

Water Resources Data California Water Year 2002

Following is the PDF version to one of the four-volume set of Water Resources Data for the state of California.

For your convenience the Table of Contents and Index have been linked to the appropriate page within the volume, all Surface-Water and Water-Quality Stations have been book marked, those items that are colored blue are linked to the appropriate page and all web links have been activated.

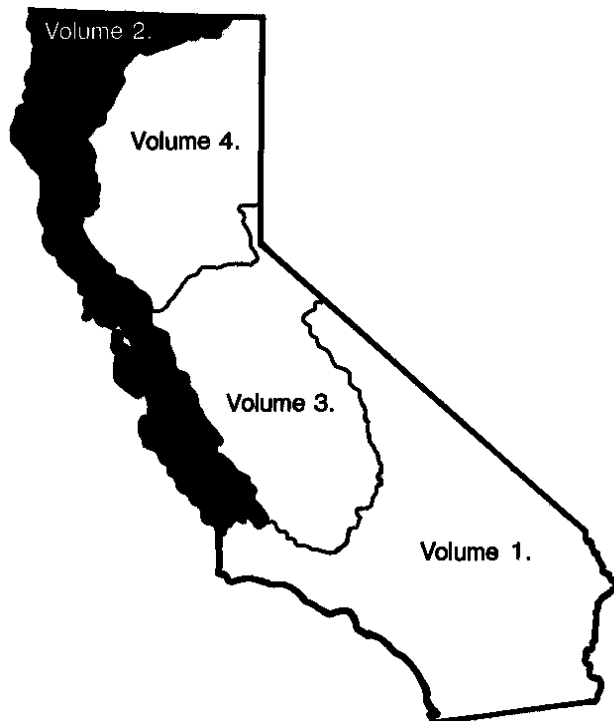
All comments/suggestions on format should be forwarded to kengelki@usgs.gov.

Water Resources Data California Water Year 2002

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

By L.A. Freeman, J.R. Smithson, M.D. Webster, G.L. Pope, and M.F. Friebel

Water-Data Report CA-02-2



U.S. DEPARTMENT OF THE INTERIOR

GALE A. NORTON, Secretary

U.S. GEOLOGICAL SURVEY

Charles G. Groat, Director

For information on the water program in California write to:
District Chief, Water Resources Division
U.S. Geological Survey
Placer Hall, Suite 2015
6000 J Street
Sacramento, California 95819-6129

2003

PREFACE

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

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

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

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

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY <i>(Leave blank)</i>	2. REPORT DATE May 2003	3. REPORT TYPE AND DATES COVERED Annual—Oct. 1, 2001, to Sept. 30, 2002
---	----------------------------	--

4. TITLE AND SUBTITLE Water Resources Data—California, Water Year 2002, Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley	5. FUNDING NUMBERS
---	--------------------

6. AUTHOR(S) L.A. Freeman, J.R. Smithson, M.D. Webster, G.L. Pope, and M.F. Friebl	
---	--

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division, California District Placer Hall, Suite 2015 6000 J Street Sacramento, CA 95819-6129	8. PERFORMING ORGANIZATION REPORT NUMBER USGS-WDR-CA-02-2
--	--

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division, California District Placer Hall, Suite 2015 6000 J Street Sacramento, CA 95819-6129	10. SPONSORING / MONITORING AGENCY REPORT NUMBER USGS-WDR-CA-02-2
---	--

11. SUPPLEMENTARY NOTES Prepared in cooperation with the California Department of Water Resources and with other agencies.

12a. DISTRIBUTION / AVAILABILITY STATEMENT No restriction on distribution. This report may be purchased from the National Technical Information Service, Springfield, VA 22161	12b. DISTRIBUTION CODE
---	------------------------

13. ABSTRACT <i>(Maximum 200 words)</i> Water-resources data for the 2002 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 133 gaging stations, stage and contents for 8 lakes and reservoirs, gage-height records for 6 stations, water quality for 43 streamflow-gaging stations and 5 partial-record stations. Also included are data for 1 low-flow partial-record station, and 5 miscellaneous-measurement stations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in California.
--

14. SUBJECT TERMS *California, *Hydrologic data, *Surface water, *Water quality, Flow rate, Sampling sites, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperatures, Water analyses	15. NUMBER OF PAGES 504
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT
---	--	---	----------------------------

WATER RESOURCES DIVISION

Robert R. Mason, Chief, Operations
James C. Bowers, Assistant Chief, Operations

Embele G. Awipi, Hydrologic Clerk
William L. Boults, Hydrologic Technician
Greg D. Brewster, Hydrologic Technician
Sue Brockner, Hydrologic Technician
Paul A. Buchanan, Supervisory Hydrologic Technician
John Budlong, Hydrologic Technician
Lynda R. Christensen, Hydrologic Technician
Karl L. Davidek, Hydrologic Technician
Kimberly S. Engelking, Editorial Assistant
Cory A. Escobedo, Hydrologic Clerk
Jon E. Ferguson, Hydrologic Technician
Jennifer Feola, Hydrologic Technician
Laureen J. Fong-Frydendal, Hydrologic Technician
James J. Gibbons, Lead Hydrologic Technician
William J. Hardy, Hydrologic Technician
Paul D. Hayes, FERC Coordinator
Travis Hiett, Hydrologic Technician
Stuart A. Hill, Hydrologic Technician
Rick T. Iwatsubo, Hydrologic Technician
Joel D. Johnson, Supervisory Hydrologist
Mark V. Johnson, Hydrologic Technician
Kenneth L. Markham (Retired U.S.G.S.)
Jon C. McNulty, Hydrologic Technician
Delia A. Millers, Hydrologic Clerk
Roger Mitchell, Hydrologic Technician
Allan C. Mlodnosky, Hydrologic Technician
Denis J. O'Halloran, Hydrologic Technician
Christine S. O'Neil, Hydrologic Technician
Lee A. Price, Hydrologic Technician
Eric W. Schroder, Hydrologic Technician
Matthew C. Scrudato, Hydrologic Technician
M. Kathy Shay, Computer Specialist
Rob Sheipline, Hydrologic Technician
Brad J. Sullivan, Hydrologic Technician
Gregory F. Susich, Hydrologic Technician
Steven P. Wells, Hydrologic Technician
Jeffrey B. West, Hydrologic Technician
Madeleine S. White, Hydrologic Clerk
M. Kay Witter, Editor
Kevin S. Wright, Hydrologic Technician
George S. Yamamoto, Scientific Illustrator
David K. Yancey, Computer Specialist
Brian T. Yost, Hydrologic Technician

Richard A. Hunrichs, Surface Water Hydrologist
Robert W. Meyer, Surface Water Hydrologist

CONTENTS

	Page
Preface.....	iii
Surface-Water and Water-Quality Stations, in Downstream Order, for which Records are Published in this Volume	viii
Discontinued Gaging Stations	xii
Discontinued Lakes and Reservoirs	xvi
Discontinued Water-Quality Stations.....	xvii
Introduction.....	1
Cooperation.....	1
Special Networks and Programs	2
Explanation of the Records.....	3
Station-Identification Numbers.....	3
Downstream-Order System.....	3
Latitude-Longitude System.....	3
Records of Stage and Water Discharge.....	4
Data Collection and Computation.....	4
Data Presentation	5
Identifying Estimated Daily Discharge.....	7
Accuracy of the Records.....	8
Other Records Available	8
Records of Surface-Water Quality	8
Change in National Trends Network Procedures.....	8
Classification of Records	8
Arrangement of Records.....	8
Onsite Measurements and Sample Collection	9
Water Temperature.....	9
Sediment	9
Cross-Sectional Data.....	10
Laboratory Measurements	10
Quality-Control Data	10
Data Presentation	11
Access to USGS Water Data.....	12
Definition of Terms.....	13
Publications on Techniques of Water-Resources Investigations	25
Surface-Water-Discharge and Surface-Water-Quality Records	47
Remark Codes.....	47
Discharge at Miscellaneous Sites and Partial-Record Stations.....	456
Special Study and Miscellaneous Sites.....	456
Low-flow, Partial-Record Stations.....	457
Analyses of Samples Collected at Water-Quality Miscellaneous Partial-Record Stations.....	458
Index	479

ILLUSTRATIONS

Figure 1. Diagram showing system for numbering miscellaneous sites (latitude and longitude).....	4
2-19. Maps showing location of discharge and water-quality stations:	
2. Alameda County	29
3. Contra Costa County.....	30
4. Del Norte County.....	31
5. Humboldt County	32
6. Lake County.....	33
7. Marin County	34
8. Mendocino County	35
9. Monterey County	36
10. Napa County	37
11. San Benito County	38
12. San Francisco and San Mateo Counties.....	39
13. San Luis Obispo County	40
14. Santa Clara County	41
15. Santa Cruz County	42

CONTENTS

	Page
16. Siskiyou County.....	43
17. Solano County.....	44
18. Sonoma County.....	45
19. Trinity County.....	46
20–24. Schematic diagram showing diversions and storage:	
20. Salinas River Basin.....	57
21. Alameda Creek Basin.....	154
22. Russian River Basin.....	254
23. Eel River Basin.....	329
24. Klamath River and Trinity River Basins.....	384

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

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

	Station No.	Page
<u>PACIFIC SLOPE BASINS IN CALIFORNIA</u>		
ARROYO GRANDE BASIN		
Arroyo Grande Creek:		
Lopez Lake:		
Lopez Creek near Arroyo Grande (d)	11141280	49
BIG SUR RIVER BASIN		
Big Sur River near Big Sur (d)	11143000	51
CARMEL RIVER BASIN		
Carmel River at Robles Del Rio (d).....	11143200	53
Carmel River near Carmel (d).....	11143250	55
SALINAS RIVER BASIN		
Salinas River at Paso Robles (d).....	11147500	58
Nacimiento River below Sapaque Creek, near Bryson (ds).....	11148900	60
Nacimiento River below Nacimiento Dam, near Bradley (d).....	11149400	63
San Antonio River near Lockwood (ds)	11149900	64
Salinas River near Bradley (d).....	11150500	69
San Lorenzo Creek below Bitterwater Creek, near King City (d).....	11151300	71
Salinas River at Soledad (d).....	11151700	73
Arroyo Seco near Soledad (d).....	11152000	75
Arroyo Seco below Reliz Creek, near Soledad (d)	11152050	77
Salinas River near Chualar (dcs).....	11152300	79
Salinas River near Spreckels (d)	11152500	83
TEMBLADERO SLOUGH BASIN		
Tembladero Slough:		
Reclamation Ditch:		
Gabilan Creek near Salinas (d)	11152600	85
Reclamation Ditch near Salinas (d)	11152650	87
PAJARO RIVER BASIN		
Pajaro River:		
San Benito River:		
Clear Creek near Idria (dcs).....	11154700	88
San Benito River near Willow Creek School (d)	11156500	93
Tres Pinos Creek near Tres Pinos (d).....	11157500	95
San Benito River at State Highway 156, near Hollister (d).....	11158600	97
Pajaro River at Chittenden (d)	11159000	99
Corralitos Creek at Freedom (d)	11159200	101
SOQUEL CREEK BASIN		
Soquel Creek at Soquel (d)	11160000	103
SAN LORENZO RIVER BASIN		
San Lorenzo River:		
Zayante Creek:		
Bean Creek near Scotts Valley (d)	11160430	105
San Lorenzo River at Big Trees (d)	11160500	107
San Lorenzo River at Santa Cruz (d)	11161000	109
Carbonera Creek at Scotts Valley (d).....	11161300	111
PESCADERO CREEK BASIN		
Pescadero Creek near Pescadero (d).....	11162500	113
SAN GREGORIO CREEK BASIN		
San Gregorio Creek at San Gregorio (d).....	11162570	115
PILARCITOS CREEK BASIN		
Pilarcitos Lake near Hillsborough (l).....	11162618	117
Pilarcitos Creek below Stone Dam, near Hillsborough (d).....	11162620	119
Pilarcitos Creek at Half Moon Bay (d)	11162630	120
SAN FRANCISCO BAY		
San Francisco Bay at Presidio Military Reservation (ct).....	11162690	122
San Francisco Bay at Pier 24, at San Francisco (ct).....	11162700	125

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

	Station No.	Page
<u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued</u>		
SAN MATEO CREEK BASIN		
Crystal Springs Reservoir at dam, near San Mateo (l).....	11162750	128
SAN FRANCISCO BAY		
San Francisco Bay at San Mateo Bridge, near Foster City (ct)	11162765	130
SAN FRANCISQUITO CREEK BASIN		
San Francisquito Creek at Stanford University (d)	11164500	135
MATADERO CREEK BASIN		
Matadero Creek at Palo Alto (d)	11166000	137
GUADALUPE RIVER BASIN		
Guadalupe River at San Jose (d)	11169000	139
Guadalupe River above Highway 101, at San Jose (d)	11169025	141
Saratoga Creek at Saratoga (d)	11169500	142
COYOTE CREEK BASIN		
Coyote Creek above Highway 237, at Milpitas (d)	11172175	144
AQUA FRIA		
Agua Fria Creek at Warm Springs Road, at Fremont (s).....	11172300	145
Toroges Creek at Warm Springs Road, at Fremont (s)	11172360	146
Zone 6 Line B at Warm Springs Boulevard, at Fremont (dts)	11172365	148
ALAMEDA CREEK BASIN		
Alameda Creek above diversion dam, near Sunol (d).....	11172945	155
Arroyo Hondo near San Jose (d).....	11173200	156
Calaveras Creek near Sunol (d)	11173500	158
Alameda Creek below Calaveras Creek, near Sunol (d).....	11173510	160
Alameda Creek below Welch Creek, near Sunol (dts).....	11173575	161
San Antonio Creek near Sunol (d).....	11174000	167
Alameda Creek at Highway 680, near Sunol (s).....	11174060	169
Arroyo de la Laguna:		
Arroyo Mocho at Hopyard Road, at Pleasanton (s).....	11176325	171
Arroyo Valle below Lang Canyon, near Livermore (d)	11176400	172
Arroyo Valle near Livermore (d)	11176500	174
Arroyo Valle at Pleasanton (s)	11176600	176
Arroyo de la Laguna at Bernal Avenue, at Pleasanton (s)	11176710	177
Arroyo de la Laguna near Pleasanton (dts).....	11177000	178
Alameda Creek near Niles (dts).....	11179000	185
Dry Creek at Union City (d)	11180500	191
Alameda Creek Flood Channel at Union City (d)	11180700	193
SAN LORENZO CREEK BASIN		
San Lorenzo Creek:		
Palomares Creek near Hayward (d)	11180810	194
San Lorenzo Creek above Don Castro Reservoir, near Castro Valley (dts).....	11180825	195
Crow Creek near Hayward (dts)	11180900	202
Cull Creek above Cull Creek Reservoir, near Castro Valley (dts)	11180960	208
San Lorenzo Creek at Hayward (d)	11181000	214
Castro Valley Creek at Hayward (d).....	11181008	216
San Lorenzo Creek at San Lorenzo (d).....	11181040	217
SAN FRANCISCO BAY		
San Pablo Bay at Petaluma River Channel Marker 9 (ct).....	380519122262901	219
San Pablo Strait at Point San Pablo (ct).....	11181360	222
PACHECO CREEK BASIN		
Walnut Creek (head of Pacheco Creek):		
San Ramon Creek at San Ramon (d)	11182500	227
SAN FRANCISCO BAY		
Suisun Bay at Benicia Bridge, near Benicia (ct)	11455780	228
Carquinez Strait at Carquinez Bridge, near Crockett (ct).....	11455820	233
NAPA RIVER BASIN		
Napa River near St. Helena (d)	11456000	238
Napa River near Napa (d)	11458000	240
Napa River at Mare Island Causway, near Vallejo (ct).....	11458370	242

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

	Station No.	Page
<u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued</u>		
SONOMA CREEK BASIN		
Sonoma Creek at Agua Caliente (d)	11458500	247
PETALUMA RIVER BASIN		
Petaluma River at Copland Pumping Station, at Petaluma (d)	11459150	249
NOVATO CREEK BASIN		
Novato Creek at Novato (d)	11459500	250
LAGUNITAS CREEK BASIN		
Lagunitas Creek at Samuel P. Taylor State Park (d)	11460400	251
Lagunitas Creek near Point Reyes Station (d)	11460600	252
WALKER CREEK BASIN		
Walker Creek near Marshall (d)	11460750	253
RUSSIAN RIVER BASIN		
Russian River near Ukiah (d)	11461000	255
East Fork Russian River near Calpella (d)	11461500	257
East Fork Russian River near Ukiah (d)	11462000	259
Russian River near Hopland (dct)	11462500	261
Russian River near Cloverdale (d)	11463000	269
Big Sulphur Creek at Geysers Resort, near Cloverdale (d)	11463170	270
Big Sulphur Creek near Cloverdale (d)	11463200	272
Russian River at Digger Bend, near Healdsburg (dct)	11463980	273
Russian River near Healdsburg (dt)	11464000	278
Dry Creek below Warm Springs Dam, near Geyserville (d)	11465000	281
Dry Creek near Geyserville (d)	11465200	282
Dry Creek near mouth, near Healdsburg (d)	11465350	284
Laguna de Santa Rosa at Stony Point Road, near Cotati (d)	11465680	285
Colgan Creek near Sebastopol (d)	11465700	286
Laguna de Santa Rosa near Sebastopol (d)	11465750	288
Spring Lake at Santa Rosa (l)	11465850	290
Mark West Creek:		
Santa Rosa Creek at Mission Boulevard, at Santa Rosa (g)	11466050	291
Santa Rosa Creek at Alderbrook Drive, at Santa Rosa (g)	11466080	292
Santa Rosa Creek at Santa Rosa (d)	11466200	293
Santa Rosa Creek at Willowside Road, near Santa Rosa (d)	11466320	294
Laguna de Santa Rosa near Graton (g)	11466500	296
Russian River near Guerneville (dct)	11467000	297
Russian River at Johnsons Beach, at Guerneville (g)	11467002	305
GUALALA RIVER BASIN		
Wheatfield Fork Gualala River above South Fork Gualala River, near Annapolis (d)	11467585	307
NAVARRO RIVER BASIN		
Navarro River near Navarro (dts)	11468000	308
BIG RIVER BASIN		
Big River below Two Log Creek, near Comptche (d)	11468092	316
NOYO RIVER BASIN		
Noyo River near Fort Bragg (d)	11468500	317
MATTOLE RIVER BASIN		
Mattole River near Ettersburg (dt)	11468900	319
Mattole River near Petrolia (dts)	11469000	323
EEL RIVER BASIN		
Eel River:		
Lake Pillsbury near Potter Valley (l)	11470000	330
Eel River below Scott Dam, near Potter Valley (d)	11470500	331
Potter Valley Powerhouse Intake near Potter Valley (d)	11471000	332
Potter Valley Powerhouse Tailrace near Potter Valley (d)	11471099	333
Eel River at Van Arsdale Dam, near Potter Valley (d)	11471500	334
Middle Fork Eel River above Black Butte River, near Covelo (d)	11472800	336
Black Butte River near Covelo (d)	11472900	338

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

	Station No.	Page
<u>PACIFIC SLOPE BASINS IN CALIFORNIA—Continued</u>		
EEL RIVER BASIN—Continued		
Eel River—Continued:		
Middle Fork Eel River near Dos Rios (d)	11473900	342
North Eel River near Mina (dt)	11474500	344
Eel River at Fort Seward (d)	11475000	348
South Fork Eel River:		
Elder Creek near Branscomb (d)	11475560	350
South Fork Eel River at Leggett (d)	11475800	352
South Fork Eel River near Miranda (d)	11476500	354
Bull Creek near Weott (d)	11476600	356
Eel River at Scotia (d)	11477000	358
Van Duzen River:		
Mill Creek below diversion dam, near Dinsmore (d)	11477425	360
Sulphur Creek below diversion dam, near Dinsmore (d)	11477450	361
Van Duzen River near Bridgeville (d)	11478500	362
Eel River at Fernbridge (g)	11479560	364
MAD RIVER BASIN		
Mad River above Ruth Reservoir, near Forest Glen (d)	11480390	366
Ruth Reservoir near Forest Glen (l)	11480400	368
Mad River below Ruth Reservoir, near Forest Glen (d)	11480410	369
Mad River near Arcata (d)	11481000	370
LITTLE RIVER BASIN		
Little River near Trinidad (d)	11481200	372
REDWOOD CREEK BASIN		
Redwood Creek near Blue Lake (dts)	11481500	374
Redwood Creek at Orick (dts)	11482500	380
KLAMATH RIVER BASIN		
Copco Lake near Copco (l)	11511400	385
Iron Gate Reservoir near Hornbrook (l)	11516510	385
Klamath River below Iron Gate Dam (dct)	11516530	386
Shasta River near Montague (dct)	11517000	391
Shasta River near Yreka (dct)	11517500	397
Scott River near Fort Jones (d)	11519500	403
Klamath River near Seiad Valley (dct)	11520500	405
Indian Creek near Happy Camp (d)	11521500	411
Salmon River at Somes Bar (d)	11522500	413
Klamath River at Orleans (dct)	11523000	415
Trinity River above Coffee Creek, near Trinity Center (d)	11523200	421
Trinity Lake near Lewiston (l)	11525400	423
Judge Francis Carr Powerplant near French Gulch (d)	11525430	424
Trinity River at Lewiston (d)	11525500	425
Grass Valley Creek at Fawn Lodge, near Lewiston (dts)	11525600	427
Trinity River near Burnt Ranch (d)	11527000	435
South Fork Trinity River below Hyampom (d)	11528700	437
Trinity River at Hoopa (dct)	11530000	439
Klamath River near Klamath (dct)	11530500	446
SMITH RIVER BASIN		
Smith River near Crescent City (d)	11532500	452
Smith River near Fort Dick (g)	11532650	454

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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 NWIS 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 Carpofo 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
11147070	Santa Rita Creek near Templeton	18.2	1962–94
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
11148500	Estrella River near Estrella	922	1955–96
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
11149700	San Antonio River at Sam Jones Bridge	272	1958–65
11150000	San Antonio River at Pleyto	204	1929–65
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
11152540	El Toro Creek near Spreckels	31.9	1961–2001
11152570	Alisal Creek near Salinas	14.2	1971–74
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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
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
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
11160020	San Lorenzo River near Boulder Creek	6.17	1968–93
11160060	Bear Creek at Boulder Creek	16.0	1977–93
11160070	Boulder Creek at Boulder Creek	11.3	1976–93
11160200	Newell Creek at Ben Lomond	8.98	1958–60
11160300	Zayante Creek at Zayante	11.1	1957–93
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
11162720	Colma Creek at South San Francisco	10.8	1964–96
11162722	Spruce Branch at South San Francisco	.70	1965–69
11162900	Sharon Creek near Menlo Park	.38	1959–69
11162800	Redwood Creek at Redwood City	1.82	1959–97
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
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
11172365	Zone 6 Line B at Warm Springs Blvd, at Fremont	0.83	1999–2002
11172500	Laguna Creek at Irvington	12.5	1917–19
11173000	Alameda Creek near Sunol	37.5	1912–30
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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
11176000	Arroyo Mocho near Livermore	38.2	1912–30, 1963–2001
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	1915–19, 1922–30, 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
11181004	Castro Valley Creek at Castro Valley	.98	1979–80
11181006	Castro Valley Creek at Knox Street, at Castro Valley	2.20	1978–80, 1989–93
11181300	Peralta Creek at Oakland	1.67	1973
11181330	Temescal Creek above Lake Temescal, at Oakland	1.74	1979–81, 1989–93
11181335	Caldecott Creek at Lake Temescal, at Oakland	.83	1980–81
11181360	San Pablo Strait at Point San Pablo	—	1989–2001
11181390	Wildcat Creek at Vale Road, at Richmond	7.79	1976–96
11181400	Wildcat Creek at Richmond	8.67	1964–75
11182030	Rheem 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	Tuluca 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
11460000	Corte Madera Creek at Ross	18.1	1951–93
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
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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
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
11464500	Dry Creek near Cloverdale	87.8	1941–80
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
11467295	South Fork Gualala River above Wheatfield Fork, near Annapolis	48.25	2001
11467500	South Fork Gualala River near Annapolis	161	1951–71, 1991–94
11467510	South Fork Gualala River near the Sea Ranch	161	1991–92
11467553	North Fork Gualala River above South Fork Gualala River, near Gualala	47.5	2001
11467585	Wheatfield Fork Gualala River above South Fork Gualala River, near Annapolis	111	2001–02
11467600	Garcia River near Point Arena	98.5	1962–83
11467800	Rancheria Creek near Boonville	65.6	1959–68
11468010	Albion River near Comptche	14.4	1961–69, 2001
11467850	Soda Creek Tributary near Boonville	1.53	1965–68
11468070	South Fork Big River near Comptche	36.3	1960–1971, 2001
11468092	Big River below Two Log Creek, near Comptche	88.7	2001–2002
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
11471800	Tomki Creek near Willits	43.4	1963–70
11472000	Eel River at Hearst	466	1911–13
11472150	Eel River near Dos Rios	528	1967–94
11472200	Outlet Creek near Longvale	161	1957–94
11472500	Eel River above Dos Rios	705	1951–65
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
11477475	Mill Creek below Sulphur Creek, at Dinsmore	3.11	1990–95
11477500	Van Duzen River near Dinsmore	85.2	1954–58, 1964–74
11477700	Little Van Duzen River near Bridgeville	36.2	1958–67

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED GAGING STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Period of record
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
11480500	Mad River near Forest Glen	143	1953–94
11480750	Mad River near Kneeland	351	1966–74
11480800	North Fork Mad River near Korbel	40.4	1958–64, 1973–74
11481200	Little River near Trinidad	40.5	1956–94
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
11516600	Cottonwood Creek at Hornbrook	89.8	1965–71
11516900	Little Shasta River near Montague	48.2	1958–78
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	49.5	1970–73
11518050	East Fork Scott River at Callahan	110	1959–74
11518310	Cedar Gulch	.99	1961–73
11530020	Supply Creek at Hoopa	15.8	1982–85

DISCONTINUED LAKES AND RESERVOIRS

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

Station No.	Station name	Drainage area (mi ²)	Period of record
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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS

The following continuous-record water-quality stations in California have been discontinued. Daily records were collected and are stored in NWIS 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
11141280	Lopez Creek near Arroyo Grande	20.9	WQ,S,T	1968–72, 1977
11143000	Big Sur River near Big Sur	46.5	WQ,T	1966–79
11143250	Carmel River near Carmel	247.23	WQ,S	1954–66, 1990, 1991–97
11467296	South Fork Gualala River above Wheatfield Fork, near Annapolis	48.25	T	2001
11467585	Wheatfield Fork Gualala River above South Fork Gualala River, near Annapolis	111	T	2001
11147040	Santa Rita Creek Tributary near Templeton	2.95	T	1968–72
11147070	Santa Rita Creek near Templeton	18.2	S	1968–72
11148800	Nacimiento River near Bryson	147	T,S	1959, 1961–71
11148900	Nacimiento River below Sapaque Creek, near Bryson	162	T	1972–73
11149400	Nacimiento River below Nacimiento Dam, near Bradley	329	WQ	1963–66
11149700	San Antonio River at Sam Jones Bridge	204	T,S	1959, 1961–62, 1964–65
11149900	San Antonio River near Lockwood	217	T	1966–73
11150000	San Antonio River at Pleyto	277	T,S	1962, 1965
11151870	Arroyo Seco near Greenfield	113	S	1963–75, 1978–84
11152300	Salinas River near Chualar	4,042	C,T,B	1967–69, 1977–81
11152500	Salinas River near Spreckels	4,156	WQ,B,C, T,S	1950–54, 1958–79
11152540	El Toro Creek near Spreckles	31.9	S	1986, 1990
11153470	Llagas Creek above Chesbro Reservoir, near Morgan Hill	9.63	T	1972–78
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
11154700	Clear Creek near Idria	14.1	T	1993–96
11159000	Pajaro River at Chittenden	1,186	WQ,B,C, T,S	1952–92
11159200	Corralitos Creek at Freedom	27.8	S	1976–77, 1980–81
11160000	Soquel Creek at Soquel	40.2	T	1966–79
11160500	San Lorenzo River at Big Trees	106	S,T	1966–82
11162500	Pescadero Creek near Pescadero	45.9	WQ,T,S	1965–80, 1986, 1990–93
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
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
11172300	Agua Fria Creek at Warm Springs Road, at Fremont	1.79	S	1999–2002
11172360	Toroges Creek at Warm Springs Road, at Fremont	1.23	S	1999–2002
11172365	Zone 6 Line B at Warm Spring	0.83	T,S	1999–2002

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Type of record	Period of record
11174000	San Antonio Creek near Sunol	37	S	2000–01
11174060	Alameda Creek at Highway 680, near Sunol	191	S	1999–2002
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, 1974–76, 1978, 1979
11176500	Arroyo Valle near Livermore	147	S	1966–67
11176600	Arroyo Valle at Pleasanton	171	WQ,C	1975–83
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	WQ,C	1906, 1952–67, 1969, 1975–93
11180825	San Lorenzo Creek above Don Castro Reservoir, near Castro Valley	18.0	T,S	1981–94
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
11181040	San Lorenzo Creek at San Lorenzo	44.6	T,S	1989–93
11181330	Temescal Creek above Lake Temescal, at Oakland	1.74	WQ,S	1979–81
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	WQ,B,C T,S	1971, 1973–93
11460000	Corte Madera Creek at Ross	18.1	S	1978–80
11460015	Corte Madera Creek at College Avenue, at Kentfield	18.2	S	1988–89
11460110	Gerbode Valley Creek near Sausalito	3.29	WQ,S	1986–88
11460120	Rodeo Lagoon at Ft. Cronkhite, near Sausalito	4.07	WQ	1986–88
11460130	Tennessee Valley Creek near Tamalpais Valley	1.91	WQ,S	1986–88
11460140	Redwood Creek below Muir Woods, near Mill Valley	4.11	WQ,S	1986–88
11460152	Redwood Creek at Muir Beach, near Tamalpais Valley	7.29	WQ,S	1986–88
11460154	Green Gulch at Muir Beach, near Tamalpais Valley	1.51	WQ,S	1986–88
11460156	Webb Creek near Stinson Beach	1.12	WQ,S	1986–88
11460158	Table Rock Creek at Stinson Beach	1.34	WQ,S	1986–88
11460170	Pine Creek at Bolinas	7.83	T,S	1967, 1969–70
11460600	Lagunitas Creek near Point Reyes	81.7	T	1989–90
11460920	Salmon Creek at Bodega	15.7	T,S	1964–75
11461000	Russian River near Ukiah	100	WQ,S,B,T	1964–68, 1977–79, 1991–92, 1994–97
11461500	East Fork Russian River near Calpella	92.2	S	1965–68
11462000	East Fork Russian River near Ukiah	105	WQ,S,B,T	1953–55, 1964–68, 1973–94
11462500	Russian River near Hopland	362	WQ,T,S	1951–79, 1989–93, 1995–96
11463000	Russian River near Cloverdale	503	T,S	1964–68, 1994–96
11463160	Big Sulphur Creek near Middletown	2.89	T,S	1978–79
11463200	Big Sulphur Creek near Cloverdale	85.5	S	1967–68
11464000	Russian River near Healdsburg	793	WQ,T	1951–2002
11464500	Dry Creek near Cloverdale	87.8	T	1965–79

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Type of record	Period of record
11465000	Dry Creek below Warm Springs Dam, near Geyserville	131	T	1981–94
11465150	Pena Creek near Geyserville	22.3	S	1979–86
11465200	Dry Creek near Geyserville	162	WQ,S,T	1964–87
11467000	Russian River near Guerneville	1,338	WQ,B,C, T,S	1951–95
11467553	North Fork Gualala River above South Fork Gualala River, near Gualala	47.5	T	2001
11467590	Garcia River at Eureka Hill Road, near Point Arena	83.2	S	1992–97
11467600	Garcia River near Point Arena	98.5	T	1964–78
11468000	Navarro River near Navarro	303	WQ	1959–66, 1973–79
11468010	Albion River near Comptche	14.4	T	2001
11468092	Big River below Two Log Creek, near Comptche	88.71	T	2001
11468070	South Fork Big River near Comptche	36.2	T	2001
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	WQ,T,S	1968–96
11476500	South Fork Eel River near Miranda	537	T,S	1960–83
11476600	Bull Creek near Weott	28.1	S	1960–80
11477000	Eel River at Scotia	3,113	WQ,B,C, T,S	1952–95, 1998
11477500	Van Duzen River near Dinsmore	85.2	T	1966–74
11477700	Little Van Duzen River near Bridgeville	36.2	T	1961–65
11478500	Van Duzen River near Bridgeville	222	T,S	1956–65, 1998
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
11481500	Redwood Creek near Blue Lake	67.7	WQ,T	1973–92
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
11482500	Redwood Creek at Orick	277	WQ,T	1959–92
11516600	Cottonwood Creek at Hornbrook	89.8	T	1965–71
11519500	Scott River near Fort Jones	653	WQ,S	1955–56, 1959–79
11525500	Trinity River at Lewiston	719	WQ,T,S	1951–83
11525550	Grass Valley Creek near French Gulch	7.93	S	1985–89
11525580	Little Grass Valley Creek near Lewiston	10.7	S	1985–2000
11525655	Trinity River below Limekiln Gulch, near Douglas City	812	T,S	1981–91

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS—Continued

Station No.	Station name	Drainage area (mi ²)	Type of record	Period of record
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
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	WQ,B,C, T,S	1951–95
11532000	South Fork Smith River near Crescent City	291	T,S	1978–79
11532500	Smith River near Crescent City	614	WQ,C,B, S,T	1952–93
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
374906122281801	San Francisco Bay at Golden Gate Bridge	—	C,T	1997
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
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); P (Precipitation).

