8.1	19	45	69	46	16	9.6	4.5	3.5	4.5
AC-FT	455	730	1830	5100	27210	13850	4450	1670	818	600	276	299

11468500 NOYO RIVER NEAR FORT BRAGG, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.1	129	409	598	531	437	214	73.2	30.4	13.3	7.36	6.29
MAX	166	750	2293	1890	2113	1406	877	377	159	32.0	17.7	12.7
(WY)	1963	1974	1965	1953	1958	1983	1963	1990	1990	1953	1953	1983
MIN	2.97	5.29	9.25	16.6	18.1	32.4	11.7	9.50	3.88	1.90	1.35	2.16
(WY)	1979	1960	1977	1977	1977	1988	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1952 - 1992	
ANNUAL TOTAL	22354.9		28886.5			
ANNUAL MEAN	61.2		78.9		204	
HIGHEST ANNUAL MEAN					484	1983
LOWEST ANNUAL MEAN					10.9	1977
HIGHEST DAILY MEAN	1370	Mar 24	1710	Feb 20	20500	Dec 22 1964
LOWEST DAILY MEAN	3.1	Oct 14	3.1	Oct 14	.79	Sep 8 1977
ANNUAL SEVEN-DAY MINIMUM	3.5	Oct 9	3.5	Oct 9	1.0	Aug 16 1977
INSTANTANEOUS PEAK FLOW			2110	Feb 20	26600	Mar 29 1974
INSTANTANEOUS PEAK STAGE			9.67	Feb 20	27.14	Mar 29 1974
ANNUAL RUNOFF (AC-FT)	44340		57300		148000	
10 PERCENT EXCEEDS	119		142		512	
50 PERCENT EXCEEDS	14		15		32	
90 PERCENT EXCEEDS	4.2		4.6		5.1	

11469000 MATTOLE RIVER NEAR PETROLIA, CA

LOCATION.--Lat 40°18'42", long 124°15'48", in SE 1/4 NW 1/4 sec.11, T.2 S., R.2 W., Humboldt County, Hydrologic Unit 18010107, on right bank 0.2 mi upstream from Clear Creek, 1.5 mi southeast of Petrolia, and 1.7 mi upstream from North Fork.

DRAINAGE AREA.--240 mi^2.

PERIOD OF RECORD.--October 1911 to December 1913, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1912-13. WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map. November 1911 to December 1913, nonrecording gages at several sites upstream within 0.3 mi of present site at various datums. Dec. 11, 1950, to July 14, 1955, at site 0.3 mi upstream at datum 7.48 ft higher. July 15, 1955, to Oct. 26, 1967, at site 0.4 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 350 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,400 ft^3/s, Dec. 22, 1955, gage height, 29.60 ft, site and datum then in use, from rating curve extended above 26,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 17 ft^3/s, Sept. 5, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	2400	*11,500	*11.46				

Minimum daily, 24 ft^3/s, Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	55	70	305	3090	1040	615	550	163	234	49	29
2	41	52	65	251	1960	852	580	505	159	157	47	29
3	41	50	60	221	1390	739	549	473	152	130	45	29
4	39	47	58	749	1090	888	523	450	147	118	44	29
5	38	47	54	4450	904	4760	502	432	141	112	42	30
6	35	47	88	4190	780	3340	478	411	134	106	42	30
7	35	44	333	1880	698	2270	457	392	134	102	42	30
8	35	44	235	1280	687	1740	444	375	133	95	41	29
9	35	44	153	970	785	1430	445	351	128	91	41	29
10	35	44	120	801	1820	1210	870	336	128	88	41	29
11	35	44	101	693	4830	1060	857	325	128	84	39	29
12	34	43	88	605	5380	939	1080	314	125	81	38	28
13	33	42	78	539	3820	836	1270	303	126	79	38	27
14	32	42	72	487	5570	950	1120	294	128	78	38	27
15	32	42	68	447	6980	3620	922	287	127	76	38	27
16	32	51	64	413	8430	8480	1430	274	120	72	38	26
17	32	426	62	385	5300	4960	5270	265	116	69	36	26
18	32	342	457	354	4550	3210	2790	253	113	66	34	26
19	31	191	446	326	7350	2310	1850	246	110	66	34	26
20	31	149	272	302	9190	1860	1490	258	107	64	32	25
21	31	188	200	287	6670	1600	1250	240	102	63	30	25
22	31	143	163	270	5900	1410	1070	227	98	62	31	26
23	31	108	139	254	3800	1240	947	220	94	61	29	24
24	31	88	123	243	2620	1090	859	212	92	58	29	26
25	42	75	112	348	1930	977	771	205	92	58	29	28
26	229	67	99	329	1530	890	663	197	91	57	29	27
27	218	92	468	351	1260	823	647	189	89	56	29	27
28	112	129	906	1620	1060	763	608	184	88	54	29	27
29	88	102	776	1120	933	710	579	177	179	52	29	26
30	71	80	561	809	---	720	618	173	421	50	29	32
31	61	---	401	1590	---	661	---	170	---	50	29	---
TOTAL	1644	2918	6892	26869	100307	57378	31554	9288	3965	2589	1121	828
MEAN	53.0	97.3	222	867	3459	1851	1052	300	132	83.5	36.2	27.6
MAX	229	426	906	4450	9190	8480	5270	550	421	234	49	32
MIN	31	42	54	221	687	661	444	170	88	50	29	24
AC-FT	3260	5790	13670	53290	199000	113800	62590	18420	7860	5140	2220	1640

11469000 MATTOLE RIVER NEAR PETROLIA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	256	1542	2901	3460	3041	2253	1191	539	196	80.9	51.1	64.4
MAX	1900	7159	8340	8928	10710	7929	5225	1842	765	182	164	237
(WY)	1951	1974	1956	1970	1958	1983	1963	1960	1990	1912	1983	1977
MIN	23.8	41.8	39.7	135	243	187	166	151	68.9	31.3	22.9	22.0
(WY)	1988	1960	1977	1977	1977	1988	1988	1970	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1912 - 1992	
ANNUAL TOTAL	150662		245353			
ANNUAL MEAN	413		670		1291	
HIGHEST ANNUAL MEAN					2642	1983
LOWEST ANNUAL MEAN					157	1977
HIGHEST DAILY MEAN	6980	Mar 4	9190	Feb 20	55200	Dec 22 1964
LOWEST DAILY MEAN	28	Aug 16	24	Sep 23	17	Sep 5 1977
ANNUAL SEVEN-DAY MINIMUM	29	Aug 10	25	Sep 17	17	Sep 5 1977
INSTANTANEOUS PEAK FLOW			11500	Feb 19	90400	Dec 22 1955
INSTANTANEOUS PEAK STAGE			11.46	Feb 19	29.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	298800		486700		935100	
10 PERCENT EXCEEDS	1190		1590		3280	
50 PERCENT EXCEEDS	104		136		269	
90 PERCENT EXCEEDS	35		30		36	

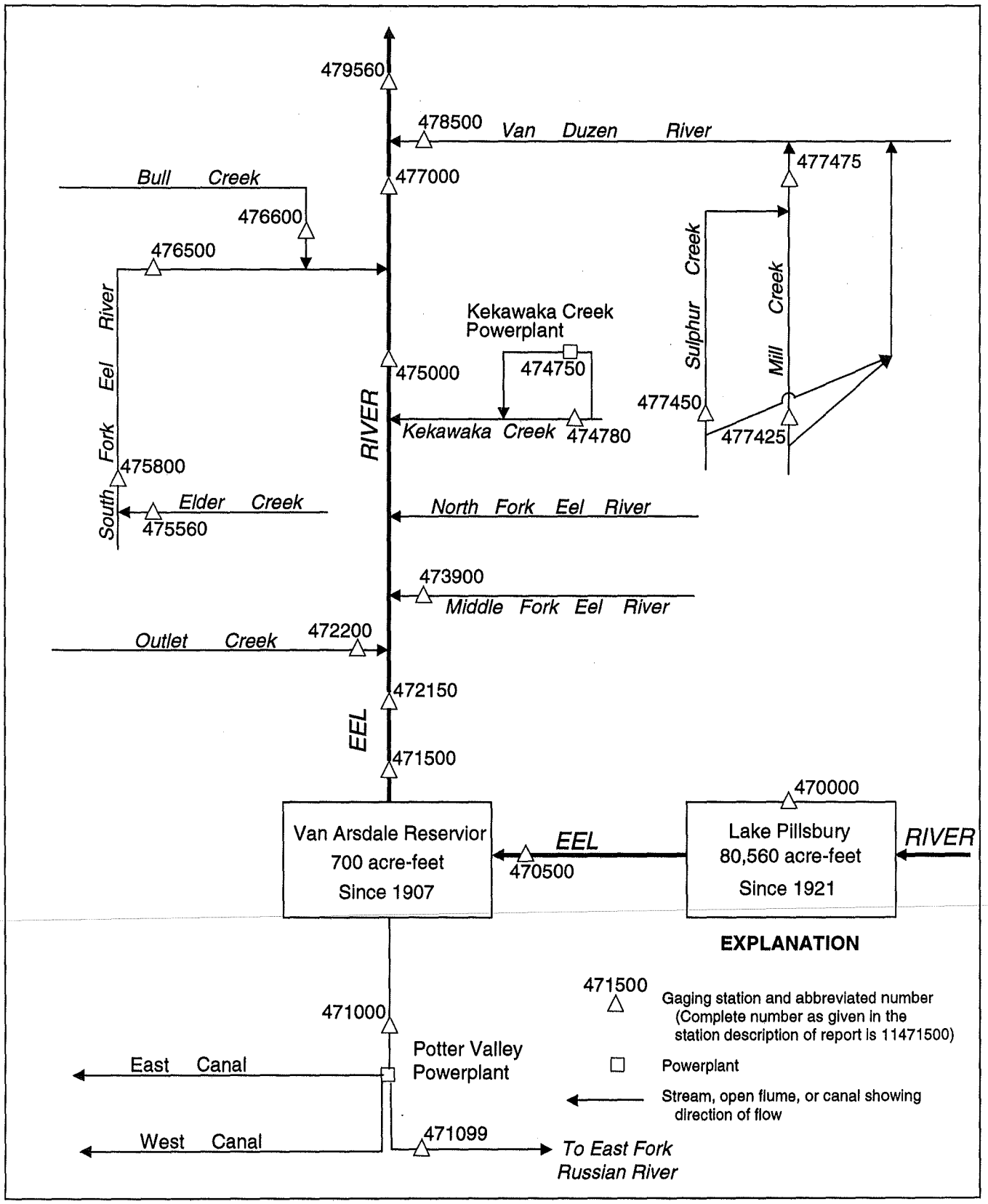


Figure 25. Diversions and storage in Eel River basin.

11470000 LAKE PILLSBURY NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'30", long 122°57'30", on line between secs.14 and 23, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, at Scott Dam near right bank of Eel River, 0.3 mi downstream from Rice Fork, and 10.2 mi northeast of town of Potter Valley.
DRAINAGE AREA.--289 mi^2.

PERIOD OF RECORD.--October 1922 to September 1928 (daily gage heights only), October 1928 to current year. Monthend contents only for some periods, published in WSP 1315-B. Prior to October 1953, published as "at Hullville".

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 81.7 ft below National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Jan. 26, 1950, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete overflow type dam; storage began in December 1921. Beginning Oct. 1, 1985, capacity based on 1984 resurvey. Usable capacity, 80,556 acre-ft between gage heights 1,822.4 ft, sill of outlet gate, and 1,910.0 ft, top of spillway gates; dead storage, 87 acre-ft. Water is released down Eel River to Van Arsdale Reservoir, most of which is diverted through tunnel to Potter Valley Powerplant; part is then used for irrigation and remainder flows into East Fork Russian River. Records given represent total contents at 2400 hours.
COOPERATION.--Records were provided by Pacific Gas & Electric Co., in connection with a Federal Energy Regulatory Commission project; not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,600 acre-ft, May 13, 16, 1925, gage height, 1,910.8 ft; maximum gage height, 1,911.84 ft, Dec. 22, 1964, from floodmarks; minimum contents, 10 acre-ft, Dec. 9, 10, 1931, gage height, 1,822.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 80,552 acre-ft, May 1, gage height, 1,909.96 ft; minimum, 20,482 acre-ft, Dec. 27, gage height, 1,873.05 ft.

Capacity table (elevation, in feet, and contents in acre-feet)
(Based on table provided by Pacific Gas & Electric Co., dated April 1984)

1,822.4	87	1,835	1,371	1,855	7,831	1,875	22,451	1,895	50,179
1,824	153	1,840	2,463	1,860	10,456	1,880	28,071	1,900	59,469
1,827	333	1,845	3,391	1,865	13,701	1,885	34,474	1,905	69,675
1,830	626	1,850	5,710	1,870	17,664	1,890	41,811	1,910	80,643

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48752	32402	23843	21831	26473	60368	73335	80552	73968	67937	59273	49789
2	48387	31856	23615	21748	26765	60349	73509	80460	73793	67728	58962	49682
3	48023	31265	23444	21678	26882	60133	73618	80346	73596	67539	58631	49612
4	47679	30651	23304	21678	26999	60015	73771	80233	73356	67330	58341	49295
5	47320	30057	23135	22555	26999	59937	73793	80142	73182	67101	58013	49049
6	46996	29508	23029	24051	27058	60980	73749	79937	73030	66913	57687	48717
7	46674	28905	22870	24656	27050	60802	73596	79892	72770	66395	57419	48369
8	46336	28299	22765	25047	27044	60526	73400	79710	72575	66127	57076	48058
9	45967	27710	22555	25328	27138	60329	73248	79484	72294	65900	56734	47731
10	45433	27126	22451	25441	29881	60172	73182	79280	72079	65633	56432	47405
11	44787	26563	22243	25498	34147	59976	73182	79100	71907	65408	56074	47098
12	44164	26193	22036	25509	41811	59859	73509	78897	71649	65122	55737	46809
13	43547	26055	21831	25520	44655	59957	74804	78672	71457	64857	55456	46471
14	42904	25814	21628	25520	48595	59996	75965	78403	71286	64593	55103	46168
15	42284	25632	21526	25441	51600	60644	76404	78112	70987	64307	54843	45867
16	41623	25474	21324	25441	54378	65224	77355	77822	70774	63999	54509	45533
17	41015	25610	21174	25475	56394	69738	77377	77533	70477	63774	54192	45217
18	40368	25712	21024	25475	60054	70392	78247	77266	70265	63489	53877	44902
19	39803	25576	21425	25475	65081	69525	78785	76978	70139	63265	53564	44606
20	39124	25758	21375	25463	63835	68845	79123	76536	69907	62981	53270	44278
21	38498	25780	21274	25441	63733	68866	79529	76250	69654	62698	53013	44017
22	37909	25632	21174	25419	63346	69440	79846	75899	69376	62376	52612	43741
23	37270	25497	21024	25373	62477	70287	80096	75658	69206	62055	52285	43434
24	36695	25350	20776	25339	61715	70987	80187	75483	68972	61735	51996	43176
25	36311	24934	20776	25339	61218	71500	80233	75330	68739	61416	51636	42824
26	35930	24600	20579	25159	61000	71864	80392	75134	68548	61118	51385	42553
27	35315	24467	20482	25137	60822	72165	80392	74958	68295	60802	51064	42315
28	34776	24290	20579	25272	60723	72575	80438	74738	68106	60506	50709	42047
29	34188	24137	21476	26011	60427	72792	80392	74605	68000	60211	50426	41732
30	33607	23940	22088	26184	---	72943	80483	74385	68000	59937	50126	41482
31	33021	---	21985	26300	---	73182	---	74231	---	59605	49966	---
MAX	48752	32402	23843	26300	65081	73182	80483	80552	73968	67937	59273	49789
MIN	33021	23940	20482	21678	26473	59859	73182	74231	68000	59605	49966	41482
a	1883.92	1876.40	1874.55	1878.50	1900.49	1906.64	1909.93	1907.12	1904.21	1900.07	1894.88	1889.79
b	-16063	-9081	-1955	+4315	+34127	+12755	+7301	-6252	-6231	-8395	-9639	-8484

CAL YR 1991 MAX 80278 MIN 13630 b +7965
WTR YR 1992 MAX 80552 MIN 20482 b -7602
a Elevation in feet, at end of month.
b Change in contents, in acre-feet.

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°24'29", long 122°58'29", in SE 1/4 sec.15, T.18 N., R.10 W., Lake County, Hydrologic Unit 18010103, Mendocino National Forest, on left bank 0.4 mi upstream from Soda Creek, 0.7 mi downstream from Scott Dam, and 9.7 mi northeast of town of Potter Valley.

DRAINAGE AREA.--290 mi^2.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as South Eel River at Hullville, and October 1929 to September 1953, "at Hullville."

REVISED RECORDS.--WSP 1315-B: 1923(M), 1938(M). WSP 1395: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 15, 1930, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Flow regulated by Lake Pillsbury (station 11470000) 0.7 mi upstream. No diversion upstream from station.

COOPERATION.--Records 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, 56,300 ft^3/s, Dec. 22, 1964, gage height, 24.24 ft, from floodmarks, from rating curve extended above 37,000 ft^3/s; minimum daily, 0.1 ft^3/s, Sept. 8, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,740 ft^3/s, Feb. 20, gage height, 11.02 ft; minimum daily, 47 ft^3/s, Sept. 1-3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	345	108	106	109	770	411	281	139	136	149	47
2	162	343	108	105	109	717	423	281	138	136	149	47
3	162	341	106	105	109	638	432	275	138	136	149	47
4	161	341	107	107	109	569	427	270	138	134	149	110
5	161	342	107	109	109	865	420	270	137	134	149	147
6	161	342	108	109	109	1180	422	268	137	134	150	148
7	160	348	107	110	109	1030	425	267	136	134	150	148
8	158	349	107	109	109	871	400	268	136	134	150	148
9	157	347	107	108	109	742	383	267	135	134	150	148
10	272	344	107	108	115	646	320	268	135	134	150	157
11	354	343	107	108	119	578	278	267	135	137	150	150
12	351	215	107	108	129	490	276	266	135	139	150	150
13	352	108	107	108	123	432	287	266	134	139	150	150
14	351	108	106	108	128	421	294	267	133	139	150	150
15	352	107	106	108	128	378	268	265	134	138	150	150
16	354	107	106	107	131	355	254	267	133	138	150	149
17	352	110	106	108	130	1340	254	268	133	138	150	147
18	349	108	106	107	136	1890	252	268	133	138	150	145
19	349	107	106	107	2040	1500	249	269	133	138	151	144
20	346	110	106	107	4930	1010	250	268	132	138	151	144
21	346	109	106	107	3360	583	251	267	131	138	151	144
22	352	108	106	107	2890	438	249	200	131	138	151	143
23	347	108	106	107	2150	440	251	158	131	141	151	142
24	342	109	105	107	1600	440	250	156	132	144	151	141
25	347	225	105	107	1340	429	250	156	131	143	151	131
26	346	238	105	107	1200	408	252	156	131	143	151	126
27	341	108	106	107	1080	399	254	148	133	143	151	126
28	341	107	107	110	947	399	254	141	136	143	151	133
29	341	108	107	108	828	403	259	141	138	143	150	138
30	340	108	106	108	---	406	272	140	137	146	150	138
31	343	---	106	108	---	406	---	139	---	149	87	---
TOTAL	9011	6193	3300	3335	24485	21173	9267	7188	4035	4299	4592	3988
MEAN	291	206	106	108	844	683	309	232	134	139	148	133
MAX	354	349	108	110	4930	1890	432	281	139	149	151	157
MIN	157	107	105	105	109	355	249	139	131	134	87	47
AC-FT	17870	12280	6550	6610	48570	42000	18380	14260	8000	8530	9110	7910

11470500 EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	223	285	749	1184	1385	1011	668	315	192	181	183	211
MAX	361	1851	4945	5684	6624	4536	3357	1184	374	329	334	335
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1983	1959	1959	1961
MIN	19.1	13.3	27.6	35.8	7.27	11.8	15.4	34.4	50.3	64.5	65.0	34.4
(WY)	1978	1934	1960	1944	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1923 - 1992	
ANNUAL TOTAL	78715		100866			
ANNUAL MEAN	216		276		545	
HIGHEST ANNUAL MEAN					1443	1983
LOWEST ANNUAL MEAN					85.4	1977
HIGHEST DAILY MEAN	1570	Mar 25	4930	Feb 20	45300	Dec 22 1964
LOWEST DAILY MEAN	29	Feb 28	47	Sep 1	.10	Sep 8 1924
ANNUAL SEVEN-DAY MINIMUM	30	Feb 22	90	Aug 31	.43	Sep 6 1924
INSTANTANEOUS PEAK FLOW			5740	Feb 20	56300	Dec 22 1964
INSTANTANEOUS PEAK STAGE			11.02	Feb 20	24.24	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	156100		200100		394700	
10 PERCENT EXCEEDS	352		424		1060	
50 PERCENT EXCEEDS	136		148		233	
90 PERCENT EXCEEDS	34		107		87	

11471000 POTTER VALLEY POWERHOUSE INTAKE NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°22'00", long 123°07'35", in SW 1/4 SW 1/4 sec.31, T.18 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, in penstock of powerhouse of Pacific Gas & Electric Co., 1.5 mi southwest of Van Arsdale Dam, and 3.2 mi northwest of town of Potter Valley.

PERIOD OF RECORD.--December 1909 to current year. Prior to October 1922, monthly discharge only, published in WSP 1315-B. Prior to October 1931, published as Snow Mountain Water and Power Co.'s Tailrace near Potter Valley. October 1931 to September 1984, published as Potter Valley Powerhouse Tailrace near Potter Valley.

REVISED RECORDS.--WSP 1395: 1950. WDR CA-89-2: 1988.

GAGE.--Acoustic flowmeter in penstock of powerplant. Elevation of gage is 1,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 11, 1985, water-stage recorder and Parshall flume. See WSP 1929 for history of changes prior to Apr. 12, 1950.

REMARKS.--No estimated daily discharges. Water is diverted from Eel River above Van Arsdale Dam. After passing through powerhouse, part is used for irrigation in Potter Valley and remainder flows into East Fork Russian River.

COOPERATION.--Records 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 (1922 TO CURRENT YEAR).--Maximum daily discharge, 351 ft^3/s, Oct. 31, 1982; no flow at times in several years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	320	113	89	135	321	315	250	138	162	147	42
2	164	319	90	85	162	321	315	250	145	162	147	42
3	164	320	74	119	150	321	319	251	135	156	147	41
4	164	318	73	119	142	321	322	244	135	145	147	76
5	163	318	74	132	139	322	322	244	135	145	147	147
6	165	317	74	203	136	321	322	242	135	144	147	147
7	164	319	74	203	133	321	321	242	139	142	147	146
8	161	320	79	198	133	322	319	240	138	142	151	146
9	159	319	77	169	132	321	278	234	138	144	151	147
10	190	319	74	154	132	322	281	234	138	144	151	152
11	247	318	74	139	130	322	183	236	141	144	150	151
12	299	242	74	145	103	322	209	237	141	144	151	149
13	317	105	74	138	321	322	209	233	141	144	153	149
14	319	109	71	133	321	324	228	234	139	144	142	147
15	319	110	73	133	319	322	228	237	136	144	144	147
16	321	109	70	132	319	322	206	239	138	144	144	147
17	321	109	70	130	322	321	224	237	139	144	150	149
18	321	120	73	132	321	321	239	237	142	144	150	150
19	321	116	89	132	322	321	247	237	141	145	150	150
20	319	135	89	127	30	321	247	237	141	144	150	150
21	318	135	76	126	30	321	247	244	141	144	151	150
22	318	121	76	126	322	321	247	239	138	145	150	145
23	317	117	76	124	321	321	242	141	139	144	151	145
24	317	117	76	123	321	322	237	147	138	145	144	145
25	319	176	74	124	321	322	234	148	136	144	142	143
26	320	179	70	124	321	322	231	147	136	144	141	144
27	319	116	71	121	321	322	228	150	136	145	148	143
28	319	115	83	121	321	322	231	136	141	145	150	141
29	319	112	132	163	321	322	234	130	141	144	150	144
30	318	111	132	145	---	321	233	139	153	142	150	144
31	318	---	97	132	---	321	---	144	---	144	150	---
TOTAL	8264	5961	2522	4241	6501	9968	7698	6560	4174	4513	4593	4019
MEAN	267	199	81.4	137	224	322	257	212	139	146	148	134
MAX	321	320	132	203	322	324	322	251	153	162	153	152
MIN	159	105	70	85	30	321	183	130	135	142	141	41
AC-FT	16390	11820	5000	8410	12890	19770	15270	13010	8280	8950	9110	7970

11471000 POTTER VALLEY POWERHOUSE INTAKE NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	187	195	211	226	243	244	233	215	177	160	156	178
MAX	321	311	311	316	325	322	326	330	325	314	320	314
(WY)	1991	1963	1982	1982	1982	1992	1951	1982	1982	1953	1953	1967
MIN	.000	9.70	3.10	15.4	11.7	.000	18.9	39.0	38.5	11.0	2.29	2.67
(WY)	1960	1934	1934	1944	1977	1950	1977	1977	1920	1920	1920	1920

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1910 - 1992	
ANNUAL TOTAL	60451		69014			
ANNUAL MEAN	166		189		202	
HIGHEST ANNUAL MEAN					305	1967
LOWEST ANNUAL MEAN					84.0	1920
HIGHEST DAILY MEAN	323	Apr 15	324	Mar 14	351	Oct 31 1982
LOWEST DAILY MEAN	27	Jan 4	30	Feb 20	.00	Jul 31 1910
ANNUAL SEVEN-DAY MINIMUM	31	Jan 3	72	Dec 12	.00.	Aug 7 1913
ANNUAL RUNOFF (AC-FT)	119900		136900		146700	
10 PERCENT EXCEEDS	321		321		311	
50 PERCENT EXCEEDS	146		148		215	
90 PERCENT EXCEEDS	37		101		56	

11471099 POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°21'42", long 123°07'38", in SW 1/4 NW 1/4 sec.6, T.17 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, 100 ft downstream from powerhouse of Pacific Gas and Electric Co., 1.8 mi southwest of Van Arsdale Dam, and 2.9 mi northwest of town of Potter Valley.
PERIOD OF RECORD.--October 1987 to current year. October 1931 to September 1984, record published for Potter Valley Powerhouse Intake (station 11471000) not equivalent because diversion for irrigation is included.
GAGE.--Discharge computed as difference between Potter Valley Powerhouse Intake (station 11471000) and the combined flows of Potter Valley Irrigation District east canal and Potter Valley Irrigation District west canal. Elevation of tailrace is 1,020 ft above National Geodetic Vertical Datum, from topographic map.
REMARKS.--No estimated daily discharges. Flow represents inflow into the Russian River basin after passing through powerhouse.
COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 324 ft^3/s, Mar. 14, 1992; no flow Apr. 4, 5 and July 18-20, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	316	113	88	134	321	315	228	90	158	101	31
2	150	315	90	83	161	321	315	228	98	159	101	31
3	147	316	74	118	150	321	319	229	89	155	105	30
4	145	314	73	118	142	321	322	219	92	144	108	65
5	141	314	74	131	139	322	322	218	92	144	108	127
6	144	313	74	200	136	321	321	205	91	133	105	120
7	149	315	74	201	133	321	319	197	92	104	108	114
8	149	316	79	197	133	322	317	200	92	97	109	108
9	147	316	77	168	132	321	277	198	96	99	109	105
10	177	315	74	153	132	322	280	202	92	107	109	106
11	234	314	74	138	130	322	181	215	91	107	101	107
12	287	239	74	144	103	322	207	214	92	99	101	106
13	306	103	74	138	320	322	207	200	94	97	105	104
14	308	107	71	133	320	324	226	196	96	108	94	107
15	304	108	73	133	318	322	227	199	97	116	96	110
16	303	107	70	132	318	322	206	207	109	116	97	118
17	305	107	70	130	321	321	224	208	115	116	104	108
18	311	118	73	132	320	321	239	209	105	118	104	105
19	308	114	89	132	322	321	247	210	102	119	106	103
20	304	133	89	127	30	321	247	208	103	110	105	104
21	304	133	76	126	30	321	247	214	100	105	105	108
22	308	119	76	126	322	321	247	227	99	110	104	103
23	316	115	76	124	321	321	242	129	106	110	104	97
24	316	115	76	123	321	322	237	135	106	112	97	97
25	318	175	74	124	321	322	234	133	108	110	91	100
26	319	178	70	124	321	322	231	131	106	104	89	103
27	318	116	71	121	321	322	228	122	103	105	94	102
28	319	115	83	119	321	322	231	92	108	105	96	97
29	317	112	132	160	321	322	226	84	123	103	97	101
30	315	111	132	144	---	321	218	91	150	100	98	115
31	314	---	97	131	---	321	---	95	---	97	117	---
TOTAL	7937	5889	2522	4218	6493	9968	7659	5643	3037	3567	3168	2932
MEAN	256	196	81.4	136	224	322	255	182	101	115	102	97.7
MAX	319	316	132	201	322	324	322	229	150	159	117	127
MIN	141	103	70	83	30	321	181	84	89	97	89	30
AC-FT	15740	11680	5000	8370	12880	19770	15190	11190	6020	7080	6280	5820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

MEAN	202	173	172	203	219	257	200	166	131	102	94.0	138
MAX	311	245	292	291	300	322	307	245	221	134	102	282
(WY)	1991	1991	1989	1989	1990	1992	1991	1991	1990	1991	1992	1990
MIN	79.3	90.1	79.6	35.8	45.0	136	53.7	97.0	90.8	74.7	81.5	82.1
(WY)	1989	1988	1991	1991	1991	1988	1990	1988	1989	1990	1988	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1988 - 1992	
ANNUAL TOTAL	58617		63033			
ANNUAL MEAN	161		172		171	
HIGHEST ANNUAL MEAN					189	1990
LOWEST ANNUAL MEAN					141	1988
HIGHEST DAILY MEAN	323	Apr 15	324	Mar 14	324	Mar 14 1992
LOWEST DAILY MEAN	17	Aug 27	30	Feb 20	.00	Apr 4 1990
ANNUAL SEVEN-DAY MINIMUM	31	Jan 24	67	Aug 29	3.7	Jul 16 1990
ANNUAL RUNOFF (AC-FT)	116300		125000		123900	
10 PERCENT EXCEEDS	319		321		313	
50 PERCENT EXCEEDS	135		131		126	
90 PERCENT EXCEEDS	37		89		70	

11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CA

LOCATION.--Lat 39°23'19", long 123°06'54", in NE 1/4 sec.30, T.18 N., R.11 W, Mendocino County, Hydrologic Unit 18010103, on left bank 1,000 ft downstream from Van Arsdale Dam and 4.6 mi north of town of Potter Valley.

DRAINAGE AREA.--349 mi^2.

PERIOD OF RECORD.--November 1909 to September 1922 (combined monthly discharge only, of Eel River at this station and Snow Mountain Water and Power Co.'s tailrace near Potter Valley), October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as South Eel River at Van Arsdale Dam, near Potter Valley.

REVISED RECORDS.--WSP 1315-B: 1913, 1920-23, 1925-27. WSP 1395: 1923(M), 1938.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Nov. 18, 1909, to Mar. 3, 1927, recorder in reservoir 800 ft upstream from Van Arsdale Dam at different datum. Oct. 1, 1927, to Feb. 28, 1937, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Flow regulated by Lake Pillsbury (station 11470000) 11 mi upstream. Low flows may be further regulated at Van Arsdale Dam by calibrated gates in dam and fish ladder. Water is diverted from Van Arsdale Reservoir through tunnel to Potter Valley Powerhouse Intake (station 11471000), after which part is used for irrigation and remainder flows into East Fork Russian River (see station 11471099). Records given represent only flow in the Eel River.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,100 ft^3/s, Dec. 22, 1964, gage height, 33.9 ft from floodmarks; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,790 ft^3/s, Feb. 20, gage height, 16.37 ft; minimum daily, 6.2 ft^3/s, July 21, 23, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	6.6	14	43	28	438	94	44	11	6.3	6.5	6.5
2	6.6	6.5	43	16	7.8	395	94	43	6.5	6.4	6.5	6.4
3	6.6	6.5	43	6.5	6.5	327	91	41	6.5	6.4	6.5	6.5
4	6.7	7.6	43	15	6.5	259	86	40	6.4	6.4	6.6	6.6
5	6.6	9.2	43	174	6.5	485	84	40	6.3	6.4	6.5	6.5
6	6.6	9.2	43	86	6.6	786	82	39	6.4	6.5	6.5	6.4
7	6.5	9.2	45	18	6.5	672	91	38	6.4	6.5	6.4	6.5
8	6.5	9.5	43	7.4	6.5	529	91	37	6.4	6.4	6.4	6.3
9	6.6	9.5	43	6.5	9.0	419	103	36	6.5	6.5	6.4	6.4
10	45	9.5	43	6.6	248	334	97	35	6.4	6.5	6.3	6.4
11	107	9.3	43	10	521	262	94	34	6.4	6.5	6.5	6.4
12	39	31	43	6.5	841	189	145	33	6.4	6.7	6.4	6.3
13	6.6	31	43	6.5	213	120	136	32	6.5	6.5	6.4	6.3
14	6.7	20	43	6.6	339	136	105	31	6.5	6.5	6.4	6.4
15	6.6	18	43	6.5	343	474	90	30	6.5	6.5	6.4	6.4
16	6.5	19	43	6.6	369	680	76	29	6.6	6.6	6.5	6.4
17	6.5	74	43	6.6	286	1010	150	27	6.5	6.5	6.5	6.3
18	6.4	62	54	6.5	400	1470	93	27	6.5	6.5	6.4	6.3
19	6.6	27	50	6.5	2080	1160	71	27	6.5	6.4	6.3	6.4
20	6.5	29	43	6.6	5630	754	62	25	6.5	6.3	6.4	6.5
21	6.5	9.2	43	6.6	3180	385	57	24	6.4	6.2	6.5	6.4
22	6.5	9.3	43	6.5	2460	205	53	23	6.4	6.3	6.3	6.3
23	6.5	9.4	43	6.5	1710	188	53	22	6.5	6.2	6.4	6.5
24	6.4	9.4	43	6.6	1250	172	53	21	6.5	6.5	6.5	6.5
25	25	17	43	6.5	981	155	53	20	6.5	6.4	6.4	6.4
26	35	161	43	6.6	828	128	53	19	6.4	6.6	6.4	6.4
27	11	19	71	6.5	705	111	50	17	6.4	6.5	6.4	6.2
28	6.5	9.3	105	50	586	94	48	16	6.5	6.6	6.4	6.3
29	6.5	9.2	137	8.3	486	94	46	15	6.5	6.7	6.4	6.3
30	6.5	9.2	65	8.0	---	94	45	14	6.4	6.4	6.5	6.4
31	6.6	---	43	11	---	94	---	12	---	6.3	6.4	---
TOTAL	428.2	665.6	1530	571.0	23539.9	12619	2446	891	198.2	200.0	199.4	191.9
MEAN	13.8	22.2	49.4	18.4	812	407	81.5	28.7	6.61	6.45	6.43	6.40
MAX	107	161	137	174	5630	1470	150	44	11	6.7	6.6	6.6
MIN	6.4	6.5	14	6.5	6.5	94	45	12	6.3	6.2	6.3	6.2
AC-FT	849	1320	3030	1130	46690	25030	4850	1770	393	397	396	381

11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.1	136	716	1237	1463	994	561	148	18.4	4.88	5.43	5.13
MAX	153	2389	5249	6293	8904	5492	3863	1174	173	13.4	54.1	27.9
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1990	1990	1980	1959
MIN	.86	1.30	1.78	2.00	3.62	2.00	2.00	2.00	1.07	1.06	1.09	1.10
(WY)	1953	1953	1937	1924	1977	1924	1924	1924	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1923 - 1992	
ANNUAL TOTAL	27931.4		43480.2			
ANNUAL MEAN	76.5		119		432	
HIGHEST ANNUAL MEAN					1546	1983
LOWEST ANNUAL MEAN					3.46	1977
HIGHEST DAILY MEAN	1430	Mar 26	5630	Feb 20	49500	Dec 22 1964
LOWEST DAILY MEAN	5.7	Sep 11	6.2	Jul 21	.00	Sep 13 1953
ANNUAL SEVEN-DAY MINIMUM	6.3	Sep 5	6.3	Jul 19	.16	Dec 5 1965
INSTANTANEOUS PEAK FLOW			6790	Feb 20	64100	Dec 22 1964
INSTANTANEOUS PEAK STAGE			16.37	Feb 20	33.90	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	55400		86240		312900	
10 PERCENT EXCEEDS	147		251		1030	
50 PERCENT EXCEEDS	6.7		9.2		8.6	
90 PERCENT EXCEEDS	6.4		6.4		2.0	

11472150 EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°37'30", long 123°20'25", in SW 1/4 SW 1/4 sec.32, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010103, on left bank 1,100 ft upstream from Outlet Creek and 6.3 mi south of Dos Rios.

DRAINAGE AREA.--528 mi^2.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,001.28 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow partly regulated by Lake Pillsbury (station 11470000) 40 mi upstream and by diversion through Potter Valley Powerhouse Intake (station 11471000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,100 ft^3/s, Feb. 17, 1986, gage height, 35.54 ft, from rating curve extended above 26,000 ft^3/s on basis of slope-area measurement at gage height 33.64 ft; no flow for many days in 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 45.52 ft, from information by local resident, discharge, 100,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,470 ft^3/s, Feb. 20, gage height, 10.92 ft; minimum daily, 6.1 ft^3/s, Aug. 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	48	98	248	831	291	152	33	47	7.2	6.4
2	19	15	46	87	238	780	280	142	29	38	7.2	6.4
3	15	15	45	73	144	667	276	132	27	27	7.2	6.8
4	12	16	83	152	109	558	260	123	22	23	7.2	6.8
5	10	17	e72	1630	92	1020	249	117	20	20	7.2	6.8
6	9.3	17	e67	1530	77	1290	e235	112	20	19	7.2	6.8
7	12	20	63	656	70	1160	e220	107	19	18	7.2	7.2
8	11	23	e65	371	64	952	e208	100	19	18	7.2	7.2
9	11	25	55	192	63	784	e200	96	19	16	7.2	7.2
10	11	26	e58	128	668	652	e190	94	19	15	7.2	7.2
11	11	26	e66	102	2440	554	e180	90	19	14	7.2	7.2
12	68	26	e68	86	3500	477	e450	88	19	14	7.3	7.2
13	44	25	72	67	2360	368	e500	85	20	14	7.5	7.2
14	27	35	72	59	3430	432	e350	82	20	14	7.2	7.2
15	12	35	71	55	2960	3120	e270	79	20	13	6.7	7.2
16	6.5	30	70	51	3000	4090	e750	76	19	12	6.7	7.2
17	7.3	54	69	47	2110	2570	e1150	72	21	12	6.7	7.2
18	7.4	110	116	47	2120	2590	e700	68	20	11	6.7	7.2
19	7.4	89	138	46	3560	2020	e520	68	19	11	6.4	7.2
20	7.4	71	106	41	7470	1510	e360	76	18	10	6.1	7.2
21	7.4	80	83	38	5430	1040	e290	73	16	9.6	6.1	7.2
22	7.4	59	75	36	4300	698	e250	65	15	9.3	6.4	7.2
23	7.8	46	70	35	2950	632	e215	59	14	9.3	6.4	7.2
24	9.7	43	67	34	2160	565	e195	61	13	9.3	6.4	7.2
25	14	42	62	33	1660	506	e173	52	14	9.3	6.4	7.2
26	48	43	60	34	1410	445	e160	49	14	9.3	6.4	7.2
27	65	129	66	34	1210	390	e145	47	14	9.0	6.4	7.2
28	34	82	252	286	1040	351	e135	45	14	8.8	6.4	7.2
29	23	57	490	273	883	324	e145	41	23	8.6	6.4	e7.0
30	18	50	255	125	---	318	e155	40	56	7.7	6.4	e7.4
31	15	---	122	87	---	318	---	36	---	7.2	6.4	---
TOTAL	573.6	1321	3052	6533	55766	32012	9502	2527	615	463.4	210.6	212.8
MEAN	18.5	44.0	98.5	211	1923	1033	317	81.5	20.5	14.9	6.79	7.09
MAX	68	129	490	1630	7470	4090	1150	152	56	47	7.5	7.4
MIN	6.5	15	45	33	63	318	135	36	13	7.2	6.1	6.4
AC-FT	1140	2620	6050	12960	110600	63500	18850	5010	1220	919	418	422

e Estimated.

11472150 EEL RIVER NEAR DOS RIOS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.5	565	1456	2689	2386	2046	858	254	55.0	14.7	10.5	9.44
MAX	102	4033	4854	10530	11430	6998	5330	1423	325	38.2	57.3	22.0
(WY)	1980	1974	1982	1970	1986	1983	1982	1983	1990	1983	1980	1986
MIN	3.72	10.4	8.76	26.4	34.1	82.0	21.2	19.2	5.28	.080	.031	3.27
(WY)	1967	1979	1977	1977	1977	1977	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	78030.1		112788.4			
ANNUAL MEAN	214		308		858	
HIGHEST ANNUAL MEAN					2221	1983
LOWEST ANNUAL MEAN					18.4	1977
HIGHEST DAILY MEAN	5670	Mar 4	7470	Feb 20	62900	Feb 17 1986
LOWEST DAILY MEAN	6.5	Oct 16	6.1	Aug 20	.00	Jul 7 1977
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 16	6.3	Aug 19	.00	Jul 7 1977
INSTANTANEOUS PEAK FLOW			8470	Feb 20	70100	Feb 17 1986
INSTANTANEOUS PEAK STAGE			10.92	Feb 20	35.54	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	154800		223700		621800	
10 PERCENT EXCEEDS	510		759		2160	
50 PERCENT EXCEEDS	28		46		55	
90 PERCENT EXCEEDS	9.7		7.2		6.3	

11472200 OUTLET CREEK NEAR LONGVALE, CA

LOCATION.--Lat 39°37'05", long 123°21'20", in NE 1/4 sec.1, T.20 N., R.14 W., Mendocino County, Hydrologic Unit 18010103, on right bank 0.2 mi downstream from Bloody Run Creek, 0.9 mi upstream from mouth, and 6.9 mi northeast of Longvale.