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002 VOLUME 2—PACIFIC SLOPE BASINS FROM ARROYO GRANDE TO OREGON STATE LINE EXCEPT CENTRAL VALLEY

By L.A. Freeman, J.R. Smithson, M.D. Webster, G.L. Pope, and M.F. Friebel

INTRODUCTION

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

This volume of the report includes records on surface water in the State. Specifically, it contains: (1) discharge records for 133 streamflow-gaging stations and 6 partial-record stations; (2) stage and content records for 8 lakes and reservoirs; (3) gage-height records for 6 stations; and (4) water-quality records for 43 streamflow-gaging stations and 5 water-quality partial-record stations. Records included for stream stages are only a small fraction of those obtained during the water year.

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

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

Publications similar to this report are published annually by the U.S. Geological Survey for all States. Each report has an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-02-2." 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 on microfiche, by the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. For further ordering information, the Customer Inquiries telephone number is (703) 487-4650, between 8:30 a.m. and 5:30 p.m. Eastern Standard Time.

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

COOPERATION

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

Alameda County Flood Control and Water Conservation District, Robert Hale, Water Resources Manager.

Alameda County Flood Control and Water Conservation District, Zone 7, Dale Myers, General Manager.

Alameda County Water District, Paul Piraino, General Manager.

Brentwood, city of, Paul R. Eldredge, Associate Civil Engineer.

California Department of Parks and Recreation, Rusty Areias, Director.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

California Department of Water Resources, Thomas M. Hannigan, Director.
 California State Water Resources Control Board, Winston H. Hickox, Secretary for Environmental Protection.
 Contra Costa County Flood Control and Water Conservation District, R. Mitch Avalon, Deputy Director.
 Humboldt Bay Municipal Water District, Carol Rische, General Manager.
 Karuk Tribe of California, Alvis Johnson, Tribal Chairman.
 Marin Municipal Water District, Pamela J. Nicolai, General Manager.
 Monterey County Water Resources Agency, Curtis V. Weeks, General Manager.
 Monterey Peninsula Water Management District, Ernesto A. Avila, General Manager.
 North Marin Water District, Chris DeGabriele, General Manager.
 San Benito County Water District, John S. Gregg, District Manager/Engineer.
 San Francisco Water Department, Patricia E. Martel, General Manager.
 San Jose, city of, Carl W. Mosher, Director, Environmental Services Department.
 San Luis Obispo County Flood Control and Water Conservation District, Noel King, Director.
 San Mateo County Department of Public Works, Neil R. Cullen, Director.
 Santa Clara Valley Water District, Stanley M. Williams, General Manager.
 Santa Cruz, city of, Water Department, Terry Tompkins, Deputy Director/Operations.
 Santa Cruz County Flood Control and Water Conservation District, Public Works Department, Bruce Laclergue, Water Resources Manager.
 Santa Rosa, city of, Lynn M. Small, Environmental Services Superintendent.
 Scotts Valley Water District, Jon P. Sansing, General Manager.
 Sonoma County Permit and Resource Management Department, Kay Randolph-Pollard, Administrative Services Officer.
 Sonoma County Water Agency, Randy O. Poole, General Manager.
 Soquel Creek Water District, Laura D. Brown, General Manager.
 Assistance in the form of funds or services was given by the Forest Service, U.S. Department of Agriculture; Corps of Engineers, U.S. Army; Bureau of Land Management, Bureau of Reclamation, and National Park Service, U.S. Department of the Interior.
 The following organizations aided in collecting records: Pacific Gas and Electric Company, PacifiCorp, STS Hydropower, and North Coast Hydroelectric.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative of undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrology Benchmark Program can be found at:

<http://water.usgs.gov/hbn/>

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN program can be found at:

<http://water.usgs.gov/nasqan>

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term nationally consistent monitoring program, coupled

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at:

<http://bqs.usgs.gov/acidrain/>

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

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

<http://water.usgs.gov/nawqa/>

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and contents data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station-Identification Numbers

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

Downstream-Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 1119750, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "19750." The part number designates the major river basin; for example, part "11" is the Pacific Slope Basins in California.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description (fig. 1).

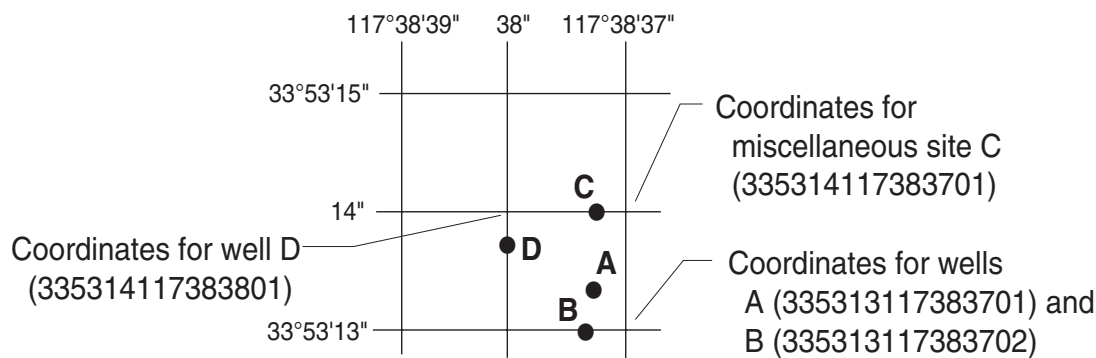


Figure 1. System for numbering miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

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

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records" or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown, by county, in figures 2 through 19.

Data Collection and Computation

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

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

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

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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

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

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

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

Data Presentation

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

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

Station manuscript

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

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

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

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

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

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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

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

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

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

EXTREMES FOR CURRENT YEAR.—Extremes given are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year that are greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

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

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

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation for tables containing complex data for the current water year. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ___—___," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

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

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

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

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

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

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

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

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period.

Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period.

Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS

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

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

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

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

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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

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

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

Other Records Available

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

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

Records of Surface-Water Quality

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

Change in National Trends Network Procedures

Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences, based on a special intercomparison study, is available from the NADP Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820-7495 (Telephone: 217-333-7873).

Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape or stored electronically in a data logger. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 2 through 19.

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.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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 (2002) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter (ng/L). If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter ($\mu\text{g/L}$) and could reflect contamination introduced during some phase of the procedure.

Water Temperature

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

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

Sediment

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

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

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

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

Estimates of bed-load and total-sediment discharge are included for some stations. Computations of monthly bed-load discharges are based on the relation between instantaneous water discharge and corresponding bed-load discharge for the station. Values of bed-load discharge used in defining this relation are based on samples obtained by use of the Helley-Smith or BL 84 bed-

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

load samplers or by modified-Einstein or Meyer-Peter Muller computation procedures. Application of the bed-load-transport relation at a station was made on a daily basis or subdivided-day basis. The bed-load samplers are designed to collect time-weighted samples for the sediment moving within 0.25 ft of the streambed. Sediment moving in this portion of the flow cannot be sampled with standard suspended-sediment samplers. Calibration of the bed-load samplers has not been completed, and a trap efficiency of 1.0 has been assumed applicable to these devices. Error sources in the theoretical methods, based on analysis of bed-material characteristics, channel geometry, and associated hydraulic factors, are also undefined. In consequence, figures of bed-load discharge must be used with caution. They are estimates, at best, and are subject to revision.

Cross-Sectional Data

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

Laboratory Measurements

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

Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District are described in the following section. Procedures have been established for the storage of water quality-control data within the U.S. Geological Survey. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

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

Source solution blank — a blank solution that is transferred to a sample bottle in an area of the office laboratory with an atmosphere that is relatively clean and protected with respect to target analytes.

Ambient blank — a blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

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

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

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

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

Pump blank — a blank solution that is processed through the same pump-and-tubing system used for an environmental sample.

Standpipe blank — a blank solution that is poured from the containment vessel (stand-pipe) before the pump is inserted to obtain the pump blank.

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

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

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

Canister blank — a blank solution that is taken directly from a stainless steel canister just before the VOC sampler is submerged to obtain a field blank sample.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

Reference Samples

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

Replicate Samples

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

Concurrent sample — a type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating collection of samples into two or more compositing containers.

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

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

Spike Samples

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

Concurrent sample — a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Split sample — a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

ACCESS TO USGS WATER DATA

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

<http://water.usgs.gov>

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

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) Units on the inside of the back cover.

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

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "[Annual runoff](#)")

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

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. (See also "[Biomass](#)" and "[Dry weight](#)")

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

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1–March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

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

Artificial substrate is a device that 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 collected. 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. (See also "[Substrate](#)")

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

Aspect is the direction toward which a slope faces with respect to the compass.

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

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also "[Peak flow](#)")

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "[Bedload](#)," "[Dry weight](#)," "[Sediment](#)," and "[Suspended-sediment discharge](#)")

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

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

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

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

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved solids content of the pore water and lithology and porosity of the rock.

Cells/volume refers to the number of cells of any organism that is 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 volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members 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 or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

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

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

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

Cfs-day (See "Cubic foot per second-day")

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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

***Clostridium perfringens* (*C. perfringens*)** is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

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

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

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

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

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

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term "second-foot" sometimes is used synonymously with "cubic foot per second" but is now obsolete.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft³/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, (ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also "Annual runoff")

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also "Sediment" and "Suspended-sediment concentration")

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data Collection Platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also "Gage datum", "Land-surface datum", "National Geodetic Vertical Datum of 1929", and "North American Vertical Datum of 1988")

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. (See also "Phytoplankton")

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

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of "dissolved" constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon 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. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

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

Dry mass refers to the mass of residue present after drying in an oven at 105°C, 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. (See also "Ash mass", "Biomass", and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65°C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

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

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive, the index usually decreases with pollution.

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

Estimated (E) concentration value is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

Euglenoids (Euglenophyta) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "[Phytoplankton](#)")

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

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "[Bacteria](#)")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "[Bacteria](#)")

Fire algae (Pyrrhophyta) are free-swimming unicells characterized by a red pigment spot. (See also "[Phytoplankton](#)")

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

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term "stage," although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

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

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat are typically made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

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

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

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \frac{\sum (n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See "Datum")

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

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

Instantaneous discharge is the discharge at a particular instant of time. (See also "Discharge")

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year on average, and remains stable except during large flood events.

Laboratory Reporting Level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

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

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

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

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

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

Long-Term Method Detection Level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

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

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

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

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also "[Daily mean suspended-sediment concentration](#)" and "[Suspended-sediment concentration](#)")

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also "[Discharge](#)")

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also "[Datum](#)")

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

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

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

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

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

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

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

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

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

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

Minimum Reporting Level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

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

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

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level". Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. (See "North American Vertical Datum of 1988") See also NOAA web site:

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

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

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

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

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

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

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

Organic mass or volatile mass of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass", "Biomass", and "Dry mass")

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

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

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

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

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

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

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

Classification	Size (mm)	Method of analysis
Clay	>0.00024–0.004	Sedimentation
Silt	>.004–.062	Sedimentation
Sand	>.062–2.0	Sedimentation/sieve
Gravel.	>2.0–64.0	Sieve
Cobble	>64–256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter 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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at

a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

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, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

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

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

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

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

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

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

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.

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

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

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

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "[Primary productivity](#)")

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

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

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (bottom) material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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. (See also "[Bed material](#)")

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

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

Return period (See "[Recurrence interval](#)")

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council, and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged ("runs off") from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "[Annual runoff](#)")

Sea level, as used in this report, refers to one of the two commonly used national vertical datums, ([NGVD 1929](#) or [NAVD 1988](#)). See separate entries for definitions of these datums. See [conversion factors and vertical datum page](#) (inside back cover) for identification of the datum used in this report.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also "[Annual 7-day minimum](#)" and "[Recurrence interval](#)").

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105°C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

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

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

Stage (See "[Gage height](#)")

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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

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

Substrate is the physical surface upon which an organism lives.

Substrate Embeddedness Class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate
1	> 75 percent
2	51–75 percent
3	26–50 percent
4	5–25 percent
5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "[Suspended](#)")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also "[Sediment](#)")

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "[Sediment](#)" and "[Suspended sediment](#)")

Suspended-sediment discharge (tons/day) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows:

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

(See also "[Sediment](#)", "[Suspended sediment](#)", and "[Suspended-sediment concentration](#)")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "[Sediment](#)")

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "[Suspended](#)")

Suspended solids, total residue at 105°C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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	<i>Hexagenia</i>
Species.....	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35°C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "[Bacteria](#)")

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

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

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

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

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "[Organism count/volume](#)")

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

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "[Bedload](#)", "[Bedload discharge](#)", "[Sediment](#)", "[Suspended sediment](#)", and "[Suspended-Sediment Concentration](#)")

Total sediment load or total load is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "[Sediment](#)", "[Suspended-Sediment Load](#)", and "[Total load](#)")

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

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

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See "[Water-table aquifer](#)")

Vertical datum (See "[Datum](#)")

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

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

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

Water year in USGS 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, 2002, is called the "2002 water year."

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

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

Wet mass is the mass of living matter plus contained water. (See also "[Biomass](#)" and "[Dry mass](#)")

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also "[Dry weight](#)")

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

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are 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. (See also "[Plankton](#)")

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

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

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

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

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS–TWRI Book 1, Chapter D1. 1975. 65 p.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI Book 1, Chapter D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI Book 2, Chapter D1. 1974. 116 p.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI Book 2, Chapter D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI Book 2, Chapter E1. 1971. 126 p.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI Book 2, Chapter E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

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

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI Book 3, Chapter A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI Book 3, Chapter A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI Book 3, Chapter A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI Book 3, Chapter A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI Book 3. Chapter A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI Book 3, Chapter A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI Book 3, Chapter A7. 1968. 28 p.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI Book 3, Chapter A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI Book 3, Chapter A9. 1989. 27 p.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A10. 1984. 59 p.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI Book 3, Chapter A11. 1969. 22 p.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI Book 3, Chapter A12. 1986. 34 p.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A13. 1983. 53 p.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI Book 3, Chapter A14. 1983. 46 p.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI Book 3, Chapter A15. 1984. 48 p.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI Book 3, Chapter A16. 1985. 52 p.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI Book 3, Chapter A17. 1985. 38 p.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI Book 3, Chapter A18. 1989. 52 p.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A19. 1990. 31 p.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI Book 3, Chapter A20. 1993. 38 p.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI Book 3, Chapter A21. 1995. 56 p.

Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI Book 3, Chapter B1. 1971. 26 p.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS–TWRI Book 3, Chapter B2. 1976. 172 p.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI Book 3, Chapter B3. 1980. 106 p.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI Book 3, Chapter B4. 1990. 232 p.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow—Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI Book 3, Chapter B4. 1993. 8 p.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI Book 3, Chapter B5. 1987. 15 p.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI Book 3, Chapter B6. 1987. 28 p.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI Book 3, Chapter B7. 1992. 190 p.
- 3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI Book 3, Chapter B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI Book 3, Chapter C1. 1970. 55 p.
- 3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI Book 3, Chapter C2. 1999. 89 p.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI Book 3, Chapter C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI Book 4, Chapter A1. 1968. 39 p.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI Book 4, Chapter A2. 1968. 15 p.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

- 4-A3. Statistical methods in water resources, by D.R. Helsel and R.M. Hirsch: USGS–TWRI Book 4, Chapter A3. 1991. Available only online at <http://water.usgs.gov/pubs/twri/twri4a3/>. (Accessed August 30, 2002.)

Section B. Surface Water

- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI Book 4, Chapter B1. 1972. 18 p.
 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI Book 4, Chapter B2. 1973. 20 p.
 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI Book 4, Chapter B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI Book 5, Chapter A1. 1989. 545 p.
 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI Book 5, Chapter A2. 1971. 31 p.
 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI Book 5, Chapter A3. 1987. 80 p.
 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI Book 5, Chapter A4. 1989. 363 p.
 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI Book 5, Chapter A5. 1977. 95 p.
 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI Book 5, Chapter A6. 1982. 181 p.

Section C. Sediment Analysis

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

Book 6. Modeling Techniques

Section A. Ground Water

- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI Book 6, Chapter A1. 1988. 586 p.
 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI Book 6, Chapter A2. 1991. 68 p.
 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI Book 6, Chapter A3. 1993. 136 p.
 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI Book 6, Chapter A4. 1992. 108 p.
 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI Book 6, Chapter A5. 1993. 243 p.
 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI Book 6, Chapter A6. 1996. 125 p.
 6-A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI Book 6, Chapter A7. 2002. 77 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI Book 7, Chapter C1. 1976. 116 p.
 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI Book 7, Chapter C2. 1978. 90 p.
 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI Book 7, Chapter C3. 1981. 110 p.

Book 8. Instrumentation**Section A. Instruments for Measurement of Water Level**

- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI Book 8, Chapter A1. 1968. 23 p.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI Book 8, Chapter A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI Book 8, Chapter B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations**Section A. National Field Manual for the Collection of Water-Quality Data**

- 9-A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A1. 1998. 47 p.
- 9-A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A2. 1998. 94 p.
- 9-A3. *National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A3. 1998. 75 p.
- 9-A4. *National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A4. 1999. 156 p.
- 9-A5. *National field manual for the collection of water-quality data: Processing of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI Book 9, Chapter A5. 1999. 149 p.
- 9-A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI Book 9, Chapter A6. 1998. Variously paginated.
- 9-A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI Book 9, Chapter A7. 1997 and 1999. Variously paginated.
- 9-A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI Book 9, Chapter A8. 1998. 48 p.
- 9-A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI Book 9, Chapter A9. 1998. 60 p.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

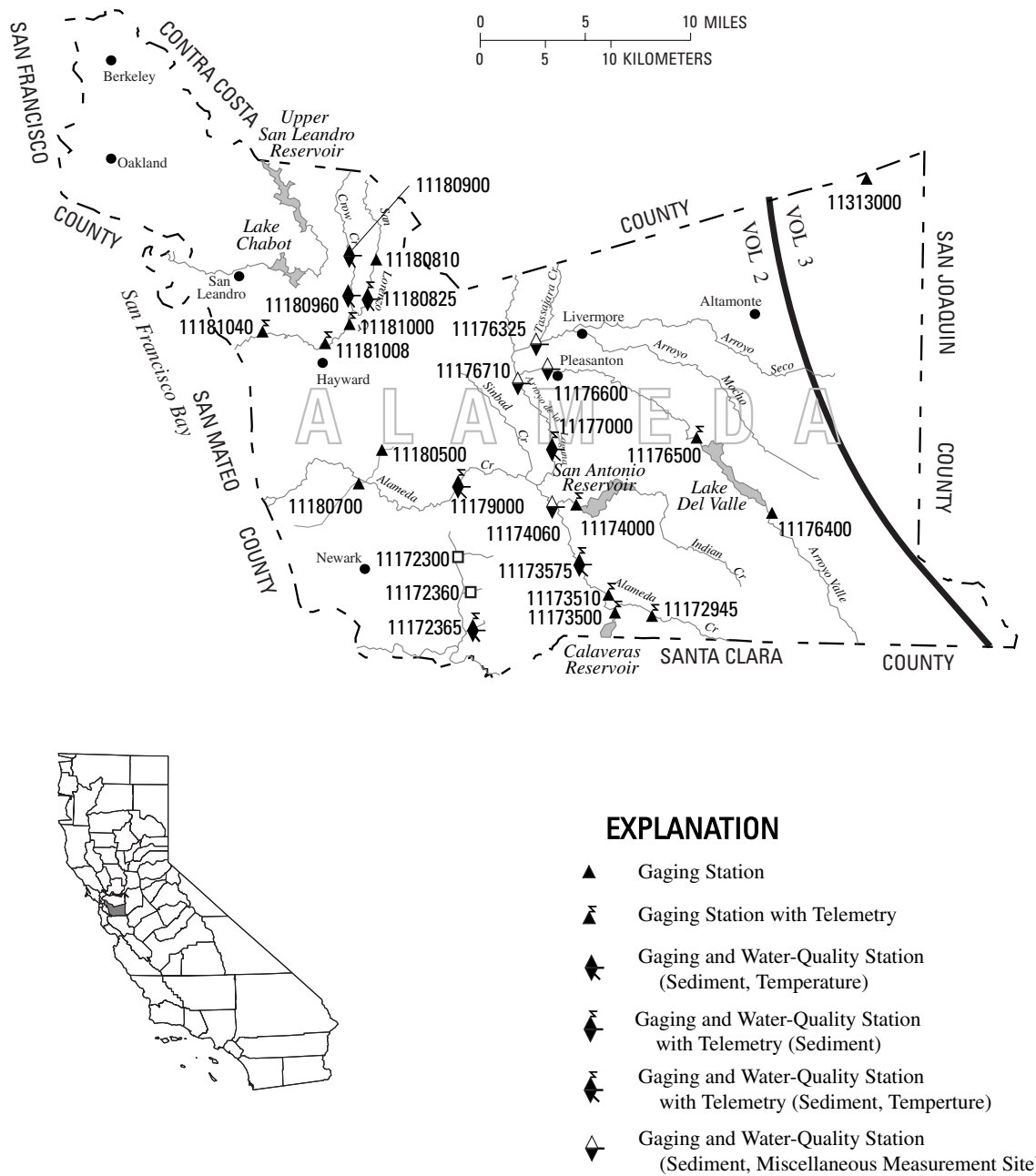


Figure 2. Location of discharge and water-quality stations in Alameda County.
 (NOTE: Record for station 11313000 published in volume 3.)

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

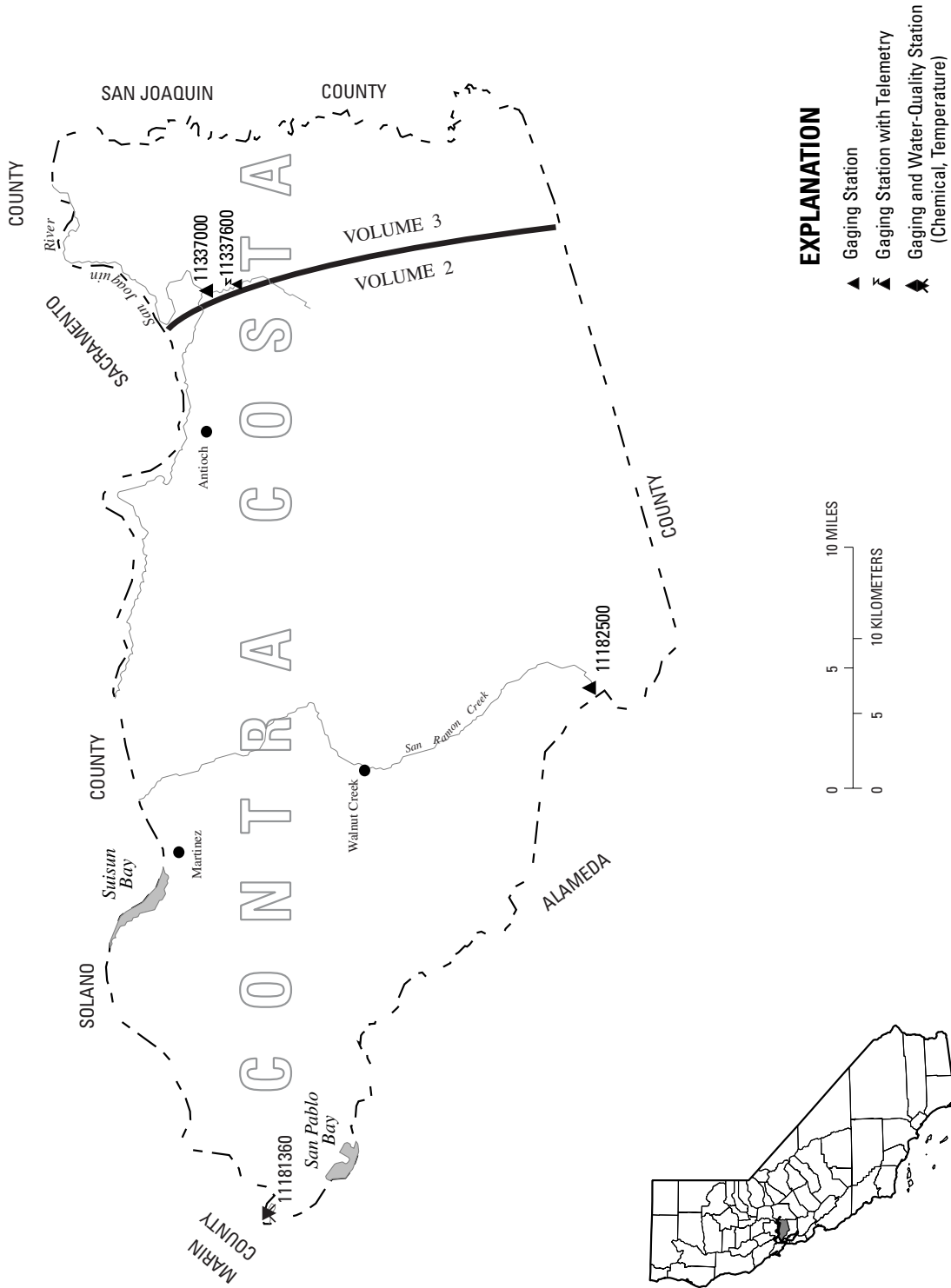


Figure 3. Location of discharge and water-quality stations in Contra Costa County.
 (NOTE: Record for station 11337000 published in volume 3.)