DRAINAGE AREA.--161 mi^2.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WSP 1929: 1958(M), 1960(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 1,018.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,900 ft^3/s, Dec. 22, 1964, gage height, 30.6 ft, from floodmarks, from rating curve extended above 17,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	Unknown	*5,860	*9.32				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.5	5.9	82	e330	217	114	74	e6.1	e3.7	e.00	.00
2	.00	1.3	4.9	60	e250	222	95	58	e5.8	e3.4	e.00	.00
3	.00	1.2	4.4	48	e185	191	81	49	e5.6	e2.9	e.00	.00
4	.00	1.2	4.1	358	e150	159	73	44	e5.5	e2.4	e.00	.00
5	.00	1.1	4.3	1840	e130	329	66	40	e5.3	e2.0	e.00	.00
6	.00	.97	4.8	1680	e115	427	63	35	e5.2	e1.7	e.00	.00
7	.00	.89	28	900	e102	325	60	31	e5.1	e1.4	e.00	.00
8	.00	.87	34	564	e93	246	57	e28	e4.9	e1.2	e.00	.00
9	.00	.87	20	347	e90	199	52	e25	e5.5	e1.0	e.00	.00
10	.00	.88	13	261	e300	166	47	e22	e5.1	e.89	e.00	.00
11	.00	.79	11	e200	e2300	144	48	e20	e5.1	e.79	e.00	.00
12	.00	.79	8.8	e155	e1900	127	204	e18	e4.9	e.65	e.00	.00
13	.00	.77	7.2	e130	e1600	113	236	e17	e4.9	e.55	.00	.00
14	.00	.72	6.3	e110	e2500	251	189	e16	e4.8	e.48	.00	.00
15	.00	.66	5.7	e94	e2100	2280	128	e14	e4.7	e.42	.00	.00
16	.00	.69	5.1	e83	e1700	3070	190	e14	e4.6	e.37	.00	.00
17	.00	8.1	5.0	e74	e1550	1760	1170	e13	e4.7	e.34	.00	.00
18	.00	104	195	e69	e1400	1040	537	e12	e4.4	e.27	.00	.00
19	.00	45	188	e62	e2500	618	354	e11	e3.9	e.24	.00	.00
20	.00	84	79	e54	e5000	431	252	e15	e3.2	e.21	.00	.00
21	.00	114	48	e48	e3000	342	194	e14	e2.9	e.18	.00	.00
22	.00	43	34	e44	e2000	285	157	e13	e2.8	e.16	.00	.00
23	.00	22	28	e41	e900	254	131	e10	e2.6	e.14	.00	.00
24	.00	14	23	e37	e600	229	114	e12	e2.5	e.12	.00	.00
25	.00	9.7	21	e35	e430	194	99	e10	e2.3	e.10	.00	.00
26	.00	7.1	19	e36	e340	169	88	e9.3	e2.5	e.08	.00	.00
27	11	6.4	20	e35	273	148	79	e8.8	e2.3	e.06	.00	.00
28	11	12	358	e365	226	129	71	e8.2	e2.1	e.04	.00	.00
29	5.6	10	554	e350	191	114	65	e7.6	e3.1	e.02	.00	.00
30	3.2	7.6	297	e130	---	121	74	e6.9	e4.1	e.00	.00	.00
31	2.2	---	136	e115	---	143	---	e6.4	---	e.00	.00	---
TOTAL	33.00	502.10	2172.5	8407	32255	14443	5088	662.2	126.5	25.81	0.00	0.00
MEAN	1.06	16.7	70.1	271	1112	466	170	21.4	4.22	.83	.000	.000
MAX	11	114	554	1840	5000	3070	1170	74	6.1	3.7	.00	.00
MIN	.00	.66	4.1	35	90	113	47	6.4	2.1	.00	.00	.00
AC-FT	65	996	4310	16680	63980	28650	10090	1310	251	51	.00	.00

e Estimated.

11472200 OUTLET CREEK NEAR LONGVALE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	43.4	353	825	1122	1106	822	376	91.1	20.5	3.71	1.39	2.03
MAX	555	1913	5390	3786	3948	2359	1741	463	198	10.6	4.11	10.6
(WY)	1963	1974	1965	1970	1986	1975	1963	1990	1990	1983	1983	1957
MIN	.000	1.50	4.03	6.78	21.5	38.4	18.5	12.0	2.23	.048	.000	.000
(WY)	1989	1991	1977	1991	1991	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	34460.46		63715.11			
ANNUAL MEAN	94.4		174		394	
HIGHEST ANNUAL MEAN					808	1983
LOWEST ANNUAL MEAN					22.0	1977
HIGHEST DAILY MEAN	4720	Mar 4	5000	Feb 20	52500	Dec 22 1964
LOWEST DAILY MEAN	.00	Jul 29	.00	Oct 1	.00	Aug 15 1959
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 29	.00	Oct 1	.00	Jul 15 1977
INSTANTANEOUS PEAK FLOW			5860	Feb 20	77900	Dec 22 1964
INSTANTANEOUS PEAK STAGE			9.32	Feb 20	30.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	68350		126400		285600	
10 PERCENT EXCEEDS	200		341		1030	
50 PERCENT EXCEEDS	5.0		7.6		27	
90 PERCENT EXCEEDS	.00		.00		.95	

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA

LOCATION.--Lat 39°42'23", long 123°19'27", in NE 1/4 SE 1/4 sec.5, T.21 N., R.13 W., Mendocino County, Hydrologic Unit 18010104, on right bank 0.6 mi upstream from Eastman Creek, 1.7 mi southeast of Dos Rios, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--745 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 901.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,100 ft^3/s, Feb. 17, 1986, gage height, 27.41 ft, from rating curve extended above 52,000 ft^3/s; minimum daily, 2.4 ft^3/s, Sept. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	Unknown	*10,800	*13.30				

Minimum daily, 2.5 ft^3/s, Oct. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	51	149	184	636	1980	1270	773	157	185	12	3.4
2	3.2	44	142	164	615	1880	1280	701	151	115	11	3.5
3	3.1	38	137	153	528	1750	1280	648	144	87	11	3.5
4	2.9	35	127	214	493	1640	1240	616	138	75	11	3.7
5	2.5	31	117	1060	459	2150	1150	591	132	68	10	6.3
6	2.5	30	107	929	424	2250	1040	569	126	64	10	6.4
7	2.6	29	125	646	406	1990	948	545	120	59	9.9	6.0
8	3.2	28	219	555	394	1810	881	516	113	54	9.5	5.9
9	3.2	29	162	464	403	1670	842	485	107	48	9.3	5.9
10	3.4	29	142	421	e745	1560	970	444	102	44	9.3	5.8
11	4.1	29	131	399	e2100	1490	1110	410	99	39	9.2	5.8
12	4.6	27	122	383	e3370	1430	2060	382	98	37	8.9	5.8
13	5.4	26	115	338	2990	1380	3270	362	98	34	8.4	5.5
14	5.5	25	106	321	e3440	1510	2280	344	98	33	8.3	5.3
15	6.0	25	99	321	3190	3620	1840	328	96	31	8.2	5.4
16	6.0	24	96	328	3170	4910	1650	313	96	30	8.2	5.3
17	6.0	44	92	339	2420	3840	3630	299	97	28	7.9	5.1
18	6.2	495	182	344	e3300	2850	2740	285	97	27	7.7	5.0
19	5.8	265	442	344	3940	2350	2130	276	100	25	7.4	4.9
20	5.7	234	249	323	e7500	2050	1810	280	99	26	7.2	4.8
21	5.5	614	199	309	e5600	1880	1590	269	94	24	6.9	4.8
22	5.2	326	188	294	5150	1940	1390	251	87	23	6.8	4.7
23	4.9	240	174	278	3430	2020	1200	237	82	21	6.5	4.6
24	4.8	198	156	269	2800	1810	1070	225	82	20	6.3	4.6
25	6.1	175	146	266	2750	1630	1000	215	87	19	6.3	4.7
26	48	162	138	322	2750	1510	946	207	87	18	6.4	4.6
27	288	157	131	316	2640	1430	882	198	85	17	6.3	4.5
28	137	222	344	e695	2370	1380	836	188	85	17	5.3	4.4
29	86	184	406	895	2140	1310	828	179	90	15	3.7	4.4
30	65	162	281	645	---	1270	816	172	178	14	3.4	4.5
31	59	---	215	554	---	1270	---	164	---	13	3.3	---
TOTAL	794.8	3978	5439	13073	70153	61560	43979	11472	3225	1310	245.6	149.1
MEAN	25.6	133	175	422	2419	1986	1466	370	107	42.3	7.92	4.97
MAX	288	614	442	1060	7500	4910	3630	773	178	185	12	6.4
MIN	2.5	24	92	153	394	1270	816	164	82	13	3.3	3.4
AC-FT	1580	7890	10790	25930	139100	122100	87230	22750	6400	2600	487	296

e Estimated.

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	115	1337	2477	3927	3429	3305	1999	1156	336	69.7	23.3	24.6
MAX	475	6823	7270	13540	12870	8622	6632	3852	1591	245	52.5	172
(WY)	1980	1974	1984	1970	1986	1983	1982	1983	1983	1983	1976	1986
MIN	10.2	28.5	30.5	94.3	172	384	333	241	82.5	13.2	4.55	4.82
(WY)	1991	1991	1977	1977	1977	1977	1977	1977	1977	1977	1977	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	137333.2		215378.5			
ANNUAL MEAN	376		588		1509	
HIGHEST ANNUAL MEAN					3351	1983
LOWEST ANNUAL MEAN					121	1977
HIGHEST DAILY MEAN	13800	Mar 4	7500	Feb 20	74000	Feb 17 1986
LOWEST DAILY MEAN	2.5	Oct 5	2.5	Oct 5	2.4	Sep 1 1985
ANNUAL SEVEN-DAY MINIMUM	2.9	Oct 2	2.9	Oct 2	2.8	Aug 29 1985
INSTANTANEOUS PEAK FLOW			10800	Feb 20	93100	Feb 17 1986
INSTANTANEOUS PEAK STAGE			13.30	Feb 20	27.41	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	272400		427200		1093000	
10 PERCENT EXCEEDS	861		1950		3720	
50 PERCENT EXCEEDS	138		150		328	
90 PERCENT EXCEEDS	5.2		5.3		15	

11474780 KEKAWAKA CREEK BELOW KEKAWAKA CREEK POWERHOUSE DIVERSION, NEAR ZENIA, CA

LOCATION.--Lat 40°06'37", long 123°27'59", in SW 1/4 SE 1/4 sec.14, T.4 S., R.6 E., Trinity County, Hydrologic Unit 18010105, on left bank approximately 200 ft downstream from diversion dam, 3.6 mi upstream from confluence with Eel River, and 6.7 mi south of Zenia.
DRAINAGE AREA.--20.7 mi^2.
PERIOD OF RECORD.--January 1990 to current year.
GAGE.--Water-stage recorder, and 120° V-notch weir. Elevation of gage is 1,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--No estimated daily discharges. Water is diverted from creek upstream from gage to Kekawaka Creek Powerplant (station 11474750). See following page for records of combined discharge of creek and powerplant.
COOPERATION.--Records provided by STS Hydro Power Ltd., under general supervision of the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission project.
EXTREMES FOR PERIOD OF RECORD.--Creek only, maximum discharge, 632 ft^3/s, Mar. 3, 1991, gage height, 5.30 ft; no flow, Sept. 3-13, 1992.
Combined flow: Maximum discharge, 708 ft^3/s, Mar. 3, 1991; no flow, Sept. 3-13, 1992.
EXTREMES FOR CURRENT YEAR.--Creek only, maximum discharge, 299 ft^3/s, Feb. 12, gage height, 3.86 ft; no flow, Sept. 3-13.
Combined flow: Maximum discharge, 375 ft^3/s, Feb. 12; no flow, Sept. 3-13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	1.3	1.8	3.0	38	3.1	3.1	3.1	2.5	3.0	.07	.01
2	.11	1.2	1.8	5.1	23	4.1	3.1	3.1	2.4	2.2	.07	.01
3	.10	1.2	1.8	6.1	3.1	3.1	3.1	3.1	2.2	1.8	.06	.00
4	.07	1.1	1.7	23	3.1	3.1	3.1	3.1	2.1	1.6	.06	.00
5	.06	1.1	1.7	71	3.0	3.2	3.1	3.1	2.0	1.6	.06	.00
6	.06	1.1	2.1	20	3.0	3.1	3.4	3.1	2.0	1.4	.07	.00
7	.07	1.1	7.4	3.2	3.1	3.1	3.1	3.9	1.9	1.3	.14	.00
8	.10	1.3	4.6	3.1	3.1	3.1	3.1	7.0	1.9	1.1	.15	.00
9	.10	1.5	3.3	3.1	3.1	3.2	3.1	6.8	1.7	.89	.14	.00
10	.14	1.3	2.8	3.1	13	3.1	3.1	6.5	1.8	.76	.08	.00
11	.11	1.3	2.5	3.1	53	3.1	3.1	6.3	1.9	.73	.02	.00
12	.10	1.2	2.1	3.1	159	3.1	9.2	6.0	2.3	.80	.02	.00
13	.08	1.1	2.0	3.1	68	3.1	3.1	5.7	2.8	.66	.01	.00
14	.08	1.0	1.9	3.1	124	3.2	4.0	5.4	2.5	.59	.01	.01
15	.06	1.0	1.8	3.1	88	177	4.6	5.1	2.2	.50	.01	.01
16	.06	1.1	1.8	3.3	117	170	7.9	4.8	2.0	.44	.01	.01
17	.08	5.7	1.8	7.5	63	73	46	4.5	1.9	.36	.01	.01
18	.09	6.6	50	6.9	97	14	3.1	4.3	1.8	.29	.01	.01
19	.12	5.1	6.9	6.1	144	3.3	3.1	6.1	1.5	.29	.01	.01
20	.14	5.5	3.1	5.6	144	3.1	3.1	6.1	1.4	.31	.01	.01
21	.11	4.6	4.0	5.1	113	3.3	3.1	4.9	1.2	.39	.01	.01
22	.14	3.4	5.9	4.8	57	3.3	3.1	4.3	1.0	.41	.01	.01
23	.21	2.7	4.8	4.6	11	3.1	3.1	3.9	.90	.39	.01	.01
24	.56	2.4	4.2	4.4	3.1	3.1	3.1	3.6	1.2	.41	.01	.01
25	1.3	2.1	3.6	4.6	3.2	3.1	3.1	3.4	1.3	.34	.01	.01
26	6.9	2.0	3.4	4.4	3.2	3.1	5.6	3.4	1.0	.21	.01	.01
27	3.2	2.6	6.7	4.3	3.1	3.1	3.1	3.4	1.0	.15	.01	.01
28	2.0	2.5	6.6	4.8	3.1	3.1	3.1	3.2	1.4	.12	.01	.02
29	1.9	2.2	9.6	3.1	3.1	3.1	3.1	3.1	3.0	.10	.01	.03
30	1.6	2.0	3.0	4.1	---	3.1	3.1	3.0	4.2	.08	.01	.03
31	1.4	---	3.0	4.1	---	3.1	---	2.7	---	.07	.01	---
TOTAL	21.17	68.3	157.7	233.9	1352.3	519.6	152.0	136.0	57.00	23.29	1.13	0.24
MEAN	.68	2.28	5.09	7.55	46.6	16.8	5.07	4.39	1.90	.75	.036	.008
MAX	6.9	6.6	50	71	159	177	46	7.0	4.2	3.0	.15	.03
MIN	.06	1.0	1.7	3.0	3.0	3.1	3.1	2.7	.90	.07	.01	.00
AC-FT	42	135	313	464	2680	1030	301	270	113	46	2.2	.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	.75	1.79	4.28	6.31	22.8	23.5	4.68	10.1	4.62	1.50	.33	.25
MAX	.83	2.28	5.09	7.55	46.6	45.2	5.60	21.1	8.11	2.75	.72	.52
(WY)	1991	1992	1992	1992	1992	1991	1990	1990	1990	1990	1990	1990
MIN	.68	1.31	3.48	5.08	8.02	8.52	3.36	4.39	1.90	.75	.036	.008
(WY)	1992	1991	1991	1991	1991	1990	1991	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	2437.57		2722.63			
ANNUAL MEAN	6.68		7.44		6.96	
HIGHEST ANNUAL MEAN					7.44	1992
LOWEST ANNUAL MEAN					6.47	1991
HIGHEST DAILY MEAN	322	Mar 4	177	Mar 15	322	Mar 4 1991
LOWEST DAILY MEAN	.06	Oct 5	.00	Sep 3	.00	Sep 3 1992
ANNUAL SEVEN-DAY MINIMUM	.08	Oct 12	.00	Sep 3	.00	Sep 3 1992
INSTANTANEOUS PEAK FLOW			299	Feb 12	632	Mar 3 1991
INSTANTANEOUS PEAK STAGE			3.86	Feb 12	5.30	Mar 3 1991
ANNUAL RUNOFF (AC-FT)	4830		5400		5040	
10 PERCENT EXCEEDS	7.0		6.6		7.5	
50 PERCENT EXCEEDS	3.0		2.6		3.1	
90 PERCENT EXCEEDS	.10		.01		.11	

11474781 KEKAWAKA CREEK BELOW KEKAWAKA CREEK POWERHOUSE DIVERSION, NEAR ZENIA, CA--Continued

KEKAWAKA CREEK AND KEKAWAKA CREEK POWERHOUSE,
COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	1.3	1.8	7.9	44	24	17	13	2.5	3.0	.07	.01
2	.11	1.2	1.8	7.1	28	20	15	11	2.4	2.2	.07	.01
3	.10	1.2	1.8	6.1	17	18	14	10	2.2	1.8	.06	.00
4	.07	1.1	1.7	30	14	17	12	9.0	2.1	1.6	.06	.00
5	.06	1.1	1.7	127	11	38	11	8.3	2.0	1.6	.06	.00
6	.06	1.1	2.1	88	9.6	31	11	7.5	2.0	1.4	.07	.00
7	.07	1.1	7.4	51	8.4	25	10	7.0	1.9	1.3	.14	.00
8	.10	1.3	4.6	35	7.4	20	9.3	7.0	1.9	1.1	.15	.00
9	.10	1.5	3.3	26	7.3	17	10	6.8	1.7	.89	.14	.00
10	.14	1.3	2.8	20	48	15	12	6.5	1.8	.76	.08	.00
11	.11	1.3	2.5	17	129	14	11	6.3	1.9	.73	.02	.00
12	.10	1.2	2.1	14	235	13	32	6.0	2.3	.80	.02	.00
13	.08	1.1	2.0	11	135	12	31	5.7	2.8	.66	.01	.00
14	.08	1.0	1.9	9.7	199	40	24	5.4	2.5	.59	.01	.01
15	.06	1.0	1.8	8.4	164	249	20	5.1	2.2	.50	.01	.01
16	.06	1.1	1.8	7.8	183	246	32	4.8	2.0	.44	.01	.01
17	.08	5.7	1.8	7.5	139	149	120	4.5	1.9	.36	.01	.01
18	.09	9.9	57	6.9	173	88	57	4.3	1.8	.29	.01	.01
19	.12	5.1	25	6.1	220	64	42	6.1	1.5	.29	.01	.01
20	.14	5.5	12	5.6	220	51	34	6.1	1.4	.31	.01	.01
21	.11	4.6	7.5	5.1	189	47	29	4.9	1.2	.39	.01	.01
22	.14	3.4	5.9	4.8	133	52	25	4.3	1.0	.41	.01	.01
23	.21	2.7	4.8	4.6	84	48	22	3.9	.90	.39	.01	.01
24	.56	2.4	4.2	4.4	63	39	19	3.6	1.2	.41	.01	.01
25	1.3	2.1	3.6	4.6	48	33	17	3.4	1.3	.34	.01	.01
26	6.9	2.0	3.4	4.4	38	28	17	3.4	1.0	.21	.01	.01
27	3.2	2.6	9.9	4.3	32	25	15	3.4	1.0	.15	.01	.01
28	2.0	2.5	57	29	27	22	14	3.2	1.4	.12	.01	.02
29	1.9	2.2	34	16	24	20	14	3.1	3.0	.10	.01	.03
30	1.6	2.0	17	11	---	23	16	3.0	4.2	.08	.01	.03
31	1.4	---	11	9.8	---	20	---	2.7	---	.07	.01	---
TOTAL	21.17	71.6	295.2	590.1	2629.7	1508	712.3	179.3	57.00	23.29	1.13	0.24
MEAN	.68	2.39	9.52	19.0	90.7	48.6	23.7	5.78	1.90	.75	.036	.008
MAX	6.9	9.9	57	127	235	249	120	13	4.2	3.0	.15	.03
MIN	.06	1.0	1.7	4.3	7.3	12	9.3	2.7	.90	.07	.01	.00
AC-FT	42	142	586	1170	5220	2990	1410	356	113	46	2.2	.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	.75	1.85	6.50	12.6	58.1	65.5	18.2	17.8	10.5	1.50	.33	.25
MAX	.83	2.39	9.52	19.0	90.7	98.5	23.7	36.0	25.9	2.75	.72	.52
(WY)	1991	1992	1992	1992	1992	1991	1992	1990	1990	1990	1990	1990
MIN	.68	1.31	3.48	6.26	17.1	48.6	7.49	5.78	1.90	.75	.036	.008
(WY)	1992	1991	1991	1991	1991	1992	1990	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	5337.87		6089.03			
ANNUAL MEAN	14.6		16.6		15.3	
HIGHEST ANNUAL MEAN					16.6	1992
LOWEST ANNUAL MEAN					14.0	1991
HIGHEST DAILY MEAN	373	Mar 4	249	Mar 15	373	Mar 4 1991
LOWEST DAILY MEAN	.06	Oct 5	.00	Sep 3	.00	Sep 3 1992
ANNUAL SEVEN-DAY MINIMUM	.08	Oct 12	.00	Sep 3	.00	Sep 3 1992
INSTANTANEOUS PEAK FLOW			375	Feb 12	708	Mar 3 1991
ANNUAL RUNOFF (AC-FT)	10590		12080		11110	
10 PERCENT EXCEEDS	40		38		50	
50 PERCENT EXCEEDS	3.0		2.6		3.4	
90 PERCENT EXCEEDS	.10		.01		.11	

11475000 EEL RIVER AT FORT SEWARD, CA

LOCATION.--Lat 40°13'05", long 123°37'54", in SE 1/4 NE 1/4 sec.8, T.3 S., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank at downstream side of bridge, 1.0 mi southeast of Fort Seward, 1.9 mi upstream from Dobbyn Creek, and 11.8 mi northeast of Garberville.

DRAINAGE AREA.--2,107 mi^2.

PERIOD OF RECORD.--September 1955 to current year. Prior to October 1965, published as "at Alderpoint."

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 217.26 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1964, at site 7.5 mi upstream at datum 46.55 ft higher. Feb. 2 to Sept. 30, 1965, at site 7.7 mi upstream at datum 49.42 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Lake Pillsbury (station 11470000) 99 mi upstream, and by diversion through Potter Valley Powerhouse Intake (station 11471000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 561,000 ft^3/s, Dec. 22, 1964, gage height, 82.6 ft, from floodmarks, present site and datum, 87.2 ft, from floodmarks, site and datum then in use, from rating curve extended above 110,000 ft^3/s on basis of slope-area measurement at gage height 72.5 ft; minimum daily, 1.2 ft^3/s, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 41,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	1100	*35,400	*21.84				

Minimum daily, 6.7 ft^3/s, Aug. 31, Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	220	296	934	1720	3540	1990	1340	239	419	35	6.7
2	43	196	245	762	2340	3390	1980	1230	220	479	32	6.9
3	43	176	211	641	1720	3030	1910	1120	206	347	30	7.4
4	45	158	193	744	1420	2720	1850	1030	191	268	27	7.4
5	46	145	178	5890	1240	3510	1730	978	179	211	24	7.4
6	52	136	225	8380	1110	5240	1560	941	167	177	22	7.5
7	52	131	332	4090	1020	4450	1450	906	157	160	21	7.4
8	52	125	479	2800	956	3650	1360	862	150	147	19	7.4
9	50	124	620	1960	913	3090	1320	817	143	134	18	7.7
10	47	124	456	1530	1310	2650	1330	776	137	122	17	8.4
11	46	124	372	1310	10900	2380	1680	728	132	110	17	11
12	44	124	318	1170	18400	2190	2280	663	131	99	17	12
13	44	124	283	1020	15500	2050	5820	620	133	91	17	11
14	43	123	255	887	14600	2170	4020	585	136	85	17	11
15	53	118	236	812	20300	9740	2940	551	146	81	16	11
16	94	117	215	778	17900	18800	2550	526	147	78	15	11
17	82	232	208	777	15300	14100	7550	503	148	75	14	11
18	61	855	729	779	12900	10000	6700	476	148	70	13	11
19	45	1330	1760	767	19900	7730	4320	452	148	65	12	11
20	36	922	1330	714	30800	5980	3310	455	147	61	11	11
21	30	1080	898	638	24000	4750	2760	459	148	57	10	11
22	26	1190	700	571	22800	4140	2360	446	144	54	9.3	11
23	25	757	596	515	15400	3990	2070	410	128	52	8.9	11
24	25	528	510	458	10500	3570	1860	372	115	50	8.5	11
25	34	401	442	446	7880	3100	1700	341	106	47	8.1	9.7
26	100	323	399	446	6660	2720	1580	319	106	46	7.8	9.7
27	165	288	381	551	5650	2450	1490	306	114	45	7.4	9.7
28	769	302	1120	1200	4830	2270	1390	297	117	44	7.4	9.7
29	546	501	2430	2960	4010	2110	1340	283	162	42	7.4	9.7
30	364	385	1940	1880	---	2040	1370	267	206	39	6.8	9.5
31	270	---	1290	1420	---	2130	---	254	---	37	6.7	---
TOTAL	3377	11359	19647	47830	291979	143680	75570	19313	4551	3792	482.3	287.2
MEAN	109	379	634	1543	10070	4635	2519	623	152	122	15.6	9.57
MAX	769	1330	2430	8380	30800	18800	7550	1340	239	479	35	12
MIN	25	117	178	446	913	2040	1320	254	106	37	6.7	6.7
AC-FT	6700	22530	38970	94870	579100	285000	149900	38310	9030	7520	957	570

11475000 EEL RIVER AT FORT SEWARD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	431	3242	8858	11630	12210	9312	5187	2127	570	131	51.8	56.7
MAX	4938	18740	56050	37660	47700	30620	23040	7449	2431	482	199	359
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1990	1983	1983	1986
MIN	20.5	49.4	45.5	222	434	1071	476	356	131	18.4	3.27	9.57
(WY)	1965	1960	1977	1991	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1955 - 1992	
ANNUAL TOTAL	514132		621867.5			
ANNUAL MEAN	1409		1699		4451	
HIGHEST ANNUAL MEAN					10350	1983
LOWEST ANNUAL MEAN					260	1977
HIGHEST DAILY MEAN	41200	Mar 4	30800	Feb 20	434000	Dec 22 1964
LOWEST DAILY MEAN	25	Oct 23	6.7	Aug 31	1.2	Sep 13 1977
ANNUAL SEVEN-DAY MINIMUM	31	Aug 4	7.0	Aug 27	1.4	Sep 7 1977
INSTANTANEOUS PEAK FLOW			35400	Feb 20	561000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			21.84	Feb 20	82.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1020000		1233000		3224000	
10 PERCENT EXCEEDS	4050		4010		11200	
50 PERCENT EXCEEDS	201		318		678	
90 PERCENT EXCEEDS	36		11		35	

11475560 ELDER CREEK NEAR BRANSCOMB, CA
(Hydrologic Benchmark station)

LOCATION.--Lat 39°43'47", long 123°38'34", in NW 1/4 NE 1/4 sec.29, T.22 N., R.16 W., Mendocino County, Hydrologic Unit 18010106, on right bank 0.2 mi upstream from mouth and 5.3 mi north of Branscomb. Raingage: lat 39°43'50", long 123°38'07", in NW 1/4 NW 1/4 sec.28, T.22 N., R.16 W., elevation, 1,440 ft at site 0.5 mi east of gaging station.
DRAINAGE AREA.--6.50 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.
GAGE.--Water-stage recorder, crest-stage gage, and one recording and storage-type precipitation gage. Datum of gage is 1,391.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation; small diversion upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,280 ft^3/s, Mar. 29, 1974, gage height, 9.77 ft, from rating curve extended above 660 ft^3/s on basis of slope-area measurements at gage heights 9.40 and 11.41 ft; minimum daily, 0.27 ft^3/s, Sept. 10-15, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 11.41 ft, from floodmarks, discharge, 3,660 ft^3/s by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	0430	*135	*5.17				

Minimum daily, 0.62 ft^3/s, Sept. 20-29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.86	1.8	2.4	5.6	8.7	25	14	12	4.1	3.9	1.2	.74
2	e.86	1.8	2.4	5.1	7.9	23	13	11	4.0	3.4	1.3	.74
3	e.86	1.7	2.3	4.7	7.7	20	12	10	3.9	2.9	1.1	.74
4	e.86	1.7	2.3	8.3	7.2	18	12	9.9	3.8	2.8	1.1	.74
5	e.86	1.7	2.2	36	6.9	21	11	9.1	3.8	2.8	1.1	.74
6	e.84	1.7	2.7	46	6.5	18	11	8.8	3.7	2.8	1.1	.74
7	e.84	1.7	3.8	28	6.2	17	10	8.5	3.6	2.6	1.1	.74
8	e.84	1.8	3.4	19	5.8	15	9.8	8.1	3.5	2.4	1.1	.74
9	e.82	1.8	3.0	15	6.0	15	9.4	7.8	3.5	2.3	1.1	.74
10	e.82	1.9	2.8	13	10	14	9.4	7.6	3.4	2.1	1.1	.74
11	e.82	1.9	2.6	11	32	13	9.5	7.3	3.4	2.1	1.1	.74
12	e.86	1.9	2.5	9.8	58	13	14	7.1	3.4	2.0	1.0	.74
13	e.86	1.9	2.6	8.8	59	12	13	6.9	3.4	2.0	1.0	.74
14	e.84	2.0	2.5	8.0	60	14	11	6.8	3.4	2.0	.97	.74
15	e.83	2.1	2.5	7.3	66	50	11	6.6	3.4	1.8	.88	.74
16	e.83	2.4	2.4	6.8	74	88	14	6.2	3.3	1.7	.88	.74
17	e.80	10	2.3	6.5	71	77	41	5.9	3.2	1.7	.88	.74
18	e.80	6.9	6.4	6.2	72	60	34	5.8	3.1	1.7	.88	.74
19	e.79	4.3	6.4	5.7	95	49	29	5.8	3.1	1.7	.88	.65
20	e.79	4.6	5.4	5.4	125	41	25	5.8	2.9	1.7	.83	.62
21	e.77	4.6	4.3	5.2	102	35	22	5.6	2.7	1.6	.83	.62
22	e.77	3.9	3.9	4.9	85	31	20	5.4	2.7	1.5	.83	.62
23	e.74	3.3	3.5	4.8	68	27	18	5.1	2.6	1.5	.80	.62
24	.74	2.8	3.2	4.6	56	24	16	5.0	2.6	1.5	.78	.62
25	2.7	2.6	3.1	4.6	47	23	15	4.9	2.6	1.4	.78	.62
26	6.9	2.6	3.0	4.6	40	20	14	4.9	2.6	1.4	.81	.62
27	3.7	3.1	3.6	4.4	34	19	13	4.9	2.6	1.3	.79	.62
28	2.6	3.0	11	9.8	31	17	13	4.7	2.7	1.3	.75	.62
29	2.2	2.7	12	8.0	28	16	13	4.6	4.0	1.3	.74	.62
30	2.0	2.6	8.6	6.9	---	16	14	4.6	5.0	1.3	.74	.67
31	1.9	---	6.6	6.7	---	14	---	4.4	---	1.3	.74	---
TOTAL	41.70	86.8	125.7	320.7	1275.9	845	471.1	211.1	100.0	61.8	29.19	20.84
MEAN	1.35	2.89	4.05	10.3	44.0	27.3	15.7	6.81	3.33	1.99	.94	.69
MAX	6.9	10	12	46	125	88	41	12	5.0	3.9	1.3	.74
MIN	.74	1.7	2.2	4.4	5.8	12	9.4	4.4	2.6	1.3	.74	.62
AC-FT	83	172	249	636	2530	1680	934	419	198	123	58	41
a	3.54	4.37	5.90	7.15	13.11	7.46	4.70	0.03	2.17	0.01	.00	0.37

e Estimated.
a Precipitation, in inches.

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.45	22.9	48.0	61.8	56.7	53.7	24.1	10.0	4.65	2.16	1.27	1.13
MAX	8.72	132	135	210	173	147	91.9	25.1	22.4	4.72	2.49	2.36
(WY)	1980	1974	1971	1970	1986	1983	1982	1990	1990	1990	1990	1986
MIN	.57	1.16	1.04	2.32	3.40	5.45	3.01	2.13	1.35	.67	.48	.51
(WY)	1988	1979	1977	1977	1977	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1968 - 1992	
ANNUAL TOTAL	3326.69		3589.83			
ANNUAL MEAN	9.11		9.81		24.0	
HIGHEST ANNUAL MEAN					54.4	1974
LOWEST ANNUAL MEAN					2.12	1977
HIGHEST DAILY MEAN	154	Mar 4	125	Feb 20	1470	Jan 16 1974
LOWEST DAILY MEAN	.74	Oct 23	.62	Sep 20	.27	Sep 10 1981
ANNUAL SEVEN-DAY MINIMUM	.77	Oct 18	.62	Sep 20	.27	Sep 9 1981
INSTANTANEOUS PEAK FLOW			135	Feb 20	2280	Mar 29 1974
INSTANTANEOUS PEAK STAGE			5.17	Feb 20	9.77	Mar 29 1974
ANNUAL RUNOFF (AC-FT)	6600		7120		17350	
10 PERCENT EXCEEDS	30		24		64	
50 PERCENT EXCEEDS	2.8		3.5		4.9	
90 PERCENT EXCEEDS	.88		.76		.92	

11475560 ELDER CREEK NEAR BRANSCOMB, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.
CHEMICAL DATA: Water years 1968 to current year.
WATER TEMPERATURE: Water years 1968-79.
SEDIMENT DATA: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1967 to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: October 1973 to September 1975.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
DEC												
27...	1245	3.1	131	7.7	7.5	0.60	718	10.0	89	K6	K8	56
MAR												
05...	1435	21	112	8.1	9.5	1.6	720	10.4	96	26	K5	48
JUN												
16...	1200	3.4	143	8.2	12.5	0.30	728	9.8	96	K1	29	59
SEP												
15...	1100	0.74	158	8.0	11.0	0.60	723	9.8	94	39	27	63

DATE	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)	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)
DEC												
27...	0	15	4.4	6.5	20	0.4	0.70	76	62	3.2	2.8	0.10
MAR												
05...	0	13	3.7	6.1	21	0.4	0.70	66	54	2.5	2.7	0.10
JUN												
16...	0	16	4.6	7.9	22	0.4	0.60	83	69	3.3	3.8	<0.10
SEP												
15...	0	17	4.9	8.7	23	0.5	0.80	95	78	3.2	3.6	0.10

DATE	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 TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (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)
DEC												
27...	13	76	83	0.10	<0.010	<0.010	<0.050	<0.050	<0.010	<0.010	<0.20	0.020
MAR												
05...	14	71	75	0.10	<0.010	<0.010	<0.050	<0.050	<0.010	<0.010	<0.20	0.020
JUN												
16...	14	83	91	0.11	<0.010	<0.010	<0.050	<0.050	0.020	<0.010	<0.20	<0.010
SEP												
15...	14	101	99	0.14	<0.010	<0.010	<0.050	<0.050	<0.010	0.020	<0.20	0.050

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	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)
DEC												
27...	0.020	0.020	0.020	<10	16	<3	4	<4	<1	<10	<1	<1
MAR												
05...	0.010	0.010	0.010	<10	12	<3	15	<4	4	<10	<1	<1
JUN												
16...	<0.010	0.020	0.020	<10	17	<3	<3	4	1	<10	<1	<1
SEP												
15...	0.030	0.020	0.030	10	21	<3	5	<4	<1	<10	<1	<1

11475560 ELDER CREEK NEAR BRANSCOMB CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
DEC											
27...	<1.0	140	<6	--	--	--	--	--	--	--	--
MAR											
05...	<1.0	110	<6	<0.6	<0.6	0.7	<0.6	<0.6	<0.6	<0.02	<0.01
JUN											
16...	<1.0	160	<6	--	--	--	--	--	--	--	--
SEP											
15...	<1.0	170	<6	<0.6	<0.6	1.2	<0.6	1.0	<0.6	0.04	0.02

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)
FEB										
27...*	1315	1.00	5.20	108	7.8	9.5	730	10.1	92	2
27...*	1330	1.40	11.2	108	7.8	9.5	730	10.2	93	2
27...*	1345	1.40	15.7	108	7.8	9.5	730	9.9	90	2
AUG										
13...*	1150	0.39	2.30	162	8.0	16.0	726	8.8	94	2
13...*	1205	0.55	5.40	162	8.0	16.0	726	8.8	94	2
13...*	1220	0.48	9.00	162	8.0	16.0	726	8.9	95	2

* Instantaneous streamflow at the time of cross-sectional measurements: Feb. 27, 34 ft^3/s; Aug. 13, .99 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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
DEC						
27...	1245	3.1	7.5	1	0.01	--
FEB						
27...	1335	34	9.5	2	0.18	--
MAR						
05...	1435	21	9.5	3	0.17	--
JUN						
16...	1200	3.4	12.5	2	0.02	73
AUG						
13...	1210	1.0	16.0	2	0.01	--
SEP						
15...	1100	0.74	11.0	1	0.00	--

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA

LOCATION.--Lat 39°52'29", long 123°43'10", in NE 1/4 SE 1/4 sec.3, T.23 N., R.17 W., Mendocino County, Hydrologic Unit 18010106, on right bank near Standish Hickey State Park, 0.2 mi upstream from Rock Creek, and 0.7 mi northwest of Leggett.

DRAINAGE AREA.--248 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 691.32 ft above National Geodetic Vertical Datum of 1929. Prior to July 29, 1988, at datum 2.00 ft higher.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,700 ft^3/s, Jan. 4, 1966, gage height, 27.4 ft, from floodmarks, present datum, from rating curve extended above 21,000 ft^3/s on basis of slope-area measurement at gage height 28.13 ft; minimum daily, 7.3 ft^3/s, Aug. 4-6, 12, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 28.13 ft, from floodmarks, present datum, discharge, 78,700 ft^3/s, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	2400	*6,630	*8.96				

Minimum daily, 10 ft^3/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	36	55	164	598	860	337	308	78	123	13	11
2	13	34	50	136	639	791	311	268	76	84	13	11
3	13	32	47	118	473	714	289	248	73	67	12	11
4	13	31	43	179	411	657	270	232	70	61	12	11
5	13	29	42	1630	367	922	255	221	68	55	13	12
6	13	29	45	1980	336	926	241	211	66	50	12	12
7	13	29	110	976	314	853	230	197	66	46	12	11
8	13	29	130	652	306	760	217	190	64	41	12	12
9	13	29	93	443	300	680	210	182	63	38	12	12
10	13	30	78	346	547	595	233	173	63	34	12	12
11	13	29	68	285	1690	536	224	164	65	31	12	12
12	14	29	61	238	2690	490	588	159	66	30	11	12
13	14	28	57	207	2340	450	485	155	71	29	12	11
14	13	27	52	181	2680	584	361	147	70	28	11	11
15	13	26	48	162	2820	2040	310	142	66	26	11	11
16	13	27	45	148	3440	3770	396	140	62	25	11	10
17	13	186	44	138	2680	2510	1700	136	61	23	11	10
18	13	374	419	131	2960	1710	1140	132	58	22	11	10
19	13	160	406	119	3890	1350	872	131	55	22	10	10
20	13	124	208	110	4540	1120	722	132	52	21	10	10
21	13	202	143	104	3650	956	598	123	48	21	10	10
22	13	134	115	100	3050	829	509	114	45	21	10	10
23	13	95	96	100	2260	745	451	107	45	19	10	10
24	13	77	85	100	1820	658	408	102	45	18	10	10
25	28	66	78	110	1520	565	374	99	46	17	11	10
26	210	62	71	118	1300	506	355	96	46	17	10	10
27	149	73	81	116	1120	460	334	95	45	16	10	10
28	83	74	491	544	978	421	310	92	47	15	10	10
29	61	69	563	493	881	390	298	88	85	14	10	10
30	48	60	325	340	---	401	356	85	135	13	10	10
31	39	---	214	297	---	378	---	81	---	13	10	---
TOTAL	932	2230	4363	10765	50600	28627	13384	4750	1900	1040	344	322
MEAN	30.1	74.3	141	347	1745	923	446	153	63.3	33.5	11.1	10.7
MAX	210	374	563	1980	4540	3770	1700	308	135	123	13	12
MIN	13	26	42	100	300	378	210	81	45	13	10	10
AC-FT	1850	4420	8650	21350	100400	56780	26550	9420	3770	2060	682	639

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	75.8	837	1703	2242	2079	1810	788	269	111	47.3	28.6	30.5
MAX	272	4050	6072	7278	7294	5515	3528	830	545	96.0	55.1	87.8
(WY)	1980	1974	1984	1970	1986	1983	1982	1990	1990	1990	1983	1986
MIN	15.3	45.4	32.9	98.1	137	147	78.4	59.5	26.7	9.96	9.67	10.7
(WY)	1988	1991	1977	1977	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	96111		119257			
ANNUAL MEAN	263		326		830	
HIGHEST ANNUAL MEAN					1778	1983
LOWEST ANNUAL MEAN					69.5	1977
HIGHEST DAILY MEAN	9330	Mar 4	4540	Feb 20	49800	Jan 4 1966
LOWEST DAILY MEAN	13	Oct 1	10	Aug 19	7.3	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	13	Oct 1	10	Sep 16	7.5	Jul 31 1977
INSTANTANEOUS PEAK FLOW			6630	Feb 19	72700	Jan 4 1966
INSTANTANEOUS PEAK STAGE			8.96	Feb 19	27.40	Jan 4 1966
ANNUAL RUNOFF (AC-FT)	190600		236500		601300	
10 PERCENT EXCEEDS	686		836		2080	
50 PERCENT EXCEEDS	69		78		137	
90 PERCENT EXCEEDS	15		11		23	

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA

LOCATION.--Lat 40°10'55", long 123°46'30", in NW 1/4 sec.30, T.3 S., R.4 E., Humboldt County, Hydrologic Unit 18010106, on right bank 0.5 mi upstream from Rocky Glen Creek, 4.3 mi southeast of Miranda, and 20 mi upstream from mouth.

DRAINAGE AREA.--537 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.-- WSP 1395: Drainage area. WSP 2129: 1955.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 217.57 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 2, 1940, nonrecording gage at site 200 ft upstream at datum 0.8 ft higher. Nov. 2, 1940, to Oct. 31, 1944, nonrecording gage at present site and datum.

REMARKS.--Records good. Occasional storage and release for recreational use during summer months at Benbow Reservoir, capacity, 1060 acre-ft, 16 mi upstream. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199,000 ft^3/s, Dec. 22, 1964, gage height, 46.0 ft, from floodmarks, from rating curve extended above 53,000 ft^3/s on basis of slope-area measurement at gage height 42.7 ft; minimum observed, 9 ft^3/s, Oct. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	0600	*13,800	*13.72				

Minimum daily, 22 ft^3/s, Oct. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	46	112	396	1110	902	804	630	160	291	45	26
2	29	41	104	323	1280	822	733	536	155	222	43	26
3	28	39	98	279	961	712	678	487	149	141	42	26
4	28	37	93	429	776	669	628	454	142	130	41	26
5	28	36	90	3970	658	2320	577	428	136	100	41	26
6	28	36	99	6500	563	2070	548	410	134	96	40	26
7	28	35	211	2920	484	1510	517	388	129	94	39	26
8	28	36	281	1760	477	1230	488	371	127	90	38	25
9	27	35	243	1180	491	1030	477	354	127	85	38	25
10	27	35	181	900	853	893	589	339	125	47	39	24
11	26	35	151	734	3410	793	624	324	125	71	38	25
12	26	34	131	630	7400	716	1140	312	129	71	e37	24
13	26	34	121	e525	5270	644	1370	306	139	69	e36	23
14	25	34	112	e450	5290	822	995	300	146	68	e35	24
15	26	33	104	e400	7690	4890	842	290	138	66	e33	23
16	25	35	99	e365	9120	11400	889	288	129	64	e31	23
17	25	147	97	e350	6830	8140	4290	278	124	61	31	24
18	26	575	566	e320	5410	5120	3230	264	120	60	30	24
19	25	442	1040	e295	8400	3650	2210	267	110	60	30	24
20	25	285	603	e270	11500	2930	1680	279	86	60	29	23
21	25	277	388	e245	8530	2370	1370	266	96	59	27	31
22	23	308	293	226	7430	1970	1160	248	63	55	26	33
23	23	216	246	217	4440	1730	1010	235	72	54	26	37
24	22	161	203	204	3130	1510	905	223	80	52	27	45
25	26	135	178	222	2290	1340	811	211	83	52	26	54
26	85	120	158	227	1680	1210	744	203	84	52	27	80
27	291	121	166	221	1320	1100	686	194	88	50	27	54
28	146	141	554	955	1100	1010	635	191	93	49	27	33
29	87	137	1120	1180	947	931	595	183	134	41	26	35
30	64	126	784	757	---	913	670	176	325	44	26	31
31	53	---	521	615	---	891	---	170	---	44	26	---
TOTAL	1381	3772	9147	28065	108840	66238	31895	9605	3748	2498	1027	926
MEAN	44.5	126	295	905	3753	2137	1063	310	125	80.6	33.1	30.9
MAX	291	575	1120	6500	11500	11400	4290	630	325	291	45	80
MIN	22	33	90	204	477	644	477	170	63	41	26	23
AC-FT	2740	7480	18140	55670	215900	131400	63260	19050	7430	4950	2040	1840

e Estimated.