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

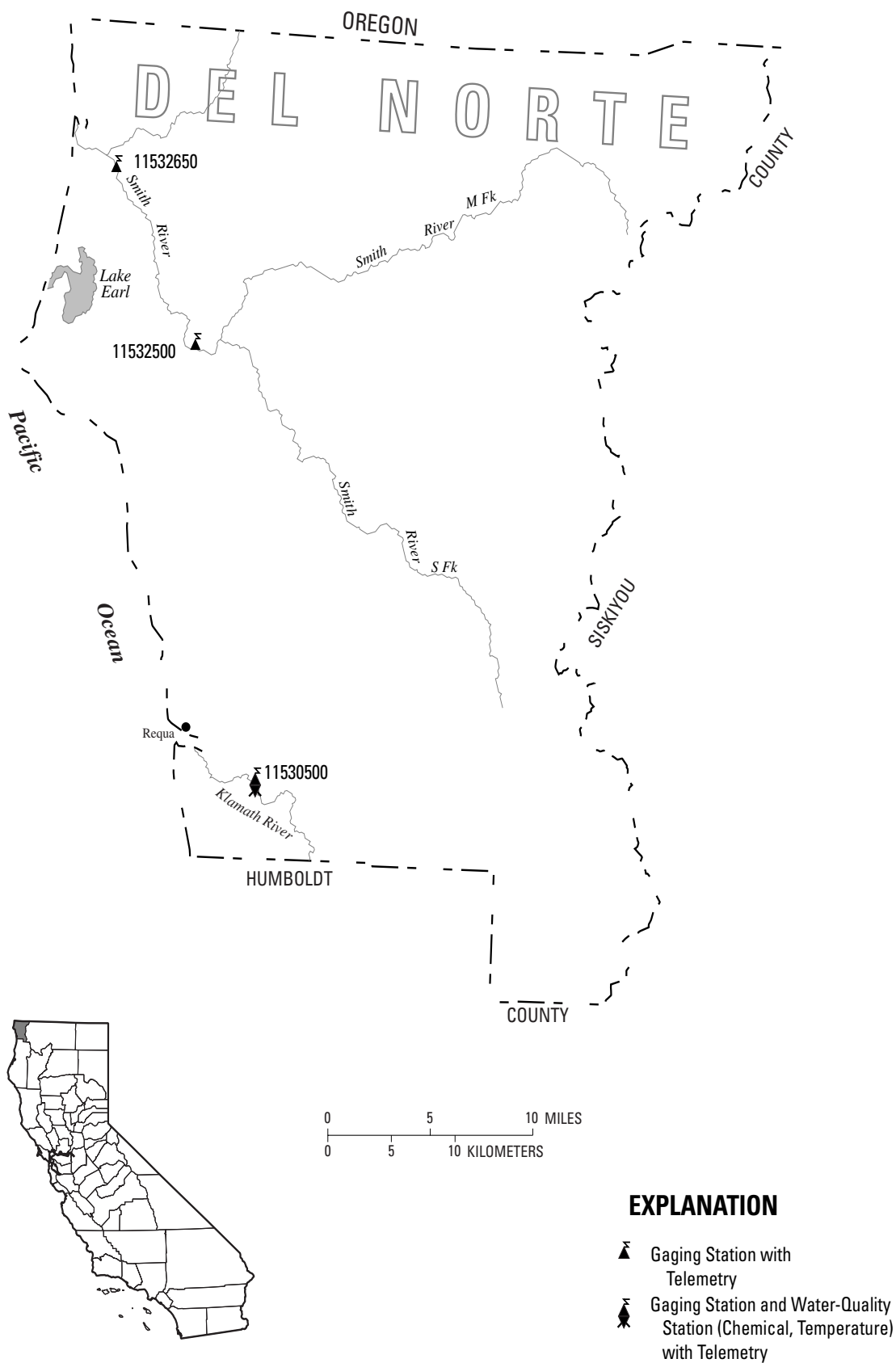


Figure 4. Location of discharge stations in Del Norte County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

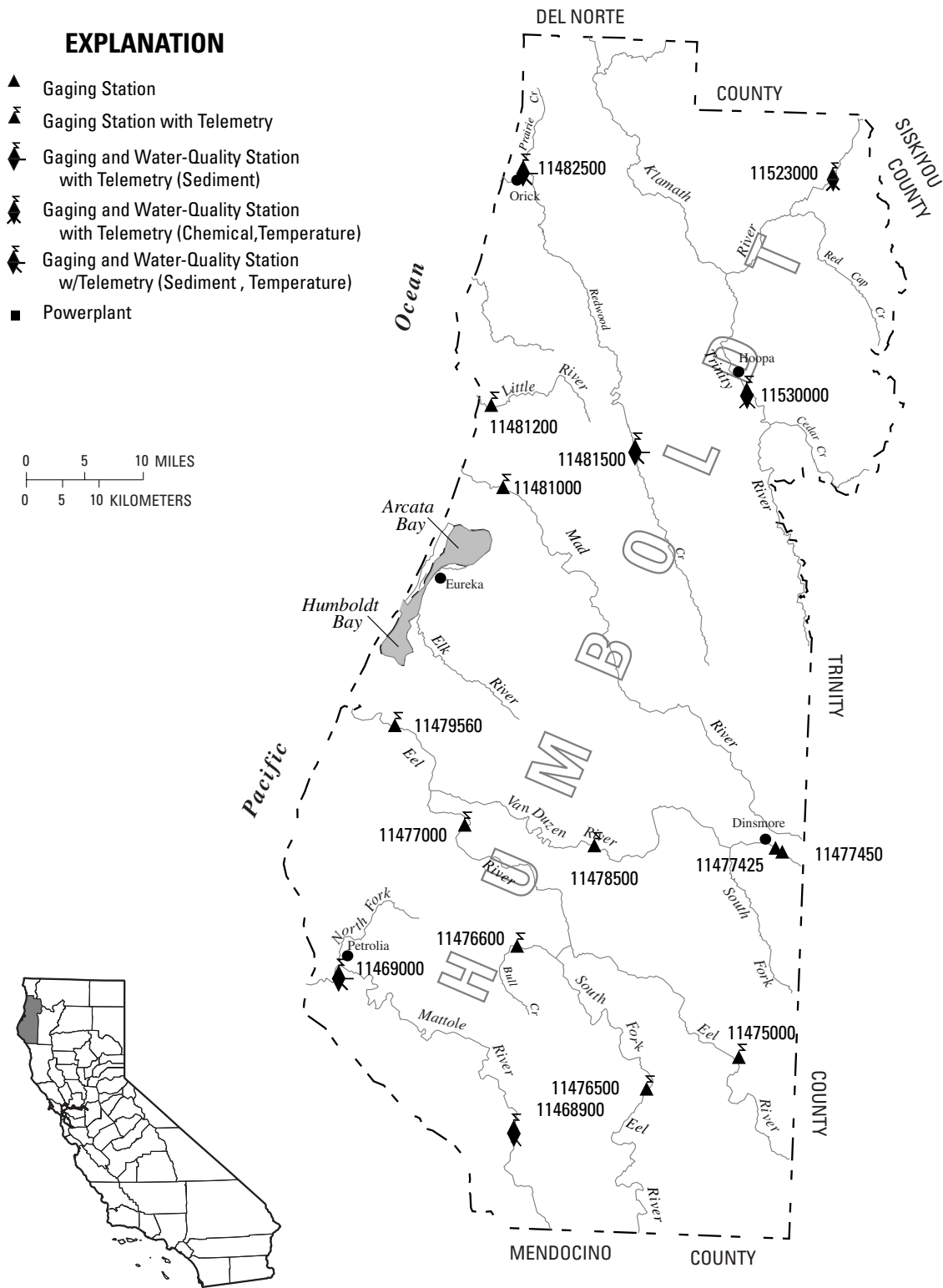
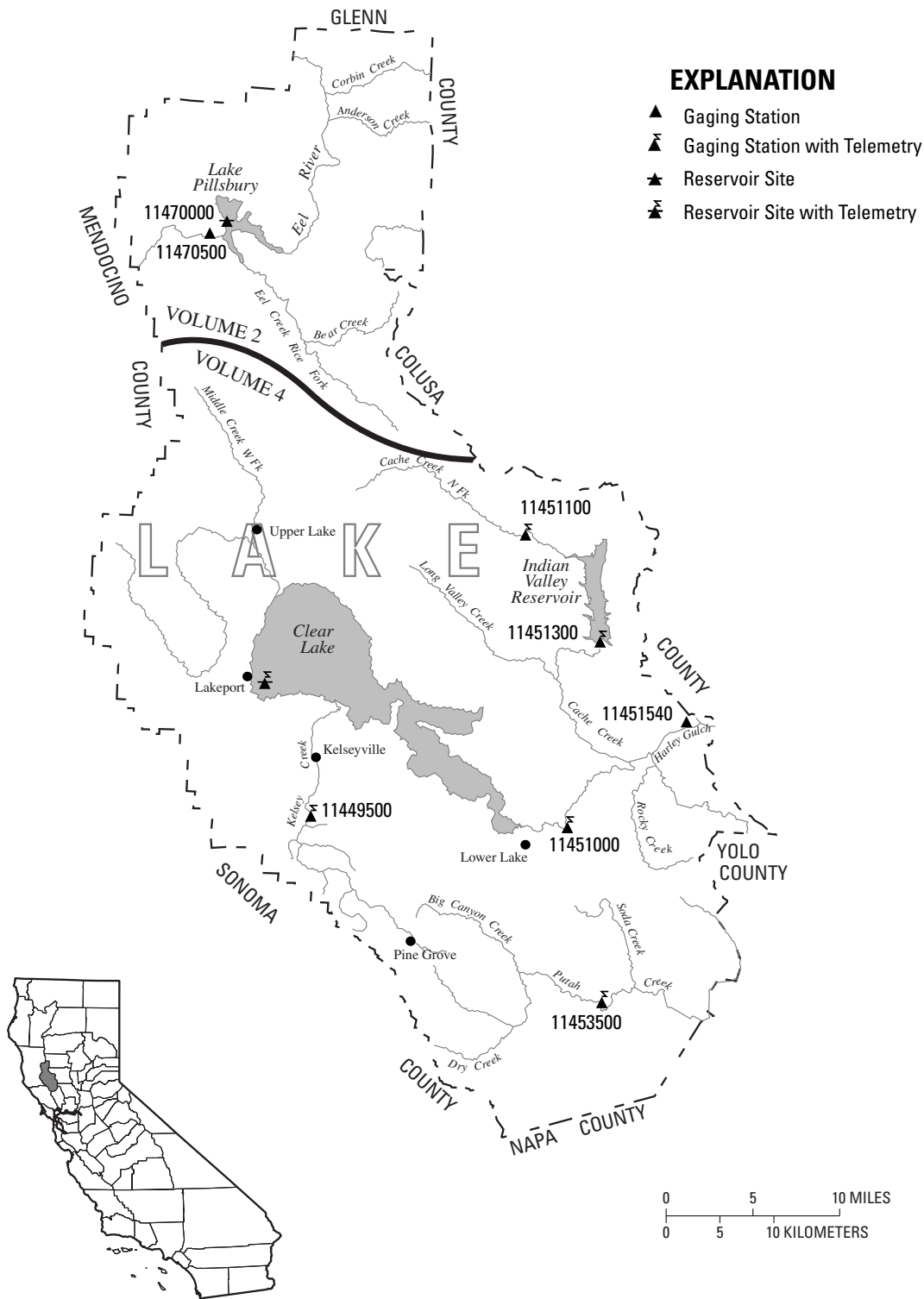


Figure 5. Location of discharge and water-quality stations in Humboldt County.



WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

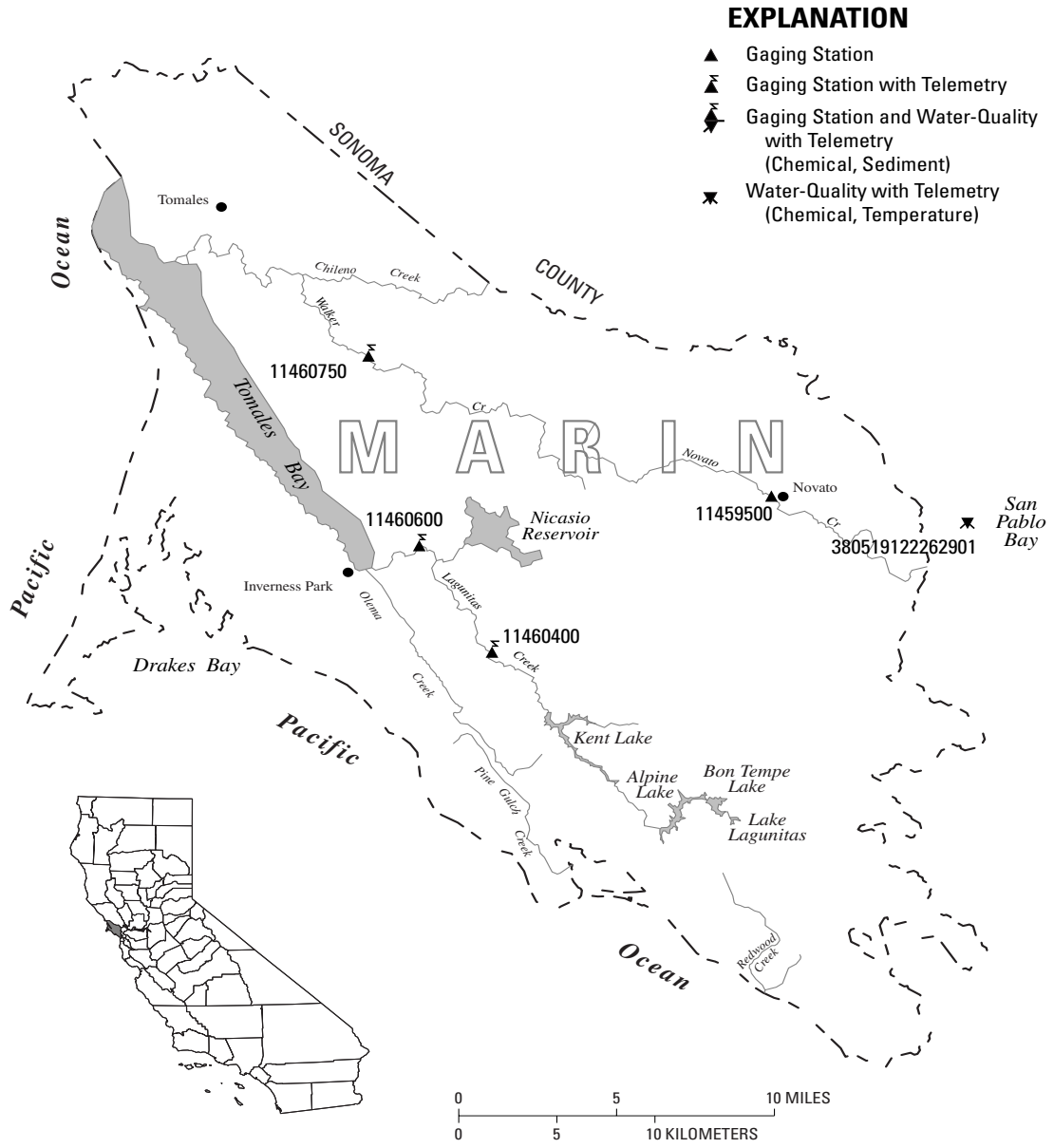


Figure 7. Location of discharge and water-quality stations in Marin County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

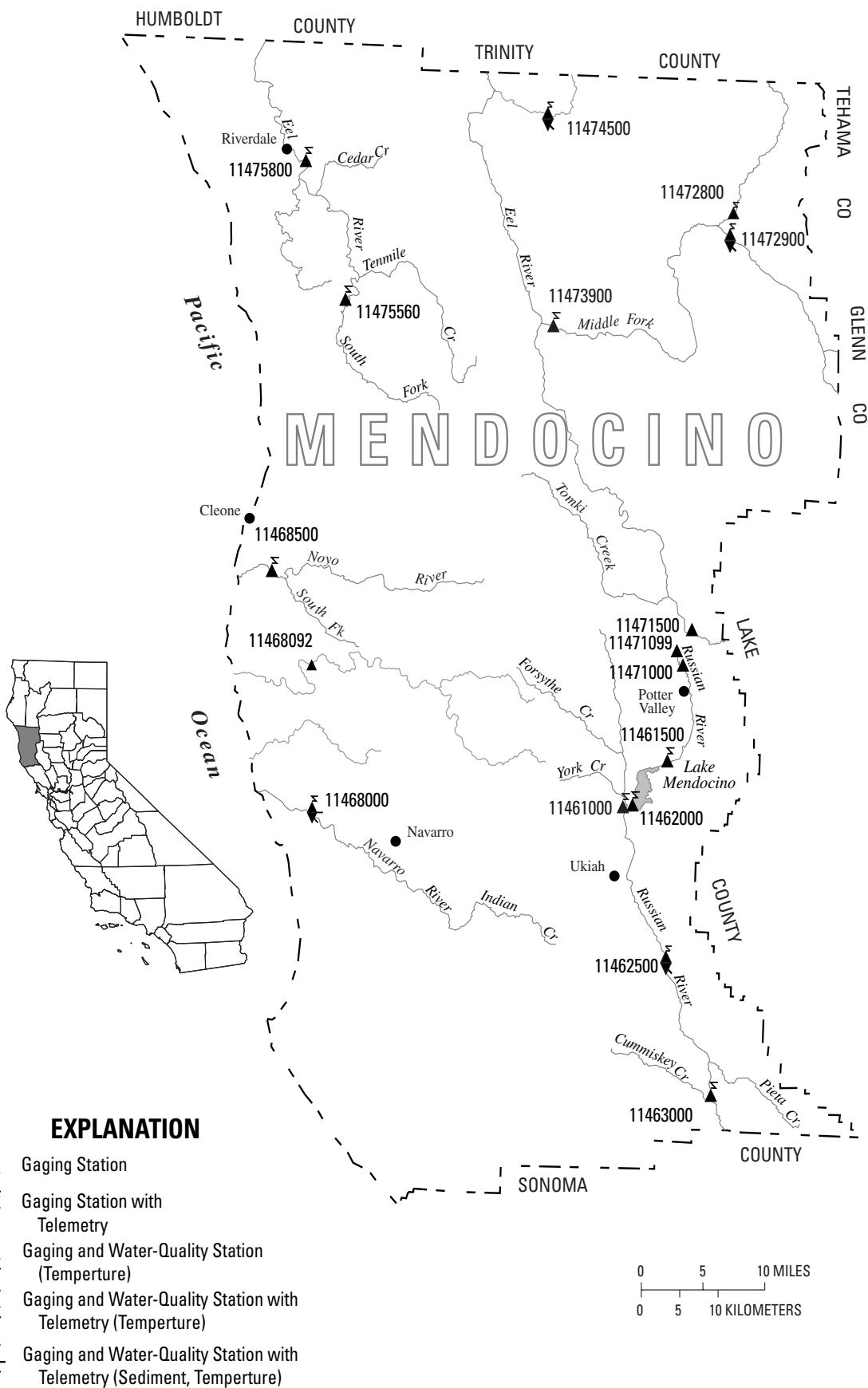
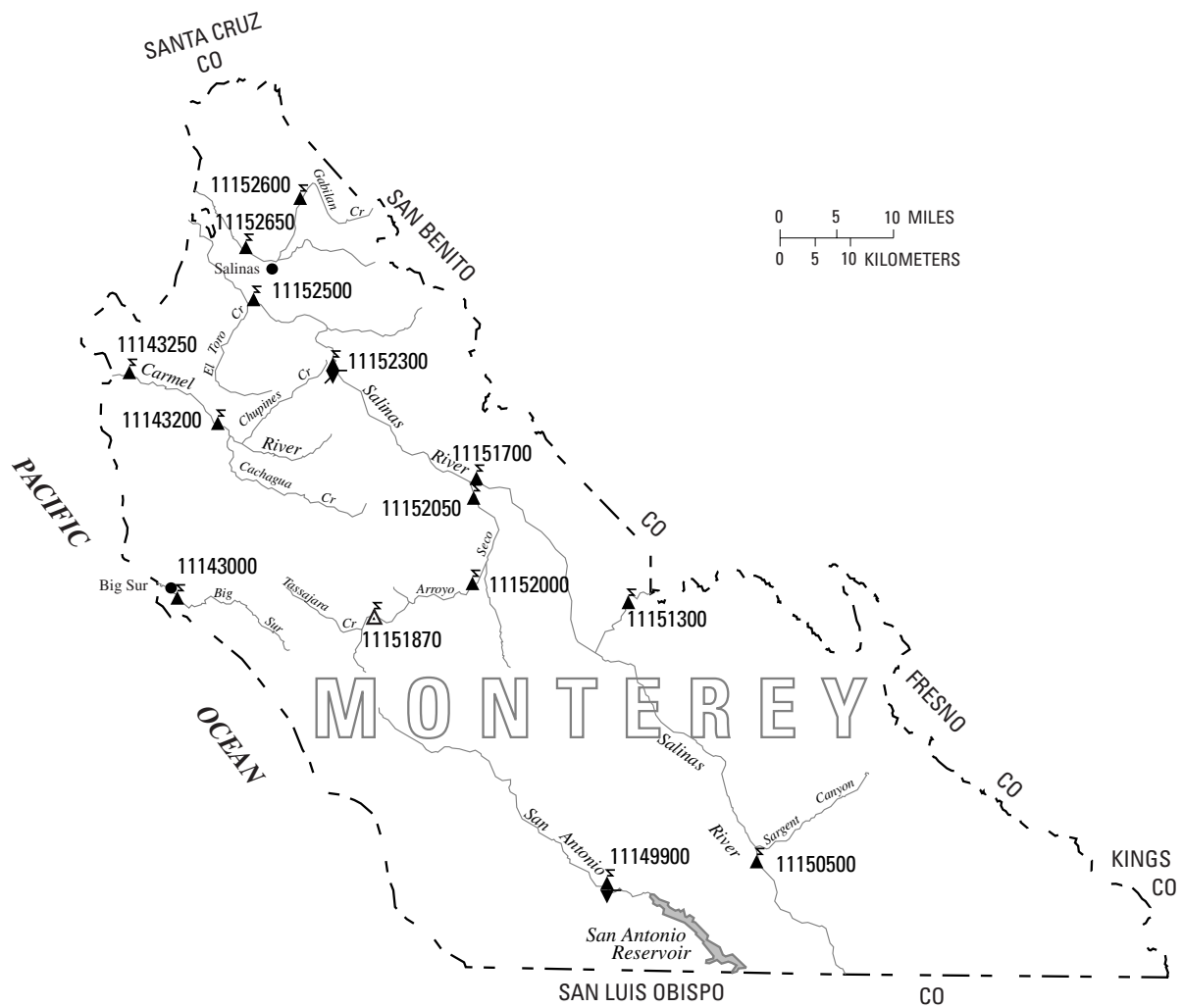


Figure 8. Location of discharge stations in Mendocino County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002



EXPLANATION

- ▲ Gaging Station with Telephone, Radio, or Data-Collection Platform (Partial Record)
- ▲ Gaging Station with Telephone, Radio, or Data-Collection Platform
- ◆ Gaging and Water-Quality Station with Data-Collection Platform (Sediment)
- ◆ Gaging and Water-Quality Station with Data-Collection Platform (Chemical, Sediment)

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

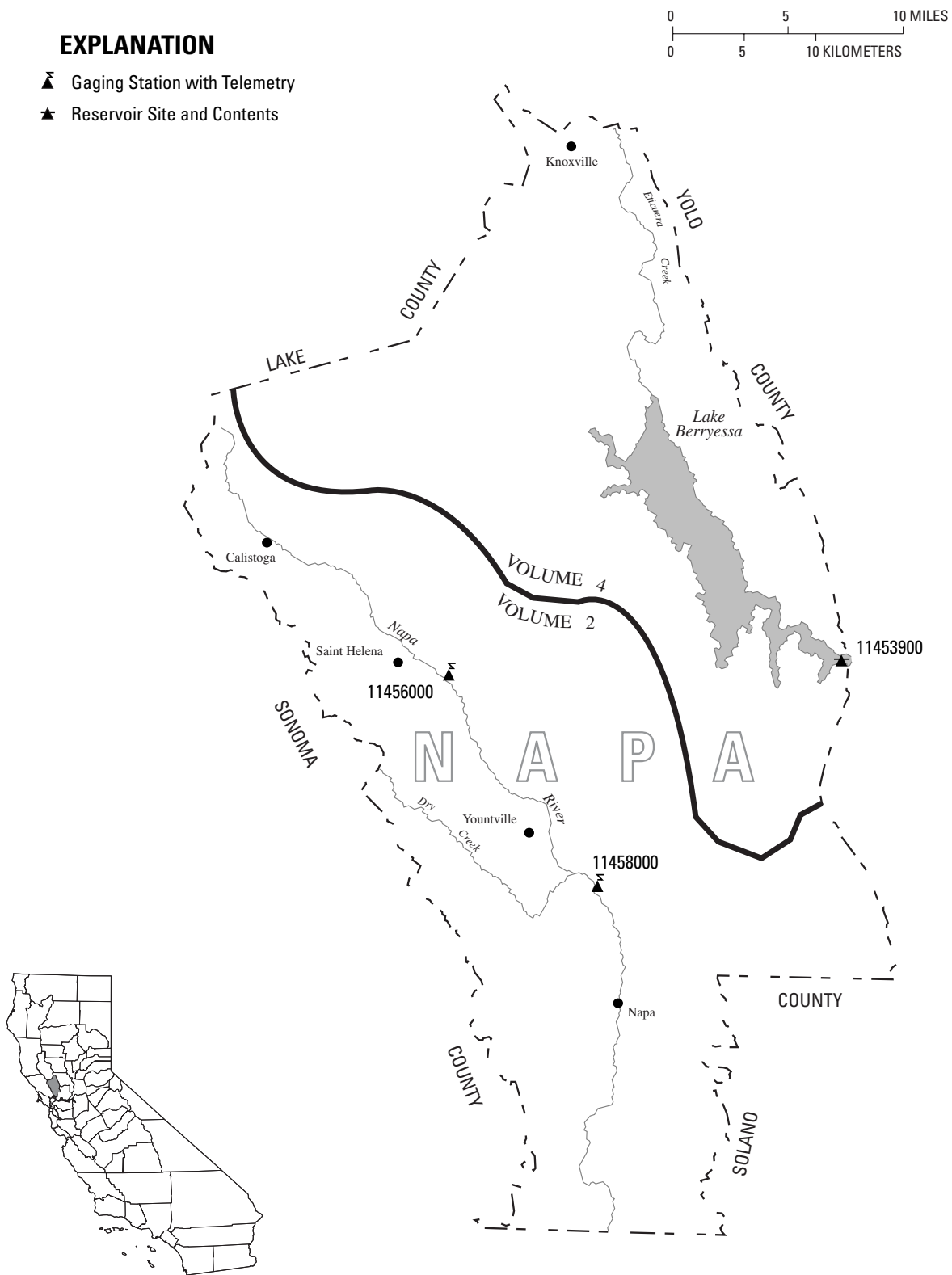


Figure 10. Location of discharge stations in Napa County.
 (NOTE: Record for station 11453900 published in volume 4.)

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

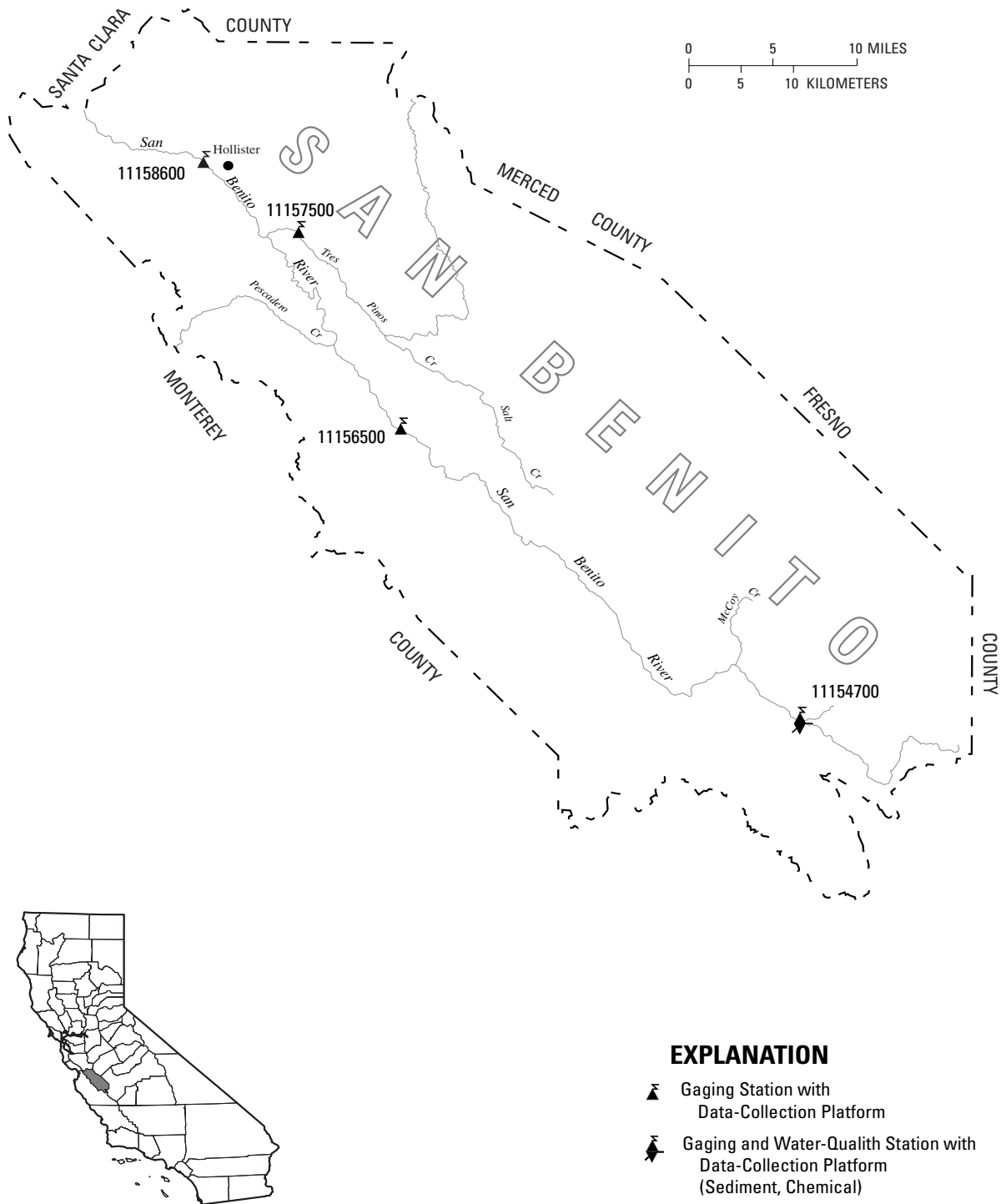


Figure 11. Location of discharge and water-quality stations in San Benito County.