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	289	1585	4152	5135	4769	3569	1830	672	280	110	61.6	62.0
MAX	3332	10130	17260	17530	16640	13000	8425	2370	1388	256	131	221
(WY)	1963	1974	1965	1970	1986	1983	1982	1990	1990	1953	1983	1986
MIN	20.0	25.0	74.6	207	284	304	176	122	52.7	20.4	18.0	29.1
(WY)	1940	1940	1977	1977	1977	1988	1977	1977	1977	1977	1977	1949

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1940 - 1992	
ANNUAL TOTAL	211915		267142			
ANNUAL MEAN	581		730		1865	
HIGHEST ANNUAL MEAN					4393	1983
LOWEST ANNUAL MEAN					156	1977
HIGHEST DAILY MEAN	15400	Mar 4	11500	Feb 20	161000	Dec 22 1964
LOWEST DAILY MEAN	22	Oct 24	22	Oct 24	10	Aug 30 1964
ANNUAL SEVEN-DAY MINIMUM	24	Oct 18	24	Sep 12	14	Jul 30 1977
INSTANTANEOUS PEAK FLOW			13800	Feb 20	199000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			13.72	Feb 20	46.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	420300		529900		1351000	
10 PERCENT EXCEEDS	1480		1510		4850	
50 PERCENT EXCEEDS	127		153		336	
90 PERCENT EXCEEDS	35		26		46	

11476600 BULL CREEK NEAR WEOTT, CA

LOCATION.--Lat 40°21'05", long 124°00'10", in SW 1/4 NW 1/4 sec.30, T.1 S., R.2 E., Humboldt County, Hydrologic Unit 18010106, on left bank 0.2 mi downstream from Albee Creek, 4.5 mi northwest of Weott, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--28.1 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 269.36 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1964, water-stage recorder, and Jan. 14 to Aug. 10, 1965, nonrecording gage at site 150 ft downstream at datum 8.90 ft lower.

REMARKS.--Records fair. Minor diversions upstream from station for domestic and recreational use.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft^3/s, Dec. 22, 1964, gage height, 20.6 ft, from floodmarks, site and datum then in use, from rating curve extended above 2,100 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft^3/s, Sept. 28, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	0348	*635	*5.10				

Minimum daily, 0.46 ft^3/s, Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.2	6.0	4.1	15	82	117	59	60	15	11	1.2	e.48
2	e1.1	5.5	3.7	13	113	102	56	56	15	9.1	1.2	e.46
3	e1.1	5.2	3.6	12	86	92	53	53	14	7.9	1.0	e.64
4	e1.0	4.9	3.5	44	70	117	50	50	13	7.5	1.1	e.72
5	e1.0	4.9	3.3	199	60	282	47	47	13	7.5	.95	e.70
6	e1.0	4.8	6.2	126	52	212	44	44	13	7.0	.89	e.65
7	e1.0	4.9	12	90	46	181	41	42	12	6.5	.84	e.62
8	e1.0	5.1	8.2	66	43	160	39	39	12	5.9	e.80	e.60
9	e.98	5.6	6.8	53	48	143	43	38	12	5.5	e.77	e.58
10	e.98	5.6	5.8	45	78	129	62	36	11	5.1	e.75	e.56
11	e.92	5.6	5.3	39	231	118	54	35	11	4.6	e.73	e.55
12	e.92	5.5	4.9	35	393	109	100	33	12	4.4	e.71	e.54
13	e.88	5.5	4.4	31	286	100	136	32	12	4.2	e.69	e.54
14	e.92	6.6	4.1	29	296	109	117	31	12	3.8	e.66	e.54
15	e.98	6.5	3.9	26	456	324	101	29	10	3.5	e.65	e.54
16	e.92	8.6	3.7	25	585	482	111	27	9.7	3.3	e.63	e.54
17	e.89	38	4.1	23	451	362	160	26	9.1	3.0	e.61	e.54
18	e.84	19	37	21	376	291	137	25	8.8	3.2	e.60	e.54
19	e.84	11	20	20	413	239	125	36	8.4	4.5	e.59	e.54
20	e.88	14	14	19	495	200	114	32	8.0	4.4	e.58	e.53
21	e.85	11	11	18	438	175	e100	26	7.2	4.2	e.56	e.52
22	e.85	8.5	9.7	17	378	153	e96	24	6.6	4.2	e.55	e.52
23	1.2	7.0	8.4	17	314	138	e92	22	6.4	4.5	e.54	e.52
24	2.3	5.7	7.4	16	262	122	e87	21	6.3	4.1	e.52	e.52
25	8.3	4.8	6.6	16	217	108	e81	20	6.0	3.6	e.52	e.73
26	28	4.6	6.2	20	186	97	e77	20	5.9	3.1	e.50	e.68
27	13	7.7	24	17	158	88	71	19	5.7	2.6	e.50	e.61
28	9.3	5.5	36	26	137	81	69	18	6.8	2.2	e.49	e.59
29	9.0	4.7	33	63	123	74	66	17	25	1.9	e.49	e.58
30	7.1	4.3	24	40	---	74	66	17	19	1.7	e.48	e1.1
31	6.7	---	19	35	---	65	---	16	---	1.6	e.48	---
TOTAL	105.95	236.6	343.9	1216	6873	5044	2454	991	325.9	145.6	21.58	17.78
MEAN	3.42	7.89	11.1	39.2	237	163	81.8	32.0	10.9	4.70	.70	.59
MAX	28	38	37	199	585	482	160	60	25	11	1.2	1.1
MIN	.84	4.3	3.3	12	43	65	39	16	5.7	1.6	.48	.46
AC-FT	210	469	682	2410	13630	10000	4870	1970	646	289	43	35

e Estimated.

11476600 BULL CREEK NEAR WEOTT, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.1	127	263	302	292	238	118	39.6	14.9	6.36	3.53	3.22
MAX	160	683	705	901	1056	717	526	137	55.2	10.9	10.0	12.8
(WY)	1963	1974	1978	1978	1986	1983	1963	1963	1990	1983	1983	1986
MIN	.72	5.01	3.67	10.5	13.8	16.0	11.2	10.3	4.84	1.81	.70	.50
(WY)	1988	1991	1977	1977	1977	1988	1988	1988	1977	1977	1992	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1961 - 1992	
ANNUAL TOTAL	14485.35		17775.31			
ANNUAL MEAN	39.7		48.6		118	
HIGHEST ANNUAL MEAN					287	1983
LOWEST ANNUAL MEAN					9.72	1977
HIGHEST DAILY MEAN	1310	Mar 4	585	Feb 16	4900	Jan 16 1974
LOWEST DAILY MEAN	.84	Oct 18	.46	Sep 2	.30	Sep 28 1974
ANNUAL SEVEN-DAY MINIMUM	.87	Oct 16	.48	Aug 27	.39	Sep 12 1988
INSTANTANEOUS PEAK FLOW			635	Feb 16	6520	Dec 22 1964
INSTANTANEOUS PEAK STAGE			5.10	Feb 16	20.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	28730		35260		85340	
10 PERCENT EXCEEDS	99		131		307	
50 PERCENT EXCEEDS	9.2		11		22	
90 PERCENT EXCEEDS	1.5		.61		2.1	

11477000 EEL RIVER AT SCOTIA, CA
(National stream quality accounting network station)

LOCATION.--Lat 40°29'30", long 124°05'55", in SW 1/4 sec.5, T.1 N., R.1 E., Humboldt County, Hydrologic Unit 18010105, near center of span in left pier of A.S. Murphy Memorial Bridge on State Highway 283, 0.5 mi north of Scotia, and 6 mi upstream from Van Duzen River.
DRAINAGE AREA.--3,113 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for 1915-16, published in WSP 1315-B.
REVISED RECORDS.--WSP 931: 1938. WSP 1315-B: 1914-15(M), 1917(M), 1927-28(M), 1936(M), 1939(M). WSP 1345: Drainage area. WSP 1715: 1959.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 35.50 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Low flow slightly regulated by Lake Pillsbury (station 11470000) 138 mi upstream since December 1921 and by diversion through Potter Valley Powerhouse Intake (station 11471000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 752,000 ft^3/s, Dec. 23, 1964, gage height, 72.0 ft, from floodmarks, from rating curve extended above 220,000 ft^3/s on basis of maximum flow at upstream stations; minimum observed, 10 ft^3/s, Aug. 12-14, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 72,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	1630	*54,200	*22.80				

Minimum daily, 41 ft^3/s, Sept. 12-14, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	305	516	1820	3920	6320	3790	2780	605	705	116	47
2	63	252	442	1400	4900	5880	3590	2590	582	881	114	47
3	62	221	400	1180	4240	5320	3470	2390	557	810	112	45
4	61	202	368	1290	3280	4880	3330	2210	529	630	110	46
5	59	188	348	6560	2720	7870	3180	2060	508	532	105	47
6	59	175	349	19900	2350	9810	2970	1950	490	457	105	45
7	58	169	511	11400	2060	8420	2760	1840	470	406	105	45
8	56	167	725	7130	1870	7250	2590	1740	450	374	103	43
9	56	163	840	4980	2000	6280	2480	1660	441	350	100	45
10	59	155	847	3700	2670	5490	2590	1570	431	333	98	45
11	58	153	674	2980	11500	4890	2880	1490	421	298	95	44
12	56	155	572	2540	26000	4450	4080	1420	428	261	92	41
13	55	155	508	2180	27400	4090	7250	1360	437	258	92	41
14	54	163	463	1860	20300	4480	7350	1300	442	246	91	41
15	54	163	435	1620	34700	11100	5410	1230	436	236	88	43
16	53	166	409	1440	31800	38000	4680	1170	435	228	88	45
17	51	306	394	1330	27000	31400	10300	1120	432	212	83	44
18	53	643	612	1290	18600	19300	14500	1070	425	203	76	43
19	67	1650	2410	1240	28200	14500	9010	1060	410	195	74	43
20	68	1540	2860	1180	45400	11200	6790	1090	407	185	72	42
21	66	1130	1830	1100	38000	8940	5620	1030	389	174	67	41
22	60	1520	1300	1020	34300	7450	4890	995	376	169	65	42
23	55	1330	1020	952	23800	6850	4350	960	358	162	64	43
24	54	900	854	882	16700	6420	3930	890	333	155	60	54
25	59	679	742	869	12800	5650	3560	837	325	153	55	59
26	113	559	661	876	10600	5080	3240	780	318	150	55	73
27	213	505	730	872	9080	4660	3030	740	311	145	55	90
28	459	474	1280	1980	7930	4320	2860	713	309	140	52	114
29	773	472	3250	4270	6960	4060	2720	691	362	137	51	90
30	547	610	3770	4150	---	3950	2760	667	560	131	49	65
31	376	---	2650	3050	---	3910	---	642	---	119	48	---
TOTAL	3942	15270	32770	97041	461080	272220	139960	42045	12977	9435	2540	1553
MEAN	127	509	1057	3130	15900	8781	4665	1356	433	304	81.9	51.8
MAX	773	1650	3770	19900	45400	38000	14500	2780	605	881	116	114
MIN	51	153	348	869	1870	3910	2480	642	309	119	48	41
AC-FT	7820	30290	65000	192500	914600	539900	277600	83400	25740	18710	5040	3080

11477000 EEL RIVER AT SCOTIA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	713	5357	13840	18790	19560	13980	8847	3552	1178	328	148	145
MAX	10910	38690	84420	69950	77680	51150	39190	11570	5130	824	422	735
(WY)	1963	1974	1965	1970	1958	1983	1982	1912	1990	1953	1983	1986
MIN	50.5	59.3	168	659	389	946	703	278	75.7	25.1	22.1	19.4
(WY)	1930	1930	1977	1977	1920	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	914752		1090833			
ANNUAL MEAN	2506		2980		7147	
HIGHEST ANNUAL MEAN					17300	1983
LOWEST ANNUAL MEAN					563	1977
HIGHEST DAILY MEAN	72100	Mar 5	45400	Feb 20	648000	Dec 23 1964
LOWEST DAILY MEAN	51	Oct 17	41	Sep 12	12	Aug 12 1924
ANNUAL SEVEN-DAY MINIMUM	54	Oct 12	43	Sep 12	14	Aug 10 1924
INSTANTANEOUS PEAK FLOW			54200	Feb 20	752000	Dec 23 1964
INSTANTANEOUS PEAK STAGE			22.80	Feb 20	72.00	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	1814000		2164000		5178000	
10 PERCENT EXCEEDS	6860		7250		17500	
50 PERCENT EXCEEDS	516		611		1350	
90 PERCENT EXCEEDS	82		55		102	

11477000 EEL RIVER AT SCOTIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.
CHEMICAL DATA: Water years 1952-75, 1977, 1979 to current year.
BIOLOGICAL DATA: Water year 1979-81.
SPECIFIC CONDUCTANCE: Water years 1979-81.
WATER TEMPERATURE: Water years 1958-82.
SEDIMENT DATA: Water years 1955 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to September 1981.
WATER TEMPERATURE: October 1957 to June 1982.
SUSPENDED-SEDIMENT DISCHARGE: October 1957 to September 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV											
01...	1215	296	296	8.3	13.0	0.40	765	10.6	100	K2	K2
JAN											
03...	1225	1160	217	8.1	7.0	6.6	752	11.5	96	K7	39
06...	1420	19600	132	8.0	7.5	210	758	11.0	92	--	--
FEB											
12...	1230	25000	122	8.2	10.0	190	751	10.1	91	--	--
16...	1135	32400	112	8.2	8.0	160	759	11.0	93	--	--
MAR											
03...	1200	5310	168	8.1	12.0	12	759	9.7	90	K2	K5
16...	1230	39400	116	8.2	10.5	220	760	10.1	91	--	--
MAY											
06...	1300	1930	206	8.3	21.0	1.0	760	8.3	93	K1	K1
JUL											
02...	1230	930	258	8.4	21.0	1.3	764	8.6	96	K4	43
SEP											
02...	1015	49	297	8.3	20.0	0.60	764	7.8	86	K4	K5

DATE	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)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)
NOV											
01...	140	19	39	10	9.4	13	0.3	1.2	145	1	120
JAN											
03...	100	16	29	7.8	7.5	13	0.3	0.80	108	0	89
06...	58	12	16	4.3	5.0	16	0.3	0.80	56	0	46
FEB											
12...	72	20	17	7.2	4.6	12	0.2	0.90	64	0	52
16...	51	3	14	3.9	4.4	16	0.3	0.70	59	0	48
MAR											
03...	77	5	21	5.9	5.5	13	0.3	1.0	88	0	72
16...	--	--	20	--	4.3	--	--	1.2	63	0	52
MAY											
06...	97	4	27	7.1	6.8	13	0.3	1.1	113	0	93
JUL											
02...	110	5	32	8.4	8.9	14	0.4	1.3	129	2	109
SEP											
02...	140	10	39	11	10	13	0.4	1.5	152	5	133

11477000 EEL RIVER AT SCOTIA, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV										
01...	29	9.1	0.10	8.7	167	179	0.23	<0.010	<0.010	<0.050
JAN										
03...	20	6.6	0.20	8.5	126	134	0.17	<0.010	<0.010	<0.050
06...	12	4.3	0.20	9.2	86	80	0.12	0.040	<0.010	0.096
FEB										
12...	7.9	3.3	<0.10	9.4	--	82	0.11	0.060	0.050	<0.050
16...	6.7	3.1	<0.10	9.9	--	72	0.10	0.080	<0.010	<0.050
MAR										
03...	11	3.4	<0.10	11	105	102	0.14	<0.010	<0.010	<0.050
16...	5.9	2.8	<0.10	9.6	79	--	--	<0.010	<0.010	<0.050
MAY										
06...	13	5.2	<0.10	12	112	128	0.15	<0.010	<0.010	<0.050
JUL										
02...	19	8.0	0.20	9.3	143	153	0.19	<0.010	<0.010	<0.050
SEP										
02...	21	9.3	0.20	9.2	168	182	0.23	<0.010	<0.010	<0.050

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (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 TOTAL (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)
NOV										
01...	<0.050	0.020	0.020	<0.20	<0.010	<0.010	<0.010	<0.010	<10	84
JAN										
03...	<0.050	0.010	<0.010	<0.20	0.020	<0.010	0.010	0.010	20	56
06...	0.094	0.040	0.020	0.60	0.360	0.020	0.080	0.020	--	--
FEB										
12...	<0.050	0.080	0.060	0.80	0.380	0.230	0.080	0.070	--	--
16...	<0.050	0.090	0.020	0.60	0.320	0.010	0.120	<0.010	--	--
MAR										
03...	<0.050	0.010	<0.010	<0.20	0.030	<0.010	0.020	0.010	--	--
16...	<0.050	<0.010	<0.010	0.40	0.160	0.110	0.010	0.010	--	--
MAY										
06...	<0.050	0.020	<0.010	<0.20	<0.010	<0.010	0.020	<0.010	<10	53
JUL										
02...	<0.050	0.010	0.010	<0.20	<0.010	<0.010	<0.010	0.010	--	--
SEP										
02...	<0.050	<0.010	<0.010	<0.20	0.030	0.020	0.010	0.010	20	80

DATE	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)
NOV										
01...	<3	10	<4	7	<10	<1	<1	<1.0	450	<6
JAN										
03...	<3	25	<4	5	<10	1	<1	<1.0	320	<6
06...	--	--	--	--	--	--	--	--	--	--
FEB										
12...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
MAR										
03...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	<3	13	<4	3	<10	<1	<1	<1.0	310	<6
JUL										
02...	--	--	--	--	--	--	--	--	--	--
SEP										
02...	<3	16	<4	5	<10	<1	<1	<1.0	410	<6

11477000 EEL RIVER AT SCOTIA, CA--Continued

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
12...*	1200	11.3	65.0	124	8.1	9.5	751	10.3	91	688	92
12...*	1225	11.5	135	122	8.2	9.5	751	10.3	91	737	88
12...*	1250	9.40	230	121	8.2	9.5	751	10.1	90	821	80
12...*	1315	8.70	315	121	8.2	9.5	751	10.1	90	1000	65
12...*	1340	7.30	455	122	8.2	9.5	751	10.4	92	1050	63
JUL											
31...*	1455	1.20	50.0	291	8.6	22.5	766	10.4	120	3	--
31...*	1515	2.00	75.0	294	8.5	22.0	766	9.6	109	2	--
31...*	1530	2.20	91.0	295	8.4	22.0	766	9.2	105	2	--
31...*	1550	2.10	106	295	8.4	22.0	766	9.1	104	2	--
31...*	1610	1.40	125	295	8.5	22.5	766	9.5	109	2	--

* Instantaneous streamflow at time of cross-sectional measurement: Feb. 12, 25,400 ft^3/s; July 31, 114 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
01...	1215	296	13.0	1	0.80	--
JAN						
03...	1225	1160	7.0	6	19	--
06...	1420	19600	7.5	723	38300	84
FEB						
12...	1230	25000	10.0	806	54400	79
12...	1245	25400	10.0	859	58900	78
16...	1135	32400	8.0	634	55500	75
MAR						
03...	1200	5310	12.0	32	459	83
16...	1230	39400	10.5	1020	109000	72
MAY						
06...	1300	1930	21.0	4	21	84
JUL						
02...	1230	930	21.0	5	13	90
31...	1535	114	22.0	2	0.62	--
SEP						
02...	1015	49	20.0	1	0.13	90

11477425 MILL CREEK BELOW DIVERSION DAM, NEAR DINSMORE, CA

LOCATION.--Lat 40°27'52", long 123°35'59", in NE 1/4 SW 1/4 sec.15, T.1 N., R.5 E., Humboldt County, Hydrologic Unit 18010105, on left bank 1.9 mi south southeast of Dinsmore.

DRAINAGE AREA.--0.74 mi^2.

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

GAGE.--Water-stage recorder and 90° V-notch weir. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--The gage measures fishwater release only. Water diverted upstream to Mill and Sulphur Creek Powerplant.

COOPERATION.--Records provided by North Coast Hydroelectric, 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, 0.51 ft^3/s, Apr. 17, 1992; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.31	.31	.31	---	---	.00	.00	.00	.00
2	.00	.00	.00	.35	.31	.31	---	---	.00	.00	.00	.00
3	.00	.00	.00	.33	.33	.31	---	---	.00	.00	.00	.00
4	.00	.00	.00	.31	.35	.31	---	---	.00	.00	.00	.00
5	.00	.00	.00	.33	.35	.35	---	---	.00	.00	.00	.00
6	.00	.00	.00	.31	.35	.33	---	---	.00	.00	.00	.00
7	.00	.00	.00	.29	.35	.33	---	---	.00	.00	.00	.00
8	.00	.00	.00	.29	.35	.33	---	---	.00	.00	.00	.00
9	.00	.00	.00	.27	.33	.35	---	---	.00	.00	.00	.00
10	.00	.00	.00	.27	.35	.37	e.38	---	.00	.00	.00	.00
11	.00	.00	.00	.29	.35	.37	e.35	---	.00	.00	.00	.00
12	.00	.00	.00	.29	.35	.37	e.39	---	.00	.00	.00	.00
13	.00	.00	.00	.27	.35	.37	e.36	---	.00	.00	.00	.00
14	.00	.00	.00	---	.35	.37	e.33	---	.00	.00	.00	.00
15	.00	.00	.00	---	.35	.40	e.33	---	.00	.00	.00	.00
16	.00	.00	.00	---	.37	.40	e.37	---	.00	.00	.00	.00
17	.00	.00	.00	---	.35	.40	e.51	---	.00	.00	.00	.00
18	.00	.00	.00	---	.37	.37	e.45	---	.00	.00	.00	.00
19	.00	.00	.00	---	.37	.37	e.40	---	.00	.00	.00	.00
20	.00	.00	.00	---	.37	.35	e.35	---	.00	.00	.00	.00
21	.00	.00	.00	---	.40	.35	e.32	---	.00	.00	.00	.00
22	.00	.00	.00	---	.40	.35	e.32	---	.00	.00	.00	.00
23	.00	.00	.00	---	.37	.34	e.31	---	.00	.00	.00	.00
24	.00	.00	.00	---	.35	.33	.33	---	.00	.00	.00	.00
25	.00	.00	.00	---	.33	.33	.33	---	.00	.00	.00	.00
26	.00	.00	.00	---	.31	.31	.31	---	.00	.00	.00	.00
27	.00	.00	.00	.35	.31	.31	.31	---	.00	.00	.00	.00
28	.00	.00	.00	.35	.31	.31	.31	---	.00	.00	.00	.00
29	.00	.00	.00	.35	.31	.30	.31	---	.00	.00	.00	.00
30	.00	.00	.00	.33	---	.29	.29	---	.00	.00	.00	.00
31	.00	---	.00	.31	---	.29	---	---	---	.00	.00	---
TOTAL	0.00	0.00	0.00	5.60	10.05	10.58	7.36	---	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.31	.35	.34	.35	---	.000	.000	.000	.000
MAX	.00	.00	.00	.35	.40	.40	.51	---	.00	.00	.00	.00
MIN	.00	.00	.00	.27	.31	.29	.29	---	.00	.00	.00	.00
AC-FT	.00	.00	.00	11	20	21	15	---	.00	.00	.00	.00

CAL YR 1991 TOTAL 35.79 MEAN .098 MAX .40 MIN .00 AC-FT 71
WTR YR 1992 TOTAL 33.59 MEAN .11 MAX .51 MIN .00 AC-FT 67

e Estimated.

11477450 SULPHUR CREEK BELOW DIVERSION DAM, NEAR DINSMORE, CA

LOCATION.--Lat 40°27'50", long 123°36'15", in NW 1/4 SW 1/4 sec.15, T.1 N., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank 2 mi south southeast of Dinsmore.

DRAINAGE AREA.--1.06 mi^2.

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

GAGE.--Water-stage recorder and 90° V-notch weir. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--The gage measures fishwater release only. Water diverted upstream to Mill and Sulphur Creek Powerplant.

COOPERATION.--Records provided by North Coast Hydroelectric, 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, 0.72 ft^3/s, Feb. 19, 1992; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.44	.51	.44	.42	---	.00	.00	.00	.00
2	.00	.00	.00	.51	.51	.44	---	---	.00	.00	.00	.00
3	.00	.00	.00	.46	.51	.42	---	---	.00	.00	.00	.00
4	.00	.00	.00	.45	.54	.44	---	---	.00	.00	.00	.00
5	.00	.00	.00	.46	.54	.56	---	---	.00	.00	.00	.00
6	.00	.00	.00	.46	.51	.51	---	---	.00	.00	.00	.00
7	.00	.00	.00	.49	.51	.46	---	---	.00	.00	.00	.00
8	.00	.00	.00	.49	.51	.46	---	---	.00	.00	.00	.00
9	.00	.00	.00	.49	.46	.46	---	---	.00	.00	.00	.00
10	.00	.00	.00	.49	.49	e.49	.44	---	.00	.00	.00	.00
11	.00	.00	.00	.51	.49	e.49	.42	---	.00	.00	.00	.00
12	.00	.00	.00	.49	.51	e.49	.49	---	.00	.00	.00	.00
13	.00	.00	.00	.49	.54	e.49	.44	---	.00	.00	.00	.00
14	.00	.00	.00	---	.46	e.49	.42	---	.00	.00	.00	.00
15	.00	.00	.00	---	.42	e.50	.40	---	.00	.00	.00	.00
16	.00	.00	.00	---	.44	e.53	.44	---	.00	.00	.00	.00
17	.00	.00	.00	---	.51	.56	.60	---	.00	.00	.00	.00
18	.00	.00	.00	---	.60	.49	.54	---	.00	.00	.00	.00
19	.00	.00	.00	---	.72	.42	.49	---	.00	.00	.00	.00
20	.00	.00	.00	---	.66	.40	.44	---	.00	.00	.00	.00
21	.00	.00	.00	---	.51	.40	.40	---	.00	.00	.00	.00
22	.00	.00	.00	---	.44	.40	.42	---	.00	.00	.00	.00
23	.00	.00	.00	---	.33	.40	.40	---	.00	.00	.00	.00
24	.00	.00	.00	---	.49	.37	.42	---	.00	.00	.00	.00
25	.00	.00	.00	---	.49	.37	.42	---	.00	.00	.00	.00
26	.00	.00	.00	---	.49	.37	.42	---	.00	.00	.00	.00
27	.00	.00	.00	.56	.46	.37	.42	---	.00	.00	.00	.00
28	.00	.00	.00	.54	.46	.37	.40	---	.00	.00	.00	.00
29	.00	.00	.00	.51	.46	.40	.40	---	.00	.00	.00	.00
30	.00	.00	.00	.49	---	.42	.40	---	.00	.00	.00	.00
31	.00	---	.00	.49	---	.40	---	---	---	.00	.00	---
TOTAL	0.00	0.00	0.00	8.82	14.57	13.81	9.64	---	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.49	.50	.45	.44	---	.000	.000	.000	.000
MAX	.00	.00	.00	.56	.72	.56	.60	---	.00	.00	.00	.00
MIN	.00	.00	.00	.44	.33	.37	.40	---	.00	.00	.00	.00
AC-FT	.00	.00	.00	17	29	27	19	---	.00	.00	.00	.00

CAL YR 1991 TOTAL 46.59 MEAN .13 MAX .66 MIN .00 AC-FT 92
WTR YR 1992 TOTAL 46.84 MEAN .15 MAX .72 MIN .00 AC-FT 93

e Estimated.

11477475 MILL CREEK BELOW SULPHUR CREEK, AT DINSMORE, CA

LOCATION.--Lat 40°28'59", long 123°36'28", in SE 1/4 NE 1/4 sec.9, T.1 N., R.5 E., Humboldt County, Hydrologic Unit 18010105, on right bank 300 ft downstream of confluence of Mill and Sulphur Creeks and 0.6 mi south of Dinsmore.

DRAINAGE AREA.--3.11 mi^2.

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

GAGE.--Water-stage recorder and V-notch weir. Elevation of gage is 2,550 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Record of creek only includes water retained in Mill and Sulphur Creeks for fishery enhancement plus any additional water not diverted for power development at Mill and Sulphur Creek Powerplant. Combined flow includes flow to powerplant and represents all flow from drainage area. See following page for records of combined discharge of creek and powerplant.

COOPERATION.--Records provided by North Coast Hydroelectric, 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, 140 ft^3/s, Mar. 3, 1991, gage height 2.02 ft; no flow for many days.
Combined flow, maximum discharge, 152 ft^3/s, Mar. 3, 1991; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Creek only, maximum discharge, 62 ft^3/s, Feb. 19, gage height 1.52 ft; no flow for many days.
Combined flow, maximum discharge, 74 ft^3/s, Feb. 19; no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.25	.82	3.6	7.2	3.4	2.9	2.6	.54	.72	.00	.00
2	.00	.21	.72	3.6	7.2	2.9	2.9	2.9	.54	.48	.00	.00
3	.00	.17	.66	3.2	5.9	2.8	2.8	2.6	.48	.42	.00	.00
4	.00	.14	.60	8.6	5.1	3.8	2.6	2.6	.42	.36	.00	.00
5	.00	.11	.60	17	5.3	20	2.6	2.6	.30	.30	.00	.00
6	.00	.11	1.0	9.7	4.5	11	2.4	2.4	.25	.30	.00	.00
7	.00	.11	4.0	7.2	4.0	7.8	2.3	2.3	.25	.25	.00	.00
8	.00	.11	2.4	5.9	4.0	6.2	2.1	2.1	.21	.25	.00	.00
9	.00	.11	1.7	5.3	4.2	5.3	2.6	1.9	.21	.21	.00	.00
10	.00	.11	1.5	5.3	7.2	5.1	4.5	1.7	.21	.17	.00	.00
11	.00	.09	1.4	5.3	12	4.5	4.3	1.5	.21	.14	.00	.00
12	.00	.09	1.2	4.8	24	4.3	11	1.4	.21	.14	.00	.00
13	.00	.11	1.1	4.3	18	4.0	6.5	1.2	.25	.14	.00	.00
14	.00	.14	1.1	4.5	14	5.9	5.6	1.1	.25	.09	.00	.00
15	.00	.17	1.0	5.9	11	20	5.1	1.1	.30	.07	.00	.00
16	.00	.21	1.0	6.2	11	33	10	1.0	.25	.07	.00	.00
17	.00	5.6	.93	6.2	10	24	35	1.0	.25	.05	.00	.00
18	.00	6.8	e.93	5.6	17	12	13	.93	.25	.05	.00	.00
19	.00	2.6	e6.5	4.5	42	8.6	7.8	.82	.21	.05	.00	.00
20	.00	4.8	e9.4	4.0	45	7.2	6.2	.93	.21	.03	.00	.00
21	.00	3.2	e7.2	3.6	36	6.2	5.1	.82	.17	.03	.00	.00
22	.00	1.9	e5.3	3.4	24	5.9	4.8	.72	.17	.02	.00	.00
23	.00	1.6	e3.4	3.2	14	4.3	4.3	.72	.14	.01	.00	.00
24	.00	1.1	1.9	2.9	9.0	3.8	3.8	.66	.14	.00	.00	.00
25	.00	1.0	1.6	8.1	5.6	3.2	3.6	.66	.11	.00	.00	.00
26	.00	1.0	1.5	6.5	5.1	3.2	3.2	.60	.09	.00	.00	.00
27	.00	2.4	1.5	6.8	5.0	2.9	2.9	.60	.09	.00	.00	.00
28	.42	1.6	4.0	9.4	4.0	2.8	2.8	.60	.11	.00	.00	.00
29	.36	1.2	9.0	6.5	3.6	3.4	3.4	.60	.72	.00	.00	.00
30	.34	1.0	5.6	5.3	---	3.6	3.8	.54	1.0	.00	.00	.00
31	.30	---	3.8	4.8	---	2.8	---	.54	---	.00	.00	---
TOTAL	1.42	38.04	83.36	181.2	364.9	233.9	169.9	41.74	8.54	4.35	0.00	0.00
MEAN	.046	1.27	2.69	5.85	12.6	7.55	5.66	1.35	.28	.14	.000	.000
MAX	.42	6.80	9.40	17.0	45.0	33.0	35.0	2.90	1.00	.72	.00	.00
MIN	.00	.09	.60	2.90	3.60	2.80	2.10	.54	.09	.00	.00	.00
AC-FT	2.8	75	165	359	724	464	337	83	17	8.6	.00	.00

CAL YR 1991 TOTAL 1091.46 MEAN 2.99 MAX 52.0 MIN .00 AC-FT 2160
WTR YR 1992 TOTAL 1127.35 MEAN 3.08 MAX 45.0 MIN .00 AC-FT 2240

e Estimated.

11477475 MILL CREEK BELOW SULPHUR CREEK, AT DINSMORE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

MEAN	.023	.72	1.97	4.73	8.44	10.3	6.25	2.10	.75	.18	.001	.000
MAX	.046	1.27	2.69	5.85	12.6	13.0	6.83	2.86	1.21	.23	.001	.000
(WY)	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991	1991	1991
MIN	.000	.18	1.25	3.62	4.16	7.55	5.66	1.35	.28	.14	.000	.000
(WY)	1991	1991	1991	1991	1991	1992	1992	1992	1992	1992	1992	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1991 - 1992	
ANNUAL TOTAL	1091.46		1127.35			
ANNUAL MEAN	2.99		3.08		2.93	
HIGHEST ANNUAL MEAN					3.08	1992
LOWEST ANNUAL MEAN					2.78	1991
HIGHEST DAILY MEAN	52.0	Mar 4	45.0	Feb 20	52.0	Mar 4 1991
LOWEST DAILY MEAN	.00	Aug 3	.00	Oct 1	.00	Oct 1 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 3	.00	Oct 1	.00	Oct 1 1990
INSTANTANEOUS PEAK FLOW			62	Feb 19	140	Mar 3 1991
INSTANTANEOUS PEAK STAGE			1.52	Feb 19	2.02	Mar 3 1991
INSTANTANEOUS LOW FLOW			.00	Oct 1	.00	Oct 1 1991
ANNUAL RUNOFF (AC-FT)	2160		2240		2120	
10 PERCENT EXCEEDS	7.6		7.2		7.2	
50 PERCENT EXCEEDS	1.1		.82		.93	
90 PERCENT EXCEEDS	.00		.00		.00	

11477476 MILL CREEK BELOW SULPHUR CREEK, AT DINSMORE, CA--Continued

MILL CREEK AND MILL AND SULPHUR CREEK POWERPLANT
COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.25	.82	3.7	10	6.0	3.6	2.6	.54	.72	.00	.00
2	.00	.21	.72	3.6	9.7	5.1	2.9	2.9	.54	.48	.00	.00
3	.00	.17	.66	3.2	8.3	4.5	2.8	2.6	.48	.42	.00	.00
4	.00	.14	.60	11	7.3	6.3	2.6	2.6	.42	.36	.00	.00
5	.00	.11	.60	21	6.8	31	2.6	2.6	.30	.30	.00	.00
6	.00	.11	1.0	12	6.0	21	2.4	2.4	.25	.30	.00	.00
7	.00	.11	4.0	9.5	4.9	14	2.3	2.3	.25	.25	.00	.00
8	.00	.11	2.4	7.7	5.3	11	2.1	2.1	.21	.25	.00	.00
9	.00	.11	1.7	6.7	6.0	9.1	2.6	1.9	.21	.21	.00	.00
10	.00	.11	1.5	7.4	12	8.1	8.6	1.7	.21	.17	.00	.00
11	.00	.09	1.4	7.6	20	7.0	9.6	1.5	.21	.14	.00	.00
12	.00	.09	1.2	6.0	35	6.4	18	1.4	.21	.14	.00	.00
13	.00	.11	1.1	5.3	28	6.7	14	1.2	.25	.14	.00	.00
14	.00	.14	1.1	4.5	22	11	11	1.1	.25	.09	.00	.00
15	.00	.17	1.0	5.9	18	29	9.5	1.1	.30	.07	.00	.00
16	.00	.21	1.0	6.2	15	45	18	1.0	.25	.07	.00	.00
17	.00	5.6	.93	6.2	15	35	47	1.0	.25	.05	.00	.00
18	.00	6.8	.93	5.6	26	21	23	.93	.25	.05	.00	.00
19	.00	2.6	6.5	4.5	50	15	16	.82	.21	.05	.00	.00
20	.00	4.8	9.4	4.0	53	13	13	.93	.21	.03	.00	.00
21	.00	3.2	7.2	3.6	48	11	10	.82	.17	.03	.00	.00
22	.00	1.9	5.3	3.4	36	10	9.2	.72	.17	.02	.00	.00
23	.00	1.6	3.4	3.2	25	7.9	7.7	.72	.14	.01	.00	.00
24	.00	1.1	1.9	2.9	19	6.6	6.5	.66	.14	.00	.00	.00
25	.00	1.0	1.6	8.1	13	5.5	5.2	.66	.11	.00	.00	.00
26	.00	1.0	1.5	6.5	11	5.1	5.0	.60	.09	.00	.00	.00
27	.00	2.4	1.5	8.2	9.8	4.5	4.5	.60	.09	.00	.00	.00
28	.42	1.6	4.0	17	7.6	4.0	3.6	.60	.11	.00	.00	.00
29	.36	1.2	9.0	11	6.5	3.4	3.4	.60	.72	.00	.00	.00
30	.34	1.0	5.6	8.0	---	5.1	5.4	.54	1.0	.00	.00	.00
31	.30	---	3.8	7.1	---	4.3	---	.54	---	.00	.00	---
TOTAL	1.42	38.04	83.36	220.6	534.2	372.6	272.1	41.74	8.54	4.35	0.00	0.00
MEAN	.046	1.27	2.69	7.12	18.4	12.0	9.07	1.35	.28	.14	.000	.000
MAX	.42	6.80	9.40	21.0	53.0	45.0	47.0	2.90	1.00	.72	.00	.00
MIN	.00	.09	.60	2.90	4.90	3.40	2.10	.54	.09	.00	.00	.00
AC-FT	2.8	75	165	438	1060	739	540	83	17	8.6	.00	.00

CAL YR 1991 TOTAL 1623.86 MEAN 4.45 MAX 63.0 MIN .00 AC-FT 3220
WTR YR 1992 TOTAL 1576.95 MEAN 4.31 MAX 53.0 MIN .00 AC-FT 3130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

MEAN	.023	.72	1.97	5.89	12.6	15.2	11.4	3.06	.75	.18	.001	.000
MAX	.046	1.27	2.69	7.12	18.4	18.4	13.7	4.76	1.21	.23	.001	.000
(WY)	1992	1992	1992	1992	1992	1991	1991	1991	1991	1991	1991	1991
MIN	.000	.18	1.25	4.65	6.60	12.0	9.07	1.35	.28	.14	.000	.000
(WY)	1991	1991	1991	1991	1991	1992	1992	1992	1992	1992	1992	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1991 - 1992	
ANNUAL TOTAL	1623.86		1576.95			
ANNUAL MEAN	4.45		4.31		4.27	
HIGHEST ANNUAL MEAN					4.31	1992
LOWEST ANNUAL MEAN					4.23	1991
HIGHEST DAILY MEAN	63.0	Mar 4	53.0	Feb 20	63.0	Mar 4 1991
LOWEST DAILY MEAN	.00	Aug 3	.00	Oct 1	.00	Oct 1 1990
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 3	.00	Oct 1	.00	Oct 1 1990
INSTANTANEOUS PEAK FLOW			74	Feb 19	152	Mar 3 1991
INSTANTANEOUS LOW FLOW			.00	Oct 1	.00	Sep 30 1991
ANNUAL RUNOFF (AC-FT)	3220		3130		3090	
10 PERCENT EXCEEDS	11		11		11	
50 PERCENT EXCEEDS	1.1		.82		.93	
90 PERCENT EXCEEDS	.00		.00		.00	

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA

LOCATION.--Lat 40°28'50", long 123°53'23", in NE 1/4 SE 1/4 sec.12, T.1 N., R.2 E., Humboldt County, Hydrologic Unit 18010105, on left bank at downstream side of bridge on State Highway 36, 0.9 mi upstream from Grizzly Creek, and 5 mi west of Bridgeville.

DRAINAGE AREA.--222 mi^2.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1735: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 358.18 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, at site 2.4 mi upstream at different datum.

REMARKS.--Records good. No storage or large diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft^3/s, Dec. 22, 1964, gage height, 24.0 ft, from floodmarks, present site and datum, from rating curve extended above 20,000 ft^3/s on basis of slope-area measurement at gage height 21.3 ft, former site and datum; minimum daily, 4.4 ft^3/s, Sept. 28, 1992.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	0115	*7,320	*8.61				

Minimum daily, 4.4 ft^3/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	35	e73	246	888	617	333	304	64	135	13	6.5
2	7.0	31	e66	209	796	521	309	269	62	93	12	6.5
3	7.0	28	e58	182	561	488	284	248	59	71	11	6.5
4	6.9	26	53	368	464	426	265	231	55	60	11	6.4
5	6.6	26	49	2020	388	e4700	246	217	53	54	11	6.2
6	6.4	24	50	1370	343	e3500	233	203	51	50	11	6.2
7	6.4	22	255	948	318	e2500	219	191	49	46	9.7	6.2
8	6.4	22	223	693	306	e1500	206	179	48	43	9.5	6.4
9	6.4	22	152	537	331	e870	204	168	47	39	9.5	6.5
10	6.4	21	114	447	676	e570	603	160	46	36	9.5	6.6
11	6.3	20	94	426	1730	498	578	151	45	34	9.5	6.8
12	6.0	20	84	364	2730	449	1260	146	49	32	9.3	6.4
13	5.8	19	74	309	2160	409	1270	142	52	31	8.5	6.2
14	5.2	19	68	276	2200	692	929	134	57	30	8.7	6.2
15	5.2	19	e62	255	2140	2210	702	127	55	28	8.7	6.2
16	5.2	18	e59	249	2260	3660	1140	120	51	27	8.5	6.2
17	5.2	103	e55	245	1730	2120	3890	115	48	25	8.3	5.9
18	5.0	504	465	238	1830	1390	1660	110	46	24	8.2	5.3
19	4.5	255	546	210	3560	1120	1250	109	45	23	7.8	5.2
20	4.8	220	306	188	5440	926	1000	113	43	22	7.3	5.0
21	5.2	287	231	172	4250	790	801	109	40	20	7.1	5.0
22	5.2	182	192	156	3070	738	661	101	37	20	7.1	5.0
23	5.2	128	163	144	1880	683	558	95	34	20	7.1	5.0
24	5.4	100	141	139	1450	598	486	89	31	19	7.1	5.0
25	8.9	83	127	171	1210	524	420	83	31	19	7.1	5.0
26	68	73	116	287	1110	467	380	80	31	19	7.1	5.0
27	139	105	138	231	880	426	348	79	31	17	7.1	4.7
28	78	129	676	1120	736	386	319	77	31	16	6.8	4.4
29	60	98	631	801	687	353	297	74	44	15	6.5	4.5
30	50	82	422	512	---	360	322	72	131	14	6.5	4.5
31	41	---	308	426	---	372	---	68	---	13	6.5	---
TOTAL	585.6	2721	6051	13939	46124	34863	21173	4364	1466	1095	268.0	171.5
MEAN	18.9	90.7	195	450	1590	1125	706	141	48.9	35.3	8.65	5.72
MAX	139	504	676	2020	5440	4700	3890	304	131	135	13	6.8
MIN	4.5	18	49	139	306	353	204	68	31	13	6.5	4.4
AC-FT	1160	5400	12000	27650	91490	69150	42000	8660	2910	2170	532	340

e Estimated.