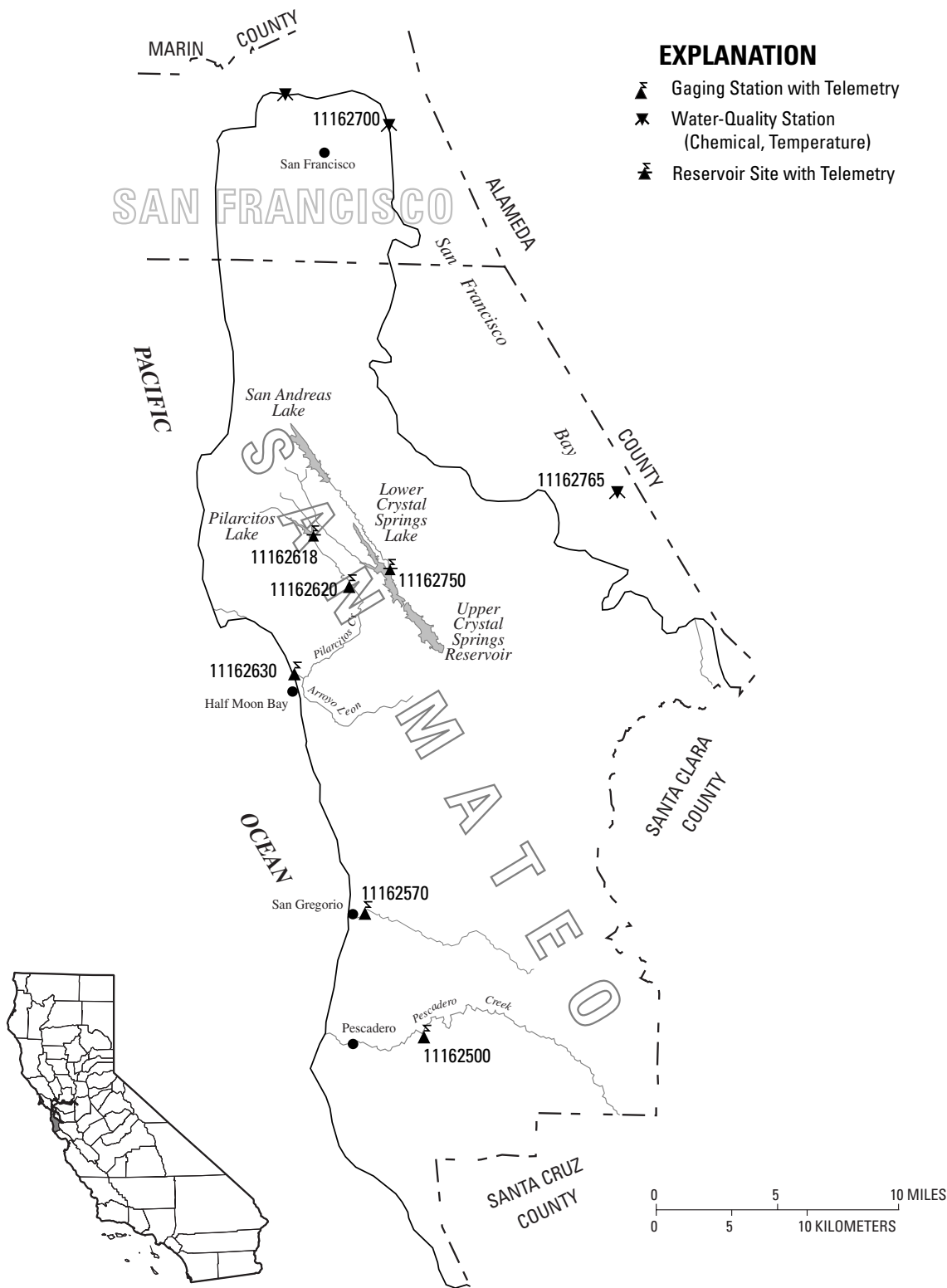


Figure 12. Location of discharge and water-quality stations in San Francisco and San Mateo Counties.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

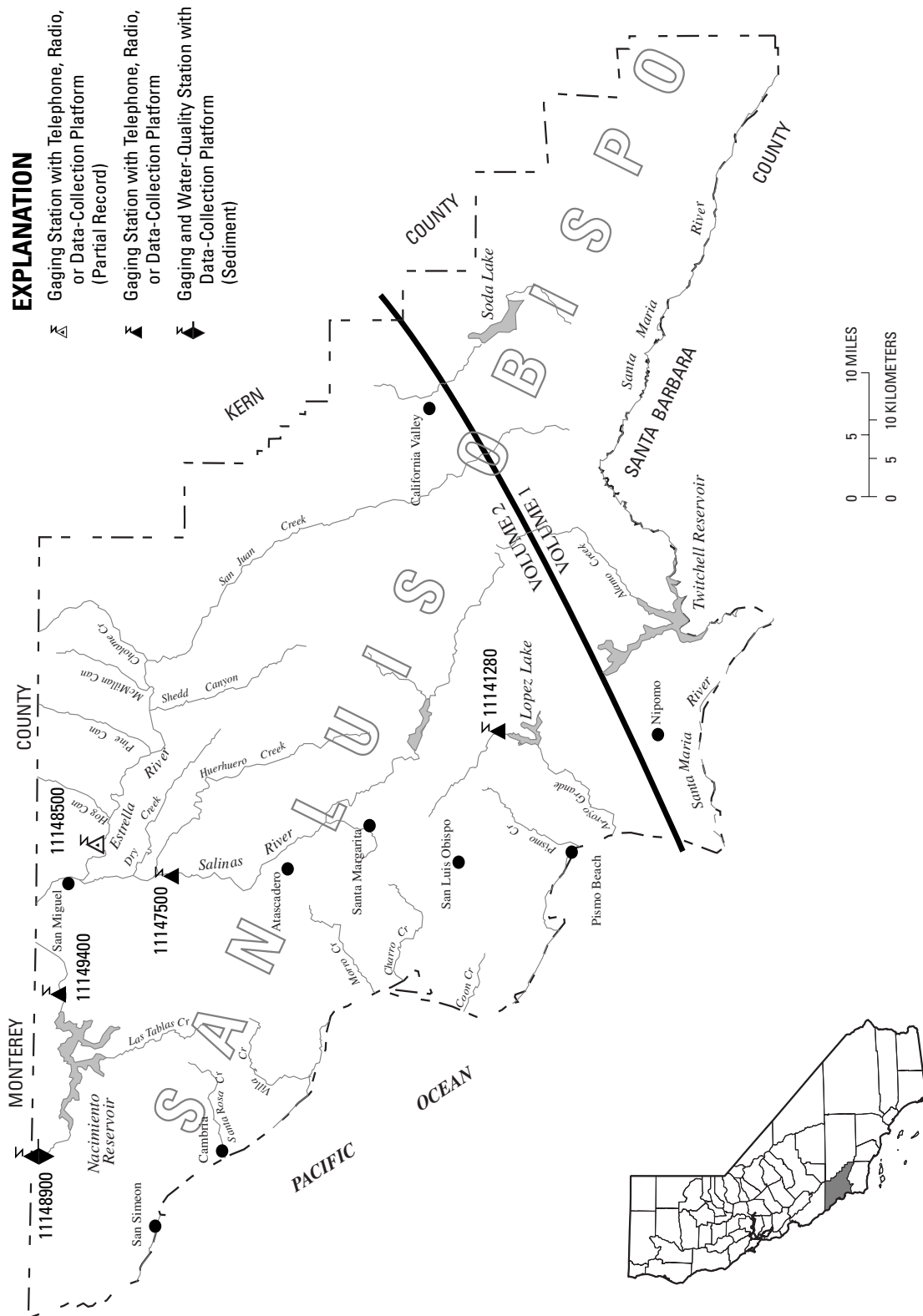


Figure 13. Location of discharge and water-quality stations in San Luis Obispo County.

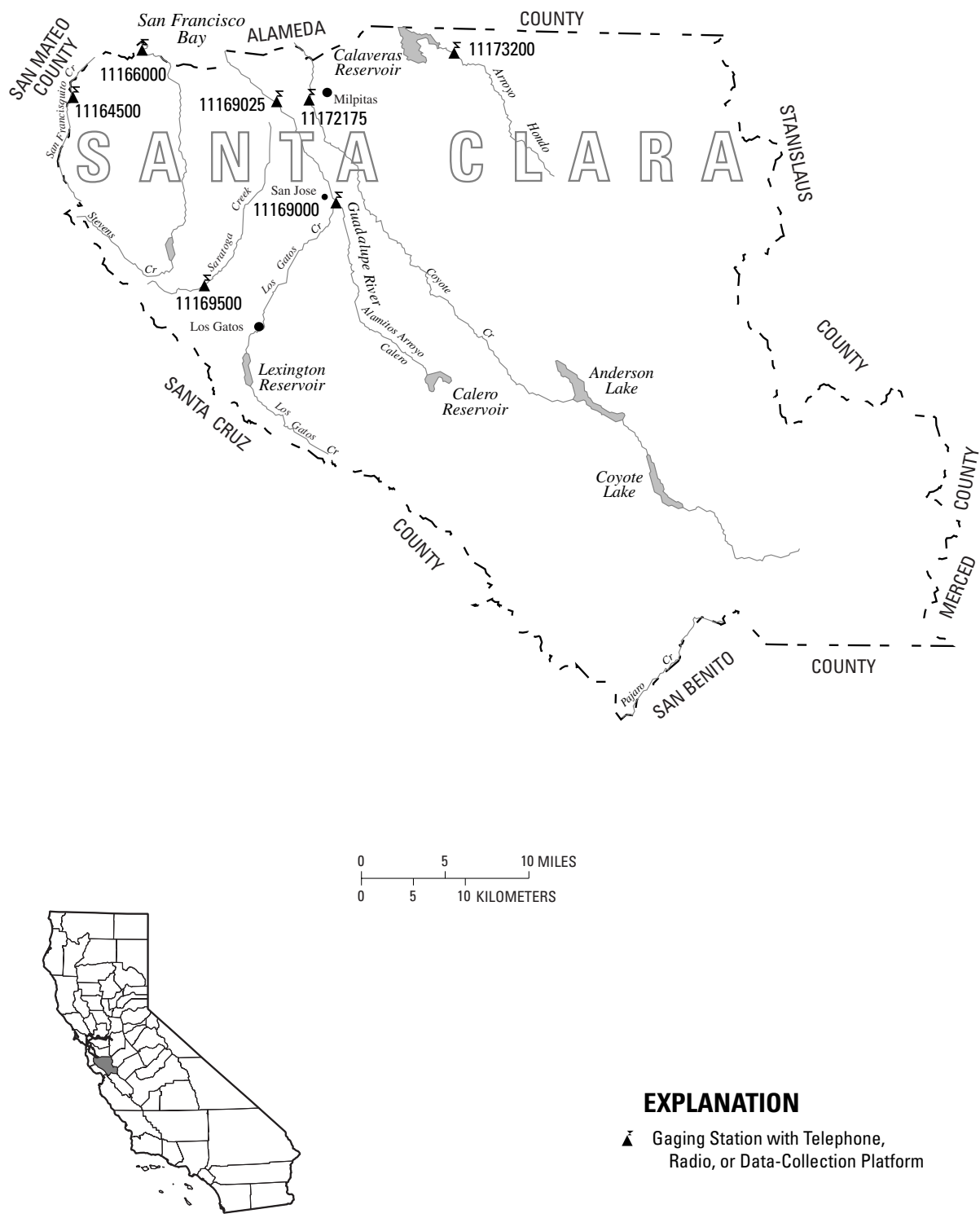
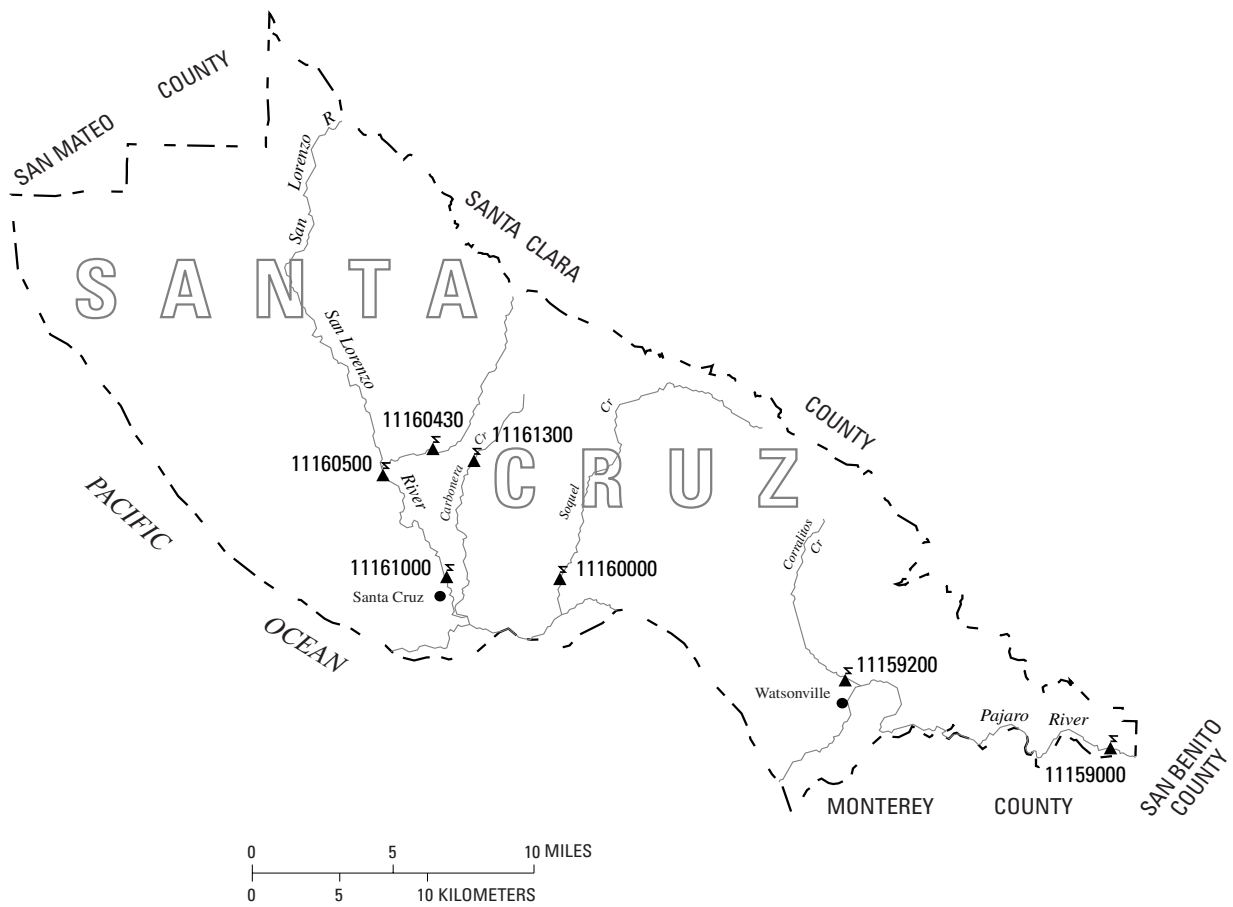


Figure 14. Location of discharge stations in Santa Clara County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002



EXPLANATION

- ▲ Gaging Station with Telephone, Radio, or Data-Collection Platform



Figure 15. Location of discharge stations in Santa Cruz County.

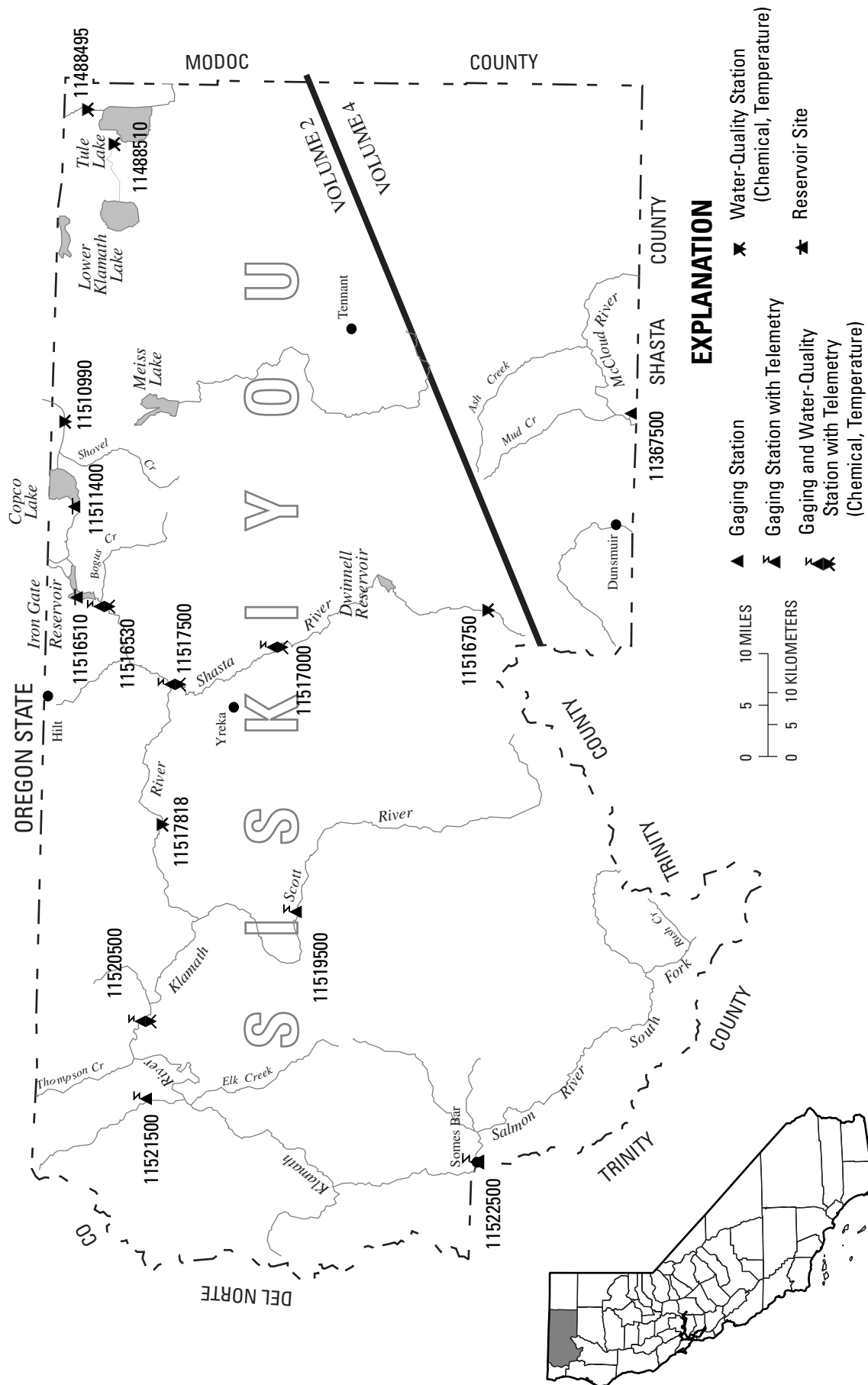


Figure 16. Location of discharge and water-quality stations in Siskiyou County. (NOTE: Records for station 11367500 published in volume 4.)

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

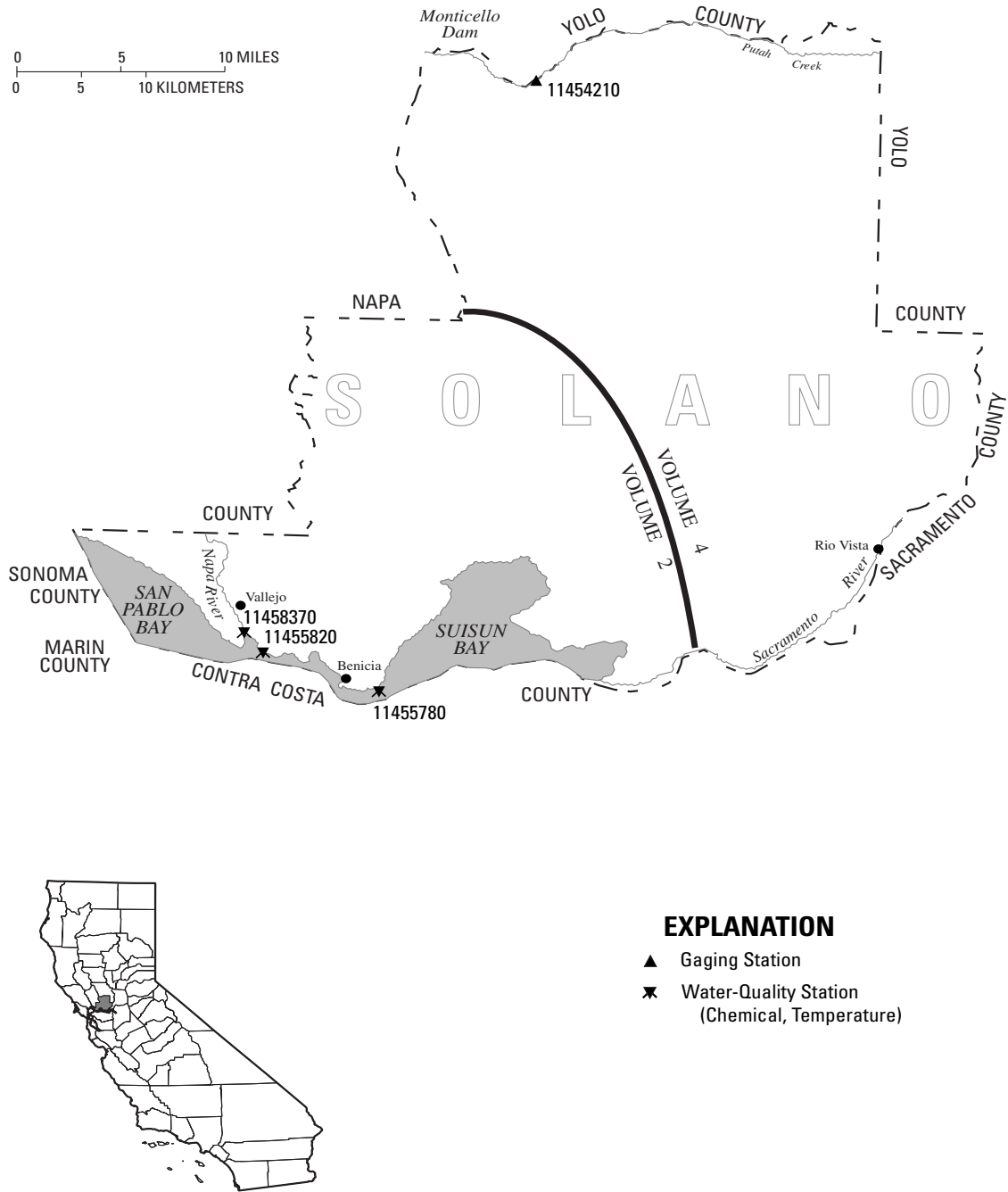


Figure 17. Location of discharge and water-quality stations in Solano County. (NOTE: Records for station 11454210 published in volume 4.)

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

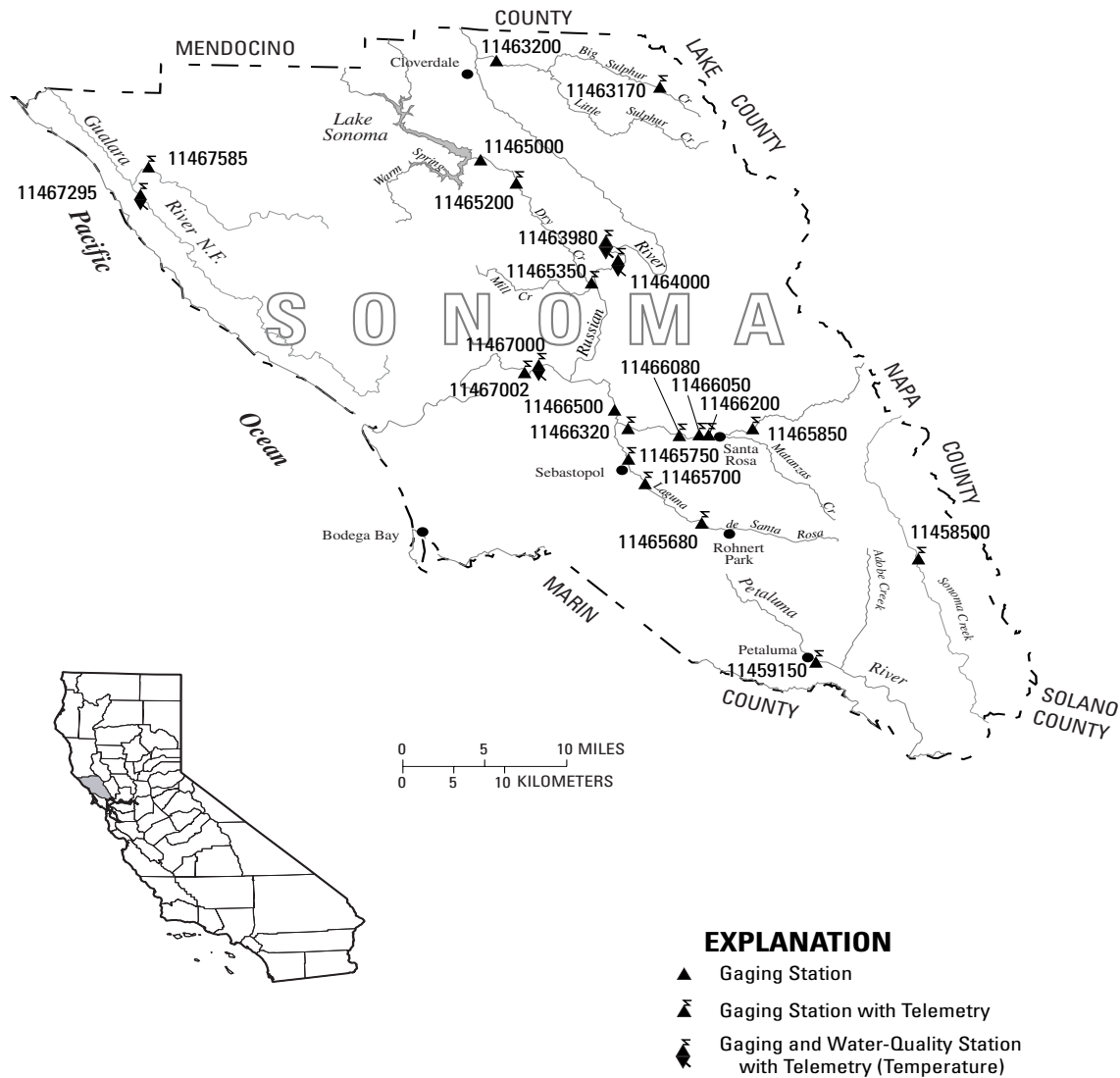


Figure 18. Location of discharge and water-quality stations in Sonoma County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2002

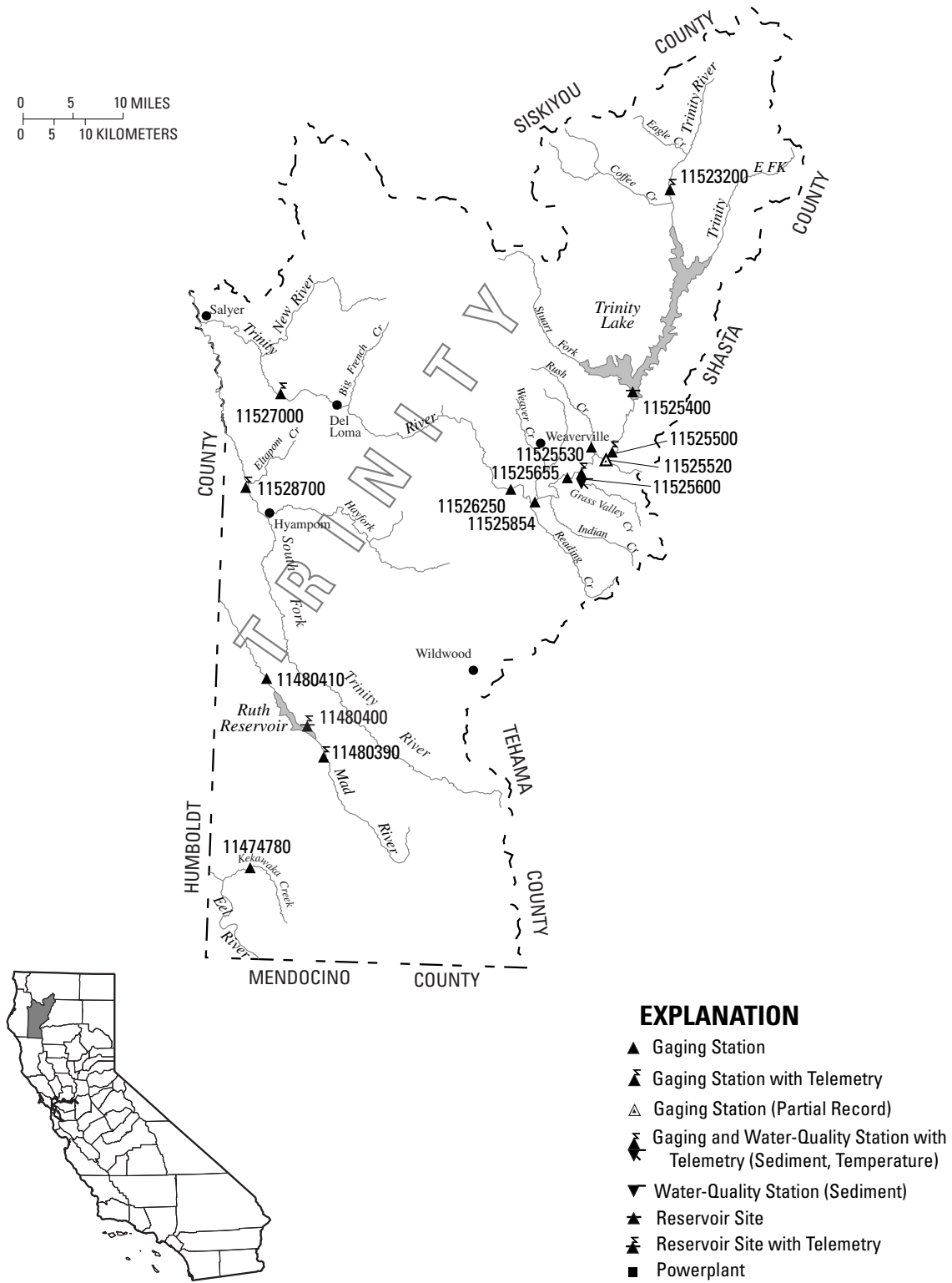


Figure 19. Location of discharge and water-quality stations in Trinity County.

WATER RESOURCES DATA—CALIFORNIA, WATER YEAR 2001

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

Remark Codes

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

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

Dissolved Trace-Element Concentrations

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

Data Precision

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

*THIS
PAGE
INTENTIONALLY
LEFT
BLANK*

ARROYO GRANDE BASIN

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 left bank, 3.4 mi north of Lopez Lake Spillway, and 9.2 mi northeast of Arroyo Grande.

DRAINAGE AREA.—20.9 mi².

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 NGVD of 1929, from topographic map. Prior to Oct. 31, 1984, at site 0.4 mi downstream at different datum.

REMARKS.—Records fair. Small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,830 ft³/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 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 11.21 ft, Mar. 5, 2001; minimum daily discharge, 0.30 ft³/s, Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 100 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1815	83	7.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.7	3.6	6.6	4.4	3.1	4.2	4.3	3.1	2.0	1.7	1.5
2	2.4	2.8	23	9.3	4.5	3.1	4.3	4.4	3.1	2.0	1.6	1.5
3	e2.6	2.7	20	20	4.5	3.2	4.5	3.5	2.9	2.0	1.6	1.5
4	e2.5	2.6	e12	14	4.5	3.3	4.5	3.4	2.6	1.8	1.6	e1.7
5	2.8	2.7	e6.8	11	4.2	3.2	4.2	3.5	2.4	1.9	1.5	e1.8
6	2.7	2.8	e5.5	9.3	4.0	4.1	3.8	3.4	2.3	2.0	1.5	e1.7
7	2.8	2.6	5.9	8.1	4.1	5.5	3.6	3.3	2.1	1.8	1.4	e1.7
8	2.9	2.5	5.8	7.6	4.2	3.8	3.3	3.2	2.0	1.8	1.4	e1.7
9	2.8	2.4	5.4	6.5	4.0	3.0	3.1	3.1	2.2	1.6	1.3	1.5
10	2.5	2.6	5.1	6.1	4.3	2.7	2.9	2.9	2.2	1.8	1.2	1.5
11	2.3	3.5	4.6	5.6	4.2	2.5	3.1	3.3	2.4	1.7	1.3	1.6
12	2.2	8.1	4.6	5.1	4.0	2.4	3.3	2.9	2.5	1.7	1.2	1.6
13	2.2	6.7	3.8	5.0	3.9	2.3	3.6	2.7	2.5	1.7	1.3	1.7
14	2.3	4.6	4.6	5.2	3.8	2.3	3.4	2.6	2.4	1.7	1.4	1.6
15	2.3	4.0	3.8	5.1	3.9	2.5	3.3	2.7	1.8	1.7	1.3	1.7
16	2.3	3.1	3.2	5.0	4.2	2.4	3.6	2.9	1.7	1.6	1.3	1.6
17	2.4	2.8	3.0	4.8	9.0	3.5	4.1	2.7	1.7	1.7	1.4	1.5
18	2.5	2.8	2.7	4.5	6.6	3.3	3.7	2.7	1.7	1.7	1.4	1.3
19	2.4	2.5	2.6	4.4	5.5	2.6	3.5	2.8	1.5	1.6	1.5	1.3
20	2.5	2.5	4.9	4.6	4.8	2.5	3.5	4.3	1.8	1.6	1.5	1.4
21	2.7	2.4	19	4.6	4.5	2.6	3.8	6.3	2.2	1.7	1.5	1.4
22	2.6	2.2	12	4.5	4.5	2.9	3.5	4.1	2.3	1.9	1.6	1.4
23	2.5	2.5	8.6	4.4	4.5	10	3.3	3.4	2.1	2.1	1.5	1.3
24	2.2	16	6.9	4.2	4.2	11	3.1	3.0	2.2	1.9	1.5	1.3
25	2.1	8.6	5.9	4.0	3.8	8.3	3.2	3.0	2.2	1.6	1.4	1.5
26	2.1	3.8	6.0	4.0	3.3	7.1	6.4	3.4	2.2	1.6	1.5	1.6
27	2.3	3.1	4.7	5.6	3.3	6.4	4.7	3.0	2.2	1.7	1.5	1.7
28	2.2	2.5	4.4	5.7	3.1	5.8	4.1	2.7	2.1	1.6	1.7	1.9
29	2.2	9.1	5.3	5.3	---	5.3	4.1	2.6	1.8	1.5	2.1	1.9
30	3.7	6.1	6.2	4.9	---	4.8	4.2	2.6	1.9	1.5	1.9	1.8
31	2.9	---	7.2	4.5	---	4.5	---	2.8	---	1.8	1.8	---
TOTAL	77.2	123.3	217.1	199.5	123.8	130.0	113.9	101.5	66.1	54.3	46.4	47.2
MEAN	2.490	4.110	7.003	6.435	4.421	4.194	3.797	3.274	2.203	1.752	1.497	1.573
MAX	3.7	16	23	20	9.0	11	6.4	6.3	3.1	2.1	2.1	1.9
MIN	2.1	2.2	2.6	4.0	3.1	2.3	2.9	2.6	1.5	1.5	1.2	1.3
AC-FT	153	245	431	396	246	258	226	201	131	108	92	94

e Estimated.

PACIFIC SLOPE BASINS IN CALIFORNIA

ARROYO GRANDE BASIN

11141280 LOPEZ CREEK NEAR ARROYO GRANDE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.106	4.389	7.263	21.28	31.11	27.85	14.16	7.785	5.033	3.697	3.082	2.860
MAX	9.12	13.6	34.2	145	169	133	65.2	46.1	21.3	14.7	10.2	9.40
(WY)	1984	1984	1997	1969	1998	1983	1983	1983	1998	1998	1998	1998
MIN	1.03	1.23	1.58	2.00	2.00	2.46	2.08	1.75	1.38	0.72	0.44	0.82
(WY)	1978	1978	1991	1991	1991	1977	1977	1990	1972	1977	1977	1977

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1967 - 2002	
ANNUAL TOTAL	3313.5		1300.3			
ANNUAL MEAN	9.078		3.562		10.86	
HIGHEST ANNUAL MEAN					37.3	1983
LOWEST ANNUAL MEAN					1.89	1977
HIGHEST DAILY MEAN	450	Mar 5	23	Dec 2	1360	Jan 25 1969
LOWEST DAILY MEAN	1.9	Sep 27	1.2	Aug 10	0.30	Aug 1 1977
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 24	1.3	Aug 9	0.34	Jul 28 1977
MAXIMUM PEAK FLOW			83		2830	Jan 25 1969
MAXIMUM PEAK STAGE			7.24		11.21	Mar 5 2001
ANNUAL RUNOFF (AC-FT)	6570		2580		7860	
10 PERCENT EXCEEDS	18		5.9		19	
50 PERCENT EXCEEDS	3.8		2.8		3.9	
90 PERCENT EXCEEDS	2.3		1.5		1.6	

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 mi².

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 sea level, from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 0.9 mi downstream at different datum.

REMARKS.—Records good except for estimated daily discharges and flows during summer season, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,700 ft³/s, Jan. 5, 1978, gage height, 14.30 ft, from rating curve extended above 6,800 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 2.6 ft³/s, Aug. 23, 1977, Sept. 9, Oct. 29, Nov. 5, 1990.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1230	2140	8.31

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	70	366	67	66	82	51	33	19	e14	e12
2	12	17	901	724	66	67	80	50	33	19	e14	e12
3	13	17	464	685	64	70	78	47	32	18	e14	e12
4	14	16	246	490	63	69	76	46	30	e18	e13	e12
5	13	16	159	386	62	68	74	44	29	e18	e13	e12
6	13	16	119	325	61	99	73	43	28	e18	e13	e12
7	14	16	96	276	71	132	70	42	27	e18	e13	e12
8	14	16	82	237	110	110	68	42	27	e17	e13	e12
9	13	16	77	208	79	91	66	41	27	e17	e13	e12
10	13	17	71	185	73	88	65	41	28	e17	e13	e12
11	12	39	65	165	69	82	63	44	28	e17	e13	e12
12	13	147	61	150	66	78	61	44	29	e17	e13	e12
13	13	66	58	138	65	76	58	43	29	e16	e13	e12
14	13	31	69	128	64	74	57	42	29	e16	e13	e12
15	13	25	61	119	63	73	56	41	28	e16	e13	e12
16	13	24	57	111	65	72	56	41	27	e16	e13	e12
17	13	22	62	105	133	87	60	40	25	e15	e13	e12
18	13	21	64	99	99	83	56	40	23	e15	e13	e12
19	13	21	61	94	93	75	56	47	23	e15	e13	e12
20	13	21	86	89	90	72	55	60	23	e15	e13	e12
21	12	21	300	86	85	70	54	47	23	e15	e13	e12
22	12	22	214	83	81	81	53	38	23	e15	e12	e12
23	12	20	181	80	78	140	52	34	22	e15	e12	e12
24	12	133	150	77	76	128	51	33	21	e15	e12	e12
25	12	70	129	75	74	121	51	34	21	e14	e12	e12
26	13	44	114	77	72	114	51	34	21	e14	e12	e12
27	13	36	102	79	69	106	52	32	21	e14	e12	e12
28	14	32	105	77	68	101	51	32	20	e14	e12	e12
29	14	180	666	74	---	95	53	32	20	e14	e12	e12
30	34	90	523	71	---	90	51	33	19	e14	e12	e12
31	24	---	446	69	---	86	---	33	---	e14	e12	---
TOTAL	433	1230	5859	5928	2126	2764	1829	1271	769	495	396	360
MEAN	13.97	41.00	189.0	191.2	75.93	89.16	60.97	41.00	25.63	15.97	12.77	12.00
MAX	34	180	901	724	133	140	82	60	33	19	14	12
MIN	12	16	57	69	61	66	51	32	19	14	12	12
AC-FT	859	2440	11620	11760	4220	5480	3630	2520	1530	982	785	714

e Estimated.

BIG SUR RIVER BASIN

11143000 BIG SUR RIVER NEAR BIG SUR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.68	44.15	102.7	242.6	285.5	224.5	142.6	67.07	36.96	23.85	17.53	15.39
MAX	86.8	302	449	1047	1329	964	843	333	119	71.4	43.0	39.4
(WY)	1963	1951	1956	1997	1998	1983	1958	1983	1998	1998	1998	1983
MIN	5.08	4.97	7.52	8.27	11.4	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 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1950 - 2002
ANNUAL TOTAL	29631	23460	
ANNUAL MEAN	81.18	64.27	101.0
HIGHEST ANNUAL MEAN			319 1983
LOWEST ANNUAL MEAN			10.0 1977
HIGHEST DAILY MEAN	1010 Mar 5	901 Dec 2	4150 Mar 10 1995
LOWEST DAILY MEAN	11 Aug 26	12 Oct 2	2.6 Aug 23 1977
ANNUAL SEVEN-DAY MINIMUM	11 Sep 3	12 Aug 22	2.9 Nov 4 1990
MAXIMUM PEAK FLOW		2140 Dec 2	10700 Jan 5 1978
MAXIMUM PEAK STAGE		8.31 Dec 2	14.30 Jan 5 1978
INSTANTANEOUS LOW FLOW		12 Aug 22	2.6 Aug 23 1977
ANNUAL RUNOFF (AC-FT)	58770	46530	73180
10 PERCENT EXCEEDS	201	116	228
50 PERCENT EXCEEDS	32	34	29
90 PERCENT EXCEEDS	12	12	9.9

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, on downstream side of Rosie's Bridge at Robles del Rio, 0.2 mi downstream from Hitchcock Canyon, and 11 mi southeast of town of Carmel.

DRAINAGE AREA.—193 mi².

PERIOD OF RECORD.—August 1957 to current year.

REVISED RECORDS.—WSP 1715: Drainage area.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 268.57 ft above sea level (based on Monterey County benchmark). Prior to June 1981, at site 150 ft upstream at same datum.

REMARKS.—Records fair. Low flow regulated by Los Padres Reservoir 11 mi upstream, usable capacity, 1,480 acre-ft, and San Clemente Reservoir 4 mi upstream, usable capacity, 76 acre-ft. There is diversion from San Clemente Reservoir for municipal supply.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16,000 ft³/s, Mar. 10, 1995, gage height, 12.90 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 ft³/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1830	1,310	3.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	e7.0	22	239	53	56	76	42	21	11	5.2	4.2
2	5.8	e5.6	399	294	52	54	74	41	21	11	5.2	3.3
3	6.0	e5.5	539	439	51	53	71	39	21	11	4.8	3.4
4	5.9	e5.4	222	320	50	52	70	37	20	10	4.9	3.8
5	6.8	e5.3	137	248	49	51	69	36	19	10	4.7	4.2
6	7.0	e5.5	99	201	49	57	68	34	18	9.8	4.7	4.6
7	7.2	e6.4	81	168	49	71	66	34	17	9.3	4.8	4.7
8	7.2	6.7	70	146	67	74	64	32	17	9.2	4.4	4.8
9	6.9	6.4	68	130	63	67	56	31	17	8.3	3.8	4.6
10	6.4	6.6	65	116	60	65	59	31	17	7.8	3.4	4.4
11	6.0	7.0	58	105	58	63	56	30	16	8.0	3.0	3.8
12	5.7	9.6	55	95	57	61	55	31	16	8.0	3.0	4.5
13	5.0	9.6	52	88	55	59	53	32	15	7.8	3.3	4.6
14	5.1	7.9	60	84	54	58	51	31	16	7.9	3.6	4.2
15	5.1	7.6	58	80	53	57	49	31	16	8.4	3.6	4.3
16	5.2	7.4	53	76	53	62	49	30	16	8.8	3.7	4.5
17	5.3	7.9	52	73	88	66	51	28	16	8.1	3.9	4.5
18	e5.2	8.0	55	70	86	75	49	27	15	7.7	3.6	4.4
19	e5.2	8.0	53	68	75	65	47	27	15	7.2	4.0	3.7
20	e5.2	8.5	68	65	74	63	45	33	15	6.6	4.1	3.8
21	e4.8	9.1	238	64	71	61	44	40	15	6.2	3.7	3.9
22	e4.7	9.6	193	64	69	60	43	36	16	5.9	4.2	4.1
23	e4.7	9.6	157	61	65	106	41	32	16	6.3	4.4	4.0
24	e4.6	24	129	59	64	124	40	29	15	5.2	4.4	3.6
25	e4.8	27	110	57	62	109	40	27	15	4.7	4.0	4.5
26	e5.0	17	97	56	61	103	41	26	14	4.9	3.9	4.7
27	e5.0	15	87	61	59	97	44	24	14	5.0	3.6	4.9
28	e5.3	14	82	60	57	91	41	23	14	4.7	3.1	4.8
29	e5.7	23	323	59	---	86	42	22	13	4.6	3.7	4.5
30	e6.2	24	372	55	---	82	42	21	12	4.7	4.5	4.6
31	e6.0	---	301	53	---	79	---	22	---	5.1	4.6	---
TOTAL	174.2	314.2	4355	3754	1704	2227	1596	959	488	233.2	125.8	127.9
MEAN	5.619	10.47	140.5	121.1	60.86	71.84	53.20	30.94	16.27	7.523	4.058	4.263
MAX	7.2	27	539	439	88	124	76	42	21	11	5.2	4.9
MIN	4.6	5.3	22	53	49	51	40	21	12	4.6	3.0	3.3
AC-FT	346	623	8640	7450	3380	4420	3170	1900	968	463	250	254

e Estimated.

CARMEL RIVER BASIN

11143200 CARMEL RIVER AT ROBLES DEL RIO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.285	13.98	59.15	203.5	332.1	273.9	163.7	57.83	20.87	7.612	3.036	2.646
MAX	23.6	135	480	899	2308	1855	1071	410	130	62.5	31.1	20.0
(WY)	1999	1984	1984	1997	1998	1983	1958	1983	1998	1998	1998	1998
MIN	0.000	0.000	0.000	0.26	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1960	1960	1960	1991	1977	1977	1977	1977	1961	1959	1957	1957

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL TOTAL	27336.7		16058.3			
ANNUAL MEAN	74.90		44.00		93.85	
HIGHEST ANNUAL MEAN					442	1983
LOWEST ANNUAL MEAN					0.050	1977
HIGHEST DAILY MEAN	1730	Mar 5	539	Dec 3	9000	Feb 3 1998
LOWEST DAILY MEAN	4.6	Oct 24	3.0	Aug 11	0.00	Aug 1 1957
ANNUAL SEVEN-DAY MINIMUM	4.8	Oct 21	3.4	Aug 10	0.00	Aug 1 1957
MAXIMUM PEAK FLOW			1310	Dec 2	16000	Mar 10 1995
MAXIMUM PEAK STAGE			3.42	Dec 2	12.90	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	54220		31850		67990	
10 PERCENT EXCEEDS	186		86		222	
50 PERCENT EXCEEDS	26		22		7.8	
90 PERCENT EXCEEDS	5.4		4.4		0.00	

11143250 CARMEL RIVER NEAR CARMEL, CA

LOCATION.—Lat 36°32'21", long 121°52'46", in Canada de la Segunda Grant, Monterey County, Hydrologic Unit 18060012, on left bank, 0.6 mi downstream from Potrero Canyon, and about 3 mi east of Carmel.

DRAINAGE AREA.—247 mi².

PERIOD OF RECORD.—August 1962 to current year.

CHEMICAL DATA: Water years 1954–66.

SEDIMENT DATA: Water years 1990, 1991–97.

GAGE.—Water-stage recorder. Prior to Nov. 16, 1998, at site 1,650 ft upstream at different datum. Elevation of gage is 40 ft above sea level, from topographic map.

REMARKS.—Records fair. Low flow regulated by Los Padres Reservoir, usable capacity, 1,480 acre-ft, and San Clemente Reservoir, usable capacity, 76 acre-ft. There are diversions from San Clemente Reservoir for municipal supply.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 16,000 ft³/s, Mar. 10, 1995, gage height, 20.85 ft, at datum then in use; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	2215	625	8.45

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	240	47	55	77	38	11	0.00	0.00	0.00
2	0.00	0.00	89	234	46	51	73	38	12	0.00	0.00	0.00
3	0.00	0.00	e402	508	45	49	69	35	13	0.00	0.00	0.00
4	0.00	0.00	e206	421	44	47	67	34	11	0.00	0.00	0.00
5	0.00	0.00	e144	345	43	46	66	33	9.5	0.00	0.00	0.00
6	0.00	0.00	e108	284	42	49	64	31	e7.5	0.00	0.00	0.00
7	0.00	0.00	e79	237	42	64	61	29	e6.8	0.00	0.00	0.00
8	0.00	0.00	e64	205	57	72	58	27	e6.0	0.00	0.00	0.00
9	0.00	0.00	e58	180	64	69	53	25	e5.2	0.00	0.00	0.00
10	0.00	0.00	e59	155	59	64	52	25	e4.3	0.00	0.00	0.00
11	0.00	0.00	48	135	57	61	51	23	e3.4	0.00	0.00	0.00
12	0.00	0.00	42	122	54	58	50	21	2.7	0.00	0.00	0.00
13	0.00	0.00	43	112	52	56	48	19	2.5	0.00	0.00	0.00
14	0.00	0.00	44	102	49	54	45	19	2.6	0.00	0.00	0.00
15	0.00	0.00	47	93	47	53	44	18	2.9	0.00	0.00	0.00
16	0.00	0.00	41	84	48	56	43	17	2.5	0.00	0.00	0.00
17	0.00	0.00	37	77	81	63	45	16	2.0	0.00	0.00	0.00
18	0.00	0.00	40	72	109	78	45	15	1.6	0.00	0.00	0.00
19	0.00	0.00	38	68	95	67	43	15	1.3	0.00	0.00	0.00
20	0.00	0.00	47	65	91	62	41	17	0.61	0.00	0.00	0.00
21	0.00	0.00	221	62	88	59	40	26	0.97	0.00	0.00	0.00
22	0.00	0.00	227	60	82	57	37	28	1.4	0.00	0.00	0.00
23	0.00	0.00	182	57	74	84	35	25	1.5	0.00	0.00	0.00
24	0.00	0.00	151	55	71	120	33	22	0.51	0.00	0.00	0.00
25	0.00	0.00	131	53	67	120	33	19	0.06	0.00	0.00	0.00
26	0.00	0.00	119	50	63	112	34	18	0.00	0.00	0.00	0.00
27	0.00	0.00	106	53	60	107	38	17	0.00	0.00	0.00	0.00
28	0.00	0.00	100	53	57	100	39	16	0.00	0.00	0.00	0.00
29	0.00	0.00	223	54	---	94	36	15	0.00	0.00	0.00	0.00
30	0.00	0.00	351	49	---	87	40	12	0.00	0.00	0.00	0.00
31	0.00	---	303	47	---	82	---	12	---	0.00	0.00	---
TOTAL	0.00	0.00	3750.00	4332	1734	2196	1460	705	112.85	0.00	0.00	0.00
MEAN	0.000	0.000	121.0	139.7	61.93	70.84	48.67	22.74	3.762	0.000	0.000	0.000
MAX	0.00	0.00	402	508	109	120	77	38	13	0.00	0.00	0.00
MIN	0.00	0.00	0.00	47	42	46	33	12	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	7440	8590	3440	4360	2900	1400	224	0.00	0.00	0.00

e Estimated.

CARMEL RIVER BASIN

11143250 CARMEL RIVER NEAR CARMEL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.336	9.250	61.59	240.1	384.1	328.9	180.1	70.47	22.18	5.906	1.289	0.676
MAX	22.3	110	479	1034	2360	2196	1006	533	161	75.2	27.3	15.9
(WY)	1984	1984	1983	1969	1998	1983	1982	1983	1998	1998	1998	1998
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1965	1965	1969	1977	1977	1977	1977	1977	1968	1966	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	27328.05		14289.85			
ANNUAL MEAN	74.87		39.15		107.4	
HIGHEST ANNUAL MEAN					508 1983	
LOWEST ANNUAL MEAN					0.000 1977	
HIGHEST DAILY MEAN	1930	Mar 5	508	Jan 3	9050	Feb 3 1998
LOWEST DAILY MEAN	0.00	Jun 30	0.00	Oct 1	0.00	Oct 6 1962
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 30	0.00	Oct 1	0.00	Jul 9 1964
MAXIMUM PEAK FLOW			625	Dec 2	16000	Mar 10 1995
MAXIMUM PEAK STAGE			8.45	Dec 2	20.85	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	54210		28340		77780	
10 PERCENT EXCEEDS	219		94		271	
50 PERCENT EXCEEDS	8.0		12		1.1	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

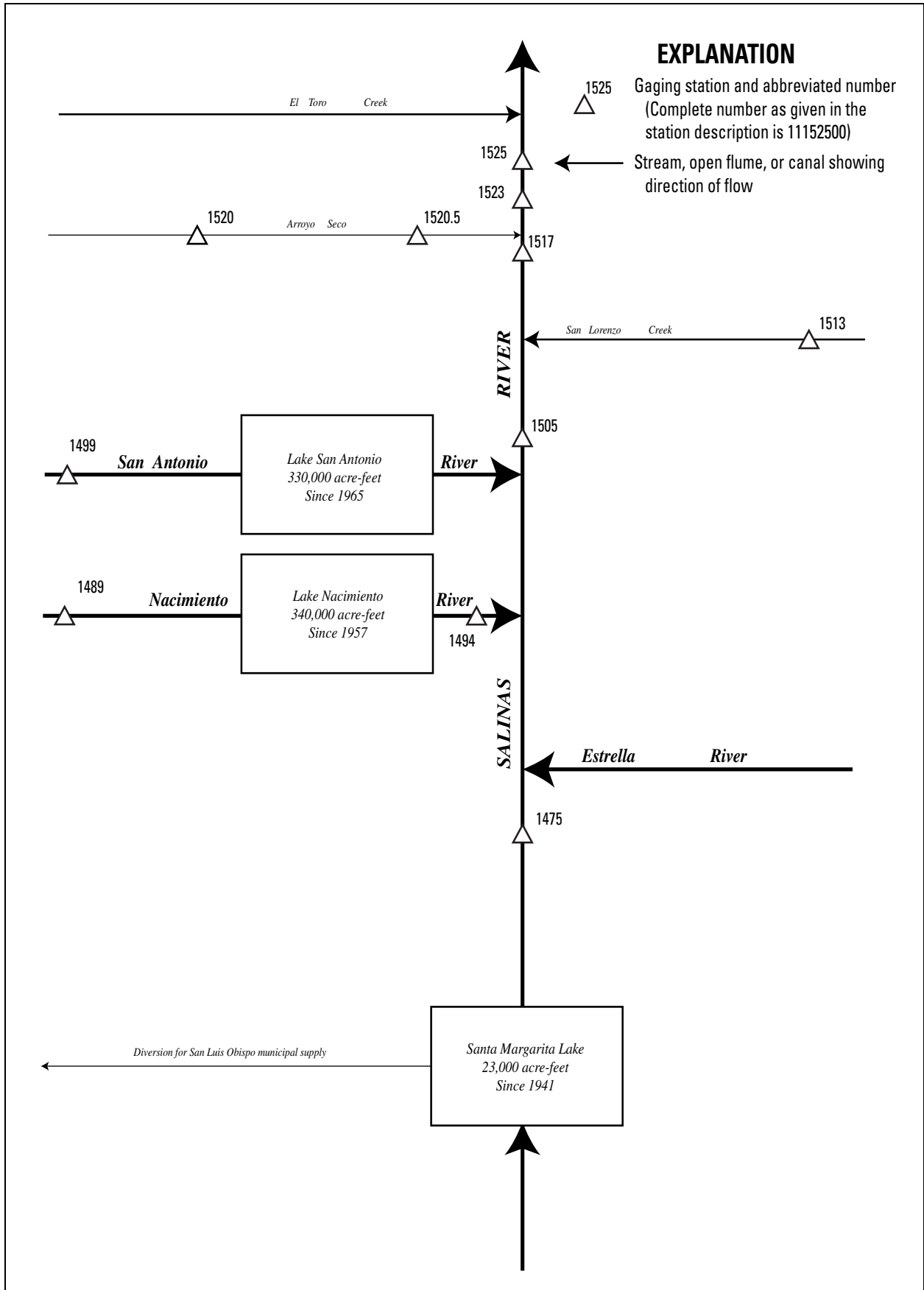


Figure 20. Diversions and storage in Salinas River Basin.

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 mi².

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 sea level. Prior to June 14, 1951, nonrecording gage at same site and datum.

REMARKS.—Records are fair. Low flows regulated by Santa Margarita Lake, 32 mi upstream, beginning in December 1941, usable capacity, 23,000 acre-ft. Small diversions for irrigation upstream from station. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,400 ft³/s, Mar. 10, 1995, gage height, 22.99 ft; 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 ft³/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 850 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 3	0800	283	4.47

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	1.2	65	5.1	2.0	8.6	0.63	0.00	0.00	0.00	0.00
2	0.00	0.00	15	52	4.5	1.7	8.6	0.56	0.00	0.00	0.00	0.00
3	0.00	0.00	61	205	3.9	1.8	7.1	0.45	0.00	0.00	0.00	0.00
4	0.00	0.00	6.9	109	3.7	2.0	6.3	0.38	0.00	0.00	0.00	0.00
5	0.00	0.00	2.0	65	3.5	2.3	5.6	0.34	0.00	0.00	0.00	0.00
6	0.00	0.00	1.3	47	3.4	3.4	5.8	0.30	0.00	0.00	0.00	0.00
7	0.00	0.00	0.89	38	3.3	7.0	6.0	0.24	0.00	0.00	0.00	0.00
8	0.00	0.00	0.69	32	3.3	7.4	5.6	0.22	0.00	0.00	0.00	0.00
9	0.00	0.00	0.60	28	3.5	7.8	5.2	0.17	0.00	0.00	0.00	0.00
10	0.00	0.00	0.55	25	3.2	6.7	4.7	0.15	0.00	0.00	0.00	0.00
11	0.00	0.00	0.45	21	3.1	5.5	4.8	0.13	0.00	0.00	0.00	0.00
12	0.00	11	0.38	19	3.5	4.8	4.6	0.10	0.00	0.00	0.00	0.00
13	0.00	3.4	0.34	17	4.8	3.9	3.7	0.08	0.00	0.00	0.00	0.00
14	0.00	0.92	0.42	15	3.4	3.9	3.2	0.07	0.00	0.00	0.00	0.00
15	0.00	0.51	0.36	16	2.9	4.8	2.1	0.07	0.00	0.00	0.00	0.00
16	0.00	0.42	0.32	12	2.9	4.4	1.6	0.06	0.00	0.00	0.00	0.00
17	0.00	0.41	0.33	11	5.8	5.9	1.2	0.05	0.00	0.00	0.00	0.00
18	0.00	0.40	0.35	8.8	10	8.4	0.97	0.04	0.00	0.00	0.00	0.00
19	0.00	0.41	0.36	7.6	8.4	11	0.82	0.04	0.00	0.00	0.00	0.00
20	0.00	0.40	2.1	6.8	5.6	11	0.72	0.06	0.00	0.00	0.00	0.00
21	0.00	0.40	19	6.5	4.6	13	0.58	0.07	0.00	0.00	0.00	0.00
22	0.00	0.37	41	5.7	4.2	13	0.51	0.06	0.00	0.00	0.00	0.00
23	0.00	0.33	25	5.0	3.9	24	0.46	0.05	0.00	0.00	0.00	0.00
24	0.00	31	22	4.4	2.8	38	0.40	0.04	0.00	0.00	0.00	0.00
25	0.00	6.7	14	4.8	2.6	29	0.39	0.03	0.00	0.00	0.00	0.00
26	0.00	2.4	8.9	4.7	2.2	22	0.55	0.03	0.00	0.00	0.00	0.00
27	0.00	1.4	6.0	6.3	2.2	18	0.45	0.03	0.00	0.00	0.00	0.00
28	0.00	1.0	4.2	7.6	2.1	14	0.44	0.02	0.00	0.00	0.00	0.00
29	0.00	4.0	5.0	9.0	---	12	0.37	0.01	0.00	0.00	0.00	0.00
30	0.00	1.7	32	7.9	---	9.8	0.55	0.00	0.00	0.00	0.00	0.00
31	0.00	---	63	5.8	---	9.1	---	0.00	---	0.00	0.00	---
TOTAL	0.00	67.17	335.64	867.9	112.4	307.6	91.91	4.48	0.00	0.00	0.00	0.00
MEAN	0.000	2.239	10.83	28.00	4.014	9.923	3.064	0.145	0.000	0.000	0.000	0.000
MAX	0.00	31	63	205	10	38	8.6	0.63	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.32	4.4	2.1	1.7	0.37	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	133	666	1720	223	610	182	8.9	0.00	0.00	0.00	0.00

11147500 SALINAS RIVER AT PASO ROBLES, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.403	5.287	50.54	239.1	409.1	369.1	158.0	26.48	3.380	0.273	0.053	0.854
MAX	117	86.0	581	2138	2884	2410	1980	338	64.2	4.84	1.91	44.0
(WY)	1943	1983	1983	1997	1998	1995	1958	1998	1998	1941	1942	1942
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1941	1940	1940	1948	1948	1961	1961	1959	1947	1940	1940	1940

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1940 - 2002
ANNUAL TOTAL	36299.40	1787.10	
ANNUAL MEAN	99.45	4.896	103.9
HIGHEST ANNUAL MEAN			526 1983
LOWEST ANNUAL MEAN			0.000 1961
HIGHEST DAILY MEAN	6830 Mar 5	205 Jan 3	19600 Mar 10 1995
LOWEST DAILY MEAN	0.00 Jul 4	0.00 Oct 1	0.00 Nov 1 1939
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 23	0.00 Oct 1	0.00 Nov 1 1939
MAXIMUM PEAK FLOW		283 Jan 3	28400 Mar 10 1995
MAXIMUM PEAK STAGE		4.47 Jan 3	22.99 Mar 10 1995
ANNUAL RUNOFF (AC-FT)	72000	3540	75260
10 PERCENT EXCEEDS	167	11	161
50 PERCENT EXCEEDS	0.41	0.08	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

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 mi².