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	168	972	1837	2122	2018	1573	893	423	126	34.9	17.1	21.2
MAX	1464	5476	6046	5816	6232	4004	3255	1139	593	98.0	82.4	144
(WY)	1963	1974	1956	1970	1958	1975	1963	1953	1953	1953	1983	1986
MIN	7.20	16.8	18.8	103	156	172	131	109	40.4	12.2	5.89	5.72
(WY)	1988	1960	1977	1977	1977	1988	1977	1985	1987	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	123633.7		132821.1			
ANNUAL MEAN	339		363		845	
HIGHEST ANNUAL MEAN					1610	1974
LOWEST ANNUAL MEAN					95.7	1977
HIGHEST DAILY MEAN	10100	Mar 4	5440	Feb 20	33900	Dec 22 1964
LOWEST DAILY MEAN	4.5	Oct 19	4.4	Sep 28	4.4	Sep 28 1992
ANNUAL SEVEN-DAY MINIMUM	5.0	Oct 14	4.7	Sep 24	4.6	Aug 13 1977
INSTANTANEOUS PEAK FLOW			7320	Feb 20	48700	Dec 22 1964
INSTANTANEOUS PEAK STAGE			8.61	Feb 20	24.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	245200		263500		612500	
10 PERCENT EXCEEDS	916		935		2110	
50 PERCENT EXCEEDS	79		81		173	
90 PERCENT EXCEEDS	8.4		6.4		12	

11479560 EEL RIVER AT FERNBRIDGE, CA

LOCATION.--Lat 40°36'57", long 124°12'06", in SW 1/4 NE 1/4 sec.29, T.3 N., R.1 W, Humboldt County, Hydrologic Unit 18010105, on right bank downstream from bridge on county road at Fernbridge.

DRAINAGE AREA.--3,614 mi^2.

PERIOD OF RECORD.--October 1989 to current year. Records prior to October 1989 are in the files of the California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 3.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Data is collected for flood warning purposes only. Figures given represent only those days when the gage height was above 0.56 ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 15.3 ft, Jan. 8, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.26 ft, Feb. 20.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	1.25	---	2.51	1.61	2.85	2.65
2	---	---	---	---	---	---	.67	---	2.56	2.44	2.65	2.48
3	---	---	---	---	---	---	1.04	---	2.49	1.77	2.48	2.23
4	---	---	---	---	---	---	1.44	---	1.77	1.30	2.28	2.07
5	---	---	---	---	---	---	---	---	1.31	.99	5.42	2.30
6	---	---	---	---	---	---	---	---	1.08	.75	5.31	4.42
7	---	---	---	---	---	---	6.38	4.05	.94	.57	4.41	3.73
8	---	---	---	---	---	---	4.03	2.84	.95	---	3.72	3.14
9	---	---	---	---	---	---	2.83	1.93	.92	---	3.14	2.72
10	---	---	---	---	---	---	1.97	1.38	1.83	.58	2.72	2.39
11	---	---	---	---	---	---	1.38	1.09	7.20	1.84	2.39	2.14
12	---	---	---	---	---	---	1.08	.82	9.31	7.22	2.14	1.95
13	---	---	---	---	---	---	.82	.59	9.40	7.64	1.96	1.78
14	---	---	---	---	---	---	.69	---	8.38	7.03	2.36	1.78
15	---	---	---	---	---	---	.83	---	9.85	8.42	7.60	2.36
16	---	---	---	---	---	---	.71	---	9.40	9.07	10.03	7.68
17	---	---	---	---	---	---	1.75	---	9.09	7.75	9.95	8.05
18	---	---	---	---	---	---	1.52	---	7.74	6.69	8.04	6.49
19	---	---	.63	---	1.41	---	1.81	---	9.03	6.98	6.48	5.30
20	---	---	1.12	---	1.75	1.03	1.30	---	11.26	9.08	5.30	4.40
21	---	---	1.16	---	1.34	---	1.00	---	10.89	9.44	4.40	3.76
22	---	---	1.21	---	1.37	---	---	---	9.54	8.92	3.78	3.39
23	---	---	.86	---	.73	---	---	---	8.91	7.19	3.44	3.15
24	---	---	.73	---	.69	---	---	---	7.18	5.79	3.23	2.87
25	---	---	---	---	.77	---	1.01	---	5.78	4.82	2.87	2.57
26	---	---	---	---	---	---	1.60	---	4.82	4.25	---	---
27	.81	.81	---	---	---	---	.58	---	4.25	3.69	---	---
28	.81	.81	---	---	1.15	---	1.90	---	3.68	3.25	---	---
29	.81	.81	---	---	2.04	.87	2.48	1.64	3.25	2.85	---	---
30	.81	.81	---	---	2.22	1.58	2.46	1.52	---	---	---	---
31	---	---	---	---	1.76	.94	1.84	1.16	---	---	---	1.78

11479560 EEL RIVER AT FERNBRIDGE, CA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.78	1.63	1.18	1.00	---	---	1.09	---	---	---	---	---
2	1.66	1.54	1.07	.84	1.21	---	.90	---	---	---	---	---
3	1.63	1.46	1.16	.69	.95	---	---	---	---	---	---	---
4	1.52	1.36	---	---	---	---	---	---	---	---	---	---
5	1.40	1.24	1.10	---	---	---	---	---	---	---	---	---
6	1.30	1.09	.96	---	---	---	---	---	---	---	---	---
7	1.12	.97	.62	---	---	---	---	---	---	---	---	---
8	1.00	.87	---	---	---	---	---	---	---	---	---	---
9	.89	.82	---	---	---	---	---	---	---	---	---	---
10	1.46	.88	---	---	---	---	---	---	---	---	---	---
11	1.46	1.29	---	---	---	---	---	---	---	---	---	---
12	2.66	1.40	---	---	---	---	---	---	---	---	---	---
13	4.04	2.63	---	---	---	---	---	---	---	---	---	---
14	4.04	2.96	.59	---	---	---	---	---	---	---	---	---
15	2.94	2.36	.64	---	---	---	---	---	---	---	---	---
16	2.43	2.13	.67	---	---	---	---	---	---	---	---	---
17	6.46	2.49	.68	---	---	---	---	---	---	---	---	---
18	6.75	4.92	---	---	---	---	---	---	---	---	---	---
19	4.90	3.66	---	---	---	---	---	---	---	---	---	---
20	3.65	2.97	---	---	---	---	---	---	---	---	---	---
21	2.95	2.53	---	---	---	---	---	---	---	---	---	---
22	2.53	2.22	---	---	---	---	---	---	---	---	---	---
23	2.21	1.94	---	---	---	---	---	---	---	---	---	---
24	1.94	1.72	---	---	---	---	---	---	---	---	---	---
25	1.73	1.48	---	---	---	---	---	---	---	---	---	---
26	1.50	1.28	---	---	---	---	---	---	---	---	---	---
27	1.28	1.17	---	---	---	---	---	---	---	---	.72	---
28	1.16	1.05	---	---	.80	---	.58	---	---	---	.85	---
29	1.06	.91	---	---	1.16	---	.63	---	---	---	.86	---
30	1.18	.99	---	---	1.16	---	.72	---	---	---	.92	---
31	---	---	---	---	---	---	---	---	---	---	---	---

11480390 MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN, CA

LOCATION.--Lat 40°17'04", long 123°20'03", in NW 1/4 NE 1/4 sec.24, T.2 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, near right bank on downstream end of pier of Zenia Road Bridge, 500 ft downstream from unnamed creek, 0.4 mile downstream from Tompkins Creek, and 6.1 mi southwest of Forest Glen.

DRAINAGE AREA.--93.8 mi^2.

PERIOD OF RECORD.--June 1980 to current year. Discharge measurements only September to December 1971, July 1972, June to September 1977.

REVISED RECORDS.--WDR CA-80-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,700 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 28 to Sept. 30, 1990, nonrecording gage 400 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair except for discharges below 10 ft^3/s, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s, Feb. 17, 1986, gage height, 11.39 ft in gage, 12.94 ft from crest-stage gage, from rating curve extended above 5,000 ft^3/s; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	2315	*2,370	*6.44				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	14	56	93	108	62	94	13	20	2.5	1.2
2	.00	.00	14	46	117	92	54	80	12	21	2.3	1.2
3	.00	.00	12	40	97	85	48	74	11	18	2.2	1.2
4	.00	.00	10	81	83	74	43	68	10	15	2.2	1.2
5	.00	.00	10	321	70	121	39	65	9.7	14	2.2	1.1
6	.00	.00	14	263	61	131	35	62	8.9	12	2.2	1.1
7	.00	.00	54	187	54	111	34	57	8.3	11	2.2	1.1
8	.00	.00	50	146	49	95	31	53	7.4	10	2.1	1.1
9	.00	.00	37	116	46	82	32	49	6.8	9.5	2.0	1.1
10	.00	.00	31	94	80	70	81	45	6.0	8.7	1.9	1.0
11	.00	.00	27	84	226	61	85	43	5.6	7.9	1.8	.98
12	.00	.00	24	72	613	54	288	39	5.7	7.5	1.7	.95
13	.00	.00	21	61	463	50	413	38	5.8	7.4	1.4	.91
14	.00	.00	19	53	437	67	298	36	5.9	6.8	1.3	.86
15	.00	.00	17	47	491	348	223	34	6.3	6.2	1.3	.86
16	.00	.00	16	42	501	604	298	33	6.6	5.7	1.2	.81
17	.00	.00	16	39	517	560	1080	30	6.6	5.6	1.2	.80
18	.00	49	155	37	732	376	645	29	6.3	5.2	1.3	.78
19	.00	33	147	33	1410	266	450	28	6.0	4.8	1.3	.75
20	.00	50	89	30	1640	213	330	28	5.7	4.5	1.4	.72
21	.00	64	67	27	1330	179	270	27	5.5	4.7	1.5	.69
22	.00	36	56	25	1020	179	224	26	5.1	4.4	1.7	.62
23	.00	24	47	22	631	186	183	24	4.6	4.2	1.8	.56
24	.00	18	39	21	421	163	164	22	4.4	3.9	1.7	.54
25	.00	14	34	22	288	139	144	21	4.1	3.7	1.6	.52
26	.00	12	31	21	209	122	128	20	3.7	3.5	1.6	.52
27	.00	19	29	21	165	107	117	18	3.5	3.1	1.6	.49
28	.00	20	137	143	132	92	108	18	3.8	2.9	1.5	.41
29	.00	19	155	117	111	80	101	16	9.2	2.8	1.5	.47
30	.00	15	98	85	---	75	108	15	13	2.6	1.4	.69
31	.00	---	70	69	---	74	---	15	---	2.5	1.3	---
TOTAL	0.00	373.00	1540	2421	12087	4964	6116	1207	210.5	239.1	52.9	25.23
MEAN	.000	12.4	49.7	78.1	417	160	204	38.9	7.02	7.71	1.71	.84
MAX	.00	64	155	321	1640	604	1080	94	13	21	2.5	1.2
MIN	.00	.00	10	21	46	50	31	15	3.5	2.5	1.2	.41
AC-FT	.00	740	3050	4800	23970	9850	12130	2390	418	474	105	50

11480390 MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.26	232	401	347	572	470	235	94.1	36.7	6.57	1.10	1.46
MAX	57.6	741	1198	733	2136	1202	878	260	172	14.7	3.24	12.2
(WY)	1990	1985	1982	1983	1986	1989	1982	1990	1990	1990	1983	1986
MIN	.000	.29	8.08	28.5	85.3	38.6	32.0	20.4	5.31	1.27	.000	.000
(WY)	1988	1988	1991	1991	1991	1988	1988	1987	1987	1985	1984	1984

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	26908.62		29235.73			
ANNUAL MEAN	73.7		79.9		198	
HIGHEST ANNUAL MEAN					414	1983
LOWEST ANNUAL MEAN					69.5	1991
HIGHEST DAILY MEAN	2630	Mar 4	1640	Feb 20	9660	Feb 17 1986
LOWEST DAILY MEAN	.00	Aug 18	.00	Oct 1	.00	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 18	.00	Oct 1	.00	Sep 11 1982
INSTANTANEOUS PEAK FLOW			2370	Feb 19	15000	Feb 17 1986
INSTANTANEOUS PEAK STAGE			6.44	Feb 19	11.39	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	53370		57990		143800	
10 PERCENT EXCEEDS	193		186		519	
50 PERCENT EXCEEDS	18		18		27	
90 PERCENT EXCEEDS	.00		.00		.00	

11480400 RUTH RESERVOIR NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'08", long 123°25'56", in NW 1/4 NW 1/4 sec.19, T.1 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, near center of Robert W. Matthews Dam on Mad River, 5.6 mi west of Forest Glen.

DRAINAGE AREA.--121 mi^2.

PERIOD OF RECORD.--October 1966 to current year. Records prior to October 1966 in files of Humboldt Bay Municipal Water District.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Humboldt Bay Municipal Water District).

REMARKS.--Reservoir is formed by earthfill dam; storage began July 1961. Total capacity, 48,000 acre-ft at elevation 2,654.0 ft, crest of spillway. Minimum pool capacity, 7,810 acre-ft at elevation 2,600 ft. Water is released down Mad River for municipal use. Records given represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 68,000 acre-ft, Feb. 17, 1986, elevation, 2,667.06 ft; minimum, 11,700 acre-ft, Oct. 24-28, 1977; minimum elevation, 2,607.13 ft, Oct. 28, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,700 acre-ft, Feb. 22, elevation, 2,656.30 ft; minimum contents, 21,100 acre-ft, Nov. 16, elevation, 2,624.46 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Humboldt Bay Municipal Water District in 1977)

2,595	5,920	2,620	18,100	2,645	38,600
2,600	7,810	2,625	21,500	2,650	43,700
2,605	10,000	2,630	25,300	2,655	49,200
2,610	12,500	2,635	29,400	2,660	55,100
2,615	15,100	2,640	33,800	2,664	60,200

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28300	23000	21800	24600	30800	48200	47600	47900	46800	42200	36900	31200
2	28100	22900	21700	24700	31000	48000	47600	47900	46700	42100	36700	31000
3	27900	22900	21600	24700	31200	47800	47600	47900	46500	42000	36500	30800
4	27700	22800	21600	25200	31400	47700	47600	47900	46400	41900	36300	30600
5	27500	22600	21500	26000	31600	48000	47600	47900	46200	41700	36100	30400
6	27200	22500	21500	26600	31700	47900	47600	47900	46000	41600	35900	30200
7	27000	22300	21600	27000	31800	47900	47700	47900	45900	41500	35800	30000
8	26800	22200	21700	27400	32000	47700	47700	47900	45700	41300	35600	29900
9	26600	22100	21800	27700	32100	47700	47700	47800	45500	41200	35400	29700
10	26400	21900	21800	27900	32400	47700	47600	47900	45300	41000	35200	29500
11	26200	21800	21900	28100	33000	47700	47700	47900	45100	40900	35000	29300
12	26000	21700	21900	28200	34600	47700	48200	47900	45000	40700	34900	29200
13	25800	21500	21900	28400	35700	47700	48600	47900	44800	40500	34700	29000
14	25600	21400	21900	28500	36800	47800	48600	47900	44600	40400	34500	28800
15	25400	21300	21800	28600	38100	48500	48600	47900	44500	40200	34300	28600
16	25200	21200	21700	28700	39300	49300	48800	47900	44300	40000	34100	28400
17	25000	21200	21800	28700	40500	49500	49900	47800	44200	39800	33900	28300
18	24800	21200	22100	28900	42400	49300	49700	47900	44000	39600	33800	28100
19	24600	21300	22500	28900	45700	49000	49300	47800	43800	39400	33600	27900
20	24400	21400	22700	29000	48900	48700	49000	47800	43600	39200	33400	27700
21	24200	21600	22800	29000	50500	48600	48800	47800	43500	39000	33200	27600
22	24000	21700	22900	29100	50400	48500	48600	47800	43300	38800	33000	27400
23	23800	21800	23000	29100	49900	48400	48500	47700	43200	38600	32800	27200
24	23600	21800	23100	29200	49400	48300	48300	47700	43000	38400	32600	27000
25	23600	21800	23100	29300	49100	48200	48200	47500	42900	38200	32500	26800
26	23500	21800	23200	29300	48800	48100	48100	47500	42700	38000	32300	26700
27	23400	21800	23400	29400	48600	48100	48000	47400	42500	37900	32100	26500
28	23300	21800	23800	29900	48400	48100	48000	47300	42300	37700	31900	26300
29	23200	21800	24100	30100	48300	48100	48000	47200	42300	37500	31700	26100
30	23100	21800	24300	30300	---	48000	48000	47000	42300	37300	31500	26000
31	23100	---	24400	30500	---	47700	---	46900	---	37100	31300	---
MAX	28300	23000	24400	30500	50500	49500	49900	47900	46800	42200	36900	31200
MIN	23100	21200	21500	24600	30800	47700	47600	46900	42300	37100	31300	26000
a	2627.13	2625.44	2628.87	2636.26	2654.21	2653.74	2653.98	2653.01	2648.69	2643.50	2637.19	2630.84
b	-5400	-1300	+2600	+6100	+17800	-600	+300	-1100	-4600	-5200	-5800	-5300

CAL YR 1991 MAX 49400 MIN 19700 b +4600
WTR YR 1992 MAX 50500 MIN 21200 b -2500

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

11480410 MAD RIVER BELOW RUTH RESERVOIR, NEAR FOREST GLEN, CA

LOCATION.--Lat 40°22'16", long 123°26'06", in SW 1/4 SW 1/4 sec.18, T.1 S., R.7 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, 1,200 ft downstream from Robert W. Matthews Dam, and 5.8 mi west of Forest Glen.

DRAINAGE AREA.--121 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except for discharges below 10 ft^3/s, which are poor. Flow regulated by Ruth Reservoir (station 11480400) 1,200 ft upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft^3/s, Feb. 17, 1986, gage height, 17.61 ft, from floodmarks, from rating curve extended above 8,800 ft^3/s; minimum daily, 5.6 ft^3/s, Mar. 2, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft^3/s, Feb. 22, gage height, 7.37 ft; minimum daily, 7.3 ft^3/s, Dec. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	37	47	7.7	8.2	239	183	149	72	51	96	96
2	106	37	47	7.7	8.0	226	101	103	72	54	95	96
3	103	37	49	7.7	8.0	223	85	76	78	62	95	95
4	103	43	46	8.3	7.9	185	63	77	84	72	96	93
5	103	61	46	8.7	7.8	191	50	77	85	71	96	90
6	102	82	37	8.6	7.7	221	52	77	85	72	93	91
7	103	78	7.8	8.3	7.7	221	43	64	85	71	90	92
8	105	73	7.5	9.2	7.7	221	37	54	89	71	90	92
9	106	68	7.5	8.1	7.7	164	107	53	95	79	90	92
10	103	65	7.4	8.0	7.9	112	147	53	94	91	90	91
11	107	63	7.3	8.0	8.3	95	147	45	94	90	91	91
12	110	63	7.3	8.0	9.5	95	199	38	94	90	93	91
13	110	63	21	8.0	9.0	95	295	38	88	90	96	90
14	106	63	45	8.0	9.0	95	344	38	75	90	95	91
15	103	62	45	7.8	9.1	214	334	38	75	90	95	91
16	104	62	45	7.7	9.3	535	326	38	75	93	94	91
17	104	54	36	7.7	9.6	676	718	30	87	103	95	91
18	97	25	8.4	7.7	11	611	843	23	95	101	95	91
19	91	8.3	8.0	7.5	159	500	696	39	94	101	95	91
20	93	8.4	7.9	7.5	277	408	548	38	90	100	95	91
21	93	8.0	7.6	7.9	883	348	440	38	91	102	94	90
22	93	8.0	7.6	8.1	1320	320	365	42	79	96	94	91
23	93	8.0	7.7	8.0	1040	298	313	49	73	95	93	90
24	89	8.0	7.7	8.0	765	275	275	52	75	95	91	88
25	81	28	7.7	7.9	579	253	242	59	81	95	91	86
26	58	48	7.7	8.0	453	234	231	58	98	95	94	87
27	48	24	7.7	8.0	368	174	182	57	98	95	97	87
28	41	8.0	8.2	8.5	305	113	111	65	100	95	95	86
29	33	7.5	7.9	8.1	264	138	124	72	82	96	95	86
30	42	30	7.8	8.0	---	193	149	72	58	95	95	86
31	38	---	7.8	7.8	---	221	---	72	---	95	96	---
TOTAL	2771	1230.2	618.5	248.5	6566.4	7894	7750	1784	2541	2696	2910	2714
MEAN	89.4	41.0	20.0	8.02	226	255	258	57.5	84.7	87.0	93.9	90.5
MAX	110	82	49	9.2	1320	676	843	149	100	103	97	96
MIN	33	7.5	7.3	7.5	7.7	95	37	23	58	51	90	86
AC-FT	5500	2440	1230	493	13020	15660	15370	3540	5040	5350	5770	5380

11480410 MAD RIVER BELOW RUTH RESERVOIR, NEAR FOREST GLEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	94.8	194	482	363	746	634	344	125	73.7	71.5	89.6	94.6
MAX	118	607	1738	1097	2993	1616	1426	363	270	89.3	103	101
(WY)	1984	1985	1982	1983	1986	1989	1982	1983	1990	1987	1990	1986
MIN	64.4	41.0	8.35	8.02	7.61	24.4	28.0	47.8	38.2	42.5	57.5	80.4
(WY)	1982	1992	1987	1992	1991	1988	1988	1987	1991	1982	1983	1983

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1981 - 1992	
ANNUAL TOTAL	34890.5		39723.6			
ANNUAL MEAN	95.6		109		274	
HIGHEST ANNUAL MEAN					591	1983
LOWEST ANNUAL MEAN					101	1991
HIGHEST DAILY MEAN	609	Apr 1	1320	Feb 22	13400	Feb 17 1986
LOWEST DAILY MEAN	5.6	Mar 2	7.3	Dec 11	5.6	Mar 2 1991
ANNUAL SEVEN-DAY MINIMUM	6.0	Feb 19	7.7	Dec 21	6.0	Feb 19 1991
INSTANTANEOUS PEAK FLOW			1390	Feb 22	17800	Feb 17 1986
INSTANTANEOUS PEAK STAGE			7.37	Feb 22	17.61	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	69210		78790		198200	
10 PERCENT EXCEEDS	234		227		639	
50 PERCENT EXCEEDS	80		87		94	
90 PERCENT EXCEEDS	7.5		7.9		34	

11480500 MAD RIVER NEAR FOREST GLEN, CA

LOCATION.--Lat 40°27'30", long 123°30'35", in SW 1/4 sec.16, T.1 N., R.6 E., Trinity County, Hydrologic Unit 18010102, Six Rivers National Forest, on right bank 0.7 mi downstream from Lamb Creek and 11.1 mi northwest of Forest Glen.

DRAINAGE AREA.--143 mi^2.

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

REVISED RECORDS.--WSP 1395: 1954. WSP 1715: 1957(M), 1958(P). WSP 1929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,408.18 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 22, 1955, water-stage recorder at site 0.7 mi upstream at different datum. Jan. 13 to June 18, 1956, nonrecording gage at former site at datum 4.17 ft lower than former datum.

REMARKS.--Records good. Flow regulated by Ruth Reservoir (station 11480400), 9 mi upstream, beginning in July 1961. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,200 ft^3/s, Dec. 22, 1955, gage height, 24.5 ft, present datum, from floodmarks, from rating curve extended above 8,100 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 0.60 ft^3/s, Sept. 15, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,550 ft^3/s, Feb. 22, gage height, 6.65 ft; minimum daily, 13 ft^3/s, Nov. 24, Dec. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	41	53	23	29	279	217	165	e75	57	97	96
2	101	40	54	23	31	256	134	138	e76	59	97	96
3	100	39	57	23	30	246	116	101	e80	60	97	96
4	97	41	56	47	29	224	108	100	e85	79	97	95
5	97	50	56	155	28	296	93	100	e84	77	97	93
6	97	86	58	102	28	296	93	100	e85	77	97	92
7	99	84	34	68	27	272	87	93	e86	77	94	92
8	100	80	22	56	25	257	74	76	e89	77	94	92
9	100	71	21	38	24	219	106	75	e98	78	93	92
10	98	72	19	34	31	161	157	75	e99	92	93	92
11	99	70	17	33	89	135	160	69	e99	92	93	92
12	102	69	15	30	198	132	266	55	99	92	93	92
13	103	69	13	27	131	131	317	55	99	92	96	92
14	102	69	47	25	142	148	341	54	88	92	96	92
15	99	69	52	25	127	390	352	53	88	91	96	92
16	97	70	52	24	144	737	375	53	88	90	96	92
17	99	84	57	23	136	807	790	52	91	101	96	92
18	97	64	57	23	195	729	928	27	99	102	96	92
19	91	24	41	22	534	566	758	50	99	102	96	92
20	90	17	26	21	564	460	591	51	97	102	96	92
21	90	16	25	21	1000	427	472	50	97	102	96	92
22	91	15	25	20	1520	396	391	50	91	101	96	92
23	92	14	25	20	1210	371	333	60	81	98	96	92
24	92	13	25	19	863	345	294	59	84	97	94	90
25	91	15	24	19	645	317	257	67	86	97	94	88
26	80	51	23	19	518	294	243	68	98	97	93	90
27	58	50	25	19	413	253	216	67	99	97	95	90
28	56	18	61	46	338	163	135	e75	100	97	96	90
29	34	16	54	41	312	166	136	e77	103	97	96	90
30	44	19	39	34	---	200	166	e76	80	97	96	90
31	41	---	25	26	---	234	---	e75	---	97	96	---
TOTAL	2738	1436	1158	1106	9361	9907	8706	2266	2723	2766	2958	2760
MEAN	88.3	47.9	37.4	35.7	323	320	290	73.1	90.8	89.2	95.4	92.0
MAX	103	86	61	155	1520	807	928	165	103	102	97	96
MIN	34	13	13	19	24	131	74	27	75	57	93	88
AC-FT	5430	2850	2300	2190	18570	19650	17270	4490	5400	5490	5870	5470

e Estimated.

11480500 MAD RIVER NEAR FOREST GLEN, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	34.4	155	563	1008	1296	709	443	208	58.7	11.1	4.19	4.74
MAX	168	455	2168	1885	3217	1073	1157	447	118	17.0	8.14	13.5
(WY)	1958	1958	1956	1954	1958	1957	1958	1957	1960	1960	1958	1958
MIN	2.18	2.33	7.35	155	285	253	175	54.0	20.6	4.92	2.12	1.64
(WY)	1956	1960	1960	1960	1955	1955	1959	1959	1959	1959	1959	1955

SUMMARY STATISTICS	WATER YEARS 1954 - 1960	
ANNUAL MEAN	370	
HIGHEST ANNUAL MEAN	701	1958
LOWEST ANNUAL MEAN	165	1955
HIGHEST DAILY MEAN	14500	Dec 22 1955
LOWEST DAILY MEAN	1.3	Sep 15 1960
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 5 1955
INSTANTANEOUS PEAK FLOW	39200	Dec 22 1955
INSTANTANEOUS PEAK STAGE	24.50	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	268100	
10 PERCENT EXCEEDS	960	
50 PERCENT EXCEEDS	64	
90 PERCENT EXCEEDS	2.2	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	116	250	634	933	820	768	439	147	69.8	70.2	89.3	97.7
MAX	620	1262	2672	3077	3447	2083	1808	450	338	89.2	114	220
(WY)	1963	1974	1965	1970	1986	1975	1963	1983	1990	1992	1974	1963
MIN	37.0	43.7	26.5	16.8	28.6	25.9	11.8	11.9	15.9	39.4	52.6	56.1
(WY)	1978	1978	1987	1991	1977	1977	1977	1977	1977	1963	1965	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	42967.8		47885			
ANNUAL MEAN	118		131		368	
HIGHEST ANNUAL MEAN					762	1983
LOWEST ANNUAL MEAN					47.2	1977
HIGHEST DAILY MEAN	851	Mar 4	1520	Feb 22	18200	Dec 22 1964
LOWEST DAILY MEAN	8.7	Jan 2	13	Nov 24	8.1	Jun 12 1968
ANNUAL SEVEN-DAY MINIMUM	9.8	Jan 24	16	Nov 19	8.7	Jun 8 1968
INSTANTANEOUS PEAK FLOW			1550	Feb 22	20100	Dec 22 1964
INSTANTANEOUS PEAK STAGE			6.65	Feb 22	16.80	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	85230		94980		266500	
10 PERCENT EXCEEDS	325		294		853	
50 PERCENT EXCEEDS	91		92		100	
90 PERCENT EXCEEDS	15		25		46	

11481000 MAD RIVER NEAR ARCATA, CA

LOCATION.--Lat 40°54'35", long 124°03'35", in NW 1/4 NW 1/4 sec.15, T.6 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 100 ft upstream from bridge on U.S. Highway 299, 1.0 mi downstream from Warren Creek, and 2.8 mi northeast of Arcata.

DRAINAGE AREA.--485 mi^2.

PERIOD OF RECORD.--October 1910 to September 1913, August 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 2129: 1965(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 10.79 ft above National Geodetic Vertical Datum of 1929. December 1910 to September 1913, nonrecording gage at site 0.1 mi upstream at different datum. Aug. 15, 1950, to July 23, 1956, water-stage recorder at site 0.6 mi upstream at datum 11.00 ft higher. July 24, 1956, to Apr. 9, 1965, water-stage recorder at datum 5.00 ft higher, at present site. Apr. 10, 1965, to Aug. 10, 1992, water-stage recorder at datum 2.00 ft higher, at present site.

REMARKS.--Records fair. Flow regulated by Ruth Reservoir (station 11480400), 68 mi upstream, beginning in July 1961. Water is diverted 0.5 mi upstream from station for municipal supply and industrial use in Humboldt Bay area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft^3/s, Dec. 22, 1964, gage height, 30.7 ft, prior datum, from high-water profile and flood routing study; minimum daily, 0.10 ft^3/s, Aug. 29, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,290 ft^3/s, Apr. 17, gage height, 8.64 ft; minimum daily, 6.5 ft^3/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	43	41	260	1020	731	477	576	70	104	27	17
2	36	38	30	214	831	623	418	460	67	70	24	19
3	35	32	45	184	621	544	317	396	66	40	21	20
4	34	30	46	279	493	513	276	306	62	42	22	23
5	33	25	43	1180	395	1770	269	280	63	54	21	22
6	34	19	59	1330	312	2040	216	257	70	58	21	19
7	28	35	459	960	257	1420	212	247	65	49	18	17
8	28	58	464	784	216	1140	199	233	57	42	19	13
9	27	61	254	611	215	929	204	203	54	36	11	15
10	30	55	166	498	305	750	1410	184	64	27	12	13
11	27	43	115	477	742	624	1420	169	69	33	e13	15
12	27	37	75	422	1540	524	1310	159	78	42	e13	16
13	33	34	55	329	1620	476	1520	135	101	39	e11	14
14	34	37	43	263	1730	605	1310	122	99	39	17	13
15	33	38	35	217	2210	1310	1170	115	81	31	21	12
16	38	40	49	192	2530	2800	1250	108	65	27	19	13
17	35	59	73	185	2100	2780	5600	104	61	34	18	11
18	32	325	378	176	1580	2190	3530	96	55	31	16	12
19	35	304	871	146	2120	1730	2550	96	66	39	16	15
20	39	144	546	127	3930	1400	1990	109	72	37	18	16
21	36	275	398	109	3750	1150	1580	113	73	37	18	12
22	35	163	314	92	3830	1000	1280	92	69	31	17	15
23	37	89	244	78	3010	895	1070	83	62	33	19	11
24	41	54	200	74	2340	782	894	78	54	27	17	17
25	59	36	160	76	1850	667	768	79	49	31	e13	17
26	234	34	130	104	1530	585	677	77	47	30	e6.5	17
27	289	126	128	98	1270	558	607	79	61	25	e7.3	15
28	108	219	333	355	1040	518	530	76	78	24	e10	12
29	70	127	576	636	863	405	479	73	98	20	18	9.0
30	76	68	453	394	---	451	587	79	112	19	17	11
31	52	---	331	348	---	520	---	79	---	24	16	---
TOTAL	1691	2648	7114	11198	44250	32430	34120	5263	2088	1175	516.8	451.0
MEAN	54.5	88.3	229	361	1526	1046	1137	170	69.6	37.9	16.7	15.0
MAX	289	325	871	1330	3930	2800	5600	576	112	104	27	23
MIN	27	19	30	74	215	405	199	73	47	19	6.5	9.0
AC-FT	3350	5250	14110	22210	87770	64320	67680	10440	4140	2330	1030	895
a	4670	3530	3950	4570	4110	4760	4770	4920	5320	5280	5270	5010

e Estimated.
a Diversion, in acre-feet, for municipal supply and industrial use; provided by Humboldt Bay Municipal Water District.

11481000 MAD RIVER NEAR ARCATA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	313	1081	2997	4588	4164	2438	1716	1167	358	97.2	40.3	39.3
MAX	2303	2903	9335	9175	9830	5054	3450	2669	1311	210	68.2	128
(WY)	1951	1954	1956	1953	1958	1957	1958	1953	1953	1953	1953	1912
MIN	22.0	32.0	136	852	1232	1028	489	277	104	36.6	19.2	18.2
(WY)	1953	1960	1960	1960	1955	1955	1951	1954	1959	1959	1959	1951

SUMMARY STATISTICS	WATER YEARS 1911 - 1960	
ANNUAL MEAN	1573	
HIGHEST ANNUAL MEAN	2377	1958
LOWEST ANNUAL MEAN	943	1955
HIGHEST DAILY MEAN	63100	Dec 22 1955
LOWEST DAILY MEAN	17	Sep 8 1951
ANNUAL SEVEN-DAY MINIMUM	17	Sep 4 1959
INSTANTANEOUS PEAK FLOW	77800	Dec 22 1955
INSTANTANEOUS PEAK STAGE	27.30	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	1139000	
10 PERCENT EXCEEDS	4010	
50 PERCENT EXCEEDS	400	
90 PERCENT EXCEEDS	31	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	235	1437	2745	3197	2863	2814	1700	603	179	53.0	44.6	68.2
MAX	2255	6671	10400	8847	9796	7150	6253	1519	1025	152	123	392
(WY)	1963	1974	1965	1970	1986	1975	1963	1967	1990	1964	1983	1986
MIN	29.4	60.1	29.8	135	138	194	165	122	31.2	8.40	7.04	15.0
(WY)	1979	1988	1977	1977	1977	1988	1988	1968	1974	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	189171		142944.8			
ANNUAL MEAN	518		391		1322	
HIGHEST ANNUAL MEAN					2478	1974
LOWEST ANNUAL MEAN					151	1977
HIGHEST DAILY MEAN	5870	Mar 5	5600	Apr 17	58000	Dec 22 1964
LOWEST DAILY MEAN	19	Nov 6	6.5	Aug 26	.10	Aug 29 1977
ANNUAL SEVEN-DAY MINIMUM	29	Oct 7	13	Aug 25	.63	Aug 23 1977
INSTANTANEOUS PEAK FLOW			7290	Apr 17	81000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			8.64	Apr 17	30.70	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	375200		283500		957700	
10 PERCENT EXCEEDS	1740		1270		3640	
50 PERCENT EXCEEDS	98		78		252	
90 PERCENT EXCEEDS	35		17		29	

11481200 LITTLE RIVER NEAR TRINIDAD, CA

LOCATION.--Lat 41°00'40", long 124°04'50", in NE 1/4 sec.8, T.7 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank 0.5 mi upstream from Coon Creek, 4.7 mi southeast of Trinidad, and 9.1 mi north of Arcata.

DRAINAGE AREA.--40.5 mi^2.

PERIOD OF RECORD.--October 1955 to current year. Prior to October 1971, published as "at Crannell."

REVISED RECORDS.--WSP 2129: 1956-60. WDR CA-78-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 17.62 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft^3/s, Mar. 18, 1975, gage height, 14.19 ft, from rating curve extended above 3,100 ft^3/s on basis of slope-area measurement at gage height 14.08 ft; minimum daily, 1.8 ft^3/s, Sept. 25-29, 1991.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 17, 18, 1953, reached a stage of 15.7 ft, observed by an employee of Hammond Lumber Co.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 16	2400	*1,400	*5.10				

Minimum daily, 2.0 ft^3/s, Oct. 3-22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	12	22	29	388	52	42	58	16	19	5.6	4.0
2	2.1	11	19	29	143	47	38	49	16	13	6.1	4.2
3	2.0	11	18	29	82	42	36	46	16	11	6.2	4.2
4	2.0	10	17	87	59	45	34	42	14	13	6.2	4.5
5	2.0	9.7	16	126	46	274	32	40	13	16	6.2	5.1
6	2.0	10	107	78	38	158	30	39	12	12	6.1	5.0
7	2.0	10	241	100	32	105	29	38	13	10	5.7	4.9
8	2.0	10	96	88	28	82	28	37	13	8.8	5.6	4.7
9	2.0	10	58	67	30	67	39	35	12	8.0	5.1	4.6
10	2.0	10	44	58	49	58	253	32	12	7.8	5.0	4.2
11	2.0	10	36	52	49	53	162	30	12	7.4	4.6	4.0
12	2.0	10	31	46	73	49	160	30	12	7.4	4.6	3.7
13	2.0	10	27	41	80	47	125	29	20	7.2	4.6	3.7
14	2.0	11	25	37	252	66	96	29	19	6.6	4.6	3.7
15	2.0	12	23	35	288	72	80	28	14	6.2	4.9	3.7
16	2.0	12	21	33	491	164	178	26	13	6.2	5.1	3.7
17	2.0	43	21	33	314	132	787	25	12	6.2	5.1	3.7
18	2.0	46	175	31	177	96	308	24	10	6.2	5.1	3.3
19	2.0	29	158	28	135	77	198	24	10	6.2	4.5	3.3
20	2.0	58	89	26	285	68	148	27	10	6.5	4.2	3.3
21	2.0	46	63	25	366	61	121	23	10	6.8	4.2	3.3
22	2.0	30	51	24	289	55	100	22	9.3	6.8	4.2	3.3
23	3.5	23	42	23	201	53	87	21	8.7	6.6	4.8	3.3
24	3.9	19	37	23	146	52	76	19	8.7	6.0	4.6	4.5
25	19	17	33	23	109	46	69	19	8.7	5.9	4.6	4.6
26	123	18	31	24	85	44	62	19	8.7	5.8	4.4	5.1
27	41	97	29	25	72	42	59	19	8.7	5.6	4.2	5.1
28	21	44	45	68	62	39	53	17	10	5.6	4.2	4.9
29	21	31	41	50	57	37	50	17	28	5.6	4.2	4.6
30	19	26	34	41	---	55	73	17	23	5.9	4.1	4.6
31	14	---	30	153	---	50	---	16	---	5.6	3.5	---
TOTAL	309.6	695.7	1680	1532	4426	2288	3553	897	392.8	250.9	152.1	124.8
MEAN	9.99	23.2	54.2	49.4	153	73.8	118	28.9	13.1	8.09	4.91	4.16
MAX	123	97	241	153	491	274	787	58	28	19	6.2	5.1
MIN	2.0	9.7	16	23	28	37	28	16	8.7	5.6	3.5	3.3
AC-FT	614	1380	3330	3040	8780	4540	7050	1780	779	498	302	248

11481200 LITTLE RIVER NEAR TRINIDAD, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	30.4	173	306	322	287	263	133	70.8	29.5	12.5	8.15	8.08
MAX	202	849	1083	1145	816	819	521	271	157	31.4	23.3	28.4
(WY)	1963	1974	1965	1970	1986	1975	1963	1960	1988	1983	1983	1986
MIN	4.70	5.53	7.45	28.2	19.7	35.5	22.1	21.9	12.2	6.12	3.59	3.89
(WY)	1988	1960	1977	1977	1977	1988	1977	1987	1966	1959	1959	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1956 - 1992	
ANNUAL TOTAL	22366.6		16301.9			
ANNUAL MEAN	61.3		44.5		136	
HIGHEST ANNUAL MEAN					240	1974
LOWEST ANNUAL MEAN					23.8	1977
HIGHEST DAILY MEAN	1070	Jan 13	787	Apr 17	7860	Mar 18 1975
LOWEST DAILY MEAN	1.8	Sep 25	2.0	Oct 3	1.8	Sep 25 1991
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 24	2.0	Oct 3	1.9	Sep 24 1991
INSTANTANEOUS PEAK FLOW			1400	Apr 16	9830	Mar 18 1975
INSTANTANEOUS PEAK STAGE			5.10	Apr 16	14.19	Mar 18 1975
ANNUAL RUNOFF (AC-FT)	44360		32330		98790	
10 PERCENT EXCEEDS	145		101		352	
50 PERCENT EXCEEDS	28		21		33	
90 PERCENT EXCEEDS	3.3		3.8		5.9	

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA

LOCATION.--Lat 40°54'22", long 123°48'51", in SE 1/4 NE 1/4 sec.15, T.6 N., R.3 E., Humboldt County, Hydrologic Unit 18010102, on right bank 400 ft upstream from Lupton Creek and 9.1 mi east of town of Blue Lake.

DRAINAGE AREA.--67.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1953 to September 1958, October 1972 to current year.