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 sea level, from topographic map.

REMARKS.—Records good except flows below 5 ft³/s, which are fair. No storage or diversion upstream from station. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 57,600 ft³/s, Jan. 14, 1993, gage height, 32.14 ft, from rating curve extended above 7,900 ft³/s, on basis of slope-area measurement at gage height 32.00 ft, maximum gage height, 35.15 ft, Mar. 10, 1995; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1445	6,120	16.14

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	95	548	49	49	61	25	5.5	0.17	0.00	0.00
2	0.00	0.00	2020	712	47	46	57	23	5.3	0.10	0.00	0.00
3	0.00	0.00	856	950	46	43	54	22	5.2	0.03	0.00	0.00
4	0.00	0.00	333	572	45	42	52	20	5.0	0.00	0.00	0.00
5	0.00	0.00	191	420	43	40	51	18	4.7	0.00	0.00	0.00
6	0.00	0.00	135	324	42	44	49	17	4.2	0.00	0.00	0.00
7	0.00	0.00	105	260	41	82	47	15	3.6	0.00	0.00	0.00
8	0.00	0.00	87	216	72	103	45	14	3.2	0.00	0.00	0.00
9	0.00	0.00	75	185	87	82	42	14	2.8	0.00	0.00	0.00
10	0.00	0.0	66	161	68	69	40	13	2.7	0.00	0.00	0.00
11	0.00	0.22	57	143	60	64	37	13	2.5	0.00	0.00	0.00
12	0.00	1.6	51	129	56	60	36	12	2.3	0.00	0.00	0.00
13	0.00	73	46	118	52	55	34	12	2.3	0.00	0.00	0.00
14	0.00	24	57	110	50	52	32	11	2.1	0.00	0.00	0.00
15	0.00	11	74	102	47	51	31	11	2.0	0.00	0.00	0.00
16	0.00	7.3	55	94	46	49	30	9.8	1.9	0.00	0.00	0.00
17	0.00	5.4	49	88	109	52	31	9.4	1.7	0.00	0.00	0.00
18	0.00	4.4	54	83	139	106	33	8.8	1.5	0.00	0.00	0.00
19	0.00	3.8	53	79	100	79	30	8.6	1.4	0.00	0.00	0.00
20	0.00	3.2	76	74	88	69	29	11	1.2	0.00	0.00	0.00
21	0.00	2.9	447	70	81	63	27	17	1.0	0.00	0.00	0.00
22	0.00	2.6	336	67	74	61	25	18	0.95	0.00	0.00	0.00
23	0.00	2.5	299	63	69	110	25	14	0.91	0.00	0.00	0.00
24	0.00	298	210	60	64	133	23	12	0.84	0.00	0.00	0.00
25	0.00	209	164	58	61	108	22	11	0.70	0.00	0.00	0.00
26	0.00	73	137	57	57	97	24	9.3	0.57	0.00	0.00	0.00
27	0.00	45	118	63	54	90	24	8.5	0.47	0.00	0.00	0.00
28	0.00	32	104	63	52	83	23	7.9	0.42	0.00	0.00	0.00
29	0.00	434	1030	63	---	77	24	7.5	0.35	0.00	0.00	0.00
30	0.00	197	1040	55	---	70	28	6.9	0.26	0.00	0.00	0.00
31	0.00	---	804	52	---	65	---	6.0	---	0.00	0.00	---
TOTAL	0.00	1429.92	9224	6039	1799	2194	1066	405.7	67.57	0.30	0.00	0.00
MEAN	0.000	47.66	297.5	194.8	64.25	70.77	35.53	13.09	2.252	0.010	0.000	0.000
MAX	0.00	434	2020	950	139	133	61	25	5.5	0.17	0.00	0.00
MIN	0.00	0.00	46	52	41	40	22	6.0	0.26	0.00	0.00	0.00
AC-FT	0.00	2840	18300	11980	3570	4350	2110	805	134	0.6	0.00	0.00

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.647	52.17	175.4	557.0	742.9	500.5	158.7	44.99	11.06	2.200	0.229	0.048
MAX	4.90	413	911	2440	3545	2048	1142	318	63.3	17.7	3.03	0.77
(WY)	1973	1973	1983	1978	1998	1983	1982	1983	1998	1998	1998	1983
MIN	0.000	0.000	0.000	0.000	3.82	16.0	4.20	1.61	0.11	0.000	0.000	0.000
(WY)	1972	1978	1991	1991	1991	1977	1977	1990	1977	1972	1972	1972

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1971 - 2002
ANNUAL TOTAL	52799.54	22225.49	
ANNUAL MEAN	144.7	60.89	184.4
HIGHEST ANNUAL MEAN			623 1983
LOWEST ANNUAL MEAN			5.74 1977
HIGHEST DAILY MEAN	4830 Mar 5	2020 Dec 2	24400 Mar 10 1995
LOWEST DAILY MEAN	0.00 Jul 2	0.00 Oct 1	0.00 Sep 16 1971
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 2	0.00 Oct 1	0.00 Sep 16 1971
MAXIMUM PEAK FLOW		6120 Dec 2	57600 Jan 14 1993
MAXIMUM PEAK STAGE		16.14 Dec 2	35.15 Mar 10 1995
ANNUAL RUNOFF (AC-FT)	104700	44080	133600
10 PERCENT EXCEEDS	373	109	330
50 PERCENT EXCEEDS	8.5	9.8	6.6
90 PERCENT EXCEEDS	0.00	0.00	0.00

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.—October 1971 to September 1973.

WATER TEMPERATURE: October 1971 to September 1973.

SUSPENDED-SEDIMENT DISCHARGE: October 1971 to September 1973.

REMARKS.—Zero bed-load discharge observed for flows less than 60 ft³/s during current year.

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
DEC					
11...	1245	58	11.5	1.0	.16
JAN					
25...	1200	58	12.0	<.5	<.08
MAR					
12...	1445	60	16.0	1.0	.16
APR					
17...	1100	31	17.0	3.0	.25

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)
JUN						
11...	1551	1	2.5	1	4	6
11...	1553	1	2.5	1	3	6
11...	1555	1	2.5	--	--	--
11...	1557	1	2.4	--	--	--
11...	1559	1	2.4	--	1	3
11...	1601	1	2.4	--	--	--
11...	1603	1	2.4	--	--	1
11...	1605	1	2.5	--	--	--
11...	1607	1	2.5	--	--	--
11...	1609	1	2.5	--	--	2

Date	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
JUN						
11...	9	14	24	40	100	--
11...	8	15	28	48	85	100
11...	--	--	--	--	15	100
11...	--	--	--	--	11	100
11...	8	21	41	54	100	--
11...	--	--	--	11	100	--
11...	2	4	9	15	28	100
11...	--	1	2	6	35	100
11...	1	3	5	8	25	100
11...	6	12	17	24	41	100

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

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 mi².

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 sea level. Prior to Aug. 28, 1975, at datum 5.00 ft higher.

REMARKS.—Records good. No regulation; some pumping upstream from station. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 23,600 ft³/s, Mar. 10, 1995, gage height, 14.25 ft, current datum, from rating curve extended above 8,000 ft³/s, on basis of contracted-opening measurement at gage height 12.6 ft; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	2230	1,880	8.19	Dec. 29	1815	2,380	8.61

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	69	398	49	36	38	19	3.0	0.00	0.00	0.00
2	0.00	0.00	332	339	47	34	37	17	2.8	0.00	0.00	0.00
3	0.00	0.00	748	634	46	33	35	16	2.6	0.00	0.00	0.00
4	0.00	0.00	303	430	45	32	35	15	2.3	0.00	0.00	0.00
5	0.00	0.00	176	337	44	31	34	14	2.0	0.00	0.00	0.00
6	0.00	0.00	111	277	43	32	33	13	1.7	0.00	0.00	0.00
7	0.00	0.00	88	231	42	39	32	13	1.5	0.00	0.00	0.00
8	0.00	0.00	75	196	43	53	30	12	1.3	0.00	0.00	0.00
9	0.00	0.00	63	166	44	57	30	11	1.1	0.00	0.00	0.00
10	0.00	0.00	56	142	42	52	29	11	0.91	0.00	0.00	0.00
11	0.00	0.00	50	124	41	47	27	10	0.73	0.00	0.00	0.00
12	0.00	0.00	45	114	40	44	26	9.6	0.53	0.00	0.00	0.00
13	0.00	0.00	42	104	39	41	25	9.1	0.30	0.00	0.00	0.00
14	0.00	0.00	42	98	38	38	23	8.4	0.12	0.00	0.00	0.00
15	0.00	0.00	45	93	37	37	21	7.8	0.00	0.00	0.00	0.00
16	0.00	0.00	39	88	36	36	20	7.2	0.00	0.00	0.00	0.00
17	0.00	0.00	37	82	41	37	21	6.8	0.00	0.00	0.00	0.00
18	0.00	0.00	36	78	66	41	21	6.4	0.00	0.00	0.00	0.00
19	0.00	0.00	35	74	60	41	20	6.1	0.00	0.00	0.00	0.00
20	0.00	0.00	37	70	53	38	19	6.6	0.00	0.00	0.00	0.00
21	0.00	0.00	342	66	47	36	e19	7.4	0.00	0.00	0.00	0.00
22	0.00	0.00	295	63	46	35	e19	8.9	0.00	0.00	0.00	0.00
23	0.00	0.00	187	60	45	42	e19	8.3	0.00	0.00	0.00	0.00
24	0.00	0.00	138	59	43	66	e19	7.1	0.00	0.00	0.00	0.00
25	0.00	0.00	112	57	41	60	18	6.2	0.00	0.00	0.00	0.00
26	0.00	0.79	96	55	39	57	19	5.6	0.00	0.00	0.00	0.00
27	0.00	5.1	82	56	38	53	18	5.2	0.00	0.00	0.00	0.00
28	0.00	6.0	72	56	37	48	18	4.8	0.00	0.00	0.00	0.00
29	0.00	54	764	54	---	45	18	4.3	0.00	0.00	0.00	0.00
30	0.00	112	858	52	---	43	19	3.8	0.00	0.00	0.00	0.00
31	0.00	---	528	50	---	40	---	3.4	---	0.00	0.00	---
TOTAL	0.00	177.89	5903	4703	1232	1324	742	284.0	20.89	0.00	0.00	0.00
MEAN	0.000	5.930	190.4	151.7	44.00	42.71	24.73	9.161	0.696	0.000	0.000	0.000
MAX	0.00	112	858	634	66	66	38	19	3.0	0.00	0.00	0.00
MIN	0.00	0.00	35	50	36	31	18	3.4	0.00	0.00	0.00	0.00
AC-FT	0.00	353	11710	9330	2440	2630	1470	563	41	0.00	0.00	0.00

e Estimated

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.315	13.24	82.91	298.9	412.1	333.7	123.6	43.12	13.56	3.356	0.382	0.052
MAX	11.7	108	573	1515	2351	1856	637	167	94.0	35.7	6.90	1.91
(WY)	1984	1984	1967	1969	1998	1983	1982	1983	1998	1998	1998	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.058	0.005	0.000	0.000	0.000	0.000	0.000
(WY)	1966	1967	1977	1977	1977	1977	1977	1977	1972	1966	1966	1966

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	27570.47		14386.78			
ANNUAL MEAN	75.54		39.42		109.0	
HIGHEST ANNUAL MEAN					455 1983	
LOWEST ANNUAL MEAN					0.005 1977	
HIGHEST DAILY MEAN	1990	Mar 5	858	Dec 30	14000	Mar 10 1995
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1965
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1965
MAXIMUM PEAK FLOW			2380	Dec 29	23600	Mar 10 1995
MAXIMUM PEAK STAGE			8.61	Dec 29	14.25	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	54690		28540		78930	
10 PERCENT EXCEEDS	208		74		222	
50 PERCENT EXCEEDS	5.1		4.8		4.2	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

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.—October 1965 to September 1973.

SUSPENDED-SEDIMENT DISCHARGE: October 1965 to September 1973.

WATER TEMPERATURE: November 1965 to May 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SEDIMENT CONCENTRATION: Maximum daily mean, 7,420 mg/L, Dec. 6, 1966; minimum daily mean, no flow on many days each year.

SEDIMENT LOAD: Maximum daily, 161,000 tons, Dec. 6, 1966; minimum daily, 0 ton, many days each year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
		NOV 28...	1410	6.9	--	1.0	.02	50	--	--
DEC 19...	1615	36	11.5	2.0	.19	70	--	--	--	--
JAN 08...	1415	194	10.5	31	16.2	27	38	47	81	100
24...	1340	59	10.0	5.0	.80	42	--	--	--	--
MAR 08...	1340	58	14.0	13	2.0	57	--	--	--	--
APR 24...	1315	19	--	2.0	.10	55	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)
		DEC 19...	1425	1	36	12.5	1	3
19...	1426	1	36	12.5	--	1	3	7
19...	1427	1	36	12.5	--	1	3	14
19...	1429	1	36	12.5	--	--	8	31
19...	1430	1	36	12.5	--	--	2	12
19...	1433	1	36	12.5	--	--	1	15
19...	1435	1	36	12.5	--	--	--	8
19...	1438	1	36	12.5	--	--	1	10
19...	1441	1	36	12.5	--	--	1	12
19...	1443	1	36	12.5	--	--	2	15
APR 24...	1426	1	19	--	13	28	39	43
24...	1427	1	19	--	1	1	4	8
24...	1428	1	19	--	--	--	--	4
24...	1430	1	19	--	--	--	1	16
24...	1431	1	19	--	--	--	2	16
24...	1432	1	19	--	--	1	2	10
24...	1433	1	19	--	--	--	--	6
24...	1434	1	19	--	--	1	2	11
24...	1437	1	19	--	--	1	2	13
24...	1438	1	19	--	--	1	2	14

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BED	BED	BED	BED	BED	BED	BED
	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM
	(80168)	(80169)	(80170)	(80171)	(80172)	(80173)	(80174)
DEC							
19...	43	86	97	99	100	--	--
19...	18	26	32	40	49	89	100
19...	48	80	93	95	98	100	--
19...	54	66	70	74	79	100	--
19...	23	31	37	44	59	100	--
19...	30	48	63	74	87	100	--
19...	29	53	67	74	83	100	--
19...	28	47	63	72	84	100	--
19...	28	41	53	65	76	93	100
19...	33	50	66	78	89	100	--
APR							
24...	54	79	90	92	95	100	--
24...	19	28	35	45	60	87	100
24...	33	75	95	99	100	--	--
24...	42	68	87	95	100	--	--
24...	28	35	42	49	63	74	100
24...	22	29	36	42	59	86	100
24...	26	53	69	81	86	100	--
24...	27	45	64	77	91	100	--
24...	38	59	78	89	96	100	--
24...	35	57	76	89	97	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG	TETHER	START- ING TIME (2400 HOURS) (82073)	END- ING TIME (2400 HOURS) (82074)	TIME
				MESH SIZE SAMPLER (MM) (30333)	LINE USED IN SAMPLNG (YES=1) (CODE) (04117)			ON BED FOR BED LOAD SAMPLE (SEC) (04120)
DEC								
19...	1525	1000	1150	.25	0	1517	1537	60
19...	1555	1000	1150	.25	0	1547	1605	60
JAN								
08...	1335	1000	1150	.25	0	1327	1346	30
08...	1355	1000	1150	.25	0	1349	1402	30
24...	1300	1000	1150	.25	0	1256	1309	30
24...	1320	1000	1150	.25	0	1316	1328	30
MAR								
08...	1310	1000	1150	.25	0	1302	1313	30
08...	1320	1000	1150	.25	0	1316	1327	30
APR								
24...	1255	1010	1150	.25	0	1243	1309	30

11149900 SAN ANTONIO RIVER NEAR LOCKWOOD, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HORI- ZONTAL WIDTH OF VER- TICAL (FEET) (04121)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER- TICALS IN COM- POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/PT (04122)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY) (80225)
DEC									
19...	3.0	2	18	18	.50	36	12.0	.35	19.4
19...	3.0	2	18	18	.50	36	12.0	.37	19.4
JAN									
08...	4.0	2	15	15	2.00	194	10.5	3.89	227
08...	4.0	2	15	15	2.00	194	10.5	3.69	227
24...	3.0	2	18	18	1.50	59	9.0	.62	45.2
24...	3.0	2	18	18	1.50	59	9.0	1.05	45.2
MAR									
08...	3.0	2	15	15	2.00	56	14.0	.73	43.2
08...	3.0	2	15	15	2.00	56	14.0	1.19	43.2
APR									
24...	1.5	1	19	38	.75	19	--	.20	5.7

Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM (80235)
DEC							
19...	11	63	89	97	99	100	--
19...	8	51	87	97	99	100	--
JAN							
08...	9	46	79	92	96	100	--
08...	6	42	76	90	95	98	100
24...	5	44	74	93	99	100	--
24...	9	55	86	95	98	100	--
MAR							
08...	10	44	79	94	98	100	--
08...	11	51	81	93	96	99	100
APR							
24...	10	51	85	97	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 mi².

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, 1981.

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 sea level (levels by U.S. Army Corps of Engineers).

REMARKS.—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. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 120,000 ft³/s, Mar. 11, 1995, gage height, 23.44 ft, from rating curve extended above 50,000 ft³/s; no flow at times in 1951, 1954–55, 1957.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 17	0315	847	4.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	34	335	172	72	162	343	373	450	568	618	642
2	37	33	344	177	73	158	351	376	467	546	626	636
3	36	33	346	173	72	148	338	373	482	551	621	631
4	37	32	342	135	72	151	337	376	487	564	623	616
5	40	32	339	143	89	207	331	384	474	591	613	602
6	39	33	333	125	110	225	317	398	460	e591	590	595
7	40	35	336	112	110	223	318	411	466	e592	602	587
8	40	36	284	104	111	222	317	411	506	e585	604	595
9	40	36	250	95	112	230	317	412	490	e580	622	609
10	39	38	224	95	127	238	324	406	465	e580	645	615
11	37	113	220	93	138	258	320	412	464	e590	665	608
12	36	484	224	91	132	257	318	390	471	594	637	626
13	35	800	222	85	130	261	348	386	475	606	621	643
14	34	809	245	82	168	254	359	401	472	609	618	639
15	34	798	244	77	158	242	354	404	507	603	620	635
16	34	821	240	73	152	241	347	427	507	619	637	623
17	33	825	239	75	157	254	357	433	501	631	667	617
18	32	834	242	75	154	262	354	410	484	630	655	588
19	32	823	239	73	153	266	373	404	482	619	636	587
20	31	825	238	70	153	269	400	425	516	613	621	572
21	33	756	245	68	153	278	413	441	537	607	605	541
22	32	415	245	67	159	274	386	450	555	602	595	538
23	32	344	248	66	178	269	423	448	571	598	609	623
24	31	343	254	64	174	280	420	448	573	601	617	574
25	30	333	272	64	174	293	417	453	564	615	625	564
26	31	349	269	65	173	296	413	452	556	631	652	529
27	32	341	254	67	182	290	406	446	605	629	684	551
28	32	330	195	68	164	262	389	433	616	608	709	567
29	33	335	180	70	---	259	377	416	587	586	675	563
30	35	336	174	71	---	311	379	423	577	585	654	506
31	36	---	172	70	---	330	---	447	---	597	653	---
TOTAL	1080	11356	7994	2865	3800	7670	10846	12869	15367	18521	19619	17822
MEAN	34.84	378.5	257.9	92.42	135.7	247.4	361.5	415.1	512.2	597.5	632.9	594.1
MAX	40	834	346	177	182	330	423	453	616	631	709	643
MIN	30	32	172	64	72	148	317	373	450	546	590	506
AC-FT	2140	22520	15860	5680	7540	15210	21510	25530	30480	36740	38910	35350

e Estimated.

SALINAS RIVER BASIN

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
MAXIMUM PEAK FLOW	26800 Jan 15 1952
MAXIMUM 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 - 2002, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
MEAN	261.8	181.1	217.5	710.6	1504	993.0	459.3	319.8	397.0	475.2	508.5	429.1
MAX	632	559	2152	7066	10180	7044	5642	1792	845	683	770	743
(WY)	1970	1983	1983	1997	1998	1995	1958	1983	1994	1994	1991	1969
MIN	3.00	5.00	7.58	9.26	10.6	16.3	12.1	4.50	2.98	0.84	0.37	1.47
(WY)	1962	1962	1991	1991	1991	1990	1990	1961	1990	1990	1990	1990

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1958 - 2002

ANNUAL TOTAL	145210	129809	
ANNUAL MEAN	397.8	355.6	532.7
HIGHEST ANNUAL MEAN			1997 1983
LOWEST ANNUAL MEAN			9.39 1990
HIGHEST DAILY MEAN	10300 Mar 6	834 Nov 18	63900 Mar 11 1995
LOWEST DAILY MEAN	30 Oct 25	30 Oct 25	0.07 Sep 9 1990
ANNUAL SEVEN-DAY MINIMUM	31 Oct 20	31 Oct 20	0.09 Sep 4 1990
MAXIMUM PEAK FLOW		847 Nov 17	120000 Mar 11 1995
MAXIMUM PEAK STAGE		4.95 Nov 17	23.44 Mar 11 1995
INSTANTANEOUS LOW FLOW		27 Oct 25	
ANNUAL RUNOFF (AC-FT)	288000	257500	385900
10 PERCENT EXCEEDS	547	623	661
50 PERCENT EXCEEDS	341	348	310
90 PERCENT EXCEEDS	39	39	24

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 mi².

PERIOD OF RECORD.—October 1958 to current year.

CHEMICAL DATA: Water year 1977.

REVISED RECORDS.—WDR CA-85-2: 1969–84(M); WDR CA-2002-2: Datum.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 431.48 ft above sea level. October 1958 to Apr. 24, 1967, at site 500 ft upstream at datum 5.16 ft higher. Apr. 25, 1967, to May 23, 1972, at site 200 ft upstream at datum 0.16 ft higher. May 23, 1972, to May 21, 1975, at site 200 ft upstream at datum 0.06 ft higher. May 21, 1975, to July 12, 1981, at site 200 ft upstream at same datum (revised).

REMARKS.—Records fair except for flows after mid-July, which are poor. No regulation; small diversions upstream from station by ranchers and sand-processing plant. See schematic diagram of Salinas River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,500 ft³/s, Jan. 25, 1969, gage height, 15.33 ft, in gage well, 16.2 ft, from floodmarks, from rating curve extended above 7,100 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 3	0510	268	4.40

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.75	1.7	5.7	36	3.8	2.7	2.6	3.0	0.68	0.28	0.10	0.18
2	0.77	1.7	9.0	21	3.8	2.8	2.6	2.9	0.89	0.23	0.11	0.16
3	0.83	1.8	69	141	3.8	2.9	2.9	2.6	1.1	0.22	0.12	0.15
4	0.93	1.7	24	41	3.7	2.8	3.2	2.2	1.0	0.21	0.13	0.18
5	0.99	1.7	11	19	3.7	2.9	3.3	1.9	0.65	0.21	0.10	0.15
6	1.2	1.7	5.9	13	3.6	4.6	3.3	1.4	0.39	0.24	0.09	0.12
7	1.4	1.8	4.4	9.4	3.7	6.0	3.1	1.2	0.35	0.28	0.09	0.10
8	1.4	1.8	3.9	7.3	4.0	5.8	2.8	1.2	0.36	0.26	0.08	0.11
9	1.2	1.8	4.6	6.2	3.6	4.8	2.6	1.1	0.37	0.21	0.06	0.11
10	1.2	2.4	4.4	5.7	3.4	4.1	2.5	1.0	0.35	0.17	0.05	0.10
11	1.1	5.1	3.8	5.1	3.3	3.5	2.1	1.2	0.35	0.16	0.05	0.10
12	1.0	6.9	3.7	4.7	3.4	3.3	2.0	1.0	0.35	0.16	0.06	0.14
13	0.94	7.5	3.5	4.7	3.6	3.0	1.6	0.95	0.42	0.14	0.07	0.13
14	0.92	7.3	5.6	4.7	3.9	3.0	1.4	0.88	0.50	0.11	0.07	0.15
15	0.93	4.1	5.4	4.7	3.8	2.9	1.2	0.93	0.50	0.11	0.07	0.16
16	0.99	2.5	4.8	4.6	4.0	3.0	1.4	0.91	0.45	0.11	0.08	0.18
17	1.1	2.1	3.9	4.5	9.0	6.6	1.7	0.82	0.35	0.12	0.10	0.23
18	1.3	1.9	3.8	4.4	6.3	8.0	1.6	0.82	0.27	0.12	0.07	0.23
19	1.4	1.8	3.7	4.2	4.1	6.3	1.7	0.84	0.23	0.12	0.09	0.18
20	1.4	1.9	5.8	4.0	3.3	4.7	1.7	2.6	0.22	0.12	0.09	0.14
21	1.2	2.0	25	4.0	3.0	3.9	1.7	3.1	0.27	0.13	0.09	0.15
22	1.2	2.1	43	3.9	2.8	4.0	1.7	2.3	0.42	0.13	0.10	0.13
23	1.2	1.9	15	3.8	2.7	4.5	1.4	1.6	0.55	0.12	0.11	0.10
24	1.2	4.1	9.0	3.8	2.5	4.6	1.4	1.4	0.52	0.11	0.15	0.07
25	1.1	20	6.6	3.9	2.4	4.8	1.5	1.2	0.46	0.11	0.13	0.07
26	1.2	15	4.9	4.3	2.6	4.6	3.0	1.2	0.41	0.12	0.13	0.07
27	1.3	6.1	4.4	5.1	2.8	4.0	3.3	1.4	0.38	0.13	0.12	0.07
28	1.4	3.8	4.7	5.0	2.8	3.6	2.9	1.2	0.39	0.13	0.13	0.09
29	1.5	6.2	7.0	4.4	---	3.4	3.8	0.99	0.39	0.13	0.19	0.22
30	1.9	5.6	40	4.0	---	3.2	3.6	0.78	0.35	0.13	0.22	0.31
31	1.9	---	56	3.8	---	3.0	---	0.63	---	0.11	0.20	---
TOTAL	36.85	126.0	401.5	391.2	103.4	127.3	69.6	45.25	13.92	4.93	3.25	4.28
MEAN	1.189	4.200	12.95	12.62	3.693	4.106	2.320	1.460	0.464	0.159	0.105	0.143
MAX	1.9	20	69	141	9.0	8.0	3.8	3.1	1.1	0.28	0.22	0.31
MIN	0.75	1.7	3.5	3.8	2.4	2.7	1.2	0.63	0.22	0.11	0.05	0.07
AC-FT	73	250	796	776	205	252	138	90	28	9.8	6.4	8.5

SALINAS RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.913	4.118	10.71	41.22	59.91	46.11	16.25	6.171	2.546	1.236	0.812	1.235
MAX	20.0	34.7	62.6	401	583	422	113	90.1	33.9	15.0	7.26	17.9
(WY)	1977	1966	1967	1969	1998	1995	1983	1998	1998	1983	1983	1976
MIN	0.053	0.058	0.073	0.065	0.25	0.59	0.19	0.070	0.040	0.050	0.000	0.030
(WY)	1991	1991	1991	1991	1991	1964	1964	1992	1961	1992	1973	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1959 - 2002	
ANNUAL TOTAL	5063.77		1327.48			
ANNUAL MEAN	13.87		3.637		15.80	
HIGHEST ANNUAL MEAN					81.4 1998	
LOWEST ANNUAL MEAN					0.66 1968	
HIGHEST DAILY MEAN	1410	Mar 5	141	Jan 3	5860	Mar 10 1995
LOWEST DAILY MEAN	0.47	Jul 4	0.05	Aug 10	0.00	Jun 12 1961
ANNUAL SEVEN-DAY MINIMUM	0.63	Jun 28	0.06	Aug 9	0.00	Jun 12 1961
MAXIMUM PEAK FLOW			268	Jan 3	11500	Jan 25 1969
MAXIMUM PEAK STAGE			4.40	Jan 3	15.33	Jan 25 1969
ANNUAL RUNOFF (AC-FT)	10040		2630		11450	
10 PERCENT EXCEEDS	24		5.8		20	
50 PERCENT EXCEEDS	2.1		1.7		1.4	
90 PERCENT EXCEEDS	0.80		0.11		0.10	

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 mi².

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

CHEMICAL DATA: Water years 1972–75, 1977.

SEDIMENT DATA: Water years 1990, 1992.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 150.61 ft above sea level.

REMARKS.—Records fair except for estimated daily discharges, which are 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. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 106,000 ft³/s, Feb. 25, 1969, gage height, 23.31 ft, maximum gage height, 26.49 ft, Mar. 11, 1995; no flow at times in some years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.90	0.00	203	215	76	106	139	187	153	272	220	247
2	0.69	0.00	218	237	74	89	137	185	167	270	218	267
3	0.35	0.00	224	247	74	82	143	180	184	247	227	266
4	0.04	0.00	230	263	76	87	141	169	186	233	229	255
5	0.00	0.00	223	209	72	83	129	161	177	249	243	246
6	0.00	0.00	221	181	74	85	125	160	161	247	242	240
7	0.00	0.00	228	168	80	99	120	155	151	246	229	241
8	0.00	0.00	230	159	88	106	129	149	147	255	216	249
9	0.00	0.00	235	147	91	102	125	131	152	246	201	274
10	0.00	0.00	218	136	90	94	118	119	169	219	189	270
11	0.00	0.00	203	129	91	105	114	117	175	207	194	250
12	0.00	0.00	189	121	93	117	109	119	175	201	203	238
13	0.00	0.00	184	117	94	120	109	136	173	202	199	231
14	0.00	0.00	193	112	92	125	114	143	169	219	189	234
15	0.00	0.00	186	103	92	121	125	142	164	243	184	237
16	0.00	e100	184	96	96	111	130	140	165	249	178	249
17	0.00	222	193	92	108	107	127	140	187	246	187	248
18	0.00	314	196	86	117	119	111	147	192	240	214	241
19	0.00	405	202	e87	119	121	115	156	186	235	241	225
20	0.00	458	208	e86	118	123	119	179	180	231	250	209
21	0.00	492	219	e86	118	106	132	192	179	238	246	205
22	0.00	516	221	e86	116	116	147	198	191	249	244	211
23	0.00	397	222	e85	114	123	144	195	207	250	243	231
24	0.00	295	217	e84	111	130	131	187	228	242	247	256
25	0.00	253	219	e84	119	127	144	171	234	232	261	285
26	0.00	225	222	e84	126	118	151	171	229	225	287	251
27	0.00	209	224	e83	124	114	155	182	218	222	287	239
28	0.00	205	230	e81	114	120	157	187	226	226	271	230
29	0.00	211	229	80	---	121	176	177	245	238	257	233
30	0.00	202	217	78	---	116	187	166	252	240	249	246
31	0.00	---	216	79	---	122	---	153	---	228	245	---
TOTAL	1.98	4504.00	6604	3901	2757	3415	4003	4994	5622	7347	7090	7304
MEAN	0.064	150.1	213.0	125.8	98.46	110.2	133.4	161.1	187.4	237.0	228.7	243.5
MAX	0.90	516	235	263	126	130	187	198	252	272	287	285
MIN	0.00	0.00	184	78	72	82	109	117	147	201	178	205
AC-FT	3.9	8930	13100	7740	5470	6770	7940	9910	11150	14570	14060	14490

e Estimated.

SALINAS RIVER BASIN

11151700 SALINAS RIVER AT SOLEDAD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	150.6	127.6	156.9	834.8	1670	1143	282.9	137.5	152.0	165.4	166.0	185.5
MAX	488	336	876	6383	11170	8695	1834	661	456	412	327	478
(WY)	1970	1970	1984	1997	1998	1995	1969	1969	1969	1998	1969	1969
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	100521.38		57542.98			
ANNUAL MEAN	275.4		157.7		424.3	
HIGHEST ANNUAL MEAN					1981	1969
LOWEST ANNUAL MEAN					0.000	1990
HIGHEST DAILY MEAN	10700	Mar 6	516	Nov 22	68300	Feb 25 1969
LOWEST DAILY MEAN	0.00	Oct 5	0.00	Oct 5	0.00	Mar 9 1977
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 5	0.00	Oct 5	0.00	Mar 9 1977
MAXIMUM PEAK FLOW			525	Nov 22	106000	Feb 25 1969
MAXIMUM PEAK STAGE			9.97	Nov 22	26.49	Mar 11 1995
INSTANTANEOUS LOW FLOW			0.00	Oct 4		
ANNUAL RUNOFF (AC-FT)	199400		114100		307400	
10 PERCENT EXCEEDS	403		247		492	
50 PERCENT EXCEEDS	184		167		138	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

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 mi².

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 sea level. 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.—Records good. No regulation or large diversion upstream from station. Low flows affected by upstream gravel mining and irrigation during summer months. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 28,300 ft³/s, Apr. 3, 1958, gage height, 16.40 ft, datum then in use, from rating curve extended above 12,000 ft³/s, on basis of slope-area measurement at gage height 16.30 ft, maximum gage height, 16.44 ft, Mar. 10, 1995; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1615	4,900	6.41

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	18	93	556	73	64	86	46	19	5.3	0.72	0.00
2	2.4	13	1530	740	72	62	81	43	19	5.0	0.52	0.00
3	2.3	12	1180	963	69	60	78	42	18	5.4	0.58	0.00
4	2.3	13	417	635	66	58	78	41	18	4.6	0.74	0.00
5	2.2	12	225	489	65	57	75	39	16	4.3	0.53	0.00
6	2.3	13	158	398	64	60	73	37	15	4.3	0.42	0.00
7	2.2	e14	124	336	63	106	70	35	14	4.1	0.33	0.00
8	2.9	e14	102	291	95	135	69	34	13	3.8	0.26	0.00
9	3.3	e14	89	258	96	101	66	33	13	3.4	0.07	0.00
10	3.2	e13	80	227	83	89	64	32	12	2.9	0.00	0.00
11	3.0	e48	70	203	76	86	62	32	13	2.6	0.00	0.00
12	3.0	e160	63	181	72	80	60	32	12	2.5	0.00	0.00
13	2.7	e99	58	164	69	76	57	30	11	2.3	0.00	0.00
14	2.7	e55	68	151	66	73	54	29	11	2.4	0.00	0.00
15	2.7	32	75	139	64	71	51	29	12	2.3	0.00	0.00
16	2.8	24	60	130	63	72	53	27	11	1.7	0.00	0.00
17	2.9	22	56	123	130	74	56	26	9.8	1.4	0.00	0.00
18	3.0	20	66	116	142	100	56	25	8.7	1.4	0.00	0.00
19	3.0	18	61	110	107	80	52	24	9.0	1.9	0.00	0.00
20	3.1	17	83	105	99	74	51	31	8.8	1.4	0.00	0.00
21	2.6	17	933	100	93	72	49	48	8.6	1.8	0.00	0.00
22	3.1	16	444	96	87	70	48	39	7.8	2.1	0.00	0.00
23	3.5	16	348	91	82	161	46	33	8.7	1.4	0.00	0.00
24	3.4	231	249	88	79	166	44	29	8.3	1.3	0.00	0.00
25	3.3	201	200	85	76	136	43	28	8.0	1.4	0.00	0.00
26	3.4	75	171	83	73	125	45	26	7.5	1.3	0.00	0.00
27	3.5	48	150	92	70	118	46	24	6.9	1.3	0.00	0.00
28	3.6	37	135	88	67	110	45	24	6.5	0.92	0.00	0.00
29	3.5	215	1110	86	---	105	45	23	6.4	0.63	0.00	0.00
30	4.7	166	966	79	---	99	49	21	6.1	0.80	0.00	0.00
31	11	---	751	75	---	92	---	20	---	0.87	0.00	---
TOTAL	100.0	1653	10115	7278	2261	2832	1752	982	338.1	76.82	4.17	0.00
MEAN	3.226	55.10	326.3	234.8	80.75	91.35	58.40	31.68	11.27	2.478	0.135	0.000
MAX	11	231	1530	963	142	166	86	48	19	5.4	0.74	0.00
MIN	2.2	12	56	75	63	57	43	20	6.1	0.63	0.00	0.00
AC-FT	198	3280	20060	14440	4480	5620	3480	1950	671	152	8.3	0.00

e Estimated.

SALINAS RIVER BASIN

11152000 ARROYO SECO NEAR SOLEDAD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.541	53.32	165.8	391.3	579.0	449.8	250.8	93.96	39.51	14.84	5.926	4.862
MAX	75.5	650	1161	2425	2697	2344	2043	644	208	97.4	54.5	38.8
(WY)	1905	1927	1956	1914	1998	1983	1958	1983	1998	1998	1983	1978
MIN	0.000	0.000	2.87	5.95	8.98	18.5	7.82	4.14	0.66	0.000	0.000	0.000
(WY)	1914	1991	1991	1991	1991	1977	1977	1977	1924	1924	1913	1913

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1902 - 2002	
ANNUAL TOTAL	48867.98		27392.09			
ANNUAL MEAN	133.9		75.05		169.4	
HIGHEST ANNUAL MEAN					709	
LOWEST ANNUAL MEAN					6.97	
HIGHEST DAILY MEAN	2990	Mar 5	1530	Dec 2	16500	Dec 23 1955
LOWEST DAILY MEAN	0.77	Aug 22	0.00	Aug 10	0.00	Aug 27 1904
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 27	0.00	Aug 10	0.00	Aug 27 1904
MAXIMUM PEAK FLOW			4900	Dec 2	28300	Apr 3 1958
MAXIMUM PEAK STAGE			6.41	Dec 2	16.44	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	96930		54330		122700	
10 PERCENT EXCEEDS	339		145		364	
50 PERCENT EXCEEDS	32		29		28	
90 PERCENT EXCEEDS	2.1		0.00		0.08	

11152050 ARROYO SECO BELOW RELIZ CREEK, NEAR SOLEDAD, CA

LOCATION.—Lat 36°23'59", long 121°19'23", in Los Conches Grant, [Monterey County](#), Hydrologic Unit 18060005, on right bank, at county road bridge, 1.7 mi south of Soledad, and 7.4 mi downstream from Reliz Creek.

DRAINAGE AREA.—304 mi².

PERIOD OF RECORD.—October 1994 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 167.93 ft above sea level (levels by Monterey County).

REMARKS.—Records fair. No regulation or large diversion upstream from station. Low flows affected by upstream gravel mining and irrigation during summer months. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 31,000 ft³/s, Mar. 10, 1995, gage height, 9.62 ft, rating affected by backwater from Salinas River. Discharge estimated by routing peak. No flow for many days.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1845	2,960	4.58

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	229	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	609	210	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
3	0.00	0.00	741	564	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
4	0.00	0.00	157	329	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
5	0.00	0.00	42	220	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
6	0.00	0.00	4.1	156	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
7	0.00	0.00	0.00	107	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
8	0.00	0.00	0.00	75	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	0.00
9	0.00	0.00	0.00	57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	4.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	242	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	136	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	2.8	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	2.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	1.1	419	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	22	571	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	366	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	25.90	3421.90	2058.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	0.000	0.863	110.4	66.40	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX	0.00	22	741	564	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	51	6790	4080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated.

SALINAS RIVER BASIN

11152050 ARROYO SECO BELOW RELIZ CREEK, NEAR SOLEDAD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.000	2.970	70.58	551.8	662.8	478.2	117.9	24.32	1.290	0.000	0.000	0.002
MAX	0.000	14.3	392	1975	2806	1944	448	111	8.67	0.000	0.000	0.019
(WY)	1995	1997	1997	1997	1998	1995	1998	1995	1998	1995	1995	1999
MIN	0.000	0.000	0.000	36.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1995	1995	1995	1999	2002	2002	1997	1997	1996	1995	1995	1995

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	19830.57		5506.27			
ANNUAL MEAN	54.33		15.09		156.8	
HIGHEST ANNUAL MEAN					354 1995	
LOWEST ANNUAL MEAN					15.1 2002	
HIGHEST DAILY MEAN	2800	Mar 5	741	Dec 3	17000	Mar 10 1995
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1994
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1994
MAXIMUM PEAK FLOW			2960	Dec 2	31000	Mar 10 1995
MAXIMUM PEAK STAGE			4.58	Dec 2	9.62	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	39330		10920		113600	
10 PERCENT EXCEEDS	148		0.00		365	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11152300 SALINAS RIVER NEAR CHUALAR, CA

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 mi².

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 sea level. 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. 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. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 92,000 ft³/s, estimated, Mar. 11, 1995, gage height, 19.70 ft, from rating curve extended above 18,000 ft³/s; peak flow includes an estimate of 8,800 ft³/s bypassing the gage; no flow at times during most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	81	442	39	45	66	86	61	100	83	100
2	0.00	0.00	83	387	38	37	72	85	58	109	83	100
3	0.00	0.00	868	524	34	29	75	82	65	111	83	107
4	0.00	0.00	513	449	34	29	75	81	71	102	86	106
5	0.00	0.00	257	358	33	31	72	74	68	100	90	99
6	0.00	0.00	167	287	31	29	65	71	62	106	96	98
7	0.00	0.00	143	252	29	30	62	71	52	102	91	98
8	0.00	0.00	132	233	30	39	63	69	47	104	85	97
9	0.00	0.00	131	208	27	45	65	64	42	105	74	104
10	0.00	0.00	131	186	24	42	60	50	49	96	62	111
11	0.00	0.00	123	164	27	45	53	43	53	83	56	108
12	0.00	0.00	112	144	33	50	49	39	55	76	57	105
13	0.00	0.00	106	130	35	50	43	43	53	69	60	103
14	0.00	0.00	105	121	36	51	36	51	50	68	56	102
15	0.00	0.00	105	110	34	52	36	53	47	81	52	102
16	0.00	0.00	104	102	35	49	49	50	42	94	47	105
17	0.00	0.00	104	83	47	52	52	48	49	97	43	111
18	0.00	0.00	104	73	55	60	43	47	59	98	51	108
19	0.00	0.00	102	68	58	62	39	52	60	96	69	106
20	0.00	0.00	103	64	56	61	38	63	57	94	83	105
21	0.00	5.2	109	62	54	57	39	78	53	92	88	103
22	0.00	125	348	59	52	55	49	85	53	97	85	95
23	0.00	154	239	57	48	60	57	85	59	101	84	94
24	0.00	126	212	51	47	64	51	81	71	99	85	97
25	0.00	107	184	49	53	70	49	78	82	95	89	111
26	0.00	94	166	49	57	72	57	71	86	92	101	123
27	0.00	81	156	48	56	65	61	68	83	91	110	115
28	0.00	79	154	51	51	63	65	72	81	87	109	115
29	0.00	91	142	49	---	65	72	71	87	89	104	114
30	0.00	91	637	46	---	65	83	64	94	94	100	114
31	0.00	---	508	42	---	64	---	63	---	91	100	---
TOTAL	0.00	953.20	6429	4948	1153	1588	1696	2038	1849	2919	2462	3156
MEAN	0.000	31.77	207.4	159.6	41.18	51.23	56.53	65.74	61.63	94.16	79.42	105.2
MAX	0.00	154	868	524	58	72	83	86	94	111	110	123
MIN	0.00	0.00	81	42	24	29	36	39	42	68	43	94
AC-FT	0.00	1890	12750	9810	2290	3150	3360	4040	3670	5790	4880	6260

SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	50.73	71.32	273.4	1077	2066	1645	431.9	179.4	72.54	65.74	59.67	76.18
MAX	286	474	2757	8328	14350	10690	2793	2418	767	462	381	425
(WY)	1983	1983	1983	1997	1998	1983	1982	1983	1983	1983	1983	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1990	1981	1990	1990	1989	1977	1989	1990	1990	1990	1990	1990

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1977 - 2002
ANNUAL TOTAL	99727.50	29191.20	
ANNUAL MEAN	273.2	79.98	497.6
HIGHEST ANNUAL MEAN			2796 1983
LOWEST ANNUAL MEAN			0.000 1990
HIGHEST DAILY MEAN	12900 Mar 7	868 Dec 3	68000 Mar 12 1995
LOWEST DAILY MEAN	0.00 Sep 21	0.00 Oct 1	0.00 Jan 27 1977
ANNUAL SEVEN-DAY MINIMUM	0.00 Sep 21	0.00 Oct 1	0.00 Feb 3 1977
MAXIMUM PEAK FLOW		1320 Dec 3	92000 Mar 11 1995
MAXIMUM PEAK STAGE		6.00 Dec 3	19.70 Mar 11 1995
ANNUAL RUNOFF (AC-FT)	197800	57900	360500
10 PERCENT EXCEEDS	510	122	787
50 PERCENT EXCEEDS	70	65	49
90 PERCENT EXCEEDS	0.00	0.00	0.00

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.

SPECIFIC CONDUCTANCE: Water years 1977–81.

WATER TEMPERATURE: Water years 1967–69, 1977–81.

BIOLOGICAL DATA: Water years 1977–81.

SEDIMENT DATA: December 1966 to September 1969, January 1977 to May 1995, June 1997 to current year.

PERIOD OF DAILY RECORD.—January 1977 to September 1981.

SPECIFIC CONDUCTANCE: January 1977 to September 1981.

WATER TEMPERATURE: January 1977 to September 1981.

SUSPENDED-SEDIMENT DISCHARGE: December 1966 to September 1969.

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

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)
SEP								
05...*	1045	762	9.9	106	8.7	382	18.5	6.00
05...*	1048	762	10.2	109	8.7	386	18.5	17.0
05...*	1052	762	10.4	111	8.6	385	18.5	28.0
05...*	1055	762	10.1	108	8.6	388	18.6	39.0
05...*	1059	762	10.1	108	8.6	388	18.6	50.0
05...*	1103	762	10.2	109	8.6	389	18.6	61.0
05...*	1107	762	10.1	108	8.6	389	18.6	72.0
05...*	1111	762	10.1	108	8.6	389	18.6	83.0
05...*	1116	762	10.2	109	8.6	389	18.6	94.0
05...*	1120	762	10.3	110	8.6	389	18.5	105

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS NONCARB DISSOLV FLD. AS (MG/L) (00904)	HARD-NESS TOTAL (MG/L) CACO3 (00900)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)
NOV												
27...	1100	81	15	767	12.3	102	8.2	395	7.5	39	160	38.7
APR												
26...	1115	58	33	760	10.8	105	8.6	465	14.0	40	180	41.6
JUN												
06...	1030	65	23	760	10.2	110	8.5	449	19.0	40	180	43.0
SEP												
05...	1130	98	10	762	10.0	107	8.6	387	18.5	36	160	39.4
Date	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG (00925)	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L) AS NA (00930)	SODIUM PERCENT (00932)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	SILICA, DIS-SOLVED (MG/L) AS SIO2 (00955)	
NOV												
27...	15.5	1.52	.6	18.2	20	122	148	<1	16.5	.2	15.8	
APR												
26...	17.5	1.60	.8	24.4	23	136	162	2	20.2	.16	13.0	
JUN												
06...	16.9	1.75	.7	20.6	20	137	162	3	16.7	.22	11.1	
SEP												
05...	15.7	1.39	.5	15.9	17	127	150	2	12.0	.21	11.5	

* Instantaneous streamflow at the time of cross-sectional measurement: Sep. 5, 98 ft³/s.
 < Actual value is known to be less than the value shown.

SALINAS RIVER BASIN

11152300 SALINAS RIVER NEAR CHUALAR, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
NOV 27...	55.2	.34	250	236	e.02	.27	.42	<.008	.08	.07	.16
APR 26...	67.6	.40	291	271	<.04	.48	.61	e.006	e.04	.02	.14
JUN 06...	62.9	.39	285	256	<.04	.45	.14	<.008	<.06	.03	.10
SEP 05...	49.8	.32	237	223	<.04	.31	.12	<.008	e.05	.05	.09

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 27...	1350	79	7.5	31	67
APR 26...	1220	58	15.0	62	94
JUN 06...	1105	65	22.0	44	--
SEP 05...	1205	98	18.5	22	78

e Estimated.

< Actual value is known to be less than the value shown.

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 (68), 0.8 mi upstream from El Toro Creek, 1.6 mi northwest of Spreckels, and 2 mi south of Salinas.

DRAINAGE AREA.—4,156 mi².

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" 1900–1901.

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 sea level. 1900–1901, 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.—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 upstream from station. See schematic diagram of [Salinas River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 95,000 ft³/s, Mar. 12, 1995, gage height, 30.29 ft, from rating extended above 30,000 ft³/s, peak includes estimate of 9,800 ft³/s bypassing gage; no flow at times in 1929–40, many days in 1990–2002.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	381	3.8	14	6.3	32	4.0	11	11	12
2	0.00	0.00	0.00	313	2.6	9.0	11	36	1.0	16	7.0	9.2
3	0.00	0.00	142	316	e1.0	e4.0	18	35	0.28	22	4.3	10
4	0.00	0.00	478	485	e0.90	e3.5	20	35	4.5	26	2.8	17
5	0.00	0.00	200	376	e0.80	e3.5	20	33	10	21	3.9	19
6	0.00	0.00	104	295	e0.70	e3.7	18	28	6.7	21	5.2	18
7	0.00	0.00	64	242	e0.60	e3.5	14	26	1.5	25	10	15
8	0.00	0.00	54	206	e0.50	e3.6	12	25	0.13	23	11	12
9	0.00	0.00	57	176	e0.40	e3.8	13	20	0.06	24	5.4	12
10	0.00	0.00	61	146	e0.30	e4.0	14	13	0.05	26	1.2	16
11	0.00	0.00	54	117	e0.20	e4.1	9.9	4.9	0.04	20	0.13	21
12	0.00	0.00	44	94	e0.50	e4.2	6.1	0.85	0.03	9.4	0.08	22
13	0.00	0.00	38	75	e0.70	5.7	e3.0	0.18	0.02	3.9	0.06	19
14	0.00	0.00	47	62	e0.80	6.6	e1.8	0.12	0.01	1.2	0.03	15
15	0.00	0.00	42	54	e0.90	8.2	e0.09	0.10	0.00	0.17	0.01	11
16	0.00	0.00	38	47	e0.90	8.8	e0.04	0.21	0.00	2.2	0.00	10
17	0.00	0.00	38	40	e1.0	15	0.05	0.93	0.00	11	0.00	14
18	0.00	0.00	40	35	e0.80	16	0.66	0.11	0.00	15	0.00	19
19	0.00	0.00	41	31	e5.3	15	0.30	0.07	0.00	16	0.00	21
20	0.00	0.00	53	27	14	16	0.03	0.08	0.00	16	0.00	19
21	0.00	0.00	110	25	14	15	0.02	5.5	0.00	15	0.00	12
22	0.00	0.00	141	22	15	13	0.0	19	0.00	10	0.00	5.9
23	0.00	0.00	201	19	14	14	0.00	26	0.00	14	0.00	2.7
24	0.00	0.00	145	16	12	14	0.43	27	0.00	17	0.00	2.8
25	0.00	0.00	117	13	10	16	1.5	24	0.00	17	0.00	7.6
26	0.00	0.00	97	13	14	20	1.6	18	0.00	14	0.00	15
27	0.00	0.00	86	11	17	22	7.3	11	0.00	11	0.00	27
28	0.00	0.00	92	11	17	17	12	13	0.61	6.6	1.8	27
29	0.00	0.00	124	11	---	14	16	16	2.1	3.7	11	24
30	0.00	0.00	288	7.6	---	12	23	14	4.7	4.6	14	21
31	0.00	---	491	5.3	---	10	---	8.2	---	9.7	14	---
TOTAL	0.00	0.00	3487.00	3671.9	149.70	319.2	230.12	472.25	35.73	432.47	102.91	456.2
MEAN	0.000	0.000	112.5	118.4	5.346	10.30	7.671	15.23	1.191	13.95	3.320	15.21
MAX	0.00	0.00	491	485	17	22	23	36	10	26	14	27
MIN	0.00	0.00	0.00	5.3	0.20	3.5	0.00	0.07	0.00	0.17	0.00	2.7
AC-FT	0.00	0.00	6920	7280	297	633	456	937	71	858	204	905

e Estimated.

SALINAS RIVER BASIN

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
MAXIMUM PEAK FLOW	75000 Feb 12 1938
MAXIMUM 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 - 2002, BY WATER YEAR (WY)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
MEAN	24.58	34.21	215.2	902.8	1543	1259	488.8	123.8	33.58	20.61	19.36	29.27
MAX	402	389	2511	6993	16260	12640	6714	2839	767	403	354	394
(WY)	1970	1983	1983	1997	1998	1983	1958	1983	1983	1983	1983	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1942 - 2002

ANNUAL TOTAL	73760.89	9357.48	
ANNUAL MEAN	202.1	25.64	385.1
HIGHEST ANNUAL MEAN			2997 1983
LOWEST ANNUAL MEAN			0.81 1990
HIGHEST DAILY MEAN	12900 Mar 7	491 Dec 31	64800 Feb 26 1969
LOWEST DAILY MEAN	0.00 Feb 8	0.00 Oct 1	0.00 Jan 31 1990
ANNUAL SEVEN-DAY MINIMUM	0.00 Jul 15	0.00 Oct 1	0.00 Jan 31 1990
MAXIMUM PEAK FLOW		732 Dec 3	95000 Mar 12 1995
MAXIMUM PEAK STAGE		6.05 Dec 3	30.29 Mar 12 1995
ANNUAL RUNOFF (AC-FT)	146300	18560	279000
10 PERCENT EXCEEDS	373	49	601
50 PERCENT EXCEEDS	12	6.6	3.4
90 PERCENT EXCEEDS	0.00	0.00	0.00

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 mi².

PERIOD OF RECORD.—October 1970 to current year. January 1959 to September 1970 in reports of Monterey County Water Resources Agency.

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 sea level, from topographic map. Prior to Oct. 9, 1975, on right bank at same datum (revised).

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, 1,030 ft³/s, Feb. 3, 1998, gage height, 5.17 ft, from rating curve extended above 260 ft³/s; maximum gage height, 11.13 ft, Apr. 1, 1974, at datum then in use; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 60 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 21	0230	43	2.49

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00
2	0.00	0.00	7.2	8.5	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
3	0.00	0.00	1.0	7.4	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00
4	0.00	e0.00	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00
5	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00
6	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00
7	0.00	e0.00	0.00	0.00	0.12	2.1	0.00	0.00	0.00	0.26	0.00	0.00
8	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.30	0.00	0.00
9	0.00	0.00	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00
10	0.00	0.00	e0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.14	0.02	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00
12	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
13	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
14	e0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00	e0.03	0.03	0.00	0.00
15	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00
16	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.05	0.00	0.00
17	e0.00	0.00	0.00	0.00	1.8	2.1	0.00	0.00	0.06	0.00	0.00	0.00
18	e0.00	0.00	0.00	0.00	0.04	0.07	0.00	0.00	0.21	0.00	0.00	0.00
19	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00
20	e0.00	0.00	1.1	0.00	0.00	0.00	0.00	0.00	0.17	0.07	0.00	0.00
21	e0.00	0.00	7.6	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00
22	e0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00
23	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00
24	e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00
28	0.00	0.00	0.11	0.18	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00
29	0.00	e2.1	9.9	0.00	---	0.00	0.00	0.00	0.28	0.00	0.00	0.00
30	0.00	0.00	7.1	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	4.3	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	0.00	2.10	39.35	17.37	2.16	4.30	0.00	0.00	3.00	2.45	0.02	0.00
MEAN	0.000	0.070	1.269	0.560	0.077	0.139	0.000	0.000	0.100	0.079	0.001	0.000
MAX	0.00	2.1	9.9	8.5	1.8	2.1	0.00	0.00	0.32	0.30	0.02	0.00
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	4.2	78	34	4.3	8.5	0.00	0.00	6.0	4.9	0.04	0.00

e Estimated.

TEMBLADERO SLOUGH BASIN

11152600 GABILAN CREEK NEAR SALINAS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.037	0.563	3.638	10.42	20.85	15.71	8.762	2.691	1.249	0.474	0.172	0.038
MAX	0.50	6.20	55.0	99.5	239	124	58.7	25.2	14.8	8.24	2.85	0.58
(WY)	1984	1983	1997	1997	1998	1983	1974	1998	1998	1998	1983	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1971	1971	1972	1972	1972	1972	1972	1971	1971	1971	1971	1971

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1971 - 2002
ANNUAL TOTAL	46.42	70.75	
ANNUAL MEAN	0.127	0.194	5.298
HIGHEST ANNUAL MEAN			35.4 1998
LOWEST ANNUAL MEAN			0.000 1972
HIGHEST DAILY MEAN	9.9 Dec 29	9.9 Dec 29	646 Feb 3 1998
LOWEST DAILY MEAN	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1970
ANNUAL SEVEN-DAY MINIMUM	0.00 Jan 1	0.00 Oct 1	0.00 Oct 1 1970
MAXIMUM PEAK FLOW		43 Dec 21	1030 Feb 3 1998
MAXIMUM PEAK STAGE		2.49 Dec 21	11.13 Apr 1 1974
ANNUAL RUNOFF (AC-FT)	92	140	3840
10 PERCENT EXCEEDS	0.00	0.15	10
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

11152650 RECLAMATION DITCH NEAR SALINAS, CA

LOCATION.—Lat 36°42'18", long 121°42'14", in Rincon Del Zanjon Grant, [Monterey County](#), Hydrologic Unit 18060011, on right bank, at upstream side of San Jon road bridge, and 3.4 mi northwest of Salinas.

DRAINAGE AREA.—53.2 mi².

PERIOD OF RECORD.—October 1970 to February 1986, June 1 to September 30, 2002. March 1968 to September 1970 in reports of Monterey County Flood Control and Water Conservation District.

GAGE.—Water-stage recorder and crest-stage gage. Concrete control. Datum of gage is 16 ft above sea level, from topographic map.