REVISED RECORDS.--WDR CA-78-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft^3/s, Mar. 18, 1975, gage height, 13.70 ft, from rating curve extended above 6,400 ft^3/s; minimum daily, 1.8 ft^3/s, Oct. 19-22, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 16	2201	*1,370	*4.74				

Minimum daily, 1.9 ft^3/s, Sept. 21, 27, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	9.8	25	51	147	116	80	107	30	25	4.4	e2.6
2	3.0	9.0	23	46	123	105	72	93	29	22	4.2	e2.7
3	2.9	8.6	21	43	103	96	69	85	29	19	4.1	e2.7
4	3.0	8.0	20	112	93	94	68	79	28	18	3.9	e2.7
5	3.0	8.0	19	236	85	329	66	73	26	19	4.0	e2.6
6	3.0	8.0	38	185	79	259	63	68	26	18	4.0	e2.6
7	3.1	7.2	124	143	73	201	60	65	26	17	3.6	e2.6
8	3.2	7.5	71	113	69	168	57	63	26	15	3.7	e2.5
9	3.5	8.4	49	95	74	145	148	61	25	14	3.6	e2.4
10	3.3	8.7	41	85	97	126	387	59	25	13	3.4	e2.4
11	3.1	8.3	35	95	171	111	249	56	26	11	3.1	e2.4
12	3.1	8.0	30	82	237	102	253	54	26	11	e2.9	e2.4
13	3.0	8.0	28	72	216	93	233	52	27	11	e2.9	e2.3
14	2.9	8.8	26	67	273	124	196	49	32	9.5	e2.9	e2.2
15	2.9	8.9	24	64	284	312	166	47	35	9.3	e2.9	e2.2
16	2.9	8.8	22	62	360	381	418	45	33	8.6	e2.9	e2.1
17	2.6	53	21	65	309	331	679	44	31	8.0	e2.9	e2.1
18	2.9	107	141	65	278	251	350	43	30	7.8	e2.9	e2.1
19	2.9	48	109	58	345	209	266	45	28	7.8	e2.8	e2.1
20	2.9	65	81	53	517	184	230	51	27	7.7	e2.7	e2.0
21	2.8	62	65	50	697	164	202	46	27	8.0	e2.7	e1.9
22	2.9	38	56	46	461	148	180	43	25	8.0	e2.7	e2.0
23	3.3	29	50	43	314	135	160	39	23	8.5	e2.7	e2.1
24	4.0	24	44	42	251	126	141	38	23	8.1	e2.7	e2.3
25	11	21	41	52	219	111	128	37	21	7.3	e2.7	e2.7
26	81	22	37	53	192	103	119	35	22	6.4	e2.7	e2.2
27	33	74	48	52	165	92	111	35	22	6.1	e2.7	e1.9
28	17	45	126	209	143	87	103	33	22	5.0	e2.7	e1.9
29	17	33	102	135	126	80	97	33	23	4.7	e2.7	e2.1
30	15	28	72	102	---	93	120	33	27	4.6	e2.6	e2.0
31	11	---	57	91	---	92	---	31	---	4.4	e2.6	---
TOTAL	258.5	783.0	1646	2667	6501	4968	5471	1642	800	342.8	97.3	68.8
MEAN	8.34	26.1	53.1	86.0	224	160	182	53.0	26.7	11.1	3.14	2.29
MAX	81	107	141	236	697	381	679	107	35	25	4.4	2.7
MIN	2.6	7.2	19	42	69	80	57	31	21	4.4	2.6	1.9
AC-FT	513	1550	3260	5290	12890	9850	10850	3260	1590	680	193	136

e Estimated.

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	41.7	269	457	482	544	479	291	144	61.1	20.7	9.77	9.64
MAX	226	1179	1563	1628	1479	1306	748	304	179	35.8	27.4	29.2
(WY)	1974	1974	1956	1956	1958	1975	1982	1984	1990	1983	1983	1986
MIN	2.30	15.2	12.3	31.3	42.2	81.5	62.6	53.0	22.3	10.5	3.14	2.19
(WY)	1988	1977	1977	1977	1977	1988	1988	1992	1987	1985	1992	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	33995.4		25245.4			
ANNUAL MEAN	93.1		69.0		232	
HIGHEST ANNUAL MEAN					423	1956
LOWEST ANNUAL MEAN					44.2	1977
HIGHEST DAILY MEAN	831	Mar 4	697	Feb 21	8360	Mar 18 1975
LOWEST DAILY MEAN	2.6	Oct 17	1.9	Sep 21	1.8	Oct 19 1987
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 15	2.0	Sep 16	1.9	Oct 16 1987
INSTANTANEOUS PEAK FLOW			1370	Apr 16	12200	Mar 18 1975
INSTANTANEOUS PEAK STAGE			4.74	Apr 16	13.70	Mar 18 1975
ANNUAL RUNOFF (AC-FT)	67430		50070		168400	
10 PERCENT EXCEEDS	254		187		591	
50 PERCENT EXCEEDS	46		33		72	
90 PERCENT EXCEEDS	4.7		2.7		6.7	

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.
CHEMICAL DATA: Water years 1974-75.
WATER TEMPERATURE: Water years 1973 to current year.
SEDIMENT DATA: Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1972 to September 1981, October 1981 to current year (storm season only).
SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1981, October 1981 to current year (storm season only).

REMARKS.--Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 33.5°C, Aug. 2, 1977; minimum recorded, 0.5°C, Jan. 9, 1977.
SEDIMENT CONCENTRATION: Maximum daily mean, 11,200 mg/L, Mar. 18, 1975; minimum daily mean, 0 mg/L, at times in several years.
SEDIMENT LOAD: Maximum daily, 276,000 tons, Mar. 18, 1975; minimum daily, 0 ton, at times in several years.

EXTREMES FOR CURRENT YEAR (storm season only).--
SEDIMENT CONCENTRATION: Maximum daily mean, 303 mg/L, Apr. 17; minimum daily mean, 1 mg/L, on many days.
SEDIMENT LOAD: Maximum daily, 750 tons, Apr. 16; minimum daily, 0.01 tons on several days.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTMEBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE 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
DEC								
21...	1500	7	29	6.0	--	--	2	5
APR								
02...	1605	1	72	15.0	--	--	--	1
02...	1607	1	72	15.0	--	1	2	7
02...	1609	1	72	15.0	--	--	1	4
02...	1611	1	72	15.0	--	--	1	4
02...	1613	1	72	15.0	--	--	--	1
02...	1615	1	72	15.0	--	--	--	1
02...	1617	1	72	15.0	--	--	--	1
02...	1619	1	72	15.0	--	--	1	7
02...	1621	1	72	15.0	--	1	3	11
02...	1623	1	72	15.0	1	3	13	25

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
DEC								
21...	11	17	25	34	45	56	67	100
APR								
02...	1	1	3	5	7	12	20	100
02...	13	21	35	53	70	88	100	--
02...	9	18	28	40	57	77	100	--
02...	9	13	21	32	45	70	100	--
02...	4	6	8	11	16	31	46	100
02...	5	10	14	17	23	33	54	100
02...	5	9	14	21	32	59	100	--
02...	18	30	42	56	76	100	--	--
02...	20	27	36	48	63	81	100	--
02...	35	47	63	81	93	100	--	--

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	---	8.0	---	---	7.0	---	---
2	---	---	---	---	---	---	15.0
3	---	---	4.0	---	---	---	---
4	17.5	---	---	---	---	---	---
5	---	---	---	7.0	7.0	---	8.0
6	15.0	9.0	---	7.0	5.5	9.0	---
7	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---
9	---	---	---	---	9.0	---	---
10	---	11.0	5.0	---	---	11.0	10.0
11	---	---	---	6.0	---	---	12.0
12	14.0	---	6.0	---	---	---	---
13	---	---	---	---	---	---	---
14	---	---	---	---	7.0	---	---
15	---	7.0	---	---	7.0	9.0	12.0
16	---	---	---	5.0	---	9.0	---
17	15.0	6.0	5.0	---	7.5	---	11.0
18	---	8.0	6.0	---	---	---	12.0
19	---	9.5	4.5	---	---	---	---
20	---	---	---	---	---	---	11.0
21	---	---	---	---	---	---	---
22	---	---	---	---	---	9.0	---
23	11.0	---	---	4.0	---	---	---
24	---	7.5	5.0	---	---	---	---
25	---	---	---	---	---	---	---
26	11.5	---	---	---	---	---	14.0
27	9.5	---	---	---	11.0	10.0	---
28	---	---	---	---	---	---	---
29	---	---	---	6.0	---	---	---
30	---	4.0	---	---	---	9.0	---
31	8.0	---	---	---	---	---	---

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	3.3	3	.03	9.8	1	.03	25	1	.07
2	3.0	4	.03	9.0	1	.02	23	1	.06
3	2.9	4	.03	8.6	1	.02	21	1	.06
4	3.0	5	.04	8.0	1	.02	20	1	.06
5	3.0	2	.02	8.0	1	.02	19	1	.05
6	3.0	1	.01	8.0	1	.02	38	5	.96
7	3.1	1	.01	7.2	1	.02	124	18	6.7
8	3.2	2	.01	7.5	1	.02	71	3	.56
9	3.5	2	.02	8.4	1	.02	49	2	.23
10	3.3	3	.02	8.7	1	.02	41	1	.13
11	3.1	3	.03	8.3	1	.02	35	1	.09
12	3.1	4	.03	8.0	1	.02	30	1	.08
13	3.0	3	.02	8.0	1	.02	28	1	.08
14	2.9	2	.02	8.8	1	.02	26	1	.07
15	2.9	2	.01	8.9	1	.03	24	1	.06
16	2.9	1	.01	8.8	2	.04	22	1	.06
17	2.6	1	.01	53	44	9.1	21	1	.06
18	2.9	1	.01	107	52	17	141	76	35
19	2.9	1	.01	48	10	1.3	109	15	4.7
20	2.9	1	.01	65	7	1.2	81	4	.80
21	2.8	1	.01	62	6	.94	65	2	.31
22	2.9	1	.01	38	4	.46	56	1	.22
23	3.3	1	.01	29	4	.28	50	1	.15
24	4.0	1	.01	24	3	.21	44	1	.12
25	11	4	.34	21	5	.25	41	1	.11
26	81	31	6.9	22	7	.40	37	1	.1
27	33	13	1.2	74	12	2.6	48	7	2.4
28	17	6	.31	45	4	.44	126	22	7.6
29	17	3	.15	33	2	.14	102	6	1.8
30	15	2	.07	28	1	.08	72	3	.66
31	11	1	.03	---	---	---	57	2	.37
TOTAL	258.5	---	9.42	783.0	---	34.76	1646	---	63.72

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	51	2	.25	147	10	4.1	116	3	.90
2	46	1	.18	123	8	2.6	105	3	.74
3	43	1	.13	103	6	1.8	96	2	.60
4	112	15	8.9	93	5	1.3	94	2	.66
5	236	37	25	85	3	.69	329	36	35
6	185	9	4.8	79	1	.21	259	20	14
7	143	5	2.0	73	1	.20	201	12	6.7
8	113	4	1.1	69	1	.19	168	8	3.6
9	95	3	.70	74	1	.20	145	5	1.9
10	85	2	.53	97	4	1.3	126	3	1.1
11	95	2	.51	171	17	9.3	111	3	.81
12	82	2	.38	237	26	17	102	2	.66
13	72	1	.29	216	11	6.7	93	2	.54
14	67	1	.24	273	32	29	124	4	1.3
15	64	1	.19	284	23	18	312	43	48
16	62	1	.19	360	43	42	381	34	35
17	65	2	.33	309	27	22	331	16	14
18	65	2	.31	278	21	16	251	12	8.0
19	58	2	.25	345	24	25	209	9	5.1
20	53	1	.20	517	70	100	184	7	3.4
21	50	1	.17	697	181	360	164	5	2.3
22	46	1	.14	461	84	109	148	4	1.6
23	43	1	.12	314	30	26	135	4	1.4
24	42	1	.11	251	15	10	126	4	1.2
25	52	3	.45	219	9	5.4	111	3	1.0
26	53	3	.38	192	6	3.1	103	3	.88
27	52	2	.31	165	4	1.9	92	3	.77
28	209	25	17	143	4	1.4	87	4	.85
29	135	10	3.8	126	3	1.1	80	4	.92
30	102	6	1.7	---	---	---	93	5	1.2
31	91	5	1.3	---	---	---	92	4	1.0
TOTAL	2667	---	71.96	6501	---	816.49	4968	---	195.13

DAY	APRIL	
1	80	4	.78
2	72	3	.59
3	69	2	.40
4	68	1	.26
5	66	1	.18
6	63	1	.17
7	60	1	.16
8	57	1	.15
9	148	62	58
10	387	81	92
11	249	21	14
12	253	14	9.5
13	233	11	6.8
14	196	8	4.4
15	166	6	2.9
16	418	266	750
17	679	303	630
18	350	68	66
19	266	25	18.
20	230	12	7.7
21	202	8	4.5
22	180	6	3.1
23	160	5	2.2
24	141	4	1.7
25	128	4	1.3
26	119	3	1.0
27	111	3	.85
28	103	2	.69
29	97	2	.57
30	120	3	1.0
31	---	---	---
TOTAL	5471	---	1678.90
PERIOD	22294.50		2870.38

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA--Continued

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDKLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1991	258.50	9.42	0	9
NOVEMBER	783.00	34.76	0	35
DECEMBER	1646.00	63.72	0	64
JANUARY 1992	2667.00	71.96	0	72
FEBRUARY	6501.00	816.49	76	892
MARCH	4968.00	195.13	12	207
APRIL	5471.00	1678.90	88	1770
PERIOD	22294.50	2870.38	176	3049

11482500 REDWOOD CREEK AT ORICK, CA

LOCATION.--Lat 41°17'58", long 124°03'00", in NE 1/4 NE 1/4 sec.34, T.11 N., R.1 E., Humboldt County, Hydrologic Unit 18010102, on right bank on U.S. Highway 101, 0.8 mi north of Orick, 300 ft downstream from Prairie Creek, and 3.7 mi upstream from mouth.
DRAINAGE AREA.--277 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to September 1913, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
REVISED RECORDS.--WSP 1315-B: 1912-13.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 5.16 ft above National Geodetic Vertical Datum of 1929. Sept. 10, 1911, to Aug. 9, 1913, nonrecording gage at different datum. October 1953 to Apr. 16, 1987, at site 0.9 mi downstream at same datum. May 7, 1987, to Aug. 3, 1987, nonrecording gage at same site and datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,500 ft^3/s, Dec. 22, 1964, gage height, 24.0 ft, former site, from outside high-water marks; minimum daily, 2.1 ft^3/s, Oct. 20-22, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 18, 1953, reached a stage of 23.95 ft, former site, from floodmarks, discharge, 50,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 17	Unknown	e*5,000	Unknown				

Minimum daily, 3.7 ft^3/s, Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	48	105	214	1100	631	435	476	114	90	17	5.3
2	12	42	92	195	861	569	402	407	111	72	17	5.3
3	13	38	79	193	657	510	382	362	107	62	16	5.3
4	13	37	74	406	552	508	364	328	105	59	15	5.3
5	11	35	68	e840	483	1290	350	304	102	61	15	5.1
6	11	34	165	e750	411	1250	334	286	95	59	15	5.0
7	12	33	889	e693	366	904	329	270	94	53	15	5.1
8	13	33	517	e583	339	773	322	261	89	50	14	4.8
9	12	34	333	455	359	680	371	248	84	48	14	4.4
10	12	34	255	398	393	610	1380	236	81	45	13	4.4
11	11	32	212	392	462	558	1290	224	78	43	12	4.4
12	11	31	187	355	602	520	1370	218	77	42	12	4.4
13	11	34	168	311	665	486	e1050	210	96	38	10	4.4
14	10	37	157	288	831	516	e800	203	112	35	9.1	4.4
15	9.6	35	144	266	1410	742	e660	194	101	35	8.4	4.2
16	9.6	33	135	246	2290	1380	e1200	187	86	33	8.2	4.0
17	9.3	107	127	252	2210	1270	e3000	178	79	30	8.2	4.1
18	9.3	342	486	246	1460	1010	e2200	171	76	30	8.1	4.1
19	9.3	249	758	229	1340	859	e1700	166	71	30	7.9	4.1
20	9.0	293	484	208	2200	767	e1300	174	70	30	7.7	4.1
21	8.9	308	359	197	2880	700	e1050	171	66	30	7.2	4.0
22	8.9	183	297	184	2690	664	e850	162	62	28	6.7	3.9
23	9.2	132	251	175	1930	659	e740	154	59	28	6.1	3.7
24	9.6	109	216	169	1490	605	667	148	58	26	6.0	3.9
25	13	88	196	176	1190	547	593	141	55	25	5.6	4.7
26	298	79	183	175	992	505	539	138	52	25	5.6	4.5
27	265	230	174	189	854	470	496	133	48	24	5.6	4.3
28	117	223	273	467	748	442	455	128	50	22	5.3	4.1
29	87	151	362	499	677	417	424	124	94	20	5.3	4.1
30	65	120	295	335	---	471	531	122	102	19	5.3	3.9
31	55	---	244	376	---	491	---	119	---	18	5.3	---
TOTAL	1157.7	3184	8285	10462	32442	21804	25584	6643	2474	1210	306.6	133.3
MEAN	37.3	106	267	337	1119	703	853	214	82.5	39.0	9.89	4.44
MAX	298	342	889	840	2880	1380	3000	476	114	90	17	5.3
MIN	8.9	31	68	169	339	417	322	119	48	18	5.3	3.7
AC-FT	2300	6320	16430	20750	64350	43250	50750	13180	4910	2400	608	264

e Estimated.

11482500 REDWOOD CREEK AT ORICK, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	171	1144	2120	2394	2184	1957	1189	608	236	83.9	41.7	40.7
MAX	1559	5219	8981	6041	6320	5565	4026	1732	857	161	91.6	149
(WY)	1963	1974	1965	1956	1986	1975	1963	1912	1988	1983	1968	1986
MIN	2.91	35.3	42.1	180	190	297	251	188	77.3	35.7	9.89	4.44
(WY)	1988	1960	1977	1977	1977	1988	1988	1987	1987	1987	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	161517.7		113685.6			
ANNUAL MEAN	443		311		1009	
HIGHEST ANNUAL MEAN					1726	1974
LOWEST ANNUAL MEAN					192	1977
HIGHEST DAILY MEAN	3920	Mar 5	3000	Apr 17	43200	Dec 22 1964
LOWEST DAILY MEAN	8.9	Oct 21	3.7	Sep 23	2.1	Oct 20 1987
ANNUAL SEVEN-DAY MINIMUM	9.1	Oct 17	4.0	Sep 18	2.2	Oct 17 1987
INSTANTANEOUS PEAK FLOW			5000	Apr 17	50500	Dec 22 1964
INSTANTANEOUS PEAK STAGE					24.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	320400		225500		731200	
10 PERCENT EXCEEDS	1250		809		2710	
50 PERCENT EXCEEDS	196		132		299	
90 PERCENT EXCEEDS	17		5.6		26	

11482500 REDWOOD CREEK AT ORICK, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-56, 1959 to current year.
CHEMICAL DATA: Water years 1959-66, 1973-81.
WATER TEMPERATURE: Water years 1966 to current year.
SEDIMENT DATA: Water years 1955-56, 1970 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1965 to September 1981, October 1981 to current year (storm season only).
SUSPENDED-SEDIMENT DISCHARGE: March 1970 to September 1981, October 1981 to current year (storm season only).

REMARKS.--Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 9,610 mg/L, Mar. 18, 1975; minimum daily mean, 0 mg/L, Nov. 10-12, 1986, Apr. 20, 29, 30, 1987, several days during 1989-90, many days during 1991.
SEDIMENT LOAD: Maximum daily, 1,070,000 tons, Mar. 18, 1975; minimum daily, 0 ton, Nov. 10-12, 1986, Apr. 20, 29, 30, 1987, several days during 1989-90, many days during 1991.

EXTREMES FOR CURRENT YEAR (storm season only).--
SEDIMENT CONCENTRATION: Maximum daily mean, 647 mg/L, Apr. 17; minimum daily mean, 1 mg/L many days.
SEDIMENT LOAD: Maximum daily, 5,240 tons, Apr. 17; minimum daily, 0.03 tons, Oct. 1, 9-12.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
28...	1520	109	13.0	9	2.6	64	--	--	--	--
JAN										
15...	1250	271	7.5	12	8.8	91	--	--	--	--
FEB										
01...	1120	1150	9.5	74	230	76	85	93	100	--
22...	1140	2720	11.0	155	1140	76	81	88	98	100
APR										
23...	1310	740	12.0	12	24	82	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
JAN												
15...	1310	28	271	7.5	4	14	27	47	72	92	99	100

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORIZONTAL WIDTH OF VERTICAL (FEET)
FEB									
01...	1152	1000	1100	0.250	0	1145	1200	20	7.0
01...	1210	1000	1100	0.250	0	1205	1219	20	7.0
22...	1215	1000	1100	0.250	0	1158	1228	15	6.0
22...	1245	1000	1100	0.250	0	1230	1300	15	6.0
APR									
23...	1325	1000	1100	0.250	0	1318	1329	20	6.0
23...	1345	1000	1100	0.250	0	1338	1349	20	6.0

11482500 REDWOOD CREEK AT ORICK, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR 1991 TO SEPTEMBER 1992

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
FEB									
01...	1	19	19	3.00	1160	9.5	2.44	322	1
01...	1	19	19	3.00	1160	9.5	3.43	453	--
22...	1	24	24	4.00	2670	11.0	5.47	689	--
22...	1	24	24	4.00	2620	11.0	9.82	1240	--
APR									
23...	1	23	23	3.00	740	12.0	1.39	195	--
23...	1	23	23	3.00	740	12.0	1.28	179	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
FEB								
01...	1	7	15	28	52	88	100	--
01...	1	5	14	36	67	89	100	--
22...	1	6	15	33	55	73	88	100
22...	1	6	19	38	58	77	91	100
APR								
23...	--	2	18	44	69	89	99	100
23...	--	2	16	49	79	94	99	100

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	13.0	---	---	---	10.5	12.0	18.0
2	---	---	---	8.0	10.5	---	---
3	---	---	---	9.0	10.0	---	13.0
4	---	---	---	6.5	---	11.5	---
5	14.5	---	9.0	7.5	8.0	12.5	---
6	---	---	---	7.5	8.0	9.5	14.0
7	---	---	---	8.5	8.0	11.0	---
8	13.0	---	---	8.0	7.0	13.5	14.0
9	---	---	---	6.0	10.0	---	13.0
10	---	---	---	7.0	11.0	---	13.5
11	---	---	---	---	11.0	12.5	13.5
12	14.0	---	---	7.5	11.5	---	12.0
13	---	---	---	---	11.0	13.5	13.0
14	---	---	---	6.5	9.0	13.0	---
15	---	---	---	9.0	8.0	11.0	14.5
16	14.0	---	---	8.0	8.5	12.5	13.5
17	---	---	---	10.0	10.0	9.5	14.0
18	---	---	---	---	11.0	9.5	15.5
19	---	---	7.0	---	10.5	---	---
20	12.0	---	6.0	5.0	10.5	---	14.0
21	---	---	6.5	---	11.0	---	14.5
22	---	---	---	9.0	11.0	13.0	14.0
23	10.0	---	7.0	---	---	13.0	12.0
24	---	---	---	9.0	11.0	---	13.5
25	---	---	---	9.0	---	---	---
26	---	---	9.0	9.5	12.0	12.5	14.0
27	---	---	9.5	10.0	---	---	18.0
28	13.0	---	10.0	10.5	11.5	---	---
29	---	---	9.0	10.5	---	12.0	---
30	---	---	8.5	10.0	---	13.0	15.0
31	---	---	6.0	10.0	---	---	---

11482500 REDWOOD CREEK AT ORICK--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	13	1	.03	48	2	.24	105	2	.52
2	12	1	.04	42	2	.21	92	2	.39
3	13	1	.05	38	2	.18	79	1	.29
4	13	2	.06	37	2	.17	74	1	.23
5	11	2	.06	35	2	.15	68	1	.19
6	11	2	.04	34	2	.14	165	11	19
7	12	1	.04	33	1	.13	889	88	222
8	13	1	.04	33	1	.13	517	19	28
9	12	1	.03	34	1	.12	333	5	4.6
10	12	1	.03	34	1	.12	255	3	2.0
11	11	1	.03	32	1	.11	212	3	1.5
12	11	1	.03	31	1	.10	187	2	1.2
13	11	1	.04	34	1	.11	168	2	.95
14	10	1	.04	37	1	.11	157	2	.84
15	9.6	2	.05	35	1	.10	144	2	.78
16	9.6	2	.05	33	1	.09	135	2	.73
17	9.3	2	.05	107	1	.53	127	2	.69
18	9.3	2	.05	342	18	18	486	57	113
19	9.3	2	.05	249	11	7.6	758	56	119
20	9.0	2	.05	293	10	8.6	484	11	15
21	8.9	2	.05	308	8	7.0	359	4	3.6
22	8.9	2	.05	183	4	1.9	297	2	1.5
23	9.2	2	.05	132	3	1.0	251	1	.72
24	9.6	2	.05	109	3	.75	216	1	.58
25	13	2	.07	88	2	.55	196	1	.53
26	298	32	39	79	2	.46	183	1	.50
27	265	28	21	230	8	5.2	174	1	.47
28	117	11	3.6	223	6	3.5	273	5	4.7
29	87	5	1.3	151	3	1.3	362	4	4.3
30	65	3	.51	120	2	.74	295	1	1.0
31	55	2	.29	---	---	---	244	2	1.3
TOTAL	1157.7	---	66.83	3184	---	59.34	8285	---	550.11

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	214	2	1.2	1100	101	301	631	4	6.9
2	195	2	.80	861	21	50	569	3	4.8
3	193	1	.59	657	9	16	510	2	3.2
4	406	10	13	552	6	8.5	508	4	6.2
5	e840	45	100	483	4	5.4	1290	63	226
6	e750	21	40	411	4	4.2	1250	43	149
7	e693	18	30	366	3	3.1	904	16	38
8	e583	9	15	339	3	2.7	773	14	28
9	455	6	7.0	359	3	3.4	680	9	17
10	398	4	4.1	393	3	3.5	610	5	9.0
11	392	2	2.3	462	4	5.4	558	3	5.0
12	355	1	1.1	602	11	17	520	3	3.5
13	311	1	.84	678	13	23	486	2	2.7
14	288	1	.97	836	57	192	516	2	3.0
15	266	2	1.3	1410	146	596	742	40	124
16	246	1	.72	2300	191	1320	1380	107	395
17	252	1	.96	2210	90	558	1270	32	113
18	246	1	.66	1460	40	158	1010	17	47
19	229	1	.62	1340	30	109	859	12	27
20	208	1	.56	2200	145	952	767	8	17
21	197	1	.53	2880	222	1830	700	6	11
22	184	1	.51	2690	171	1280	664	4	7.5
23	175	1	.60	1930	77	403	659	4	7.0
24	169	2	.73	1490	40	162	605	3	5.2
25	176	1	.68	1190	26	84	547	2	3.7
26	175	1	.51	992	18	48	505	2	2.9
27	189	2	1.0	854	10	24	470	3	3.3
28	467	35	58	748	6	12	442	3	3.9
29	499	34	50	677	5	9.0	417	4	4.9
30	335	5	4.2	---	---	---	471	6	7.9
31	376	7	12	---	---	---	491	4	5.7
TOTAL	10462	---	350.48	32470	---	8180.2	21804	---	1288.3

e Estimated.

11482500 REDWOOD CREEK AT ORICK, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)
		APRIL	
1	435	2	2.8
2	402	2	2.6
3	382	3	3.0
4	364	3	2.6
5	350	2	2.2
6	334	2	1.8
7	329	1	1.3
8	322	1	.94
9	371	6	6.8
10	1380	133	583
11	1290	46	169
12	1370	48	179
13	e1050	25	70
14	e800	16	35
15	e660	11	20
16	e1200	25	80
17	e3000	647	5240
18	e2200	141	840
19	e1700	47	215
20	e1300	24	85
21	e1050	15	40
22	e850	11	25
23	e740	9	18
24	667	8	14
25	593	7	11
26	539	6	8.7
27	496	5	6.7
28	455	4	5.1
29	424	3	3.8
30	531	11	16
31	---	---	---
TOTAL	25584	---	7688.34
PERIOD	102918.70		18183.60

e Estimated.

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1991	1157.70	66.83	0	67
NOVEMBER	3184.00	59.34	0	59
DECEMBER	8285.00	550.11	21	571
JANUARY 1992	10462.00	350.48	11	361
FEBRUARY	32442.00	8180.20	6060	14200
MARCH	21804.00	1288.30	592	1880
APRIL	25584.00	7688.34	4200	11900
PERIOD	102918.70	18183.60	10884	29038

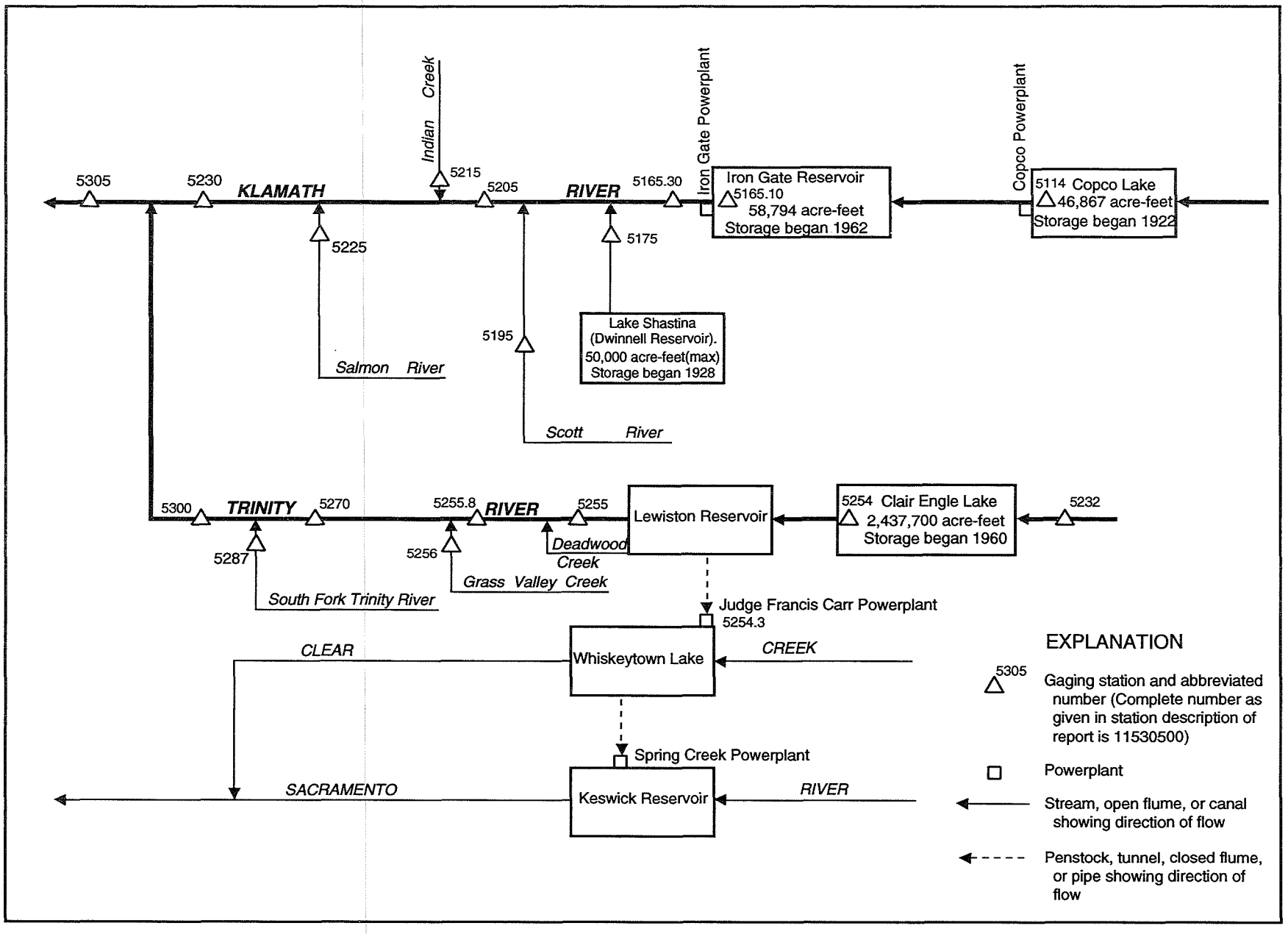


Figure 26. Diversions and storage in Klamath River and Trinity River basins.

RESERVOIRS IN KLAMATH RIVER BASIN, CA

11511400 COPCO LAKE NEAR COPCO.--Lat 41°58'46", long 122°20'00", in SE 1/4 SW 1/4 sec.29, T.48 N., R.4 W., Siskiyou County, Hydrologic Unit 18010206, 12.7 mi northeast of Hornbrook. DRAINAGE AREA, 4,300 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins). PERIOD OF RECORD, October 1967 to current year (monthend contents only). GAGE, pressure device and telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by PacifiCorp, formerly Pacific Power and Light Co.). Monthend contents computed from capacity table provided by Pacific Power and Light Co., dated Aug. 25, 1964.

REMARKS.--Lake is formed by gravity-type dam completed in 1922. Usable capacity, 17,107 acre-ft between elevations 2,607.5 ft, top of tainter gates, and 2,588.5 ft, invert to powerplant intake. Dead storage 29,760 acre-ft below elevation 2,588.5 ft. Figures given represent total contents at 0800 hours. Lake is used for power generation. See schematic diagram of Klamath River and Trinity River basins.

COOPERATION.--Records were provided by PacifiCorp, formerly Pacific Power & Light Co., in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 46,818 acre-ft, June 24, 1969, elevation, 2,607.45 ft; minimum since first filling, 30,360 acre-ft, Aug. 19, 1971, elevation, 2,589.24 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 45,734 acre-ft, Apr. 27, elevation, 2,606.35 ft; minimum, 33,923 acre-ft, Mar. 20, elevation, 2,593.50 ft.

11516510 IRON GATE RESERVOIR NEAR HORNBROOK.--Lat 41°55'58", long 122°26'06", in SW 1/4 SW 1/4 sec.9, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, 6.6 mi northeast of Hornbrook. DRAINAGE AREA, 4,573 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins). PERIOD OF RECORD, October 1967 to current year (monthend contents only). GAGE, pressure device and telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by PacifiCorp, formerly Pacific Power and Light Co.). Monthend contents computed from capacity table provided by Pacific Power and Light Co., dated Feb. 15, 1960.

REMARKS.--Reservoir is formed by earth and rockfill dam completed in 1962. Usable capacity, 58,387 acre-ft, between elevations 2,328.0 ft, crest of spillway, and 2,184.75 ft, invert to diversion tunnel. Dead storage 407 acre-ft. Normal operating pool is from elevations 2,305.0 ft, capacity, 39,963 acre-ft, to 2,328.0 ft, capacity, 58,794 acre-ft. Figures given represent total contents at 0800 hours. Reservoir is used for power generation and recreation. See schematic diagram of Klamath River and Trinity River basins.

COOPERATION.--Records were provided by PacifiCorp, formerly Pacific Power and Light Co., in connection with a Federal Energy Regulatory Commission project. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents, 61,776 acre-ft, Mar. 3, 1972, elevation, 2,330.96 ft; minimum since first filling, 50,103 acre-ft, Dec. 9, 1968, elevation, 2,318.40 ft.

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents, 57,688 acre-ft, May 27, elevation, 2,326.86 ft; minimum, 53,915 acre-ft, Jan. 30, elevation, 2,322.80 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

	11511400 COPCO LAKE			11516510 IRON GATE RESERVOIR		
Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,605.00	44,419	--	2,325.72	56,604	--
Oct. 31	2,603.55	43,030	-1,389	2,326.23	57,087	+483
Nov. 30	2,600.18	39,874	-3,156	2,324.73	55,678	-1,409
Dec. 31	2,599.51	39,259	-615	2,324.09	55,087	-591
CAL YR 1991	--	--	-4,776	--	--	-4,004
Jan. 31	2,599.47	39,222	-37	2,323.95	54,959	-128
Feb. 29	2,602.06	41,622	+2,400	2,325.41	56,313	+1,354
Mar. 31	2,604.19	43,640	+2,018	2,325.49	56,389	+76
Apr. 30	2,605.79	45,186	+1,546	2,326.28	57,134	+745
May 31	2,605.39	44,797	-389	2,326.68	57,516	+382
June 30	2,604.15	43,602	-1,195	2,324.39	55,364	-2,152
July 31	2,603.44	42,925	-677	2,324.00	55,004	-360
Aug. 31	2,604.59	44,024	+1,099	2,323.83	54,849	-155
Sept. 30	2,602.46	41,999	-2,025	2,325.60	56,491	+1,642
WTR YR 1992	--	--	-2,420	--	--	-113

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA

LOCATION.--Lat 41°55'41", long 122°26'35", in SE 1/4 NE 1/4 sec.17, T.47 N., R.5 W., Siskiyou County, Hydrologic Unit 18010206, on left bank 0.1 mi downstream from Bogus Creek, 0.6 mi downstream from Iron Gate Dam, and 5.9 mi northeast of Hornbrook.

DRAINAGE AREA.--4,630 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins).

PERIOD OF RECORD.--October 1960 to current year.
CHEMICAL DATA: Water years 1962-81.
WATER TEMPERATURE: Water years 1963-80.

GAGE.--Water-stage recorder. Datum of gage is 2,162.44 ft above National Geodetic Vertical Datum of 1929 (levels by PacifiCorp, formerly Pacific Power & Light Co.).

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Upper Klamath Lake, capacity, 523,700 acre-ft; Iron Gate Reservoir (station 11516510), other smaller reservoirs, and diversions upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s, Dec. 22, 1964, gage height, 13.63 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 389 ft^3/s, Aug. 25-28, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,000 ft^3/s, Dec. 2, gage height, 2.98 ft; minimum daily, 389 ft^3/s, Aug. 25-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	870	879	875	889	593	511	851	554	482	425	405	408
2	869	878	920	889	550	510	846	533	488	427	396	422
3	870	876	865	889	545	508	839	528	488	435	396	420
4	880	875	880	891	547	503	840	529	488	435	397	420
5	890	875	887	890	548	502	842	532	488	435	398	420
6	890	875	886	890	550	501	842	535	486	436	398	418
7	890	875	889	890	550	499	844	519	489	435	400	417
8	890	875	889	890	550	499	840	506	486	435	398	420
9	888	873	891	890	550	499	843	510	475	426	398	419
10	890	870	890	890	535	499	841	514	466	423	398	419
11	874	870	889	890	508	498	844	517	461	423	399	421
12	871	870	889	888	510	498	846	522	459	423	400	421
13	872	870	885	888	509	498	846	525	466	426	401	422
14	873	870	883	887	510	498	844	527	466	426	396	422
15	875	871	892	886	512	498	844	518	456	429	396	421
16	875	871	892	886	511	499	847	515	560	433	484	420
17	875	878	889	885	511	499	852	517	803	437	399	420
18	878	876	897	885	510	498	854	507	837	441	393	561
19	879	871	890	886	510	498	852	499	819	441	393	612
20	879	874	890	887	510	497	853	502	759	446	393	601
21	880	874	889	889	510	496	549	499	443	435	393	603
22	880	875	888	891	511	495	531	499	449	431	393	602
23	880	875	888	890	511	496	532	511	446	438	393	601
24	881	871	890	890	511	498	534	512	437	427	392	603
25	877	870	890	889	511	497	538	499	409	419	389	645
26	880	871	890	890	511	497	539	498	411	419	389	731
27	877	876	890	888	511	496	521	497	406	420	389	831
28	878	873	890	889	511	496	508	499	402	420	389	880
29	878	873	890	886	511	499	512	493	424	406	391	879
30	878	872	890	887	---	526	517	487	435	409	391	872
31	878	---	890	887	---	848	---	484	---	406	393	---
TOTAL	27245	26202	27553	27542	15217	15856	22191	15887	15184	13267	12340	16151
MEAN	879	873	889	888	525	511	740	512	506	428	398	538
MAX	890	879	920	891	593	848	854	554	837	446	484	880
MIN	869	870	865	885	508	495	508	484	402	406	389	408
AC-FT	54040	51970	54650	54630	30180	31450	44020	31510	30120	26320	24480	32040

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1730	2267	2934	2953	3054	3578	2955	1991	1002	758	973	1312
MAX	3353	5254	6735	9489	9150	10780	6922	4973	2591	1429	1208	2052
(WY)	1985	1985	1984	1965	1965	1972	1971	1971	1983	1982	1965	1965
MIN	852	873	889	888	525	511	740	512	506	428	398	538
(WY)	1982	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1961 - 1992	
ANNUAL TOTAL	302002		234635			
ANNUAL MEAN	827		641		2121	
HIGHEST ANNUAL MEAN					3657	1965
LOWEST ANNUAL MEAN					641	1992
HIGHEST DAILY MEAN	2400	Jan 1	920	Dec 2	25000	Dec 22 1964
LOWEST DAILY MEAN	530	Jul 22	389	Aug 25	389	Aug 25 1992
ANNUAL SEVEN-DAY MINIMUM	535	Jul 16	390	Aug 24	390	Aug 24 1992
INSTANTANEOUS PEAK FLOW			1000	Dec 2	29400	Dec 22 1964
INSTANTANEOUS PEAK STAGE			2.98	Dec 2	13.63	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	599000		465400		1537000	
10 PERCENT EXCEEDS	952		889		3990	
50 PERCENT EXCEEDS	767		528		1510	
90 PERCENT EXCEEDS	546		409		731	

11517500 SHASTA RIVER NEAR YREKA, CA

LOCATION.--Lat 41°49'23", long 122°35'40", in SE 1/4 NE 1/4 sec.24, T.46 N., R.7 W., Siskiyou County, Hydrologic Unit 18010207, on right bank 24 mi downstream from Lake Shastina, 0.5 mi upstream from mouth, and 7 mi north of Yreka.
DRAINAGE AREA.--793 mi^2.
PERIOD OF RECORD.--October 1933 to December 1941, December 1944 to current year.
CHEMICAL DATA: Water years 1959-79.
WATER TEMPERATURE: Water years 1965-79.
SEDIMENT DATA: Water years 1955-56, 1958-62.
REVISED RECORDS.--WSP 1929: Drainage area.
GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 2, 1933, nonrecording gage at same site and datum.
REMARKS.--No estimated daily discharges. Records good, except those for summer months, which are fair. Low flow completely regulated by Lake Shastina (formerly Lake Dwinnell) beginning in 1928; storage limited to 50,000 acre-ft. Small powerplant, 5.6 miles upstream, has operated intermittently since summer of 1987. Many diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft^3/s, Dec. 22, 1964, gage height, 12.92 ft, in gage well, 13.85 ft, from floodmarks, from rating curve extended above 4,100 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft^3/s, Aug. 24, 1981, July 17, 1985.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 630 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 16	0815	*233	*3.62				

Minimum daily, 6.6 ft^3/s, Aug. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	148	149	154	152	141	86	33	19	54	16	17
2	43	150	150	153	153	138	26	33	19	42	14	25
3	32	148	150	153	152	141	25	32	26	34	11	24
4	33	146	150	157	152	144	23	31	22	31	12	19
5	50	147	150	162	152	146	21	20	15	37	14	22
6	52	146	160	172	153	147	28	12	18	35	13	28
7	55	144	188	181	153	144	46	23	17	29	9.4	31
8	61	146	168	172	152	137	37	19	18	25	9.4	31
9	56	155	158	164	152	155	25	27	22	26	11	34
10	60	154	155	161	151	140	24	34	15	27	9.8	35
11	66	152	156	161	153	112	26	28	13	27	13	30
12	71	147	161	160	166	120	25	29	16	24	12	30
13	108	134	159	158	183	123	31	19	28	19	11	28
14	105	144	155	156	177	123	33	19	34	18	7.6	30
15	99	144	152	155	181	123	37	15	39	22	6.9	34
16	98	149	154	163	215	131	31	17	32	25	6.7	29
17	101	167	154	170	179	136	44	18	25	30	9.4	32
18	100	172	166	163	166	134	42	19	32	37	9.3	41
19	103	161	166	160	159	130	44	31	30	34	6.6	37
20	111	160	159	159	151	131	43	42	28	32	7.6	40
21	109	157	159	159	153	130	41	34	25	23	11	42
22	112	152	158	160	157	123	28	38	23	15	13	45
23	123	150	157	158	154	122	26	23	24	11	16	43
24	120	150	155	158	152	119	28	15	47	12	29	42
25	138	148	156	159	150	110	23	21	43	16	39	41
26	139	149	155	157	147	102	23	19	37	16	30	48
27	138	155	154	157	143	101	21	15	42	21	8.1	53
28	143	154	154	157	141	103	26	19	28	21	7.7	47
29	148	152	154	155	141	103	18	27	39	22	9.0	41
30	144	151	156	156	---	100	24	26	42	16	13	40
31	144	---	156	153	---	105	---	22	---	17	12	---
TOTAL	2912	4532	4874	4963	4590	3914	955	760	818	798	397.5	1039
MEAN	93.9	151	157	160	158	126	31.8	24.5	27.3	25.7	12.8	34.6
MAX	148	172	188	181	215	155	86	42	47	54	39	53
MIN	32	134	149	153	141	100	18	12	13	11	6.6	17
AC-FT	5780	8990	9670	9840	9100	7760	1890	1510	1620	1580	788	2060

11517500 SHASTA RIVER NEAR YREKA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	153	198	283	326	339	308	201	130	95.8	41.4	38.2	75.8
MAX	351	361	1223	1179	1002	946	753	363	296	136	111	182
(WY)	1963	1985	1965	1974	1958	1983	1974	1941	1958	1982	1941	1978
MIN	90.7	117	120	110	133	97.7	31.8	24.5	17.9	10.1	8.35	26.7
(WY)	1989	1937	1937	1937	1934	1977	1992	1992	1955	1960	1939	1981

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	36077		30552.5			
ANNUAL MEAN	98.8		83.5		182	
HIGHEST ANNUAL MEAN					364	1974
LOWEST ANNUAL MEAN					77.9	1934
HIGHEST DAILY MEAN	354	May 19	215	Feb 16	10400	Dec 23 1964
LOWEST DAILY MEAN	12	Aug 9	6.6	Aug 19	1.5	Aug 24 1981
ANNUAL SEVEN-DAY MINIMUM	18	Aug 5	7.7	Aug 14	5.5	Aug 9 1939
INSTANTANEOUS PEAK FLOW			233	Feb 16	21500	Dec 22 1964
INSTANTANEOUS PEAK STAGE			3.62	Feb 16	12.92	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	71560		60600		131900	
10 PERCENT EXCEEDS	167		159		341	
50 PERCENT EXCEEDS	92		49		152	
90 PERCENT EXCEEDS	22		16		25	

11519500 SCOTT RIVER NEAR FORT JONES, CA

LOCATION.--Lat 41°38'27", long 123°00'50", in NE 1/4 NE 1/4 sec.29, T.44 N., R.10 W., Siskiyou County, Hydrologic Unit 18010208, on right bank 1.8 mi upstream from Snow Creek and 9.0 mi west of Fort Jones.
DRAINAGE AREA.--653 mi^2.
PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only October to December 1941, published in WSP 1315-B.
CHEMICAL DATA: Water years 1959-79.
SEDIMENT DATA: Water years 1955-56.
REVISED RECORDS.--WSP 1445: 1942-43(M), 1946(M), 1948. WSP 1715: 1951-52(M). WSP 1929: Drainage area.
GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,623.80 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1966, water-stage recorder 400 ft downstream at datum 2.00 ft higher.
REMARKS.--No estimated daily discharges. Records fair. Diversions for irrigation of about 30,000 acres upstream from station. See schematic diagram of Klamath River and Trinity River basins.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,600 ft^3/s, Dec. 22, 1964, gage height, 25.34 ft, from floodmarks, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement at 21.40 ft, site and datum then in use; minimum daily, 5.0 ft^3/s, several days during August 1981.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 17	1200	*2,600	*9.42				

Minimum daily, 6.4 ft^3/s, Aug. 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	88	86	182	526	418	781	155	77	11	9.3
2	13	15	80	84	169	522	466	661	149	87	10	9.7
3	15	15	69	85	162	481	512	571	142	87	10	10
4	18	15	66	91	156	458	523	534	130	90	9.8	12
5	19	15	71	101	150	492	478	515	123	85	9.1	13
6	21	16	203	161	147	615	418	527	109	82	8.2	15
7	22	18	615	159	143	537	374	570	99	76	8.2	17
8	22	20	374	147	140	471	347	593	84	72	7.9	20
9	22	21	253	139	137	428	393	549	81	65	7.6	21
10	21	22	196	128	146	397	1090	478	69	61	7.2	20
11	19	22	169	122	271	375	1110	425	61	56	7.4	21
12	19	21	151	117	440	341	1020	385	56	55	7.1	22
13	18	22	135	114	546	330	1250	352	52	57	7.4	22
14	18	24	120	109	429	335	1080	341	53	52	7.3	24
15	18	26	111	109	440	404	918	320	56	51	7.1	24
16	16	27	105	109	381	429	914	293	58	48	7.4	26
17	16	37	100	108	346	423	2150	282	58	46	7.0	27
18	15	46	112	107	312	368	1690	286	57	46	6.9	27
19	15	53	130	107	299	342	1250	299	61	42	6.8	28
20	15	50	121	108	377	324	1030	315	62	40	6.4	30
21	16	69	110	107	618	305	913	303	56	38	6.4	30
22	18	86	108	107	1080	293	800	273	50	33	6.5	30
23	18	77	110	105	814	290	703	248	48	26	7.0	33
24	18	65	101	108	645	294	627	235	67	22	8.1	36
25	19	60	97	112	550	295	597	243	67	19	7.9	38
26	21	60	94	109	544	295	601	233	68	17	7.5	39
27	19	73	92	112	538	306	586	221	77	15	7.4	40
28	15	107	90	153	554	313	579	212	65	14	7.9	41
29	15	109	88	210	532	320	642	194	65	12	7.6	42
30	18	97	88	201	---	350	828	177	63	12	8.4	46
31	16	---	88	192	---	391	---	167	---	11	8.9	---
TOTAL	547	1303	4335	3807	11248	12050	24307	11583	2341	1494	243.4	773.0
MEAN	17.6	43.4	140	123	388	389	810	374	78.0	48.2	7.85	25.8
MAX	22	109	615	210	1080	615	2150	781	155	90	11	46
MIN	12	15	66	84	137	290	347	167	48	11	6.4	9.3
AC-FT	1080	2580	8600	7550	22310	23900	48210	22970	4640	2960	483	1530

11519500 SCOTT RIVER NEAR FORT JONES, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	117	347	830	1032	1141	992	1012	1124	698	183	66.3	57.0
MAX	941	1628	5003	4417	4793	2825	2217	2426	1801	769	269	228
(WY)	1963	1974	1965	1974	1958	1972	1952	1958	1975	1983	1983	1983
MIN	17.6	38.1	62.2	80.9	99.0	83.3	55.1	121	78.0	23.5	7.38	7.99
(WY)	1978	1988	1960	1977	1977	1977	1977	1977	1992	1981	1981	1981

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1942 - 1992	
ANNUAL TOTAL	61444.5		74031.4			
ANNUAL MEAN	168		202		631	
HIGHEST ANNUAL MEAN					1496	1974
LOWEST ANNUAL MEAN					74.9	1977
HIGHEST DAILY MEAN	1520	Mar 5	2150	Apr 17	39500	Dec 23 1964
LOWEST DAILY MEAN	9.1	Aug 19	6.4	Aug 20	5.0	Aug 18 1981
ANNUAL SEVEN-DAY MINIMUM	9.9	Aug 30	6.7	Aug 17	5.1	Aug 17 1981
INSTANTANEOUS PEAK FLOW			2600	Apr 17	54600	Dec 22 1964
INSTANTANEOUS PEAK STAGE			9.42	Apr 17	25.34	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	121900		146800		456800	
10 PERCENT EXCEEDS	428		545		1500	
50 PERCENT EXCEEDS	107		89		311	
90 PERCENT EXCEEDS	12		12		48	

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA

LOCATION.--Lat 41°51'14", long 123°13'52", in SW 1/4 SW 1/4 sec.3, T.46 N., R.12 W., Siskiyou County, Hydrologic Unit 18010206, Klamath National Forest, on left bank 0.4 mi upstream from Bittenbender Creek, 1.4 mi downstream from Grider Creek, 2.2 mi west of Seiad Valley, and 55 mi downstream from Iron Gate Dam.
DRAINAGE AREA.--6,940 mi^2, approximately (not including Lost River, Butte Creek, or Lower Klamath Lake basins).
PERIOD OF RECORD.--October 1912 to September 1925, July 1951 to current year. Monthly discharges only for some periods, published in WSP 1315-B.
CHEMICAL DATA: Water years 1959-66.
WATER TEMPERATURE: Water years 1964-79.
SEDIMENT DATA: Water years 1955-56.
GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,320 ft above National Geodetic Vertical Datum of 1929, from river-profile map. November 1912 to June 1925, nonrecording gage at site 3.5 mi upstream at different datum.
REMARKS.--Records fair. Low flow regulated considerably by reservoirs and powerplants upstream from station. Large diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft^3/s, Dec. 23, 1964, gage height, 33.75 ft, from floodmarks, from rating curve extended above 49,000 ft^3/s on basis of slope-area measurements at gage heights 20.1 and 29.2 ft; minimum daily, 320 ft^3/s, Nov. 25, 1917.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 17	1845	*4,600	*6.04				

Minimum daily, 398 ft^3/s, Aug. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	970	1140	1270	1350	1500	1620	1670	1810	925	671	565	464
2	977	1140	1260	1340	1210	1600	1680	1670	929	652	520	477
3	968	1140	1290	1340	1160	1550	1700	1540	919	647	e426	506
4	963	1140	1220	1370	1140	1500	1710	1480	909	665	e427	510
5	981	1130	1220	1390	1120	1530	1670	1450	895	655	e418	502
6	996	1130	1520	1400	1110	1620	1590	1460	875	647	418	491
7	996	1130	2470	1470	1100	1580	1550	1490	851	623	416	493
8	1000	1140	1970	1430	1090	1480	1520	1550	844	605	421	494
9	1010	1150	1700	1410	1090	1440	1660	1480	817	594	419	491
10	1010	1150	1580	1400	1070	1400	2700	1440	829	569	415	492
11	1010	1150	1510	1400	1080	1350	2730	1370	810	557	416	487
12	1000	1150	1470	1390	1210	1310	2610	1320	783	565	424	484
13	1010	1140	1440	1370	1410	1290	2820	1270	787	561	433	475
14	1030	1140	1410	1370	1410	1280	2690	1240	802	555	429	474
15	1030	1140	1380	1360	1360	1320	2430	1210	799	556	420	474
16	1030	1150	1380	1360	1390	1370	2430	1180	783	567	419	477
17	1030	1380	1370	1370	1360	1380	4370	1190	900	580	513	469
18	1030	1390	1510	1370	1300	1340	3910	1210	1110	628	428	469
19	1030	1270	1500	1360	1310	1290	3070	1260	1130	617	406	644
20	1040	1330	1450	1350	1560	1260	2700	1290	1110	602	398	708
21	1050	1360	1430	1350	1960	1230	2450	1230	970	618	404	707
22	1050	1300	1410	1350	2650	1220	2000	1170	653	594	423	700
23	1050	1270	1390	1350	2300	1220	1830	1110	629	596	429	695
24	1070	1250	1380	1350	1960	1230	1720	1110	653	595	431	695
25	1110	1250	1380	1360	1810	1220	1650	1110	678	593	450	688
26	1240	1270	1380	1360	1750	1220	1610	1100	655	587	464	745
27	1190	1410	1370	1380	1720	1220	1580	1070	643	582	453	858
28	1150	1340	1360	1710	1710	1220	1550	1040	637	569	427	963
29	1150	1310	1370	1680	1680	1220	1570	1020	603	565	427	995
30	1140	1280	1360	1600	---	1250	1780	995	644	552	430	989
31	1140	---	1350	1560	---	1390	---	954	---	567	441	---
TOTAL	32451	36670	45100	43650	42520	42150	64950	39819	24572	18534	13510	18116
MEAN	1047	1222	1455	1408	1466	1360	2165	1284	819	598	436	604
MAX	1240	1410	2470	1710	2650	1620	4370	1810	1130	671	565	995
MIN	963	1130	1220	1340	1070	1220	1520	954	603	552	398	464
AC-FT	64370	72730	89460	86580	84340	83600	128800	78980	48740	36760	26800	35930

e Estimated.

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2206	3199	4750	5673	6137	6363	5921	5054	3186	1691	1453	1699
MAX	4490	7654	20280	21500	17980	19120	13940	10700	7980	3908	2778	3000
(WY)	1963	1985	1965	1965	1958	1972	1974	1956	1953	1913	1913	1925
MIN	1047	1222	1455	1408	1466	1145	1132	1284	819	598	436	604
(WY)	1992	1992	1992	1992	1992	1977	1977	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1913 - 1992	
ANNUAL TOTAL	512153		422042			
ANNUAL MEAN	1403		1153		3933	
HIGHEST ANNUAL MEAN					7434	1956
LOWEST ANNUAL MEAN					1153	1992
HIGHEST DAILY MEAN	4580	Mar 5	4370	Apr 17	115000	Dec 23 1964
LOWEST DAILY MEAN	621	Aug 14	398	Aug 20	320	Nov 25 1917
ANNUAL SEVEN-DAY MINIMUM	629	Aug 9	417	Aug 18	417	Aug 18 1992
INSTANTANEOUS PEAK FLOW			4600	Apr 17	165000	Dec 23 1964
INSTANTANEOUS PEAK STAGE			6.04	Apr 17	33.75	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	1016000		837100		2849000	
10 PERCENT EXCEEDS	2160		1670		7940	
50 PERCENT EXCEEDS	1320		1150		2810	
90 PERCENT EXCEEDS	793		482		1220	

11521500 INDIAN CREEK NEAR HAPPY CAMP, CA

LOCATION.--Lat 41°50'07", long 123°22'55", in SW 1/4 SW 1/4 sec.26, T.17 N., R.7 E., Siskiyou County, Hydrologic Unit 18010209, on left bank 0.2 mi upstream from Slater Creek, 3.0 mi north of Happy Camp, and 3.5 mi upstream from mouth.
DRAINAGE AREA.--120 mi^2.
PERIOD OF RECORD.--September 1911 to September 1921 (fragmentary), December 1956 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
REVISED RECORDS.--WSP 1635: 1957-58.
GAGE.--Water-stage recorder. Datum of gage is 1,198.37 ft above National Geodetic Vertical Datum of 1929. Prior to December 1956, nonrecording gages at sites 1.0 mi upstream at different datums. December 1956 to Sept. 20, 1969, water-stage recorder at site 0.8 mi upstream at different datum.
REMARKS.--Records good. Small diversions upstream and at station for irrigation. See schematic diagram of Klamath River and Trinity River basins.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft^3/s, Dec. 22, 1964, gage height, 24.3 ft, from floodmarks, present site and datum; 36.59 ft from floodmarks in gage well, from rating curve extended above 6,000 ft^3/s on basis of slope-area measurement at gage height 29.0 ft, previous site and datum; minimum discharge observed, 20 ft^3/s, Aug. 19 to Sept. 6, 1914.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a stage of 29.0 ft, at 1956-69 site and datum, from floodmarks, discharge, 23,000 ft^3/s on basis of slope-area measurement of peak flow.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	1400	*2,460	*8.05				

Minimum daily, 21 ft^3/s, Oct. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	42	97	125	440	452	238	272	89	74	33	27
2	22	41	89	118	359	411	237	245	87	66	32	30
3	22	40	83	119	308	372	231	228	81	63	31	34
4	22	40	78	148	280	400	212	219	80	71	31	33
5	22	39	75	178	253	686	196	214	78	65	31	31
6	22	39	394	167	232	584	184	206	77	61	31	30
7	22	39	477	160	215	493	176	200	75	58	32	29
8	22	40	242	143	202	433	170	190	73	56	32	28
9	23	42	181	135	207	390	434	176	72	55	32	28
10	22	41	151	138	206	357	755	169	72	54	30	28
11	22	40	132	160	221	335	577	163	73	53	29	28
12	22	41	118	150	267	319	900	158	78	53	29	27
13	21	43	110	142	275	307	805	152	80	51	29	27
14	22	48	103	134	286	316	648	147	80	49	27	27
15	22	45	97	130	276	318	531	140	78	47	26	26
16	22	49	92	135	318	339	750	136	75	45	26	27
17	22	283	90	155	299	330	1340	133	71	46	26	27
18	22	196	161	162	312	306	859	130	69	47	25	26
19	23	124	140	155	598	287	666	131	66	43	25	26
20	22	351	117	145	1380	272	558	132	64	42	25	26
21	22	230	109	136	1930	261	491	123	61	41	25	26
22	22	146	105	129	1470	258	432	118	59	42	27	26
23	25	112	100	123	976	266	388	114	61	45	27	25
24	29	107	97	119	752	262	356	110	e65	42	27	28
25	43	138	96	153	674	253	331	106	64	40	26	30
26	94	153	95	180	642	250	312	104	61	38	25	29
27	58	263	102	481	583	241	296	102	57	37	25	28
28	47	168	152	1500	522	229	284	99	57	36	24	27
29	51	133	167	692	472	219	279	97	66	35	24	27
30	48	110	153	468	---	255	307	94	84	34	24	27
31	44	---	137	420	---	235	---	91	---	33	25	---
TOTAL	924	3183	4340	7300	14955	10436	13943	4699	2153	1522	861	838
MEAN	29.8	106	140	235	516	337	465	152	71.8	49.1	27.8	27.9
MAX	94	351	477	1500	1930	686	1340	272	89	74	33	34
MIN	21	39	75	118	202	219	170	91	57	33	24	25
AC-FT	1830	6310	8610	14480	29660	20700	27660	9320	4270	3020	1710	1660

e Estimated.

11521500 INDIAN CREEK NEAR HAPPY CAMP, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	84.5	337	611	695	813	745	647	537	253	98.6	59.4	52.1
MAX	414	1498	3156	2230	2820	1896	1372	1368	579	204	100	102
(WY)	1963	1974	1965	1970	1958	1972	1966	1969	1975	1983	1983	1978
MIN	29.8	45.6	45.7	50.5	87.1	170	201	153	75.8	36.5	26.3	28.1
(WY)	1992	1960	1977	1977	1977	1977	1977	1981	1992	1977	1977	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	65931		65154			
ANNUAL MEAN	181		178		409	
HIGHEST ANNUAL MEAN					817	1974
LOWEST ANNUAL MEAN					83.7	1977
HIGHEST DAILY MEAN	2140	Mar 4	1930	Feb 21	30700	Dec 22 1964
LOWEST DAILY MEAN	21	Oct 13	21	Oct 13	21	Sep 12 1977
ANNUAL SEVEN-DAY MINIMUM	22	Oct 10	22	Oct 10	22	Sep 8 1977
INSTANTANEOUS PEAK FLOW			2460	Feb 21	39000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			8.05	Feb 21	24.30	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	130800		129200		296600	
10 PERCENT EXCEEDS	387		424		932	
50 PERCENT EXCEEDS	104		98		205	
90 PERCENT EXCEEDS	27		26		47	

11522500 SALMON RIVER AT SOMES BAR, CA

LOCATION.--Lat 41°22'40", long 123°28'35", in NE 1/4 sec.3, T.11 N., R.6 E., Siskiyou County, Hydrologic Unit 18010210, Klamath National Forest, on left bank at Somes Bar, 1.0 mi upstream from mouth.

DRAINAGE AREA.--751 mi^2.

PERIOD OF RECORD.--September 1911 to September 1915, October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WSP 1285: 1912, 1914, 1915(M), 1946(M), 1948(M). WDR CA-72-1: 1970-71(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 482.97 ft above National Geodetic Vertical Datum of 1929. Prior to October 1927, nonrecording gage at different datum, October 1927 to Dec. 22, 1964, water-stage recorder at site 0.5 mi upstream at datum 6.54 ft higher.

REMARKS.--Records good. No storage or large diversion upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 133,000 ft^3/s, Dec. 22, 1964 (result of failure of upstream debris dam), gage height, 46.6 ft, present site and datum, from floodmarks, from rating curve extended above 33,000 ft^3/s; minimum daily, 70 ft^3/s, Aug. 25, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 17	0600	*8,660	*8.40				

Minimum daily, 93 ft^3/s, Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	153	363	378	848	1650	1170	1730	570	547	e142	94
2	122	148	339	365	757	1470	1300	1450	557	439	e140	103
3	122	146	326	362	699	1330	1390	1350	523	376	e139	108
4	122	142	311	460	663	1260	1260	1330	492	371	e138	128
5	122	140	297	560	629	1670	1080	1390	459	353	e135	127
6	122	138	1240	554	601	1580	953	1430	419	324	e132	117
7	122	138	2570	525	578	1380	880	1510	402	300	e130	113
8	122	142	1090	478	558	1260	853	1470	390	282	e128	108
9	122	162	761	448	562	1160	1810	1300	377	265	e127	107
10	122	182	625	456	588	1080	4370	1110	361	252	e124	105
11	122	165	543	499	644	1030	3220	1050	358	241	e123	106
12	122	155	486	471	769	1010	2980	981	382	235	e120	105
13	122	152	445	450	847	1000	3360	953	413	230	e119	102
14	122	158	414	437	880	1050	2720	945	421	222	e117	101
15	122	154	391	428	946	1070	2360	897	443	214	e115	99
16	122	153	371	433	1060	1120	2910	856	417	206	e113	98
17	122	506	359	455	1080	1120	6890	842	374	204	e112	98
18	122	739	612	453	988	1040	4350	906	388	256	e111	98
19	122	399	618	436	1220	978	3360	919	427	235	e110	97
20	122	626	496	419	2480	935	2910	908	377	208	e108	96
21	122	786	462	407	4110	909	2600	818	350	197	e107	96
22	122	500	450	395	4600	905	2260	733	327	190	e105	95
23	124	397	429	381	3080	933	1960	695	310	189	e104	93
24	133	350	408	372	2420	926	1770	711	314	187	e103	96
25	172	353	395	409	2240	893	1710	744	330	180	e103	98
26	558	402	394	420	2290	927	1720	703	324	171	e102	97
27	357	825	392	463	2160	940	1600	655	301	165	e101	97
28	211	643	431	1620	1980	948	1620	597	286	159	e100	97
29	185	485	442	1330	1770	948	1840	576	384	154	e99	97
30	180	407	419	999	---	1100	2150	573	573	149	e98	98
31	163	---	395	862	---	1080	---	570	---	143	e98	---
TOTAL	4768	9846	17274	16725	42047	34702	69356	30702	12049	7644	3603	3074
MEAN	154	328	557	540	1450	1119	2312	990	402	247	116	102
MAX	558	825	2570	1620	4600	1670	6890	1730	573	547	142	128
MIN	122	138	297	362	558	893	853	570	286	143	98	93
AC-FT	9460	19530	34260	33170	83400	68830	137600	60900	23900	15160	7150	6100

e Estimated.

11522500 SALMON RIVER AT SOMES BAR, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	359	1140	2173	2830	2919	2857	2975	3092	1883	605	257	201
MAX	2297	5961	10480	11260	11190	9615	5741	6174	4354	1906	839	528
(WY)	1963	1974	1965	1970	1958	1972	1938	1938	1953	1953	1983	1983
MIN	117	130	175	190	255	448	710	786	402	146	81.6	83.1
(WY)	1988	1937	1937	1937	1977	1977	1977	1977	1992	1931	1931	1931

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1912 - 1992	
ANNUAL TOTAL	262628		251790			
ANNUAL MEAN	720		688		1768	
HIGHEST ANNUAL MEAN					3754	1974
LOWEST ANNUAL MEAN					339	1977
HIGHEST DAILY MEAN	4460	Mar 4	6890	Apr 17	100000	Dec 22 1964
LOWEST DAILY MEAN	122	Sep 24	93	Sep 23	70	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	122	Oct 2	96	Sep 18	73	Aug 24 1931
INSTANTANEOUS PEAK FLOW			8660	Apr 17	133000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			8.40	Apr 17	46.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	520900		499400		1281000	
10 PERCENT EXCEEDS	1570		1610		4130	
50 PERCENT EXCEEDS	470		415		1020	
90 PERCENT EXCEEDS	133		108		178	

11523000 KLAMATH RIVER AT ORLEANS, CA

LOCATION.--Lat 41°18'13", long 123°32'00", in SW 1/4 NE 1/4 sec.31, T.11 N., R.6 E., Humboldt County, Hydrologic Unit 18010209, Six Rivers National Forest, on right bank at Orleans, 25 ft upstream from highway bridge, and 0.2 mi downstream from Cheenitch Creek.

DRAINAGE AREA.--8,475 mi^2, not including Lost River or Lower Klamath Lake basins.

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1965, published as "at Somesbar."

REVISED RECORDS.--WSP 1565: 1935(M), 1949.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 353.98 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1965, at site 6.7 mi upstream at different datum. Oct. 1, 1965 to July 14, 1992, water stage recorder at datum 2.00 ft higher, at present site.

REMARKS.--Records good. Flow considerably regulated by reservoirs and powerplants upstream from station. Large diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 307,000 ft^3/s, Dec. 22, 1964, gage height, 76.5 ft, from floodmarks, site and datum then in use, from rating curve extended above 80,000 ft^3/s by slope-conveyance study; minimum daily, 320 ft^3/s, Aug. 25, Sept. 1, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 17	0639	*22,200	*10.51				

Minimum daily, 652 ft^3/s, Aug. 29 to Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	1580	2240	2260	4930	6030	4110	5510	1910	1800	806	652
2	1300	1580	2150	2210	4210	5630	4450	4880	1870	1640	802	669
3	1300	1580	2110	2210	3580	5260	4540	4420	1810	1550	787	698
4	1300	1570	2070	2700	3280	5060	4340	4200	1760	1540	769	753
5	1300	1550	1980	3030	3060	7000	4060	4150	1710	1540	766	764
6	1320	1550	3430	3020	2870	6760	3760	4100	1660	1500	760	739
7	1330	1550	9190	2970	2710	6060	3560	4110	1620	1460	760	724
8	1330	1540	5470	2850	2600	5570	3450	4050	1600	1420	753	721
9	1340	1560	3940	2660	2600	5120	4880	3780	1570	1380	740	714
10	1340	1600	3270	2620	2580	4760	12200	3490	1550	1360	740	720
11	1340	1590	2860	2960	2670	4460	9920	3330	1540	1330	739	721
12	1340	1570	2600	2820	3080	4280	10500	3140	1550	1310	734	721
13	1340	1560	2430	2670	3510	4170	11400	3030	1600	1310	734	725
14	1340	1570	2310	2580	3860	4190	9810	2930	1630	1250	730	721
15	1350	1570	2220	2500	4060	4300	8340	2810	1660	1190	710	723
16	1360	1570	2140	2500	4560	4710	8560	2690	1640	1170	695	721
17	1360	3180	2100	2700	4890	4800	19100	2610	1570	1120	695	721
18	1360	4360	3000	2760	4460	4440	14800	2630	1680	1140	728	725
19	1360	2770	3440	2650	5740	4180	11400	2660	1860	1160	694	727
20	1360	3750	2760	2530	12000	3950	9610	2700	1820	e1090	669	807
21	1370	4340	2500	2440	16500	3800	8470	2600	1750	e1030	664	861
22	1370	2980	2400	2380	17500	3720	7380	2440	1630	e1010	664	865
23	1380	2460	2320	2320	12600	3760	6470	2330	1440	e980	672	865
24	1420	2260	2260	2280	9710	3760	5930	2290	1420	e960	676	865
25	1530	2250	2210	2510	8500	3650	5630	2270	1430	e940	676	869
26	2530	2370	2190	2750	8130	3630	5470	2240	1460	e920	676	870
27	2290	3580	2200	3310	7520	3610	5210	2150	1410	e900	676	902
28	1770	3320	2360	10700	6930	3560	5080	2060	1380	e880	674	984
29	1670	2690	2510	7730	6380	3510	5190	2010	1500	864	652	1060
30	1670	2410	2440	5650	---	3800	5750	1980	1750	845	652	1090
31	1620	---	2330	4800	---	3840	---	1930	---	824	652	---
TOTAL	45290	67810	87430	100070	175020	141370	223370	95520	48780	37413	22145	23697
MEAN	1461	2260	2820	3228	6035	4560	7446	3081	1626	1207	714	790
MAX	2530	4360	9190	10700	17500	7000	19100	5510	1910	1800	806	1090
MIN	1300	1540	1980	2210	2580	3510	3450	1930	1380	824	652	652
AC-FT	89830	134500	173400	198500	347200	280400	443100	189500	96760	74210	43920	47000

e Estimated.

11523000 KLAMATH RIVER AT ORLEANS, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3116	6222	10720	13050	13710	13440	12510	10780	6328	2784	2067	2238
MAX	9876	22080	48770	48870	53740	42600	26860	25320	16900	7226	3666	3807
(WY)	1963	1974	1965	1970	1986	1972	1974	1938	1953	1953	1953	1953
MIN	1461	1930	2288	2334	2630	2806	3065	3081	1626	755	549	790
(WY)	1992	1988	1937	1937	1977	1977	1977	1992	1992	1931	1931	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1928 - 1992	
ANNUAL TOTAL	1226830		1067915			
ANNUAL MEAN	3361		2918		8053	
HIGHEST ANNUAL MEAN					17030	1974
LOWEST ANNUAL MEAN					2520	1977
HIGHEST DAILY MEAN	20100	Mar 4	19100	Apr 17	240000	Dec 23 1964
LOWEST DAILY MEAN	1120	Aug 16	652	Aug 29	320	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	1150	Sep 20	661	Aug 27	453	Aug 1 1931
INSTANTANEOUS PEAK FLOW			22200	Apr 17	307000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			10.51	Apr 17	76.50	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	2433000		2118000		5834000	
10 PERCENT EXCEEDS	5980		5630		17400	
50 PERCENT EXCEEDS	2500		2210		4900	
90 PERCENT EXCEEDS	1230		737		1890	

11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA

LOCATION.--Lat 41°06'41", long 122°42'16", in SW 1/4 NW 1/4 sec.32, T.38 N., R.7 W., Trinity County, Hydrologic Unit 18010211, Shasta National Forest, on left bank 24 ft upstream from State Highway No. 3 bridge, 1.8 mi upstream from Coffee Creek, and 8.6 mi north of Trinity Center.
DRAINAGE AREA.--149 mi^2.
PERIOD OF RECORD.--September 1957 to current year.
REVISED RECORDS.--WDR CA-85-2: 1982(M).
GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,536.93 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, water-stage recorder at site 0.2 mi downstream at datum 3.57 ft lower.
REMARKS.--Records good. No regulation or diversion upstream from station. See schematic diagram of Klamath River and Trinity River basins.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,500 ft^3/s, Jan. 16, 1974, gage height, 12.96 ft, site and datum then in use, from rating curve extended above 4,500 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 13.78 ft, Nov. 16, 1981, present site and datum; minimum daily, 16 ft^3/s, Sept. 11-14, 1977.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 10.5 ft, previous site and datum, from floodmarks, discharge, 11,400 ft^3/s.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 12	2330	3,190	8.51	Apr. 17	0130	*3,630	*8.84

Minimum daily, 20 ft^3/s, several days in October.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	30	37	48	99	716	948	970	215	202	46	31
2	21	30	37	44	90	616	1050	845	201	154	45	31
3	20	30	38	43	84	559	1080	830	185	132	45	30
4	20	30	38	53	80	e528	943	890	171	119	44	33
5	20	28	37	168	78	e794	740	957	158	113	44	33
6	20	28	41	126	79	825	604	1030	148	107	44	31
7	21	28	57	100	80	630	534	1130	140	101	42	30
8	21	29	46	79	92	533	554	1070	134	95	41	30
9	21	34	43	74	290	459	792	876	129	88	41	29
10	21	33	41	69	563	412	1160	739	124	84	40	29
11	20	30	38	65	604	400	1200	681	119	83	39	29
12	20	30	37	58	854	431	1910	616	140	82	38	31
13	20	30	37	59	774	482	2250	600	132	81	37	31
14	20	30	34	60	592	591	1470	562	140	77	36	30
15	20	30	34	61	422	617	1260	531	136	74	36	29
16	20	30	34	66	334	609	1670	494	124	70	38	28
17	20	45	37	71	278	559	2720	494	116	70	37	29
18	20	47	59	74	293	490	1650	496	125	78	34	29
19	20	42	49	75	544	438	1300	483	116	67	33	29
20	20	54	41	71	925	416	1210	416	107	63	32	28
21	20	52	43	68	1230	427	1120	356	101	63	32	28
22	20	43	42	65	961	468	951	328	95	60	31	28
23	20	38	39	63	647	464	801	329	91	61	32	27
24	21	39	38	63	541	473	746	344	103	59	32	28
25	31	50	37	63	640	491	815	336	131	57	31	28
26	67	51	37	63	749	590	881	310	115	54	31	28
27	43	78	41	65	748	635	863	279	99	53	30	28
28	34	55	58	131	723	657	979	255	96	51	29	28
29	31	44	63	123	655	737	1210	245	174	50	28	27
30	31	39	57	102	---	837	1280	232	226	49	29	27
31	30	---	53	95	---	798	---	222	---	47	29	---
TOTAL	754	1157	1323	2365	14049	17682	34691	17946	4091	2544	1126	877
MEAN	24.3	38.6	42.7	76.3	484	570	1156	579	136	82.1	36.3	29.2
MAX	67	78	63	168	1230	837	2720	1130	226	202	46	33
MIN	20	28	34	43	78	400	534	222	91	47	28	27
AC-FT	1500	2290	2620	4690	27870	35070	68810	35600	8110	5050	2230	1740

e Estimated.

11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	84.2	229	332	422	557	616	828	1021	460	121	53.8	45.0
MAX	447	1664	1726	1899	2248	1329	1500	2414	1989	778	205	134
(WY)	1963	1974	1965	1974	1958	1972	1966	1983	1983	1983	1983	1978
MIN	24.3	37.4	34.1	35.9	47.2	60.0	137	204	95.7	29.0	20.9	24.9
(WY)	1992	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	55458		98605			
ANNUAL MEAN	152		269		396	
HIGHEST ANNUAL MEAN					851	1974
LOWEST ANNUAL MEAN					66.2	1977
HIGHEST DAILY MEAN	1190	Mar 4	2720	Apr 17	18900	Jan 16 1974
LOWEST DAILY MEAN	20	Sep 22	20	Oct 3	16	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	20	Oct 11	20	Oct 11	16	Sep 8 1977
INSTANTANEOUS PEAK FLOW			3630	Apr 17	26500	Jan 16 1974
INSTANTANEOUS PEAK STAGE			8.84	Apr 17	12.96	Jan 16 1974
ANNUAL RUNOFF (AC-FT)	110000		195600		287100	
10 PERCENT EXCEEDS	461		826		1000	
50 PERCENT EXCEEDS	56		69		172	
90 PERCENT EXCEEDS	22		28		37	

11525400 CLAIR ENGLE LAKE NEAR LEWISTON, CA

LOCATION.--Lat 40°48'05", long 122°45'44", in NW 1/4 SW 1/4 sec.15, T.34 N., R.8 W., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, Whiskeytown-Shasta-Trinity National Recreation Area, on side of intake structure of Trinity Dam on Trinity River, 9 mi north of Lewiston.
DRAINAGE AREA.--692 mi^2.
PERIOD OF RECORD.--November 1960 to current year. Prior to October 1963 published as Trinity Lake near Lewiston.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Jan. 4, 1962, nonrecording gage at same site and datum. Contents based on capacity table provided by U.S. Bureau of Reclamation, dated April 1962.
REMARKS.--The lake is formed by an earthfill dam completed in November 1960. Storage began Nov. 23, 1960. Usable capacity, 2,437,700 acre-ft between elevations 1,995.5 ft, elevation of invert of river outlets, and 2,370.0 ft, crest of glory hole spillway. Dead storage, 10,000 acre-ft. Operating pool is from elevation 2,145.0 ft, capacity, 312,621 acre-ft, to 2,370.0 ft, capacity, 2,447,700 acre-ft. Figures given represent total contents at 2400 hours. Lake is used for power generation, flood control, and recreation. See schematic diagram of Klamath River and Trinity River basins.
COOPERATION.--Records were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.
EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 2,588,000 acre-ft, Jan. 19, 1974, elevation, 2,378.32 ft; minimum since first filling, 222,400 acre-ft, Nov. 9, 1977, elevation, 2,120.22 ft.
EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 1,148,517 acre-ft, May 28, elevation, 2,271.01 ft; minimum, 537,971 acre-ft, Dec. 27, elevation, 2,191.47 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Bureau of Reclamation, dated April 1962)

2,100	162,231	2,250	955,140
2,140	292,859	2,310	1,583,586
2,190	529,611	2,380	2,616,989

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	664112	558905	544519	540315	547115	688749	827388	1065812	1142344	1027172	956350	895487
2	657371	558198	543884	540087	547289	693009	835053	1071024	1143423	1023736	953508	893434
3	651277	558198	543422	539801	547579	696813	841977	1076735	1143226	1021209	949899	891381
4	645618	556675	542674	540372	547464	700704	848222	1082929	1143128	1018321	946207	889328
5	640314	556792	542212	543596	547579	709036	853151	1088682	1142052	1016698	944415	886383
6	634331	556382	542328	545210	547579	717808	857376	1095217	1141268	1014995	943475	884181
7	628255	555445	542962	546478	547464	724232	861137	1102731	1140287	1013201	941768	882141
8	621584	554509	542847	547231	547464	729469	864825	1109703	1136774	1012124	941341	880428
9	615462	553864	542385	547521	549148	733787	869577	1113835	1131908	1010420	940317	878560
10	609190	553571	542328	547811	555563	737261	877506	1116912	1126085	1007909	940061	876534
11	604823	553104	542039	547695	564573	740592	885975	1119702	1120380	1006215	939377	874670
12	601158	552518	541751	547406	577791	744086	897384	1122120	1109799	1005590	937503	873048
13	597078	551763	541291	547231	587864	747437	911232	1124345	1099202	1003540	935382	870303
14	592829	550136	540830	547289	596462	752634	919429	1126182	1088587	1001757	932160	868289
15	588536	549380	540830	546999	602649	760136	926917	1127922	1078233	999439	929870	866115
16	586464	548916	540830	546999	607313	768277	937333	1129377	1068603	995272	927929	864263
17	584150	549089	540830	547115	610567	774981	958254	1131031	1060518	989515	926160	862579
18	582021	549089	540830	547289	613761	780443	971614	1133464	1055986	988371	923885	860418
19	579362	548626	540830	546999	620063	784948	981326	1135703	1050730	987843	921609	858816
20	576824	548742	540830	547115	629914	788720	990310	1135605	1045215	986873	919429	856417
21	574961	549031	540830	546535	640573	792498	998549	1135021	1046043	982911	916413	854900
22	572742	548509	540830	546247	649586	796144	1005680	1136092	1045215	978699	914152	853151
23	569867	548509	539172	546074	655471	796598	1011944	1138331	1043655	976073	912396	851641
24	568261	548509	538885	545960	660276	798044	1017601	1141170	1040003	973710	910816	849334
25	566714	546708	538772	545787	664974	799945	1024007	1143226	1037994	972311	908903	848143
26	565584	546247	538314	545498	670114	801850	1030622	1144599	1035619	970833	907322	846006
27	564276	546074	537971	545440	675018	803915	1036897	1147048	1033073	969352	905243	844820
28	563273	545787	538600	546074	679678	805827	1043747	1148517	1030895	966832	903417	842530
29	562033	545498	539057	546535	683755	810353	1051741	1147242	1030622	964308	901434	841423
30	561088	544921	540030	546824	---	816053	1059777	1145675	1029804	961625	899616	838273
31	559849	---	540315	546999	---	821398	---	1143815	---	958771	897467	---
MAX	664112	558905	544519	547811	683755	821398	1059777	1148517	1143423	1027172	956350	895487
MIN	559849	544921	537971	539801	547115	688749	827388	1065812	1029804	958771	897467	838273
a	2195.24	2192.68	2191.88	2193.04	2214.82	2233.65	2261.71	2270.53	2258.44	2250.42	2243.16	2235.81
b	-110398	-14928	-4606	+6684	+136756	+137643	+238379	+84038	-114011	-71033	-61304	-59194
c	1542	516	188	216	250	1036	2055	4410	4155	4733	4676	3027

CAL YR 1991 b -414912
WTR YR 1992 b +168026

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet, provided by U.S. Bureau of Reclamation; not reviewed by U.S. Geological Survey.

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°38'49", long 122°37'34", Shasta County, Hydrologic Unit 18010212, at powerplant 1.6 mi downstream from Mill Creek and 3.8 mi south of French Gulch.
PERIOD OF RECORD.--April 1963 to current year.
GAGE.--Recorded powerplant output.
REMARKS.--No estimated daily discharges. Water is diverted from Trinity River at NW 1/4 SE 1/4 sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (station 11371700). See schematic diagram of Klamath River and Trinity River basins.
COOPERATION.--Records were provided by U.S. Bureau of Reclamation, not rounded to U.S. Geological Survey standards.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,000 ft^3/s, Oct. 18, 1987; no flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2910	.00	.00	.00	.00	.00	.00	801	1857	2285	952	467
2	2867	3	.00	.00	.00	.00	.00	788	621	2069	977	502
3	3072	5	.00	.00	.00	.00	.00	434	853	1562	1634	467
4	2776	.00	2	.00	.00	.00	.00	676	849	1446	1483	467
5	2241	2	.00	.00	5	.00	.00	1178	886	862	199	812
6	2646	.00	20	.00	.00	.00	.00	1180	848	859	2	639
7	2823	14	.00	10	.00	.00	.00	1237	848	923	290	507
8	3083	13	.00	77	.00	.00	.00	1136	2070	1007	.00	388
9	2961	.00	.00	.00	1	.00	.00	1596	2083	1037	.00	507
10	2859	.00	.00	2	1	.00	.00	1596	1901	963	.00	561
11	2173	.00	.00	.00	.00	.00	.00	1596	2	994	.00	447
12	1483	2	32	2	.00	.00	.00	1597	4	949	558	457
13	1900	.00	13	1	.00	.00	812	1597	.00	1059	846	451
14	1802	502	259	12	2	.00	958	1597	.00	919	808	457
15	1734	.00	.00	32	.00	.00	605	1613	.00	1064	655	520
16	830	.00	.00	.00	.00	.00	505	1598	.00	2075	462	489
17	885	.00	.00	.00	.00	.00	495	1616	.00	1744	473	491
18	712	.00	.00	.00	67	.00	.00	1371	1210	557	517	547
19	669	.00	.00	.00	.00	.00	.00	1302	2213	.00	540	525
20	669	.00	.00	33	.00	.00	.00	2046	2868	.00	512	315
21	729	.00	.00	28	.00	.00	.00	1933	38	1474	534	356
22	745	.00	9	7	.00	7	.00	1146	677	1464	539	307
23	743	.00	.00	29	.00	1477	.00	521	840	1040	468	316
24	744	.00	.00	1	.00	870	.00	529	1775	1056	294	314
25	459	.00	.00	.00	.00	908	.00	685	1005	333	429	337
26	459	.00	.00	.00	.00	1139	.00	660	1255	403	337	331
27	458	.00	.00	.00	.00	1154	.00	.00	1245	573	469	422
28	258	.00	.00	2	.00	1176	486	291	1208	938	465	422
29	257	.00	.00	8	.00	.00	798	2046	1109	1020	467	422
30	226	.00	.00	.00	---	1	795	2033	1299	902	340	462
31	228	---	.00	.00	---	.00	---	1821	---	941	472	---
TOTAL	46401	541.00	335.00	244.00	76.00	6732.00	5454.00	38220.00	29564.00	32518.00	15722.00	13705
MEAN	1497	18.0	10.8	7.87	2.62	217	182	1233	985	1049	507	457
MAX	3080	502	259	77	67	1480	958	2050	2870	2280	1630	812
MIN	226	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	307
AC-FT	92040	1070	664	484	151	13350	10820	75810	58640	64500	31180	27180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

MEAN	1470	905	781	676	870	946	1186	1333	1796	2333	2252	2229
MAX	3363	2158	2891	2755	3222	3111	3220	3512	3662	3589	3236	3504
(WY)	1988	1967	1979	1982	1974	1974	1970	1974	1969	1968	1977	1988
MIN	214	18.0	9.61	.000	.34	.000	.000	.097	170	253	507	457
(WY)	1981	1992	1989	1986	1988	1988	1978	1991	1988	1978	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	300569.00		189512.00			
ANNUAL MEAN	823		518		1415	
HIGHEST ANNUAL MEAN					2485	1974
LOWEST ANNUAL MEAN					301	1978
HIGHEST DAILY MEAN	3540	Aug 30	3080	Oct 8	4000	Oct 18 1987
LOWEST DAILY MEAN	.00	Jan 1	.00	Nov 1	.00	May 6 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 11	.00	Nov 15	.00	Oct 14 1969
ANNUAL RUNOFF (AC-FT)	596200		375900		1025000	
10 PERCENT EXCEEDS	2980		1600		3150	
50 PERCENT EXCEEDS	6.0		212		1260	
90 PERCENT EXCEEDS	.00		.00		.00	

11525500 TRINITY RIVER AT LEWISTON, CA

LOCATION.--Lat 40°43'10", long 122°48'09", in SW 1/4 NW 1/4 sec.17, T.33 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on right bank 400 ft upstream from Deadwood Creek, 0.8 mi downstream from Lewiston diversion dam, and 0.8 mi northeast of Lewiston.
DRAINAGE AREA.--719 mi^2.
PERIOD OF RECORD.--August 1911 to current year.
CHEMICAL DATA: Water years 1951-81.
WATER TEMPERATURE: Water years 1952-55, 1958-83.
SEDIMENT DATA: Water years 1955-61.
REVISED RECORDS.--WSP 331: 1911-12. WSP 1181: 1949. WSP 1929: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 1,815.95 ft above National Geodetic Vertical Datum of 1929. See WSP 1929 for history of changes prior to July 7, 1964.
REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Clair Engle Lake (station 11525400) beginning in November 1960 and Lewiston Lake, capacity, 14,660 acre-ft, when diversion to Judge Francis Carr Powerplant (station 11525430) began in April 1963. Small diversions above head of Clair Engle Lake for irrigation, power, placer mining, and domestic use between Trinity Dam and station at Lewiston. See schematic diagram of Klamath River and Trinity River basins.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft^3/s, Dec. 22, 1955, gage height, 27.3 ft, from floodmarks, site and datum then in use; minimum, 23 ft^3/s, July 30, 1924. Since completion of Trinity Dam in 1960, maximum discharge, 14,400 ft^3/s, Jan. 18, 1974, gage height, 10.41 ft; minimum daily, 100 ft^3/s, Apr. 14, 1976.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1861 reached a stage of 21.6 ft, from floodmarks, at site 1.1 mi downstream at different datum, discharge not determined.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,580 ft^3/s, June 13, gage height, 7.72 ft; minimum daily, 270 ft^3/s, Dec. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	380	357	278	341	345	344	328	342	326	434	526
2	388	382	356	277	341	344	345	328	341	317	436	533
3	388	379	357	283	341	343	347	325	341	318	435	533
4	384	378	359	287	339	344	347	324	342	315	435	533
5	382	381	362	287	335	348	348	327	341	315	435	532
6	386	373	362	285	346	348	347	327	342	316	435	533
7	383	374	357	286	349	348	347	328	342	315	436	533
8	386	373	356	283	350	345	345	327	358	313	435	533
9	387	366	360	287	353	344	347	326	972	307	435	532
10	386	363	273	286	358	342	347	327	1910	309	434	533
11	385	360	271	286	356	342	346	327	3670	311	434	532
12	388	359	270	291	357	341	346	328	6050	303	434	532
13	387	358	271	296	351	340	345	328	6450	289	530	531
14	388	359	271	306	350	338	348	325	6420	389	531	532
15	390	361	275	320	349	342	349	324	6370	405	520	533
16	386	360	274	320	349	345	351	324	6250	405	522	532
17	383	363	274	318	347	348	331	323	4620	415	520	528
18	381	360	275	316	346	349	313	324	2390	432	521	531
19	384	359	274	316	349	347	314	324	1300	426	522	529
20	384	359	274	316	347	347	315	321	465	424	520	533
21	384	358	276	317	350	346	308	322	368	442	519	531
22	384	358	277	328	349	346	317	324	363	467	519	532
23	387	358	278	338	348	350	316	324	360	486	519	528
24	385	358	278	339	347	352	311	321	361	469	519	534
25	388	358	278	337	347	353	311	321	361	469	519	533
26	387	359	277	338	345	349	311	322	361	468	519	525
27	384	358	279	340	344	346	311	324	361	460	519	529
28	383	360	284	342	344	345	311	334	364	447	519	532
29	383	358	279	340	344	347	311	340	376	444	520	529
30	383	359	283	339	---	347	319	338	344	443	519	531
31	381	---	283	339	---	346	---	338	---	438	518	---
TOTAL	11945	10931	9300	9621	10072	10717	9948	10123	53235	11983	15113	15938
MEAN	385	364	300	310	347	346	332	327	1774	387	488	531
MAX	390	382	362	342	358	353	351	340	6450	486	531	534
MIN	381	358	270	277	335	338	308	321	341	289	434	525
AC-FT	23690	21680	18450	19080	19980	21260	19730	20080	105600	23770	29980	31610

11525500 TRINITY RIVER AT LEWISTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	302	742	1257	1572	2544	2653	3675	3932	2131	611	201	158
MAX	2174	3055	5319	5734	11670	6116	6986	9062	6311	2579	628	423
(WY)	1951	1921	1956	1956	1958	1941	1915	1958	1915	1941	1941	1912
MIN	92.3	121	147	169	331	519	725	442	115	42.7	41.0	41.1
(WY)	1918	1930	1937	1937	1933	1924	1924	1924	1924	1924	1924	1924

SUMMARY STATISTICS	WATER YEARS 1912 - 1960	
ANNUAL MEAN	1641	
HIGHEST ANNUAL MEAN	3721	1958
LOWEST ANNUAL MEAN	367	1924
HIGHEST DAILY MEAN	38700	Dec 22 1955
LOWEST DAILY MEAN	28	Jul 30 1924
ANNUAL SEVEN-DAY MINIMUM	31	Jul 26 1924
INSTANTANEOUS PEAK FLOW	71600	Dec 22 1955
INSTANTANEOUS PEAK STAGE	27.3	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	1189000	
10 PERCENT EXCEEDS	4310	
50 PERCENT EXCEEDS	732	
90 PERCENT EXCEEDS	132	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	265	292	359	495	417	584	611	642	627	333	282	274
MAX	385	849	2285	4038	1782	5489	5029	3937	4668	1096	577	531
(WY)	1992	1984	1984	1974	1983	1983	1963	1963	1983	1983	1982	1992
MIN	203	220	144	145	145	149	130	149	146	142	139	150
(WY)	1966	1971	1977	1977	1977	1977	1976	1976	1976	1976	1976	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	141671		178926			
ANNUAL MEAN	388		489		432	
HIGHEST ANNUAL MEAN					1784	1983
LOWEST ANNUAL MEAN					165	1977
HIGHEST DAILY MEAN	2790	May 30	6450	Jun 13	13800	Jan 19 1974
LOWEST DAILY MEAN	270	Dec 12	270	Dec 12	100	Apr 14 1976
ANNUAL SEVEN-DAY MINIMUM	272	Dec 10	272	Dec 10	103	Apr 12 1976
INSTANTANEOUS PEAK FLOW			6580	Jun 13	14400	Jan 18 1974
INSTANTANEOUS PEAK STAGE			7.72	Jun 13	10.41	Jan 18 1974
ANNUAL RUNOFF (AC-FT)	281000		354900		312700	
10 PERCENT EXCEEDS	497		529		556	
50 PERCENT EXCEEDS	358		349		284	
90 PERCENT EXCEEDS	280		301		154	

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA

LOCATION.--Lat 40°39'45", long 122°47'57", in NE 1/4 NW 1/4 sec.5, T.32 N., R.8 W., Trinity County, Hydrologic Unit 18010211, on left bank 0.2 mi upstream from the confluence with Grass Valley Creek, 0.9 mi west of Buckhorn Station, and 3.1 mi south of Lewiston on State Highway 299.

DRAINAGE AREA.--10.7 mi^2.

PERIOD OF RECORD.--
SEDIMENT DATA: Water years 1985 to current year.

REMARKS.--Zero bedload observed at flows less than 2.2 ft^3/s. Record is collected for hydrologic and sediment-transport correlation studies with Grass Valley Creek at Fawn Lodge, near Lewiston (station 11525600).

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT										
01...	1250	0.50	12.5	2	0.00	--	--	--	--	--
NOV										
07...	1010	1.2	7.0	2	0.01	--	--	--	--	--
DEC										
06...	1110	1.5	4.5	2	0.01	--	--	--	--	--
JAN										
03...	1020	2.2	2.0	2	0.01	--	--	--	--	--
FEB										
06...	1010	1.9	3.0	10	0.05	--	--	--	--	--
10...	1340	18	6.0	163	7.9	84	90	96	100	--
11...	0915	19	6.0	89	4.6	80	--	--	--	--
12...	1405	42	6.0	342	39	64	75	86	96	100
14...	1645	50	5.5	388	52	58	68	79	91	100
20...	1115	15	6.5	38	1.5	55	--	--	--	--
MAR										
05...	1410	12	8.0	38	1.2	69	77	87	96	100
16...	1150	34	7.0	230	21	50	--	--	--	--
APR										
06...	1300	7.8	6.5	15	0.32	52	--	--	--	--
MAY										
07...	1115	4.9	13.0	7	0.09	--	--	--	--	--
JUN										
03...	1025	3.7	13.5	7	0.07	--	--	--	--	--
JUL										
06...	1040	2.9	12.5	5	0.04	--	--	--	--	--
AUG										
03...	1100	1.5	14.0	3	0.01	--	--	--	--	--
SEP										
04...	1020	1.4	11.0	2	0.01	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	TEMPER-ATURE WATER (DEG C)	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
FEB							
20...	1140	6.5	1	15	1	4	16
20...	1145	6.5	1	15	1	4	11
20...	1150	6.5	1	15	2	8	18

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
FEB						
20...	44	69	92	100	--	--
20...	30	53	83	97	100	--
20...	31	51	78	90	97	100

11525580 LITTLE GRASS VALLEY CREEK NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)
FEB									
10...	1345	1000	1120	0.250	0	1340	1350	30	0.5
10...	1355	1000	1120	0.250	0	1350	1400	30	0.5
12...	1415	1000	1120	0.250	0	1415	1420	10	0.5
12...	1420	1000	1120	0.250	0	1420	1425	10	0.5
20...	1120	1000	1120	0.250	0	1116	1126	30	0.5
20...	1130	1000	1120	0.250	0	1127	1137	30	0.5
MAR									
05...	1415	1000	1120	0.250	0	1410	1420	30	0.5
05...	1425	1000	1120	0.250	0	1420	1430	30	0.5
16...	1200	1000	1120	0.250	0	1155	1210	30	0.5
16...	1220	1000	1120	0.250	0	1215	1230	30	0.5

DATE	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)
FEB								
10...	2	16	16	1.10	18	6.0	0.03	0.41
10...	2	16	16	1.10	18	6.0	0.07	0.41
12...	2	17	17	0.50	42	6.0	4.40	38
12...	2	17	17	0.50	42	6.0	4.70	38
20...	2	14	14	1.00	15	6.5	2.00	17
20...	2	14	14	1.00	15	6.5	2.90	17
MAR								
05...	2	12	12	1.50	12	8.0	3.50	16
05...	2	12	12	1.50	12	8.0	1.90	16
16...	2	16	16	1.00	34	7.0	3.80	28
16...	2	16	16	1.00	34	7.0	3.30	28

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
FEB								
10...	2	26	76	91	97	100	--	--
10...	1	18	56	77	90	99	100	--
12...	--	2	12	29	56	88	98	100
12...	--	1	6	23	54	91	99	100
20...	1	2	6	25	61	91	100	--
20...	--	1	5	21	47	88	99	100
MAR								
05...	--	1	8	27	58	89	100	--
05...	--	1	8	29	64	94	100	--
16...	--	2	9	29	58	90	99	100
16...	--	3	12	27	54	88	99	100

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA

LOCATION.--Lat 40°40'35", long 122°49'46", in SW 1/4 NE 1/4 sec.36, T.33 N., R.9 W., Trinity County, Hydrologic Unit 18010211, on right bank 0.1 mi upstream from Phillips Gulch and 2.5 mi southwest of Lewiston.

DRAINAGE AREA.--30.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1975 to current year.

REVISED RECORDS.--WDR CA-86-2: 1983(M)

GAGE.--Water-stage recorder. Datum of gage is 2,049.73 ft above National Geodetic Vertical Datum of 1929 (California State Highway Department Benchmark).

REMARKS.--No estimated daily discharges. Records fair. Minor regulation by Buckhorn Reservoir since 1990, capacity 1,090 acre-ft.; small pumping diversions upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,140 ft^3/s, Feb. 28, 1983; gage height, 10.11 ft, from rating curve extended above 700 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 4.3 ft^3/s, many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0400	*644	*7.13	Mar. 15	1345	319	6.30
Mar. 5	2230	238	6.04				

Minimum daily, 6.0 ft^3/s, Oct. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	7.8	8.9	11	11	95	91	59	23	26	11	9.0
2	6.4	8.0	8.6	11	11	88	88	58	24	23	11	11
3	6.4	8.2	8.6	10	10	80	86	58	24	21	11	11
4	6.4	8.0	8.6	16	10	76	81	56	26	20	11	12
5	6.3	8.1	8.6	53	10	176	77	54	25	20	11	12
6	6.5	8.0	9.6	29	10	191	73	50	25	20	11	12
7	6.5	8.2	10	20	10	160	71	48	25	19	12	12
8	6.6	8.9	9.2	16	10	137	68	48	25	18	12	11
9	6.5	9.6	9.2	18	14	122	69	49	23	18	12	11
10	6.3	9.5	9.1	27	61	107	70	49	21	17	11	11
11	6.0	9.2	8.7	26	91	101	70	48	19	17	11	11
12	6.3	8.9	6.6	26	420	95	115	47	20	17	11	11
13	6.3	9.1	6.8	25	267	91	142	46	21	17	11	11
14	6.3	9.1	7.0	25	254	135	110	43	20	16	11	11
15	6.3	9.1	7.0	25	187	259	105	39	22	15	11	11
16	6.3	9.2	7.0	24	150	247	111	39	20	15	11	9.3
17	6.5	14	7.2	24	120	185	125	38	20	14	11	9.1
18	6.7	11	12	24	112	162	108	40	20	14	9.1	8.8
19	6.6	9.6	9.0	23	135	157	101	42	17	14	9.3	8.8
20	6.6	12	8.3	23	147	143	95	40	16	14	9.2	8.8
21	6.7	10	7.8	23	169	131	91	38	18	14	9.4	8.7
22	6.8	9.2	7.9	19	144	129	82	38	18	14	9.7	8.4
23	7.2	9.1	8.2	10	118	126	75	38	18	14	9.7	7.5
24	7.6	9.1	8.2	10	99	117	72	37	19	13	9.4	7.4
25	8.7	9.1	8.2	10	89	109	70	37	19	12	8.1	7.5
26	10	9.1	8.0	10	84	105	69	35	19	11	8.0	7.3
27	8.2	9.8	8.3	9.8	81	102	66	28	18	11	7.8	7.1
28	8.2	9.1	15	12	77	96	66	22	20	11	7.8	7.0
29	7.7	9.1	18	11	74	94	74	22	24	10	8.4	7.0
30	7.7	9.1	13	11	---	99	72	23	37	10	8.5	7.1
31	7.9	---	12	10	---	95	---	22	---	11	8.7	---
TOTAL	215.0	278.2	284.6	591.8	2975	4010	2593	1291	646	486	313.1	286.8
MEAN	6.94	9.27	9.18	19.1	103	129	86.4	41.6	21.5	15.7	10.1	9.56
MAX	10	14	18	53	420	259	142	59	37	26	12	12
MIN	6.0	7.8	6.6	9.8	10	76	66	22	16	10	7.8	7.0
AC-FT	426	552	565	1170	5900	7950	5140	2560	1280	964	621	569

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.6	25.1	42.4	59.5	83.3	102	64.7	46.8	27.1	15.3	10.7	10.8
MAX	18.8	70.4	220	259	263	531	186	174	99.8	39.6	22.3	23.0
(WY)	1990	1985	1984	1978	1986	1983	1983	1983	1983	1983	1983	1983
MIN	6.94	8.88	8.20	10.2	9.10	13.8	12.3	15.1	9.64	5.85	4.95	6.57
(WY)	1992	1991	1991	1991	1991	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	6381.6		13970.5			
ANNUAL MEAN	17.5		38.2		42.8	
HIGHEST ANNUAL MEAN					136	1983
LOWEST ANNUAL MEAN					10.2	1977
HIGHEST DAILY MEAN	69	Apr 3	420	Feb 12	2420	Mar 2 1983
LOWEST DAILY MEAN	6.0	Oct 11	6.0	Oct 11	4.3	Aug 12 1977
ANNUAL SEVEN-DAY MINIMUM	6.3	Sep 18	6.3	Oct 10	4.4	Aug 11 1977
INSTANTANEOUS PEAK FLOW			644	Feb 12	4140	Feb 28 1983
INSTANTANEOUS PEAK STAGE			7.13	Feb 12	10.11	Feb 28 1983
ANNUAL RUNOFF (AC-FT)	12660		27710		31020	
10 PERCENT EXCEEDS	48		106		90	
50 PERCENT EXCEEDS	9.1		14		19	
90 PERCENT EXCEEDS	6.8		7.5		8.6	

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.
WATER TEMPERATURE: Water years 1976 to current year.
SEDIMENT DATA: Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: November 1975 to current year.

REMARKS.--Sediment samples were collected on most days where a water temperature is published. Zero bedload observed at flows less than 25 ft^3/s.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 9,550 mg/L, Mar. 2, 1983; minimum daily mean, 0 mg/L several days most years.
SEDIMENT LOAD: Maximum daily, 65,200 tons, Mar. 2, 1983; minimum daily, 0 ton several days most years.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 766 mg/L, Feb. 12; minimum daily mean, 1 mg/L many days.
SEDIMENT LOAD: Maximum daily, 973 tons, Feb. 12; minimum daily, .02 tons many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN											
06...	0830	31	4.0	17	1.4	98	99	100	--	--	--
FEB											
10...	1210	70	6.0	86	16	84	88	89	92	100	--
11...	0830	64	6.0	45	7.8	84	--	--	--	--	--
12...	1300	360	6.0	592	575	19	26	34	47	69	83
13...	1145	262	6.0	244	173	22	28	34	46	67	100
19...	1225	123	5.5	54	18	23	--	--	--	--	--
20...	0855	152	5.5	39	16	38	--	--	--	--	--
MAR											
05...	1300	175	7.5	55	26	36	47	62	81	92	100
06...	1040	190	6.5	104	53	23	--	--	--	--	--
16...	0930	253	6.5	420	287	11	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	TEMPER-ATURE WATER (DEG C)	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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
FEB							
20...	0950	5.5	1	145	--	2	9
20...	0955	5.5	1	145	1	2	12
20...	1000	5.5	1	145	--	1	3
20...	1005	5.5	1	145	--	--	1
20...	1010	5.5	1	145	--	1	3

DATE	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
FEB						
20...	24	51	76	88	100	--
20...	35	61	67	67	100	--
20...	6	11	13	13	13	100
20...	2	4	6	6	15	100
20...	6	11	17	32	66	100

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING METHOD, CODES	SAMPLER TYPE (CODE)	BAG MESH SIZE BEDLOAD SAMPLER (MM)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE)	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	TIME ON BED FOR BED LOAD SAMPLE (SEC)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM)	VER-TICALS IN COM-POSITE SAMPLE (NUM)	NUMBER OF SAM-PLING POINTS (COUNT)
FEB												
10...	1220	1000	1120	0.250	0	1210	1225	30	1.0	2	20	20
10...	1230	1000	1120	0.250	0	1225	1240	30	1.0	2	20	20
13...	1225	1000	1100	0.250	0	1210	1235	30	2.0	2	15	15
13...	1250	1000	1100	0.250	0	1240	1300	30	2.0	2	15	15
19...	1250	1000	1120	0.250	0	1240	1255	30	1.5	2	18	18
19...	1310	1000	1120	0.250	0	1300	1315	30	1.5	2	18	18
20...	0920	1000	1120	0.250	0	0915	0925	30	1.5	2	17	17
20...	0935	1000	1120	0.250	0	0930	0940	30	1.5	2	17	17
MAR												
05...	1310	1000	1120	0.250	0	1300	1320	30	2.0	2	15	15
05...	1330	1000	1120	0.250	0	1320	1340	30	2.0	2	15	15
16...	1005	1000	1100	0.250	0	0950	1020	30	2.0	2	15	15
16...	1040	1000	1100	0.250	0	1025	1050	30	2.0	2	15	15

DATE	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
FEB												
10...	7.00	71	6.0	0.09	2.1	4	25	62	90	99	100	--
10...	7.00	71	6.0	0.12	2.1	4	22	56	82	97	100	--
13...	2.00	262	6.0	3.9	107	1	7	25	57	90	99	100
13...	2.00	256	6.0	3.2	107	2	9	28	60	92	99	100
19...	2.00	126	5.5	0.99	25	1	5	22	51	84	100	--
19...	2.00	126	5.5	0.96	25	1	8	30	62	91	99	100
20...	4.50	155	5.5	0.69	17	2	10	31	61	92	100	--
20...	4.50	155	5.5	0.62	17	2	10	33	65	93	100	--
MAR												
05...	2.00	175	7.5	2.1	77	1	4	15	48	88	99	100
05...	2.00	175	7.5	3.0	77	1	3	12	43	88	99	100
16...	6.00	250	6.5	2.0	75	3	15	43	75	96	100	--
16...	6.00	250	6.5	2.9	75	2	10	34	66	94	100	--

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	---	---	---	---	---	9.0	8.0	16.5	---	---	17.0
2	---	---	3.0	3.5	---	8.0	---	---	---	17.5	---	---
3	---	---	---	1.5	4.0	---	---	---	13.5	---	15.0	16.0
4	---	---	3.5	4.0	---	7.5	10.0	10.0	---	---	18.0	17.0
5	---	7.0	---	5.0	4.0	7.5	---	---	---	---	---	---
6	12.5	---	4.5	4.0	3.0	6.5	6.5	14.5	---	13.5	---	---
7	---	7.5	---	3.5	4.5	---	10.5	10.5	---	18.0	19.5	---
8	---	---	---	---	---	---	---	---	---	---	---	15.5
9	13.0	11.0	2.0	---	6.0	6.0	10.5	14.0	---	---	---	---
10	---	---	---	3.5	6.0	---	---	---	---	19.0	16.0	---
11	---	9.5	2.0	---	6.0	6.0	10.0	14.5	13.0	---	---	---
12	12.0	---	---	---	6.0	---	---	---	---	---	---	16.0
13	---	9.0	---	3.0	6.0	7.5	9.0	14.0	---	---	---	---
14	---	---	2.0	---	6.0	---	---	---	14.0	18.0	---	---
15	10.5	---	---	4.0	5.0	7.0	10.5	11.0	---	---	18.5	---
16	---	5.5	2.5	---	5.0	6.5	---	---	---	---	---	15.0
17	---	6.0	---	4.5	5.5	9.0	9.5	---	17.0	20.0	20.0	---
18	---	6.5	4.0	---	6.0	9.5	---	14.0	---	---	---	---
19	---	---	---	---	5.5	9.0	---	---	---	---	---	---
20	---	6.0	1.0	2.5	5.5	8.5	12.0	10.0	15.0	---	---	15.5
21	---	---	---	---	7.5	---	---	---	---	18.5	15.5	---
22	---	4.0	---	2.5	7.0	---	11.0	---	---	---	---	---
23	---	---	1.0	---	7.0	7.5	---	11.5	---	---	---	14.0
24	---	---	---	2.0	6.0	---	12.0	---	17.5	---	16.0	---
25	9.0	6.5	---	---	---	7.0	---	---	---	19.0	---	---
26	9.5	---	4.0	---	7.0	---	---	11.5	18.5	---	---	14.5
27	---	6.0	---	5.0	---	7.0	13.0	---	---	---	---	---
28	7.0	---	5.5	---	6.0	---	---	15.5	---	20.0	---	14.5
29	---	---	---	6.0	---	---	10.5	---	14.0	---	15.0	---
30	---	2.0	4.0	---	---	7.0	---	13.0	---	---	---	---
31	6.5	---	---	5.5	---	---	---	---	---	19.0	---	---

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	6.5	1	.02	7.8	1	.02	8.9	1	.02
2	6.4	1	.02	8.0	1	.02	8.6	1	.02
3	6.4	1	.02	8.2	1	.02	8.6	1	.02
4	6.4	2	.03	8.0	1	.02	8.6	1	.02
5	6.3	2	.03	8.1	1	.02	8.6	2	.04
6	6.5	2	.03	8.0	1	.03	9.6	3	.08
7	6.5	2	.03	8.2	2	.05	10	3	.10
8	6.6	1	.02	8.9	2	.05	9.2	3	.06
9	6.5	1	.02	9.6	2	.05	9.2	2	.05
10	6.3	1	.02	9.5	2	.05	9.1	2	.05
11	6.0	1	.02	9.2	2	.05	8.7	2	.05
12	6.3	1	.02	8.9	2	.06	6.6	2	.03
13	6.3	1	.02	9.1	3	.07	6.8	1	.02
14	6.3	1	.02	9.1	3	.07	7.0	1	.02
15	6.3	1	.02	9.1	2	.06	7.0	1	.02
16	6.3	1	.02	9.2	2	.05	7.0	1	.02
17	6.5	1	.02	14	9	.34	7.2	1	.02
18	6.7	1	.02	11	1	.03	12	5	.15
19	6.6	1	.02	9.6	1	.03	9.0	3	.08
20	6.6	1	.02	12	4	.13	8.3	2	.05
21	6.7	1	.02	10	3	.09	7.8	3	.05
22	6.8	1	.02	9.2	2	.05	7.9	3	.07
23	7.2	1	.02	9.1	2	.04	8.2	4	.08
24	7.6	1	.02	9.1	1	.03	8.2	3	.07
25	8.7	1	.03	9.1	1	.03	8.2	3	.06
26	10	6	.18	9.1	2	.05	8.0	2	.05
27	8.2	3	.07	9.8	3	.07	8.3	2	.05
28	8.2	2	.05	9.1	2	.05	15	10	.43
29	7.7	2	.03	9.1	1	.03	18	10	.48
30	7.7	1	.03	9.1	1	.02	13	6	.22
31	7.9	1	.02	---	---	---	12	5	.15
TOTAL	215.0	---	0.93	278.2	---	1.68	284.6	---	2.63
		JANUARY			FEBRUARY			MARCH	
1	11	4	.12	11	1	.03	95	16	4.0
2	11	3	.08	11	1	.03	88	14	3.4
3	10	2	.04	10	1	.03	80	9	2.0
4	16	23	2.5	10	1	.03	76	8	1.6
5	53	57	8.9	10	1	.03	176	152	84
6	29	16	1.3	10	2	.05	191	125	67
7	20	8	.44	10	2	.05	160	74	32
8	16	5	.21	10	2	.06	137	123	45
9	18	8	.51	14	20	1.1	122	152	50
10	27	13	.96	61	105	17	107	71	21
11	26	8	.59	91	117	55	101	34	9.2
12	26	6	.44	420	766	973	95	25	6.4
13	25	5	.35	267	255	189	91	20	4.8
14	25	5	.37	254	323	237	135	70	28
15	25	6	.39	187	235	121	259	369	282
16	24	6	.39	150	102	42	247	331	226
17	24	6	.38	120	54	18	185	138	70
18	24	5	.34	112	91	29	162	88	39
19	23	5	.29	135	91	33	157	58	24
20	23	4	.25	147	51	21	143	42	16
21	23	4	.25	169	94	43	131	38	14
22	19	2	.13	144	53	21	129	36	13
23	10	1	.03	118	23	7.5	126	34	12
24	10	1	.03	99	20	5.3	117	32	10
25	10	1	.03	89	16	3.9	109	29	8.5
26	10	1	.03	84	14	3.1	105	25	7.1
27	9.8	1	.03	81	15	3.3	102	22	6.1
28	12	3	.09	77	17	3.5	96	22	5.7
29	11	2	.06	74	16	3.2	94	22	5.6
30	11	1	.04	---	---	---	99	21	5.6
31	10	1	.03	---	---	---	95	16	4.1
TOTAL	591.8	---	19.60	2975	---	1830.21	4010	---	1107.1

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	91	12	2.9	59	8	1.2	23	2	.13
2	88	11	2.5	58	7	1.2	24	3	.21
3	86	10	2.4	58	8	1.2	24	5	.34
4	81	10	2.1	56	8	1.3	26	5	.33
5	77	8	1.6	54	10	1.5	25	4	.26
6	73	7	1.4	50	13	1.7	25	3	.20
7	71	7	1.4	48	8	.98	25	2	.16
8	68	8	1.4	48	8	1.0	25	2	.13
9	69	9	1.6	49	12	1.6	23	2	.10
10	70	7	1.4	49	13	1.7	21	1	.07
11	70	6	1.1	48	12	1.5	19	1	.05
12	115	16	6.6	47	8	1.1	20	1	.05
13	142	58	22	46	5	.67	21	1	.06
14	110	51	15	43	5	.57	20	1	.05
15	105	48	14	39	5	.51	22	1	.06
16	111	33	10	39	4	.44	20	1	.05
17	125	29	9.7	38	4	.37	20	1	.05
18	108	19	5.5	40	3	.35	20	1	.05
19	101	12	3.3	42	5	.62	17	1	.05
20	95	8	2.1	40	8	.89	16	1	.04
21	91	8	2.1	38	7	.68	18	1	.05
22	82	10	2.3	38	5	.52	18	1	.05
23	75	9	1.8	38	4	.38	18	1	.05
24	72	7	1.4	37	2	.24	19	1	.05
25	70	7	1.3	37	1	.15	19	1	.05
26	69	6	1.2	35	1	.10	19	1	.05
27	66	6	1.1	28	1	.08	18	3	.13
28	66	6	1.1	22	1	.06	20	8	.42
29	74	19	4.1	22	1	.06	24	19	1.3
30	72	18	3.6	23	1	.06	37	14	1.4
31	---	---	---	22	1	.09	---	---	---
TOTAL	2593	---	128.0	1291	---	22.82	646	---	5.99
		JULY			AUGUST			SEPTEMBER	
1	26	7	.50	11	3	.10	9.0	1	.02
2	23	4	.22	11	3	.07	11	1	.04
3	21	3	.17	11	2	.05	11	2	.05
4	20	3	.16	11	3	.09	12	1	.03
5	20	3	.16	11	3	.10	12	1	.04
6	20	2	.13	11	3	.08	12	2	.05
7	19	2	.10	12	2	.07	12	2	.07
8	18	2	.10	12	2	.06	11	3	.09
9	18	2	.10	12	2	.06	11	2	.07
10	17	2	.09	11	2	.06	11	2	.05
11	17	2	.09	11	2	.07	11	1	.04
12	17	2	.09	11	2	.07	11	1	.03
13	17	2	.09	11	3	.08	11	1	.04
14	16	2	.09	11	3	.08	11	2	.05
15	15	2	.08	11	3	.09	11	2	.06
16	15	2	.08	11	2	.07	9.3	3	.07
17	14	2	.08	11	2	.06	9.1	2	.06
18	14	2	.08	9.1	2	.05	8.8	2	.04
19	14	2	.08	9.3	2	.05	8.8	1	.03
20	14	2	.08	9.2	2	.05	8.8	1	.02
21	14	2	.08	9.4	2	.05	8.7	1	.02
22	14	2	.09	9.7	2	.06	8.4	1	.02
23	14	3	.10	9.7	3	.07	7.5	1	.02
24	13	3	.11	9.4	3	.07	7.4	1	.02
25	12	4	.12	8.1	2	.05	7.5	1	.02
26	11	4	.11	8.0	2	.04	7.3	1	.02
27	11	3	.10	7.8	2	.03	7.1	1	.02
28	11	3	.09	7.8	1	.03	7.0	1	.02
29	10	3	.09	8.4	1	.02	7.0	1	.02
30	10	4	.10	8.5	1	.02	7.1	1	.02
31	11	4	.11	8.7	1	.02	---	---	---
TOTAL	486	---	3.67	313.1	---	1.87	286.8	---	1.15
YEAR	13970.5		3125.65						

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA--Continued

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1991	215.00	0.93	0	1
NOVEMBER	278.20	1.68	0	2
DECEMBER	284.60	2.63	0	3
JANUARY 1992	591.80	19.60	1	21
FEBRUARY	2,975.00	1,830.21	932	2,760
MARCH	4,010.00	1,107.10	714	1,820
APRIL	2,593.00	128.00	159	287
MAY	1,291.00	22.82	11	34
JUNE	646.00	5.99	0	6
JULY	486.00	3.67	0	4
AUGUST	313.10	1.87	0	2
SEPTEMBER ...	286.80	1.15	0	1
TOTAL	13,970.50	3,125.65	1,817	4,941

11527000 TRINITY RIVER NEAR BURNT RANCH, CA

LOCATION.--Lat 40°47'20", long 123°26'20", in S 1/2 sec.19, T.5 N., R.7 E., Trinity County, Hydrologic Unit 18010211, Trinity National Forest, on left bank 500 ft upstream from Cedar Flat Creek, 700 ft upstream from highway bridge at Cedar Flat, and 2.3 mi southeast of town of Burnt Ranch.

DRAINAGE AREA.--1,439 mi^2.

PERIOD OF RECORD.--October 1931 to September 1940, October 1956 to current year. Monthly discharge only for some periods, published in ESP 1315-B.

REVISED RECORDS.--WDR CA-78-2: 1975(M). WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 944.05 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1931, to Jan. 19, 1940, at site 2 mi upstream at different datum.

REMARKS.--Records fair. Flow regulated since November 1960 by Clair Engle Lake (station 11525400), 64 mi upstream, and by transbasin diversion to Judge Francis Carr Powerplant (station 11525430) since April 1963. Small diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,500 ft^3/s, Feb. 25, 1958, gage height, 30.50 ft, from rating curve extended above 40,000 ft^3/s on basis of slope-area measurement at gage height 43.2 ft; minimum, 82 ft^3/s, Aug. 31, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 43.2 ft, from floodmarks, discharge, 172,000 ft^3/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,890 ft^3/s, Apr. 17, gage height, 10.86 ft; minimum daily, 362 ft^3/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363	418	519	554	e760	1770	2080	1560	808	e1100	504	563
2	362	417	506	528	e740	1690	2210	1380	815	e860	500	573
3	363	417	500	509	e680	1530	2310	1330	776	e740	501	580
4	370	414	501	522	e640	1460	2140	1340	734	e700	498	579
5	366	409	497	837	e600	2020	1950	1420	699	e670	498	588
6	363	412	512	1100	e580	2710	1810	1470	657	e660	497	578
7	365	410	1020	943	e560	2420	1700	1570	640	e610	500	578
8	365	421	716	823	e540	2060	1650	1580	631	e600	497	579
9	367	431	622	730	e550	1820	1680	1410	651	e580	497	579
10	368	434	580	689	e590	1630	3420	1220	1230	e560	499	579
11	366	418	500	672	e1500	1510	3170	1200	2290	e540	495	578
12	367	409	476	648	e2050	1430	3680	1130	4300	e530	493	578
13	368	404	460	632	e2900	1390	5770	1090	5770	e508	499	575
14	369	401	448	620	e2400	1500	3830	1090	5800	e505	566	576
15	367	399	441	619	e2600	2700	2840	1060	5860	e520	565	577
16	368	402	434	630	e2300	4460	2620	1010	e5200	e540	561	577
17	368	502	433	639	e2100	3680	7180	992	e4200	e550	559	576
18	366	630	548	645	e1950	2990	4310	1080	e3200	e560	559	573
19	364	520	598	636	e2200	2540	3120	1050	e2200	e570	558	573
20	366	540	522	625	e5500	2260	2640	1020	e1300	e558	556	573
21	365	721	498	614	e4800	2100	2360	912	e920	e540	552	575
22	368	594	486	604	e3600	2020	2090	858	e760	e542	559	573
23	368	550	475	602	e3000	2000	1900	850	e700	e560	561	571
24	380	530	466	595	e2800	1890	1740	906	e660	e578	564	569
25	399	534	461	600	e2500	1800	1680	956	e668	e652	562	571
26	551	553	460	601	2460	1740	1700	902	e680	e557	562	575
27	521	673	461	594	2220	1760	1600	848	e660	e537	560	572
28	446	646	553	824	1990	1800	1630	779	e630	531	559	572
29	427	575	658	933	1790	1820	1850	769	e700	522	557	573
30	436	539	653	817	---	2000	1840	783	e1000	514	562	570
31	423	---	582	e740	---	2020	---	794	---	510	561	---
TOTAL	12005	14723	16586	21125	56900	64520	78500	34359	55139	18504	16561	17253
MEAN	387	491	535	681	1962	2081	2617	1108	1838	597	534	575
MAX	551	721	1020	1100	5500	4460	7180	1580	5860	1100	566	588
MIN	362	399	433	509	540	1390	1600	769	630	505	493	563
AC-FT	23810	29200	32900	41900	112900	128000	155700	68150	109400	36700	32850	34220

e Estimated.

11527000 TRINITY RIVER NEAR BURNT RANCH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	499	1192	1654	2936	5702	5569	5831	5674	3161	878	305	241
MAX	2732	4893	6426	6192	24270	10110	10090	11840	7076	2362	835	497
(WY)	1958	1938	1938	1958	1958	1938	1938	1958	1958	1958	1958	1958
MIN	138	209	253	311	831	2487	3319	1955	808	273	123	111
(WY)	1933	1937	1937	1937	1937	1935	1932	1939	1934	1934	1939	1932

SUMMARY STATISTICS	WATER YEARS 1932 - 1960	
ANNUAL MEAN	2784	
HIGHEST ANNUAL MEAN	6557	1958
LOWEST ANNUAL MEAN	1409	1939
HIGHEST DAILY MEAN	65600	Feb 19 1958
LOWEST DAILY MEAN	93	Sep 13 1939
ANNUAL SEVEN-DAY MINIMUM	95	Oct 1 1931
INSTANTANEOUS PEAK FLOW	81500	Feb 25 1958
INSTANTANEOUS PEAK STAGE	30.50	Feb 25 1958
ANNUAL RUNOFF (AC-FT)	2017000	
10 PERCENT EXCEEDS	7120	
50 PERCENT EXCEEDS	1240	
90 PERCENT EXCEEDS	198	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	470	1172	2232	3005	2852	3156	2351	1930	1398	660	424	394
MAX	804	3570	8745	10990	10190	13770	8146	6343	7006	1985	1087	734
(WY)	1980	1974	1965	1974	1983	1983	1974	1983	1983	1983	1983	1983
MIN	298	375	274	322	373	512	530	547	449	200	189	230
(WY)	1965	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	310768		406175			
ANNUAL MEAN	851		1110		1665	
HIGHEST ANNUAL MEAN					4816	1983
LOWEST ANNUAL MEAN					372	1977
HIGHEST DAILY MEAN	7000	Mar 4	7180	Apr 17	52800	Dec 22 1964
LOWEST DAILY MEAN	362	Oct 2	362	Oct 2	165	Aug 24 1966
ANNUAL SEVEN-DAY MINIMUM	364	Sep 30	365	Oct 1	170	Aug 21 1966
INSTANTANEOUS PEAK FLOW			8890	Apr 17	78100	Dec 22 1964
INSTANTANEOUS PEAK STAGE			10.86	Apr 17	29.82	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	616400		805600		1206000	
10 PERCENT EXCEEDS	1570		2320		3440	
50 PERCENT EXCEEDS	560		607		933	
90 PERCENT EXCEEDS	399		418		331	

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA

LOCATION.--Lat 40°39'00", long 123°29'35", in NW 1/4 SW 1/4 sec.10, T.3 N., R.6 E., Trinity County, Hydrologic Unit 18010212, Trinity National Forest, on left bank 0.3 mi downstream from Big Creek, 3.0 mi northwest (revised) of Hyampom, and 3.5 mi downstream from Hayfork Creek.

DRAINAGE AREA.--764 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,211.37 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,000 ft^3/s, Feb. 17, 1986, gage height, 25.47 ft, from rating curve extended above 15,000 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 28.00 ft, Jan. 26, 1983; minimum daily, 14 ft^3/s, Aug. 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 30.45 ft, from floodmarks, discharge, 88,000 ft^3/s, on basis of flood-routing study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 20	0735	*5,530	*8.03				

Minimum daily, 23 ft^3/s, Aug. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	68	114	274	364	1020	762	703	196	212	41	24
2	29	66	109	247	355	980	728	650	190	180	40	26
3	29	65	108	224	326	894	693	607	182	156	38	29
4	29	63	107	233	297	839	645	571	174	147	37	31
5	29	63	100	508	284	1290	616	549	166	142	35	33
6	28	63	106	693	269	1430	592	521	161	137	35	31
7	27	63	146	565	258	1250	560	488	160	128	35	29
8	27	63	192	464	248	1110	533	462	156	121	35	28
9	27	64	173	388	247	981	553	444	151	112	34	28
10	28	69	153	340	293	877	728	428	149	108	35	27
11	28	70	140	323	792	804	709	412	145	102	33	27
12	28	70	131	297	1530	746	1450	387	145	99	33	26
13	28	70	125	278	1830	702	2460	378	146	95	33	26
14	28	69	120	259	1570	777	1890	355	159	91	31	26
15	28	67	116	244	1730	1670	1540	344	160	86	29	26
16	28	67	113	234	1570	3180	1460	336	160	82	29	25
17	28	150	113	234	1390	2760	2490	325	157	81	28	25
18	28	343	244	234	1270	2210	2240	313	157	96	28	25
19	28	268	400	234	2400	1840	1870	310	149	91	26	25
20	28	216	293	225	4880	1580	1630	310	161	83	25	25
21	29	230	230	214	4330	1410	1430	303	142	78	25	25
22	29	209	200	202	4400	1350	1270	285	130	72	25	25
23	29	167	188	195	2900	1320	1150	272	119	70	25	24
24	30	144	176	189	2140	1170	1030	257	115	68	26	24
25	41	128	164	192	1740	1070	948	245	115	66	26	24
26	115	120	160	196	1550	981	890	239	115	63	26	24
27	163	131	168	196	1340	911	832	233	115	58	25	25
28	126	132	296	375	1170	854	791	225	114	55	25	25
29	98	129	404	533	1040	806	754	217	139	50	24	25
30	84	121	383	443	---	805	760	210	212	47	24	25
31	74	---	315	369	---	819	---	203	---	43	23	---
TOTAL	1380	3548	5787	9602	42513	38436	34004	11582	4540	3019	*934	788
MEAN	44.5	118	187	310	1466	1240	1133	374	151	97.4	30.1	26.3
MAX	163	343	404	693	4880	3180	2490	703	212	212	41	33
MIN	27	63	100	189	247	702	533	203	114	43	23	24
AC-FT	2740	7040	11480	19050	84320	76240	67450	22970	9010	5990	1850	1560

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	133	834	1954	3299	3164	3199	1890	950	409	169	86.4	77.3
MAX	351	3475	6355	11740	12770	8744	4989	2701	1021	390	227	185
(WY)	1980	1974	1984	1970	1986	1983	1982	1983	1983	1983	1983	1983
MIN	27.4	72.9	86.8	144	218	365	224	199	91.1	33.0	17.9	22.8
(WY)	1988	1988	1977	1977	1977	1977	1977	1977	1977	1977	1977	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	157222		156133			
ANNUAL MEAN	431		427		1339	
HIGHEST ANNUAL MEAN					3049	1983
LOWEST ANNUAL MEAN					131	1977
HIGHEST DAILY MEAN	9900	Mar 4	4880	Feb 20	59200	Jan 16 1974
LOWEST DAILY MEAN	26	Sep 23	23	Aug 31	14	Aug 24 1977
ANNUAL SEVEN-DAY MINIMUM	26	Sep 20	24	Aug 26	15	Aug 18 1977
INSTANTANEOUS PEAK FLOW			5530	Feb 20	75000	Feb 17 1986
INSTANTANEOUS PEAK STAGE			8.03	Feb 20	25.47	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	311800		309700		970400	
10 PERCENT EXCEEDS	1190		1280		3400	
50 PERCENT EXCEEDS	163		161		389	
90 PERCENT EXCEEDS	29		27		65	

11530000 TRINITY RIVER AT HOOPA, CA

LOCATION.--Lat 41°03'00", long 123°40'15", in SE 1/4 NW 1/4 sec.25, T.8 N., R.4 E., Humboldt County, Hydrologic Unit 18010211, in Hoopa Valley Indian Reservation, on left bank at Hoopa, 0.4 mi upstream from Supply Creek.
DRAINAGE AREA.--2,853 mi^2.

PERIOD OF RECORD.--October 1911 to January 1914, October 1916 to September 1918, October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Published as "near Hoopa" 1931-60.
REVISED RECORDS.--WSP 1565: 1913. WDR CA-77-2: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 274.82 ft above National Geodetic Vertical Datum of 1929. Prior to October 1931, nonrecording gage at site 0.4 mi upstream at different datum. October 1931 to Dec. 22, 1964, water-stage recorder at site 2.5 mi upstream at datum 31.67 ft higher.

REMARKS.--Records good. Flow regulated since November 1960 by Clair Engle Lake (station 11525400) 84 mi upstream, and by transbasin diversion to Judge Francis Carr Powerplant (station 11525430) since April 1963. Small diversions upstream from station for irrigation. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 231,000 ft^3/s, Dec. 22, 1964, gage height, 57.0 ft, present site and datum, from floodmarks, from rating curve extended above 123,000 ft^3/s; minimum daily, 162 ft^3/s, Oct. 4, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 22	0146	*16,700	*21.62				

Minimum daily, 510 ft^3/s, Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	518	641	856	1250	1850	3970	2880	3520	1340	1480	662	671
2	520	630	818	1150	1800	3820	2890	3040	1340	1220	654	681
3	519	623	795	1080	1660	3380	2820	2860	1290	1040	649	707
4	521	619	782	1190	1570	3130	2120	2790	1230	972	641	708
5	516	611	771	1800	1490	4700	2010	2810	1170	913	637	721
6	512	613	922	2730	1420	6170	1750	2820	1110	878	634	718
7	510	611	1850	2440	1370	5420	1810	2860	1050	850	638	705
8	517	614	1660	2070	1330	4680	2110	2840	1030	825	636	705
9	515	637	1320	1790	1330	4190	2280	2650	1000	789	637	700
10	517	643	1140	1630	1530	3680	4650	2400	1310	757	634	701
11	517	639	998	1600	3340	3290	4630	2160	2190	733	631	702
12	511	626	887	1520	5330	3070	4860	2060	3980	723	625	704
13	511	614	834	1430	7070	2900	8780	2100	5900	718	624	696
14	511	617	797	1350	5540	2940	6960	2050	6050	701	655	696
15	511	611	769	1300	6270	4360	5430	1900	6100	703	698	698
16	511	613	745	1290	5750	9620	5210	1910	6120	752	689	696
17	513	845	733	1300	5120	8860	13500	1850	5960	744	680	696
18	513	1530	1020	1300	4450	7000	9450	1880	4670	764	676	695
19	514	1380	1600	1280	5670	5650	8300	1920	2780	786	672	692
20	514	1250	1360	1230	10900	4720	6730	1880	1940	763	668	694
21	515	1570	1140	1190	12800	3880	5780	1570	1300	742	668	694
22	516	1270	1050	1140	14700	4130	e5200	1630	1030	733	666	695
23	520	1050	993	1100	10200	4050	e4700	1560	956	756	675	686
24	528	933	945	1080	7700	3780	4320	1560	914	774	679	697
25	583	876	907	1080	6200	3430	3860	1610	909	762	681	698
26	968	875	881	1130	5720	3110	3840	1580	914	742	672	704
27	1080	1040	882	1120	5200	2920	3730	1500	884	726	668	704
28	837	1240	1180	1770	4640	2650	3570	1430	859	713	667	705
29	736	1010	1540	2480	4220	2690	3680	1350	924	696	663	703
30	692	918	1620	2100	---	2990	3920	1350	1320	680	666	701
31	665	---	1400	1830	---	3010	---	1340	---	671	668	---
TOTAL	17931	25749	33195	46750	146170	132190	141770	64780	67570	25106	20413	20973
MEAN	578	858	1071	1508	5040	4264	4726	2090	2252	810	658	699
MAX	1080	1570	1850	2730	14700	9620	13500	3520	6120	1480	698	721
MIN	510	611	733	1080	1330	2650	1750	1340	859	671	624	671
AC-FT	35570	51070	65840	92730	289900	262200	281200	128500	134000	49800	40490	41600

e Estimated.

11530000 TRINITY RIVER AT HOOPA, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1960, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	926	2578	6468	9239	11830	10400	10170	8663	4755	1635	650	508
MAX	5405	9589	28060	30140	50380	26370	19320	16700	9875	4265	1365	1248
(WY)	1951	1938	1956	1956	1958	1938	1938	1938	1953	1941	1953	1912
MIN	260	373	531	647	2433	3815	4790	3000	1378	466	249	213
(WY)	1933	1940	1937	1937	1937	1955	1944	1934	1934	1918	1934	1934

SUMMARY STATISTICS	WATER YEARS 1912 - 1960		
ANNUAL MEAN	5618		
HIGHEST ANNUAL MEAN	12270		1958
LOWEST ANNUAL MEAN	2630		1934
HIGHEST DAILY MEAN	158000	Dec 22	1955
LOWEST DAILY MEAN	162	Oct 4	1931
ANNUAL SEVEN-DAY MINIMUM	164	Oct 1	1931
INSTANTANEOUS PEAK FLOW	a190000	Dec 22	1955
INSTANTANEOUS PEAK STAGE	36.90	Dec 22	1955
ANNUAL RUNOFF (AC-FT)	4070000		
10 PERCENT EXCEEDS	12700		
50 PERCENT EXCEEDS	3070		
90 PERCENT EXCEEDS	442		

a From rating curve extended above 56,000 ft^3/s.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	841	3448	7409	10070	9156	9489	6305	4184	2446	1122	684	622
MAX	1805	12900	29710	32090	28810	32240	16040	12020	8999	3233	1681	1309
(WY)	1980	1974	1965	1970	1986	1983	1983	1983	1983	1983	1983	1983
MIN	472	679	529	745	891	1608	1325	1204	746	338	270	336
(WY)	1988	1991	1977	1977	1977	1977	1977	1977	1977	1977	1977	1969

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	638592		742597			
ANNUAL MEAN	1750		2029		4631	
HIGHEST ANNUAL MEAN					11350	1983
LOWEST ANNUAL MEAN					786	1977
HIGHEST DAILY MEAN	19700	Mar 5	14700	Feb 22	168000	Dec 22 1964
LOWEST DAILY MEAN	510	Oct 7	510	Oct 7	244	Aug 23 1977
ANNUAL SEVEN-DAY MINIMUM	512	Oct 12	512	Oct 12	246	Aug 18 1977
INSTANTANEOUS PEAK FLOW			16700	Feb 22	231000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			21.62	Feb 22	57.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1267000		1473000		3355000	
10 PERCENT EXCEEDS	3860		4940		10500	
50 PERCENT EXCEEDS	1030		1130		2040	
90 PERCENT EXCEEDS	525		625		549	

11530500 KLAMATH RIVER NEAR KLAMATH, CA
(National stream quality accounting network station)

LOCATION.--Lat 41°30'52", long 123°59'57", in SW 1/4, sec.13, T.13 N., R.2 E., Del Norte County, Hydrologic Unit 18010209, on right bank 0.2 mi upstream from Turwar Creek and 2.2 mi southeast of Klamath.
DRAINAGE AREA.--12,100 mi^2, approximately (not including Lost River or Lower Klamath Lake basins).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to December 1926 (published as "near Requa"), October 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
REVISED RECORDS.--WSP 1285: 1951(P). WSP 1445: 1918-20. WDR CA-81-2: 1980.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 1926, nonrecording gage at site 2.6 mi upstream at different datum. Oct. 1, 1950, to Oct. 2, 1975, water-stage recorder at site 2.6 mi upstream at datum 5.60 ft above NGVD.

REMARKS.--Records fair. Medium and low flows considerably regulated by reservoirs and powerplants upstream from station and by transbasin (from Trinity River) diversion to Judge Francis Carr Powerplant (station 11525430) since April 1963. Large diversions for irrigation upstream from station. See schematic diagram of Klamath River and Trinity River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 557,000 ft^3/s, Dec. 23, 1964, gage height, 55.3 ft, former datum, from floodmarks, from rating curve extended above 230,000 ft^3/s on basis of flood-routing study; minimum daily, 1,310 ft^3/s, Sept. 4, 1977.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 22	0545	*59,200	*16.95				

Minimum daily, 1,730 ft^3/s, Aug. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	e2650	e4300	5110	11700	14400	9060	13100	4550	4420	e1960	1750
2	1910	e2640	e4170	4440	10500	13700	9480	11600	4540	4150	e1940	1760
3	e1910	e2630	e4100	4420	8860	12500	9610	10700	4390	3680	e1900	1780
4	e1910	e2620	e4050	5760	7890	11600	9390	10200	4240	3450	e1890	1860
5	e1910	e2590	e3950	7260	7080	15300	8910	9970	4080	3380	e1880	1930
6	e1920	e2590	e5600	8140	6540	18600	8320	9850	3900	3200	e1860	1950
7	e1930	e2590	16900	8090	6230	16800	7780	9790	3690	3080	e1870	1930
8	e1940	e2580	11900	7390	5970	14900	7400	9760	3580	2960	1890	1910
9	e1940	e2640	8040	6810	5770	13400	8260	9430	3490	2860	1880	1900
10	e1950	e2690	6400	6340	5950	12100	21700	8790	3460	2750	1870	1900
11	e1950	e2680	5450	6460	8250	11100	23000	8180	4270	2640	1870	1900
12	e1950	e2650	4860	6330	9550	10500	21100	7870	5790	2600	1830	1920
13	e1950	e2600	4540	5890	14500	10100	26800	7480	8730	2550	1820	1930
14	e1950	e2620	4170	5680	14200	9840	24700	7260	10100	2450	1810	e1950
15	e1960	e2610	3950	5430	15300	11200	20200	7030	10200	2350	1830	e1960
16	e1970	e2610	3820	5250	17100	16600	19500	6780	10200	2330	1840	e1980
17	e1970	e4450	3800	5670	18400	18800	47000	6540	10000	2350	1830	e1990
18	e1970	e6500	4800	5910	15200	16400	44300	6380	8950	2380	1820	e2000
19	e1970	e4800	7540	5830	15600	14300	31500	6580	7000	2460	1850	e2090
20	e1970	e5800	6610	5260	30500	12800	25300	6680	5460	2440	1800	e2100
21	e1980	e5950	5410	4990	44600	11700	21900	6480	4490	2350	1750	e2100
22	e1990	e5300	5150	4790	55100	11200	19500	6060	3830	2290	1740	e2110
23	e2000	e4600	4590	4610	39300	10800	17200	5750	3340	2250	1740	e2110
24	e2070	e4300	4450	4500	28400	10400	15600	5540	3000	2260	1790	e2110
25	e2300	e4250	5210	5290	23100	9970	14400	5510	2950	2250	1830	e2120
26	e4100	e4370	4630	6760	20800	9560	13600	5500	2960	2220	1810	e2130
27	e3900	e5800	4340	5830	19000	9350	13100	5330	2980	2160	1800	2170
28	e3100	e5750	5280	13900	17200	8960	12400	5090	2930	2110	1800	2210
29	e2850	e4900	5560	18500	15600	8700	12100	4850	3140	2070	1770	e2300
30	e2780	e4550	5880	12000	---	8920	13200	4730	3690	2050	1750	e2350
31	e2700	---	6240	10300	---	9410	---	4680	---	2000	1730	---
TOTAL	68620	113310	175690	212940	498190	383910	536310	233490	153930	82490	56750	60200
MEAN	2214	3777	5667	6869	17180	12380	17880	7532	5131	2661	1831	2007
MAX	4100	6500	16900	18500	55100	18800	47000	13100	10200	4420	1960	2350
MIN	1910	2580	3800	4420	5770	8700	7400	4680	2930	2000	1730	1750
AC-FT	136100	224800	348500	422400	988200	761500	1064000	463100	305300	163600	112600	119400

e Estimated.

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1962, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4987	11130	19480	27730	37540	27340	27710	23170	13830	5921	3383	3339
MAX	18950	30460	72580	83550	123200	53280	48860	37250	29580	12370	5871	5107
(WY)	1951	1921	1956	1953	1958	1957	1952	1952	1953	1953	1953	1912
MIN	2700	3502	4138	7454	6263	6916	6270	3975	2106	1731	1567	1860
(WY)	1920	1960	1960	1924	1920	1924	1924	1924	1924	1924	1918	1918

SUMMARY STATISTICS	WATER YEARS 1911 - 1962	
ANNUAL MEAN	17010	
HIGHEST ANNUAL MEAN	33360	1958
LOWEST ANNUAL MEAN	5156	1924
HIGHEST DAILY MEAN	378000	Dec 22 1955
LOWEST DAILY MEAN	1340	Jul 31 1924
ANNUAL SEVEN-DAY MINIMUM	1440	Jul 30 1924
INSTANTANEOUS PEAK FLOW	a425000	Dec 22 1955
INSTANTANEOUS PEAK STAGE	b49.7	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	12320000	
10 PERCENT EXCEEDS	37300	
50 PERCENT EXCEEDS	10200	
90 PERCENT EXCEEDS	2860	

a From rating curve extended above 140,000 ft^3/s on basis of flood-routing study.
b From floodmarks, site and datum then in use.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5082	15570	28310	33710	32530	32400	25380	18560	10320	4405	3012	3214
MAX	17830	55620	87770	97760	102700	82410	60400	40080	29570	12220	6599	5923
(WY)	1963	1974	1965	1970	1986	1983	1974	1983	1983	1983	1983	1983
MIN	2214	3236	3942	4212	4231	6954	5448	5638	3630	1782	1441	1977
(WY)	1992	1988	1977	1977	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	2712630		2575830			
ANNUAL MEAN	7432		7038		17640	
HIGHEST ANNUAL MEAN					36100	1983
LOWEST ANNUAL MEAN					4036	1977
HIGHEST DAILY MEAN	63100	Mar 5	55100	Feb 22	420000	Dec 23 1964
LOWEST DAILY MEAN	1770	Sep 22	1730	Aug 31	1310	Sep 4 1977
ANNUAL SEVEN-DAY MINIMUM	1790	Sep 21	1760	Aug 28	1370	Aug 18 1977
INSTANTANEOUS PEAK FLOW			59200	Feb 22	557000	Dec 23 1964
INSTANTANEOUS PEAK STAGE			16.95	Feb 22	55.30	Dec 23 1964
ANNUAL RUNOFF (AC-FT)	5381000		5109000		12780000	
10 PERCENT EXCEEDS	15500		15300		39500	
50 PERCENT EXCEEDS	5170		4620		9560	
90 PERCENT EXCEEDS	1970		1910		2820	

11530500 KLAMATH RIVER NEAR KLAMATH, 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 1975-81.
SPECIFIC CONDUCTANCE: Water years 1975-81.
WATER TEMPERATURE: Water years 1966-81.
SEDIMENT DATA: Water years 1955-56, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: November 1965 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
NOV												
05...	1130	e2590	209	8.1	12.0	1.0	770	10.2	94	K5	K5	87
JAN												
13...	1210	5920	170	8.3	6.0	1.0	769	12.1	96	K3	<1	80
MAR												
24...	1150	10300	151	8.2	12.0	2.9	765	10.5	97	K6	K2	71
MAY												
28...	1345	5110	163	8.4	19.5	3.5	761	9.0	98	K2	K2	69
JUL												
16...	1335	2340	196	8.3	23.5	0.50	760	8.6	102	<1	K3	85
SEP												
17...	1220	1980	192	8.6	17.5	1.5	763	8.8	92	K2	K10	85

DATE	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)	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)
NOV												
05...	0	19	9.5	11	21	0.5	1.5	111	0	91	13	7.3
JAN												
13...	7	19	7.9	7.8	17	0.4	0.90	89	0	73	10	5.4
MAR												
24...	2	17	7.0	3.9	11	0.2	0.60	85	0	69	6.2	3.6
MAY												
28...	0	16	7.1	5.8	15	0.3	0.80	87	1	72	8.7	4.1
JUL												
16...	2	20	8.6	7.9	17	0.4	1.3	96	3	84	9.5	6.2
SEP												
17...	0	19	9.0	8.2	17	0.4	1.1	99	2	84	9.4	5.6

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 TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV												
05...	<0.10	18	124	134	0.17	<0.010	<0.010	<0.050	<0.050	0.020	0.020	0.30
JAN												
13...	<0.10	16	103	112	0.14	<0.010	<0.010	0.130	0.130	<0.010	<0.010	<0.20
MAR												
24...	0.10	13	83	93	0.11	<0.010	0.010	<0.050	<0.050	0.010	0.020	<0.20
MAY												
28...	<0.10	12	94	98	0.13	<0.010	<0.010	<0.050	<0.050	0.010	0.010	<0.20
JUL												
16...	<0.10	12	114	116	0.16	<0.010	<0.010	<0.050	<0.050	0.020	<0.010	<0.20
SEP												
17...	0.10	13	110	136	0.15	1.30	1.30	4.30	4.30	0.160	0.290	1.8

e Estimated.

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (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)	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)
NOV												
05...	0.050	0.050	0.040	0.040	<10	17	<3	18	5	3	<10	2
JAN												
13...	0.040	0.030	0.010	0.020	20	11	<3	19	<4	3	<10	2
MAR												
24...	<0.010	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--
MAY												
28...	0.030	0.030	<0.010	<0.010	20	17	<3	23	<4	12	<10	3
JUL												
16...	0.020	0.010	0.020	0.010	--	--	--	--	--	--	--	--
SEP												
17...	1.10	0.230	0.850	0.170	20	22	<3	9	<4	4	<10	2

DATE	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)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
NOV												
05...	1	<1.0	130	<6	--	--	--	--	--	--	--	--
JAN												
13...	<1	<1.0	110	<6	--	--	--	--	--	--	--	--
MAR												
24...	--	--	--	--	<0.6	<0.6	0.8	<0.6	0.7	<0.6	<0.02	0.07
MAY												
28...	<1	<1.0	99	<6	--	--	--	--	--	--	--	--
JUL												
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
17...	<1	<1.0	120	<6	<0.6	<0.6	1.1	<0.6	0.8	<0.6	0.59	0.11

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB											
24...*	1505	8.00	150	116	8.1	9.5	768	10.7	93	63	63
24...*	1530	12.0	270	116	8.1	9.0	767	11.0	95	102	42
24...*	1555	11.5	200	116	8.1	9.0	767	11.3	97	125	32
24...*	1620	11.7	310	117	8.1	9.0	767	10.8	93	62	64
24...*	1645	8.00	430	116	8.1	9.5	767	11.1	97	48	84
AUG											
03...*	1325	3.70	140	195	8.6	21.0	767	9.1	101	1	--
03...*	1400	3.80	240	195	8.6	21.0	767	8.8	98	1	--
03...*	1430	4.10	320	194	8.6	21.0	767	7.8	87	3	--
03...*	1500	4.70	405	194	8.6	21.0	767	7.9	88	1	--
03...*	1535	4.10	470	194	8.6	21.0	766	7.6	85	1	--

*Instantaneous streamflow at the time of cross-sectional measurement: Feb. 24, 27,300 ft^3/s; Aug. 3, (estimated) 1,900 ft^3/s.

11530500 KLAMATH RIVER NEAR KLAMATH, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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						
05...	1130	e2590	12.0	2	14	95
JAN						
13...	1210	5920	6.0	4	64	--
FEB						
24...	1600	27300	9.0	78	5750	59
MAR						
24...	1150	10300	12.0	8	222	--
MAY						
28...	1345	5110	19.5	26	359	88
JUL						
16...	1335	2340	23.5	1	6.3	--
AUG						
03...	1435	e1900	21.0	1	5.1	--
SEP						
17...	1220	1980	17.5	2	11	91

e Estimated.

11532500 SMITH RIVER NEAR CRESCENT CITY, CA
(National stream quality accounting network station)

LOCATION.--Lat 41°47'30", long 124°04'30", in SW 1/4 SW 1/4 sec. 9, T.16 N., R.1 E., Del Norte County, Hydrologic Unit 18010101, Redwood National Park, on right bank opposite mouth of Cedar Creek, 1.6 mi downstream from South Fork and 7 mi east of Crescent City.

DRAINAGE AREA.--614 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
REVISED RECORDS.--WSP 1929: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 79.26 ft above National Geodetic Vertical Datum of 1929. Prior to October 9, 1991 at site 1.1 mi upstream at datum 10.35 ft higher.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228,000 ft^3/s, Dec. 22, 1964, gage height, 48.5 ft, from floodmarks, from rating curve extended above 110,000 ft^3/s on basis of slope-area measurement at gage height 39.51 ft, former site and datum; minimum daily, 160 ft^3/s, Oct. 24, 25, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 36,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 16	2400	*31,700	*18.54				

Minimum daily, 183 ft^3/s, Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	329	1100	981	8230	2610	1270	2030	633	707	274	225
2	231	312	970	972	5930	2360	1490	1820	625	561	273	225
3	228	299	876	990	4250	2170	1160	1680	605	513	270	226
4	225	290	802	2620	3410	2240	1130	1560	592	509	274	229
5	225	282	748	3210	2870	4540	1110	1480	577	512	274	225
6	226	279	4180	2500	2510	4200	1070	1400	563	497	272	217
7	228	274	7150	2170	2230	3440	1030	1330	559	472	269	211
8	230	275	3580	1900	2040	2940	1010	1260	552	442	265	206
9	230	283	2510	1710	1990	2590	3910	1200	548	422	260	208
10	e230	277	1970	1810	1880	2340	9710	1160	550	409	259	205
11	e228	269	1630	2730	1830	2140	5570	1110	549	398	252	208
12	e228	271	1400	2430	1970	1990	9100	1080	550	392	249	211
13	e224	321	1250	2080	2300	1860	7240	1040	632	382	250	204
14	e220	356	1130	1820	2970	1880	5820	1010	689	371	243	200
15	e216	344	1030	1650	3570	1970	4620	968	643	358	238	199
16	e212	327	956	1560	5780	2600	8220	935	574	351	236	195
17	e208	3150	899	1550	7310	2750	20100	908	544	341	235	192
18	205	3960	1690	1440	6010	2520	10200	876	526	341	233	191
19	201	1820	2480	1320	6340	2270	6730	868	512	340	229	190
20	199	4530	1950	1220	18800	2070	5040	907	501	340	225	188
21	199	3430	1670	1180	17000	1910	4110	836	484	342	227	185
22	207	2010	1490	1100	13900	1790	3500	798	474	341	231	183
23	244	1420	1340	1050	9050	1760	3060	778	466	347	237	186
24	257	1160	1230	1010	6350	1660	2740	753	458	336	233	229
25	414	1050	1160	1700	4980	1550	2480	737	456	319	223	261
26	1590	1190	1100	1940	4150	1470	2280	730	464	312	219	223
27	790	3650	1080	2970	3550	1400	2110	710	458	304	216	206
28	473	2230	1190	8860	3110	1330	1960	689	464	295	213	200
29	430	1620	1210	5380	2790	1270	1850	677	572	287	212	197
30	404	1290	1120	3660	---	1400	2280	660	882	279	211	197
31	356	---	1040	4460	---	1360	---	648	---	274	214	---
TOTAL	9792	37298	51931	69973	157100	68380	131900	32638	16702	12094	7516	6222
MEAN	316	1243	1675	2257	5417	2206	4397	1053	557	390	242	207
MAX	1590	4530	7150	8860	18800	4540	20100	2030	882	707	274	261
MIN	199	269	748	972	1830	1270	1010	648	456	274	211	183
AC-FT	19420	73980	103000	138800	311600	135600	261600	64740	33130	23990	14910	12340

e Estimated.

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1075	4751	7428	8389	7501	6525	4297	2722	1256	529	337	338
MAX	11770	23620	21470	21930	22680	15760	11960	7550	3876	1217	715	1471
(WY)	1951	1974	1982	1953	1986	1938	1982	1933	1937	1947	1947	1978
MIN	185	200	264	767	1076	1602	1406	835	524	336	226	198
(WY)	1965	1937	1977	1977	1977	1988	1977	1947	1987	1987	1959	1939

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1932 - 1992	
ANNUAL TOTAL	784533		601546			
ANNUAL MEAN	2149		1644		3746	
HIGHEST ANNUAL MEAN					7027	1974
LOWEST ANNUAL MEAN					975	1977
HIGHEST DAILY MEAN	36000	Mar 4	20100	Apr 17	180000	Dec 22 1964
LOWEST DAILY MEAN	199	Oct 20	183	Sep 22	160	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	204	Oct 16	188	Sep 17	163	Oct 20 1964
INSTANTANEOUS PEAK FLOW			31700	Apr 16	228000	Dec 22 1964
INSTANTANEOUS PEAK STAGE			18.54	Apr 16	48.50	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1556000		1193000		2714000	
10 PERCENT EXCEEDS	4890		3730		8780	
50 PERCENT EXCEEDS	1100		879		1560	
90 PERCENT EXCEEDS	256		220		265	

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.
CHEMICAL DATA: Water years 1952 to current year.
BIOLOGICAL DATA: Water years 1978-81.
SPECIFIC CONDUCTANCE: Water years 1979-81.
WATER TEMPERATURE: Water years 1966-81.
SEDIMENT DATA: Water years 1955-56, November 1977 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1978 to September 1981.
WATER TEMPERATURE: October 1965 to September 1981.
SUSPENDED-SEDIMENT DISCHARGE: November 1977 to September 1979, October 1980 to September 1981.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
13...	1100	1250	113	8.0	7.0	0.30	767	12.0	98	K3	K5
MAR											
27...	1030	1400	114	8.2	11.0	0.50	755	10.7	98	K2	K4
JUN											
24...	1100	452	140	8.3	21.0	0.30	759	8.7	98	K6	K4
SEP											
03...	1300	224	158	8.4	19.0	0.70	764	9.2	99	K2	K4

DATE	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)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)
DEC											
13...	60	0	5.8	11	1.9	6	0.1	0.20	73	0	60
MAR											
27...	56	1	5.9	9.9	2.2	8	0.1	0.20	67	0	55
JUN											
24...	74	6	10	12	3.0	8	0.2	0.30	83	0	68
SEP											
03...	79	3	8.7	14	2.7	7	0.1	0.20	91	1	76

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 TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
DEC										
13...	2.5	3.1	0.10	13	64	74	0.09	0.010	<0.010	<0.050
MAR										
27...	2.5	2.7	0.10	13	52	70	0.07	<0.010	<0.010	<0.050
JUN										
24...	3.1	1.8	<0.10	15	77	86	0.10	<0.010	<0.010	<0.050
SEP										
03...	4.0	2.9	<0.10	14	87	92	0.12	<0.010	<0.010	<0.050

11532500 SMITH RIVER NEAR CRESCENT CITY, CA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)
DEC										
13...	<0.050	<0.010	<0.010	<0.20	<0.010	<0.010	<0.010	<0.010	<10	5
MAR										
27...	<0.050	0.020	0.020	<0.20	<0.010	<0.010	<0.010	<0.010	10	7
JUN										
24...	<0.050	0.020	0.020	<0.20	<0.010	0.020	<0.010	<0.010	<10	10
SEP										
03...	<0.050	<0.010	<0.010	<0.20	0.020	0.010	0.010	<0.010	20	8

DATE	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC										
13...	<3	7	<4	<1	<10	6	<1	<1.0	31	<6
MAR										
27...	<3	7	<4	1	<10	6	<1	<1.0	35	<6
JUN										
24...	<3	23	<4	2	<10	5	<1	<1.0	46	<6
SEP										
03...	<3	12	<4	1	<10	6	<1	<1.0	47	<6

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DEPTH AT SAMPLE LOCATION, TOTAL (FEET)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	SEDIMENT, SUSPENDED (MG/L)
MAR										
26...*	1420	2.40	50.0	112	8.3	11.5	758	10.6	98	1
26...*	1445	2.40	105	112	8.3	11.5	758	10.7	99	1
26...*	1510	3.90	142	112	8.3	11.5	758	10.7	99	0
26...*	1535	3.50	172	112	8.3	11.5	758	10.7	99	1
26...*	1600	2.10	215	112	8.3	11.5	758	11.0	101	1
AUG										
28...*	1040	0.50	38.0	158	8.4	19.5	763	8.8	96	2
28...*	1055	1.50	66.0	159	8.3	19.0	763	9.0	97	2
28...*	1110	1.40	82.0	159	8.3	19.0	763	8.9	96	2
28...*	1125	1.80	98.0	159	8.3	19.0	763	9.0	97	1
28...*	1140	2.00	119	159	8.3	19.0	763	8.8	95	1

*Instantaneous streamflow at the time of cross-sectional measurement: Mar. 26, 1,470 ft^3/s; Aug. 28, 211 ft^3/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	TEMPERATURE WATER (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
13...	1100	1250	7.0	4	13	--
MAR						
26...	1505	1470	11.5	1	4.0	--
27...	1030	1400	11.0	1	3.8	--
JUN						
24...	1100	452	21.0	1	1.2	--
AUG						
28...	1105	211	19.0	2	1.1	--
SEP						
03...	1300	224	19.0	2	1.2	80

11532650 SMITH RIVER NEAR FORT DICK, CA

LOCATION.--Lat 41°52'51", long 124°08'07", in SW 1/4 NW 1/4 sec.12, T.17 N., R.1 W, Del Norte County, Hydrologic Unit 18010101, on right bank 10 ft upstream from bridge on U.S. Highway 101, 0.2 mi downstream from Hutsinpillar Creek, and 1.2 mi northeast of Fort Dick.

DRAINAGE AREA.--672 mi^2.

PERIOD OF RECORD.--October 1989 to current year. Records prior to October 1989 are in files of the California Department of Water Resources.

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

REMARKS.--Data is collected for flood warning purposes only.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 34.12 ft, Jan. 8, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 25.39 ft, Apr. 17.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.04	14.03	14.32	14.27	15.48	15.29	---	---	20.13	19.57	16.61	16.44
2	14.05	14.02	14.27	14.24	15.29	15.17	---	---	19.57	18.32	16.44	16.27
3	14.04	14.02	14.24	14.22	15.17	15.08	---	---	18.32	17.57	16.27	16.13
4	14.02	14.00	14.28	14.20	15.08	14.98	---	---	17.57	17.09	16.58	16.10
5	14.01	14.00	14.22	14.18	14.98	14.94	---	---	17.09	16.77	18.11	16.58
6	14.03	14.00	14.18	14.16	21.36	14.95	---	---	16.77	16.50	17.95	17.43
7	14.03	14.02	14.16	14.16	21.33	18.10	---	---	16.50	16.31	17.43	16.98
8	14.03	14.02	14.17	14.16	18.10	16.94	---	---	16.31	16.22	16.98	16.67
9	14.04	14.03	14.19	14.17	16.94	16.37	---	---	16.27	16.13	16.67	16.43
10	14.04	14.02	14.19	14.16	16.37	16.01	---	---	16.13	16.10	16.43	16.25
11	14.02	14.00	14.16	14.15	16.01	15.78	---	---	16.11	16.04	16.25	16.11
12	14.01	14.00	14.17	14.14	15.78	15.61	---	---	16.26	16.10	16.11	15.99
13	14.02	13.99	14.30	14.17	15.61	15.45	---	---	16.56	16.26	15.99	15.90
14	14.00	13.99	14.35	14.30	15.45	15.34	---	---	17.55	16.56	15.99	15.90
15	14.00	13.99	14.35	14.27	15.34	15.24	---	---	17.57	17.29	16.21	15.92
16	13.99	13.98	14.37	14.24	15.24	15.16	---	---	20.26	17.29	16.71	16.21
17	14.06	13.98	18.22	14.37	15.16	15.11	---	---	20.26	18.94	16.71	16.59
18	13.99	13.92	18.40	16.69	16.53	15.12	---	---	19.05	18.68	16.59	16.41
19	14.05	13.95	16.69	15.82	16.68	16.32	---	---	19.60	18.67	16.41	16.21
20	14.01	13.97	19.02	15.81	16.32	16.00	---	---	24.78	19.60	16.21	16.06
21	13.97	13.96	18.17	16.62	16.00	15.82	---	---	23.30	21.60	16.06	15.93
22	14.01	13.96	16.62	15.91	15.82	15.67	---	---	22.58	20.94	15.93	15.84
23	14.09	14.02	15.91	15.54	---	---	---	---	20.94	19.46	15.85	15.81
24	14.17	14.09	15.54	15.36	---	---	---	---	19.46	18.53	15.81	15.69
25	14.69	14.13	15.36	15.26	---	---	---	---	18.53	17.94	15.69	15.61
26	16.17	14.69	15.87	15.26	---	---	---	---	17.94	17.46	15.61	15.54
27	15.65	14.82	18.04	15.87	---	---	18.14	16.43	17.46	17.10	15.54	15.48
28	14.82	14.54	16.86	16.10	---	---	20.75	18.14	17.10	16.82	15.48	15.41
29	14.54	14.50	16.10	15.73	---	---	19.38	17.82	16.82	16.61	15.41	15.36
30	14.50	14.36	15.73	15.48	---	---	17.82	17.10	---	---	15.57	15.36
31	14.42	14.32	---	---	---	---	19.98	16.97	---	---	15.55	15.42

11532650 SMITH RIVER NEAR FORT DICK, CA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.42	15.35	16.21	15.96	14.49	14.46	14.93	14.52	13.91	13.87	13.70	13.67
2	15.35	15.29	15.95	15.82	14.47	14.44	14.52	14.35	13.87	13.85	13.69	13.69
3	15.29	15.23	15.81	15.70	14.44	14.41	14.35	14.27	13.87	13.84	13.69	13.69
4	15.23	15.19	15.70	15.61	14.41	14.38	14.29	14.24	13.84	13.84	13.70	13.69
5	15.19	15.16	15.61	15.54	14.39	14.36	14.29	14.28	13.85	13.84	13.70	13.69
6	15.16	15.10	15.54	15.46	14.36	14.34	14.27	14.24	13.86	13.83	13.69	13.68
7	15.10	15.07	15.46	15.40	14.34	14.32	14.24	14.19	13.83	13.83	13.68	13.67
8	15.08	15.06	15.39	15.33	14.33	14.31	14.19	14.15	13.83	13.81	13.67	13.66
9	20.79	15.08	15.33	15.27	14.31	14.30	14.15	14.12	13.81	13.80	13.66	13.66
10	21.25	19.07	15.27	15.23	14.30	14.30	14.12	14.09	13.80	13.80	13.66	13.65
11	19.07	18.21	15.23	15.18	14.30	14.29	14.09	14.07	13.82	13.79	13.65	13.65
12	20.78	18.44	15.18	15.14	14.31	14.29	14.09	14.07	13.79	13.78	13.67	13.65
13	20.21	18.83	15.14	15.10	14.58	14.30	14.07	14.05	13.78	13.77	13.67	13.64
14	18.83	18.28	15.10	15.06	14.65	14.48	14.05	14.04	13.77	13.76	13.64	13.64
15	18.28	17.67	15.06	15.02	14.51	14.43	14.04	14.02	13.76	13.74	13.64	13.63
16	24.93	17.59	15.02	14.98	14.43	14.33	14.02	14.01	13.74	13.73	13.63	13.62
17	25.39	21.61	14.98	14.95	14.33	14.28	14.01	13.99	13.73	13.72	13.62	13.61
18	21.61	19.68	14.95	14.91	14.28	14.25	13.99	13.98	13.72	13.72	13.61	13.61
19	19.68	18.56	14.92	14.89	14.25	14.23	13.99	13.99	13.72	13.72	13.61	13.60
20	18.63	17.93	14.97	14.90	14.23	14.21	13.99	13.99	13.72	13.71	13.61	13.60
21	17.93	17.43	14.90	14.85	14.22	14.18	13.99	13.99	13.71	13.71	13.61	13.60
22	17.43	17.05	14.77	14.74	14.18	14.15	14.00	13.99	13.72	13.71	13.61	13.59
23	17.05	16.78	14.74	14.71	14.15	14.13	14.01	13.99	13.75	13.72	13.63	13.59
24	16.77	16.54	14.71	14.68	14.13	14.12	14.01	13.97	13.73	13.71	13.75	13.63
25	16.54	16.36	14.68	14.65	14.12	14.12	13.97	13.94	13.71	13.70	13.84	13.75
26	16.36	16.22	14.65	14.64	14.12	14.12	13.94	13.92	13.70	13.69	13.79	13.69
27	16.21	16.07	14.64	14.60	14.15	14.12	13.92	13.90	13.69	13.69	13.69	13.66
28	16.96	15.95	14.60	14.57	14.19	14.13	13.90	13.89	13.69	13.68	13.66	13.64
29	15.95	15.88	14.57	14.55	14.52	14.19	13.89	13.88	13.68	13.67	13.64	13.63
30	16.41	15.94	14.55	14.51	15.04	14.53	13.90	13.88	13.67	13.67	13.67	13.61
31	---	---	14.52	14.49	---	---	13.91	13.88	13.67	13.67	---	---

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the U.S. Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low- or flood-flow analyses, depending on the type of data collected.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this volume made at low-flow partial-record stations are given in the following table. The column headed "Period of record" shows the water years in which measurements were made at the same or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1992

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Klamath River basin				
11525520	Deadwood Creek at Lewiston, CA	Lat 40°43'02", long 122°48'04", in SW 1/4 NW 1/4 sec.17, T.33 N., R.8 W., Trinity County, 300 ft upstream from mouth and 0.7 mi northeast of Lewiston.	9.10	a1965-75, 1976-92	1-06-92 3-04-92	31.4 8.83

a Published as a miscellaneous measurement.
b Base flow.

Special study and miscellaneous sites

Discharge measurements in the following table were made at special study and miscellaneous sites throughout the area covered by this volume.

Discharge measurements made at special study and miscellaneous sites during water year 1992

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements	
					Date	Discharge (ft^3/s)
Salinas River basin						
11151870 Arroyo Seco near Greenfield, CA	Salinas River	Lat 36°14'15", long 121°28'50", in NE 1/4 SE 1/4 sec.36, T.19 S., R.4 E., Monterey County, Hydrologic Unit 18060005, on right bank 0.6 mi downstream from Rocky Creek and 14.5 mi southwest of Greenfield.	113	1962-91	10-01-91	.45
					11-01-91	5.42
					12-02-91	a6.90
					12-31-91	74.5
					2-03-92	19.2
					3-03-92	175
					4-02-92	124
					5-01-92	a58.2
Frenchmans Creek basin						
11162635 Frenchmans Creek near Half Moon Bay, CA		Lat 37°29'00", long 122°26'42", in Corral de Tierra (Vasquez) Grant, San Mateo County, Hydrologic Unit 18050006, at bridge on State Highway 1, 0.4 mi upstream from mouth, and 1.7 mi northwest of city of Half Moon Bay.	4.17	1977, 1988-91	10-08-91	0
					11-13-91	0
					12-12-91	a.04
					1-15-92	.90
					2-14-92	10.6
					3-10-92	5.04
					4-15-92	2.21
					6-02-92	a.36
					7-14-92	a.40
					8-27-92	a.28
Purisima Creek basin						
Purisima Creek		Lat 37°24'09", long 122°24'41", in Canada de Verde y Arroyo de la Purisima Grant, San Mateo County, Hydrologic Unit 18050006, at bridge on Verde Road, 0.5 mi northwest of Lobitos, and 4 mi south of Half Moon Bay.	8.35	1988-91	10-08-91	a.32
					11-13-91	a.56
					12-12-91	a.51
					1-15-92	1.24
					3-11-92	7.21
					4-15-92	1.52
					6-02-92	a1.07
					7-14-92	a.54
					8-27-92	a.39
Pescadero Creek basin						
Butano Creek	Pescadero Creek	Lat 37°15'00", long 122°23'41", in Butano Grant, San Mateo County, Hydrologic Unit 18050006, at bridge on Pescadero Road near intersection of Bean Hollow and Pescadero Roads, 1.2 mi east of State Highway 1, and 0.7 mi southwest of Pescadero.	20.3	1988-91	10-07-91	a.30
					11-12-91	a.99
					12-11-91	a.82
					12-28-91	5.37
					1-14-92	4.41
					3-10-92	35.7
					4-14-92	10.2
					6-03-92	a2.50
					7-13-92	a1.73
					8-26-92	a.56
Pilarcitos Creek basin						
Arroyo Leon	Pilarcitos Creek	Lat 37°27'44", long 122°25'32", in Miramontes Grant, San Mateo County, Hydrologic Unit 18050006, at bridge at entrance to Cemetery, at east end of Half Moon Bay city limits, and 0.2 mi upstream from mouth.	8.52	1988-91	10-08-91	0
					11-13-91	0
					12-10-91	a.07
					1-15-92	.76
					2-14-92	112
					3-10-92	7.91
					4-15-92	.08
					6-02-92	0
					7-14-92	0
					8-27-92	0

a No measurable precipitation had fallen for 10 days prior to discharge measurement.

Discharge measurements made at special study and miscellaneous sites during water year 1992--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water year)	Measurements Date	Measurements Discharge (ft^3/s)
		Alameda Creek Basin				
11177200 Vallecitos Creek	Arroyo de la Laguna	Lat 37°35'42", long 121°52'51", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank at culvert on Sunol Road, 700 ft upstream from mouth, and 0.3 mi east of Sunol.	7.48	1975-76, 1977-92	11-14-91	60.1
					1-09-92	2.10
					3-12-92	1.30
					5-13-92	2.24
					6-30-92	44.4
					8-14-92	39.7

SAN LORENZO CREEK BASIN

11180940 CULL CREEK TRIBUTARY NO. 4 ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.--Lat 37°45'02", long 122°03'21", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on left bank, 50 ft upstream from Cull Canyon Road, and 3.2 mi upstream from Cull Canyon Dam.

DRAINAGE AREA.--0.45 mi^2.

PERIOD OF RECORD.--
SEDIMENT DATA: Water years 1981, 1986, 1989, and 1992 (discontinued).

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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
FEB						
13...	1300	0.08	12.0	99	0.02	98

INDEX

GPO 786-890/99184

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey, Room W-2233
2800 Cottage Way, Federal Building
Sacramento, CA 95825

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

SPECIAL 4TH CLASS BOOK RATE