REMARKS.—Records fair due to lack of measurements during water year. Low flows affected by return flow from irrigated agricultural and urban areas.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 524 ft³/s, Mar. 1, 1983; no flow Dec. 4, 10, 11, 1978.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	1.1	1.0	1.5	1.6
2	---	---	---	---	---	---	---	---	1.3	0.92	2.1	1.4
3	---	---	---	---	---	---	---	---	1.0	1.3	1.9	1.9
4	---	---	---	---	---	---	---	---	0.94	1.3	1.5	2.0
5	---	---	---	---	---	---	---	---	1.0	1.1	0.91	1.8
6	---	---	---	---	---	---	---	---	1.0	1.7	1.4	1.7
7	---	---	---	---	---	---	---	---	0.96	1.9	1.4	2.1
8	---	---	---	---	---	---	---	---	1.0	1.6	1.5	2.2
9	---	---	---	---	---	---	---	---	1.0	1.3	2.2	1.9
10	---	---	---	---	---	---	---	---	0.82	1.2	2.6	2.1
11	---	---	---	---	---	---	---	---	0.75	1.4	2.8	1.8
12	---	---	---	---	---	---	---	---	1.1	1.4	1.9	2.4
13	---	---	---	---	---	---	---	---	0.96	1.9	1.7	2.1
14	---	---	---	---	---	---	---	---	1.2	1.3	1.8	2.6
15	---	---	---	---	---	---	---	---	1.1	1.1	2.1	2.1
16	---	---	---	---	---	---	---	---	1.6	1.2	1.7	1.6
17	---	---	---	---	---	---	---	---	1.1	1.3	2.1	1.8
18	---	---	---	---	---	---	---	---	0.97	1.3	2.5	2.2
19	---	---	---	---	---	---	---	---	1.2	1.4	1.5	1.9
20	---	---	---	---	---	---	---	---	1.5	1.5	1.6	2.3
21	---	---	---	---	---	---	---	---	1.5	1.5	1.6	2.4
22	---	---	---	---	---	---	---	---	1.2	1.0	2.1	2.3
23	---	---	---	---	---	---	---	---	1.5	1.3	1.8	1.9
24	---	---	---	---	---	---	---	---	1.3	1.1	1.7	2.3
25	---	---	---	---	---	---	---	---	0.86	1.1	1.6	2.2
26	---	---	---	---	---	---	---	---	1.0	0.99	1.2	2.2
27	---	---	---	---	---	---	---	---	1.1	1.4	1.3	1.8
28	---	---	---	---	---	---	---	---	1.5	1.2	1.8	1.8
29	---	---	---	---	---	---	---	---	1.4	0.91	1.6	2.0
30	---	---	---	---	---	---	---	---	1.2	0.96	1.5	1.1
31	---	---	---	---	---	---	---	---	---	1.1	1.9	---
TOTAL	---	---	---	---	---	---	---	---	34.16	39.68	54.81	59.5
MEAN	---	---	---	---	---	---	---	---	1.139	1.280	1.768	1.983
MAX	---	---	---	---	---	---	---	---	1.6	1.9	2.8	2.6
MIN	---	---	---	---	---	---	---	---	0.75	0.91	0.91	1.1
AC-FT	---	---	---	---	---	---	---	---	68	79	109	118

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

	6.972	15.70	16.57	31.26	38.38	42.06	26.06	10.33	7.717	7.302	7.923	6.966
MEAN	6.972	15.70	16.57	31.26	38.38	42.06	26.06	10.33	7.717	7.302	7.923	6.966
MAX	11.2	36.8	63.8	100	214	337	118	39.6	16.9	17.0	20.4	13.4
(WY)	1974	1984	1983	1983	1983	1983	1974	1983	1983	1975	1973	1973
MIN	2.34	3.73	3.09	2.50	1.84	1.70	4.65	5.50	1.14	1.28	1.77	1.98
(WY)	1971	1981	1976	1976	1977	1972	1977	1972	2002	2002	2002	2002

SUMMARY STATISTICS

WATER YEARS 1971 - 2002

ANNUAL MEAN	18.35
HIGHEST ANNUAL MEAN	75.4 1983
LOWEST ANNUAL MEAN	4.81 1972
HIGHEST DAILY MEAN	524 Mar 1 1983
LOWEST DAILY MEAN	0.00 Dec 4 1978
ANNUAL SEVEN-DAY MINIMUM	0.15 Dec 6 1978
ANNUAL RUNOFF (AC-FT)	13300
10 PERCENT EXCEEDS	33
50 PERCENT EXCEEDS	6.7
90 PERCENT EXCEEDS	2.2

11154700 CLEAR CREEK NEAR IDRIA, CA

LOCATION.—Lat 36°21'53", long 120°45'19", in SE 1/4 sec.15, T.18 S., R.11 E., San Benito County, Hydrologic Unit 18060002, on right bank, in Clear Creek Management Area, 1.7 mi upstream from San Benito River, and 5.8 mi southwest of Idria.

DRAINAGE AREA.—14.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1993 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 2,600 ft above sea level, from topographic map.

REMARKS.—Records fair except for estimated daily discharges and flows above 10 ft³/s, which are poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,100 ft³/s, Mar. 10, 1995, gage height, 6.75 ft, from rating curve extended above 18 ft³/s, on basis of slope-area measurements at gage heights of 4.44 ft and 6.75 ft; no flow Aug. 13, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 40 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 24	1000	49	2.16

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.52	0.53	2.0	e3.8	e4.0	1.4	1.2	1.2	0.54	0.17	0.02	0.02
2	0.52	0.51	13	e4.5	e4.7	1.4	1.2	1.1	0.53	0.15	0.03	0.00
3	0.52	0.51	6.8	e4.9	e3.9	1.4	1.2	1.0	0.55	0.14	0.04	0.00
4	0.51	0.52	4.8	e4.1	e3.3	1.4	1.2	0.98	0.52	0.11	0.04	0.00
5	0.48	0.52	4.1	e3.9	2.2	1.3	1.3	0.92	0.46	0.11	0.04	0.03
6	0.48	0.52	e3.2	e3.8	1.9	1.7	1.3	0.90	0.45	0.11	0.04	0.03
7	0.48	0.52	e2.7	e3.8	1.7	1.7	1.3	0.90	0.46	0.11	0.04	0.04
8	0.47	0.52	e2.3	e3.7	1.8	1.5	1.2	0.89	0.48	0.10	0.03	0.05
9	0.48	0.51	e2.1	e3.3	1.7	1.4	1.1	0.87	0.49	0.08	0.03	0.04
10	0.53	0.68	e1.8	e3.2	1.6	1.4	1.1	0.88	0.51	0.06	0.02	0.03
11	0.52	1.2	e1.6	e3.0	1.6	1.4	1.1	0.87	0.50	0.05	0.02	0.02
12	0.52	5.5	1.7	e2.7	1.6	1.3	1.1	0.86	0.46	0.05	0.01	0.02
13	0.52	2.0	1.7	e2.5	1.6	1.3	1.1	0.82	0.39	0.04	0.00	0.01
14	0.47	e0.80	2.1	e2.2	1.6	1.3	1.1	0.81	0.38	0.04	0.00	0.01
15	0.46	e0.70	1.6	e1.9	1.5	1.4	1.1	0.79	0.36	0.03	0.00	0.00
16	0.45	e0.65	1.5	e2.2	1.6	1.4	1.1	0.77	0.34	0.03	0.00	0.02
17	0.46	0.67	e1.3	e2.5	2.6	2.0	1.3	0.75	0.32	0.04	0.00	0.03
18	0.47	0.65	e1.2	e2.9	2.0	1.6	1.2	0.73	0.32	0.05	0.00	0.03
19	0.47	0.66	1.2	e2.6	1.8	1.4	1.1	0.77	0.33	0.06	0.00	0.03
20	0.47	0.72	2.6	e2.3	1.7	1.4	1.1	1.3	0.30	0.05	0.00	0.02
21	0.46	1.2	e4.8	e2.0	1.6	1.3	1.1	1.3	0.31	0.05	0.02	0.02
22	0.46	1.2	e4.0	e1.9	1.6	1.4	1.1	0.91	0.31	0.05	0.03	0.00
23	0.47	1.0	e3.7	e2.2	1.6	1.9	1.0	0.84	0.28	0.04	0.03	0.00
24	0.47	12	e3.2	e2.6	1.6	1.6	1.0	0.77	0.23	0.04	0.04	0.00
25	0.46	3.4	e3.0	e3.0	1.5	1.4	1.6	0.74	0.21	0.04	0.03	0.01
26	0.46	2.3	e2.5	e3.6	1.5	1.4	2.1	0.68	0.20	0.03	0.02	0.01
27	0.46	1.7	e2.8	e4.5	1.4	1.3	1.4	0.66	0.20	0.03	0.03	0.03
28	0.48	1.3	e3.0	e4.0	1.4	1.3	1.3	0.65	0.20	0.03	0.02	0.07
29	0.50	3.6	e4.0	e3.8	---	1.2	1.4	0.64	0.19	0.03	0.02	0.11
30	0.77	2.2	e5.0	e4.3	---	1.2	1.3	0.59	0.18	0.03	0.02	0.09
31	0.61	---	e4.0	e3.6	---	1.2	---	0.57	---	0.02	0.03	---
TOTAL	15.40	48.79	99.3	99.3	56.6	44.3	36.7	26.46	11.00	1.97	0.65	0.77
MEAN	0.497	1.626	3.203	3.203	2.021	1.429	1.223	0.854	0.367	0.064	0.021	0.026
MAX	0.77	12	13	4.9	4.7	2.0	2.1	1.3	0.55	0.17	0.04	0.11
MIN	0.45	0.51	1.2	1.9	1.4	1.2	1.0	0.57	0.18	0.02	0.00	0.00
AC-FT	31	97	197	197	112	88	73	52	22	3.9	1.3	1.5

e Estimated.

11154700 CLEAR CREEK NEAR IDRIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.957	1.092	2.052	6.344	11.38	13.61	7.780	5.698	3.818	1.952	1.157	0.915
MAX	2.36	1.63	5.90	24.6	46.7	49.4	20.9	21.6	14.5	6.84	3.86	2.91
(WY)	1999	2002	1997	1995	1998	1995	1998	1998	1998	1998	1998	1998
MIN	0.23	0.36	0.43	1.25	2.02	1.43	1.22	0.85	0.37	0.064	0.021	0.026
(WY)	1995	1995	1995	1994	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002	
ANNUAL TOTAL	1120.34		441.24			
ANNUAL MEAN	3.069		1.209		4.694	
HIGHEST ANNUAL MEAN					12.7	1998
LOWEST ANNUAL MEAN					1.06	1994
HIGHEST DAILY MEAN	44	Mar 5	13	Dec 2	464	Mar 10 1995
LOWEST DAILY MEAN	0.45	Oct 16	0.00	Aug 13	0.00	Aug 13 2002
ANNUAL SEVEN-DAY MINIMUM	0.46	Oct 15	0.00	Aug 13	0.00	Aug 13 2002
MAXIMUM PEAK FLOW			49	Nov 24	1100	Mar 10 1995
MAXIMUM PEAK STAGE			2.16	Nov 24	6.75	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	2220		875		3400	
10 PERCENT EXCEEDS	7.2		3.1		12	
50 PERCENT EXCEEDS	1.9		0.80		1.6	
90 PERCENT EXCEEDS	0.53		0.03		0.43	

11154700 CLEAR CREEK NEAR IDRIA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 1993 to current year.

CHEMICAL DATA: November 1993 to current year.

WATER TEMPERATURE: October 1993 to September 1996.

SEDIMENT DATA: November 1993 to current year.

PERIOD OF DAILY RECORD.—October 1993 to September 1996.

WATER TEMPERATURE: October 1993 to September 1996.

REMARKS.—Zero bed-load discharge observed for flows less than 3.0 ft³/s during current year.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: Maximum recorded, 35.5°C, Aug. 13–15, 1994; minimum recorded, 0.0°C, several days during water year 1994 and Jan. 23, 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPE-CIFIC CON-DUCTANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	
FEB											
04...	1230	3.5	37	701	12.9	100	9.1	1030	6.0	20	
MAR											
27...	1200	1.4	1.0	696	9.6	100	9.0	1030	18.0	--	
JUN											
07...	1145	.62	.8	692	8.1	109	8.9	1100	25.5	--	
AUG											
27...	1200	.04	2.9	693	--	--	8.8	1260	25.5	20	
Date		HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM AD-SORPTION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ALKA-LINITY WATER TOT IT FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)
FEB											
04...	670	2.08	160	1.07	.2	10.5	3	654	733	26	
MAR											
27...	600	2.14	145	1.17	.2	9.73	3	618	682	30	
JUN											
07...	550	2.13	131	1.17	.2	10.6	4	678	742	36	
AUG											
27...	770	2.78	184	1.64	.3	20.5	5	758	837	36	
Date		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG.C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
FEB											
04...	19.1	<.1	2.67	5.8	.83	608	589	<20	55.1	<13	
MAR											
27...	20.6	<.1	2.31	5.8	.84	617	553	<20	60.7	<13	
JUN											
07...	23.7	<.1	2.16	5.8	.95	695	578	<20	67.6	<13	
AUG											
27...	35.2	<.1	3.38	9.4	1.05	770	705	<20	102	<13	

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

11154700 CLEAR CREEK NEAR IDRIA, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
	FEB 04...	<10	18	<2.0	.04	.13
MAR 27...	<10	17	<2.0	e.01	.02	<50
JUN 07...	<10	18	<2.0	.01	.01	<50
AUG 27...	<10	26	e.9	.02	.04	<50

Date	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)
	FEB 04...	e1.5	<2	<.2	34.3	<8
MAR 27...	4.0	<4	<.1	33.6	<8	1.3
JUN 07...	e1.3	<2	<.2	37.1	<8	.34
AUG 27...	2.4	<2	<.1	53.9	<8	.20

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
		FEB 04...	1340	3.0	6.0
MAR 27...	1340	1.4	19.0	10	.04
JUN 07...	1155	.62	25.5	2	<.01
AUG 27...	1130	.03	24.0	<.5	<.01

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

PAJARO RIVER BASIN

11154700 CLEAR CREEK NEAR IDRIA, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)
JUN								
10...	1510	1	.52	29.0	1	4	17	39
10...	1512	1	.52	29.0	1	4	10	15
10...	1514	1	.52	29.0	8	16	27	40
10...	1516	1	.52	29.0	--	1	2	12
10...	1518	1	.52	29.0	--	1	3	13
10...	1522	1	.52	29.0	6	14	33	61
10...	1524	1	.52	29.0	9	28	53	66
10...	1526	1	.52	29.0	1	2	5	15
10...	1528	1	.52	29.0	2	3	6	12

Date	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
JUN							
10...	52	55	55	56	58	65	100
10...	17	18	20	21	21	30	100
10...	49	57	67	100	--	--	--
10...	31	61	94	100	--	--	--
10...	30	54	79	96	100	--	--
10...	78	87	93	99	100	--	--
10...	72	78	86	94	100	--	--
10...	35	57	72	82	93	100	--
10...	26	46	74	100	--	--	--

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 mi².

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 sea level. 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 estimated daily discharges, which are poor. Medium and low flows frequently 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, 9,660 ft³/s, Mar. 10, 1995, gage height, 14.55 ft, from floodmarks, from rating curve extended above 2,100 ft³/s, on basis of slope-area measurement at gage height 12.94 ft; 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, flow estimated at 9,000 ft³/s, based on 1941 peak and rating extrapolation.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun. 23	1915	60	6.34

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	13	11	e20	7.8	4.4	2.8	2.6	e1.8	26	4.7	e1.5
2	9.3	13	17	22	7.6	4.4	2.8	2.4	e1.9	25	4.4	e1.3
3	8.8	12	27	29	7.4	4.4	2.9	2.3	e2.1	26	3.8	e1.3
4	8.9	9.9	e18	25	6.9	4.4	3.0	2.1	e1.9	25	4.0	e1.2
5	9.4	8.8	e15	22	6.7	4.4	3.2	2.0	e1.8	26	3.6	e1.3
6	11	8.4	e13	18	6.6	4.5	3.2	1.9	e1.7	25	3.1	e1.5
7	11	8.1	e13	e17	6.6	4.9	3.1	1.9	e1.7	26	2.6	e1.7
8	11	7.8	e12	e17	7.3	4.9	3.2	1.9	e1.7	e24	2.3	e1.7
9	10	7.5	e12	e16	6.2	4.7	3.4	1.9	e1.7	e24	2.0	e1.6
10	10	7.5	e11	e16	6.1	4.5	3.2	1.9	e2.4	e24	1.8	e1.4
11	10	8.6	e11	16	5.8	4.3	2.9	1.9	e5.0	e24	1.8	e1.2
12	10	10	e10	15	5.6	4.2	2.8	1.8	e6.6	e24	1.6	e10
13	9.8	14	e10	15	5.6	4.1	2.5	1.8	9.0	e23	1.5	22
14	10	11	13	e14	5.5	3.8	2.4	1.8	13	e22	e1.4	27
15	9.7	9.7	12	e14	5.3	3.8	2.4	1.8	16	24	e1.2	31
16	9.5	8.9	10	e14	5.4	3.8	2.7	1.8	17	21	e1.1	35
17	9.8	8.5	9.5	e14	6.8	5.1	2.5	1.7	19	14	e1.7	33
18	10	8.1	9.0	e14	6.7	5.1	2.6	1.7	20	11	e1.7	28
19	10	8.1	9.7	14	5.9	3.9	2.5	1.8	22	9.5	e1.9	28
20	11	8.1	11	14	5.4	3.5	2.5	2.2	27	8.8	e1.8	e30
21	11	7.9	21	19	5.0	3.2	2.3	2.3	34	7.5	e1.5	e30
22	11	7.8	16	22	4.9	3.2	2.2	2.1	46	7.9	e1.8	e30
23	12	7.5	15	16	4.9	3.9	2.1	2.0	54	7.9	e1.9	e30
24	11	10	e15	e12	4.9	4.0	2.1	1.8	55	5.7	e1.9	e30
25	11	14	e15	e11	4.7	3.6	2.1	1.8	44	5.2	e1.8	e30
26	11	12	e15	e10	4.8	3.4	2.4	e2.1	31	5.4	e1.7	e30
27	11	11	e15	e9.2	4.7	3.3	2.6	e2.4	28	5.2	e1.6	25
28	11	11	e15	e9.0	4.6	3.2	2.5	e1.9	28	5.8	e1.4	16
29	12	12	e15	e8.8	---	3.0	2.7	e1.8	29	5.5	e1.6	13
30	12	12	e15	e8.4	---	2.9	2.7	e1.8	26	5.0	e1.8	12
31	13	---	e15	8.2	---	2.7	---	e1.8	---	4.5	e1.6	---
TOTAL	325.2	296.2	426.2	479.6	165.7	123.5	80.3	61.0	548.3	497.9	66.6	505.7
MEAN	10.49	9.873	13.75	15.47	5.918	3.984	2.677	1.968	18.28	16.06	2.148	16.86
MAX	13	14	27	29	7.8	5.1	3.4	2.6	55	26	4.7	35
MIN	8.8	7.5	9.0	8.2	4.6	2.7	2.1	1.7	1.7	4.5	1.1	1.2
AC-FT	645	588	845	951	329	245	159	121	1090	988	132	1000

e Estimated.

PAJARO RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.639	5.939	15.36	32.77	71.09	78.19	42.86	21.96	19.92	14.78	14.21	11.33
MAX	53.4	51.6	181	238	869	655	532	130	88.5	79.2	71.0	67.2
(WY)	1996	1996	1956	1952	1998	1983	1958	1983	1962	1967	1967	1978
MIN	0.013	0.069	0.095	0.081	0.11	0.23	0.21	0.15	0.078	0.019	0.000	0.000
(WY)	1962	1990	1991	1990	1991	1977	1990	1961	1989	1961	1961	1961

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	7316.2		3576.2			
ANNUAL MEAN	20.04		9.798		27.68	
HIGHEST ANNUAL MEAN					126	
LOWEST ANNUAL MEAN					0.15	
HIGHEST DAILY MEAN	259	Mar 5	55	Jun 24	5000	Mar 10 1995
LOWEST DAILY MEAN	4.5	May 11	1.1	Aug 16	0.00	Sep 19 1947
ANNUAL SEVEN-DAY MINIMUM	5.9	Jan 1	1.4	Aug 31	0.00	Sep 19 1947
MAXIMUM PEAK FLOW			60	Jun 23	9660	Mar 10 1995
MAXIMUM PEAK STAGE			6.34	Jun 23	14.55	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	14510		7090		20050	
10 PERCENT EXCEEDS	31		24		56	
50 PERCENT EXCEEDS	17		7.5		4.2	
90 PERCENT EXCEEDS	9.3		1.8		0.20	

11157500 TRES PINOS CREEK NEAR TRES PINOS, CA

LOCATION.—Lat 36°45'53", long 121°17'45", in NW 1/4 NE 1/4 sec.34, T.13 S., R.6 E., in Santa Ana y Quien Sabe Grant, [San Benito County](#), Hydrologic Unit 18060002, on right bank, 2.0 mi southeast of Tres Pinos, and 4.7 mi upstream from mouth.

DRAINAGE AREA.—208 mi².

PERIOD OF RECORD.—October 1939 to September 1983, October 1996 to current year. Yearly estimate only for 1940 and monthly discharge only for some periods, published in WSP 1315-B.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 515 ft above sea level, from topographic map. Water years 1939–83, located 1.5 mi upstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation. Diversions above station for irrigation can divert total flow in summer months, and since 1962, diversions into basin above station from San Benito River (via Paicines Reservoir) for ground-water recharge and irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 27,200 ft³/s, Feb. 3, 1998, gage height, 16.00 ft, from floodmarks, from rating curve extended above 9,000 ft³/s, on basis of slope-area measurement of peak flow; no flow at times in several years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of February 1938 reached a stage of about 9.0 ft, from floodmarks, at datum then in use.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 450 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 25	0415	59	1.91

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	2.0	e1.5	3.2	1.4	1.4	1.5	0.98	0.40	0.00	0.00	0.00
2	11	1.4	e1.5	2.4	1.4	1.2	1.4	1.0	0.43	0.00	0.00	0.00
3	17	1.4	e1.4	18	1.4	1.4	1.3	1.1	0.43	0.00	0.00	0.00
4	17	1.1	e1.4	18	1.4	1.4	1.3	1.1	0.34	0.00	0.00	0.00
5	17	e1.1	e1.3	7.6	1.4	1.4	1.2	1.1	0.27	0.00	0.00	0.00
6	15	e1.3	e1.2	3.1	1.4	1.5	1.1	1.1	0.25	0.00	0.00	0.00
7	11	e1.2	e1.2	1.8	1.3	1.5	1.1	1.0	0.31	0.00	0.00	0.00
8	11	e1.2	e1.2	1.5	1.4	1.4	1.0	0.90	0.23	0.00	0.00	0.00
9	9.2	e1.3	e1.2	1.4	1.3	1.4	1.0	0.86	0.21	0.00	0.00	0.00
10	7.1	e1.3	e1.2	1.4	1.3	1.4	0.96	0.85	0.14	0.00	0.00	0.00
11	6.4	e1.3	e1.2	1.3	1.3	1.3	0.95	0.78	0.11	0.00	0.00	0.00
12	6.2	e1.4	e1.1	1.3	1.3	1.3	0.86	0.68	0.10	0.00	0.00	0.00
13	5.8	e1.4	e1.1	1.3	1.4	1.4	0.65	0.67	0.09	0.00	0.00	0.00
14	5.3	e1.4	1.9	1.3	1.4	1.4	0.64	0.67	0.07	0.00	0.00	0.00
15	3.0	e1.4	2.0	1.3	1.4	1.5	0.75	0.69	0.07	0.00	0.00	0.00
16	2.2	e1.3	2.1	1.3	1.4	1.4	0.80	0.62	0.07	0.00	0.00	0.00
17	2.0	e1.3	2.1	1.3	1.5	1.7	0.83	0.60	0.06	0.00	0.00	0.00
18	1.5	e1.3	2.0	1.3	1.4	1.5	0.83	0.55	0.01	0.00	0.00	0.00
19	1.1	e1.3	2.0	1.3	1.2	1.4	0.81	0.68	0.00	0.00	0.00	0.00
20	0.85	e1.3	2.0	1.3	1.4	1.5	0.74	0.79	0.00	0.00	0.00	0.00
21	0.80	e1.3	2.2	1.3	1.2	1.5	0.74	0.84	0.00	0.00	0.00	0.00
22	0.76	e1.4	2.1	1.3	1.2	1.4	0.77	0.75	0.00	0.00	0.00	0.00
23	0.77	e1.5	2.0	1.3	1.2	1.5	0.78	0.74	0.00	0.00	0.00	0.00
24	0.51	e1.5	2.0	1.3	1.2	1.6	0.76	0.66	0.00	0.00	0.00	0.00
25	1.3	e1.5	2.1	1.4	1.3	1.7	0.88	1.7	0.00	0.00	0.00	0.00
26	0.89	e1.5	1.8	1.4	1.3	1.7	0.83	0.57	0.00	0.00	0.00	0.00
27	0.67	e1.5	2.0	1.3	1.3	1.6	0.80	0.56	0.00	0.00	0.00	0.00
28	0.58	e1.5	2.1	1.5	1.3	1.6	0.76	0.53	0.00	0.00	0.00	0.00
29	0.64	e1.5	2.4	1.4	---	1.7	0.84	0.50	0.00	0.00	0.00	0.00
30	1.6	e1.5	7.0	1.4	---	1.5	0.85	0.39	0.00	0.00	0.00	0.00
31	1.6	---	4.6	1.5	---	1.2	---	0.38	---	0.00	0.00	---
TOTAL	169.77	41.4	60.9	86.5	37.4	45.4	27.73	24.34	3.59	0.00	0.00	0.00
MEAN	5.476	1.380	1.965	2.790	1.336	1.465	0.924	0.785	0.120	0.000	0.000	0.000
MAX	17	2.0	7.0	18	1.5	1.7	1.5	1.7	0.43	0.00	0.00	0.00
MIN	0.51	1.1	1.1	1.3	1.2	1.2	0.64	0.38	0.00	0.00	0.00	0.00
AC-FT	337	82	121	172	74	90	55	48	7.1	0.00	0.00	0.00

e Estimated.

PAJARO RIVER BASIN

11157500 TRES PINOS CREEK NEAR TRES PINOS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.836	4.112	15.26	38.55	64.53	39.53	24.88	6.955	5.152	4.717	4.362	3.549
MAX	7.40	23.0	205	313	835	391	327	76.1	29.8	18.9	20.6	14.1
(WY)	1970	1997	1956	1997	1998	1983	1958	1998	1998	1979	1978	1983
MIN	0.22	0.19	0.64	1.06	0.88	0.52	0.18	0.22	0.12	0.000	0.000	0.000
(WY)	1965	1965	1978	1961	1961	1948	1964	1964	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	2263.95		497.03			
ANNUAL MEAN	6.203		1.362		17.61	
HIGHEST ANNUAL MEAN					98.9 1998	
LOWEST ANNUAL MEAN					0.69 1964	
HIGHEST DAILY MEAN	140	Mar 4	18	Jan 3	9000	Feb 3 1998
LOWEST DAILY MEAN	0.51	Oct 24	0.00	Jun 19	0.00	Aug 30 1952
ANNUAL SEVEN-DAY MINIMUM	0.77	Oct 23	0.00	Jun 19	0.00	Jun 19 2002
MAXIMUM PEAK FLOW			59	May 25	27200	Feb 3 1998
MAXIMUM PEAK STAGE			1.91	May 25	16.00	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	4490		986		12760	
10 PERCENT EXCEEDS	11		2.0		18	
50 PERCENT EXCEEDS	2.8		1.1		2.9	
90 PERCENT EXCEEDS	1.3		0.00		0.45	

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 mi².

PERIOD OF RECORD.—October 1970 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above sea level, from topographic map.

REMARKS.—Records poor. Gage datum lowered by 3.00 ft on Oct. 1, 1999, to account for channel scour. Low flows regulated by Hernandez Reservoir 73 mi upstream, capacity, 18,500 acre-ft. Some diversions upstream from station for irrigation, and interbasin transfer to Tres Pinos Creek for ground-water recharge. Percolation ponds are constructed upstream from station during summer months.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 34,500 ft³/s, Feb. 3, 1998, gage height, 13.48 ft, at datum then in use, from rating curve extended above 3,200 ft³/s, on basis of slope-area measurement of peak flow; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 6	1730	375	5.50

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.00	0.00	e1.5	e1.4	2.3	0.67	0.02	0.02	0.00	0.00	0.00	0.14
2	e0.00	0.00	e0.20	e2.6	2.3	0.56	0.02	0.02	0.00	0.00	0.00	0.11
3	e0.00	0.00	e0.04	e4.5	2.2	0.43	0.03	0.01	0.00	0.00	0.00	0.09
4	0.00	0.00	e0.01	e0.70	2.1	0.47	0.05	0.00	0.00	0.00	0.00	0.03
5	0.00	0.00	e0.00	e0.08	2.0	0.27	0.06	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	e0.00	e0.01	2.0	0.63	0.04	19	0.00	0.00	0.00	0.00
7	0.00	0.00	e0.00	e0.00	2.6	1.2	0.04	0.16	0.00	0.00	0.00	0.00
8	0.00	0.00	e0.00	e0.00	4.8	0.70	0.04	0.09	0.00	0.00	0.00	0.00
9	0.00	0.00	e0.00	e0.00	2.8	0.58	0.04	0.07	0.00	0.00	0.00	0.00
10	0.00	0.00	e0.00	e0.00	1.8	0.49	0.04	0.06	0.00	0.00	0.00	0.00
11	0.00	0.00	e0.00	e0.00	1.5	0.40	0.04	0.04	0.00	0.00	0.00	0.00
12	0.00	0.17	e0.00	e0.00	1.5	0.26	0.05	0.05	0.00	0.00	0.00	0.00
13	0.00	0.00	e0.00	e0.00	1.3	0.20	0.06	0.06	0.00	0.00	0.00	0.00
14	0.00	0.00	e0.00	e0.00	1.3	0.20	0.06	0.06	0.00	0.00	0.00	0.00
15	0.00	0.00	e0.00	e0.00	1.2	4.3	0.06	0.04	0.00	0.00	0.00	0.00
16	0.00	0.00	e0.00	e0.00	1.6	0.81	0.04	0.04	0.00	0.00	0.00	0.00
17	0.00	0.00	e0.00	e0.00	5.3	5.0	0.04	0.03	0.00	0.00	0.04	0.00
18	0.00	0.00	e0.00	e0.00	2.1	1.1	0.04	0.02	0.00	0.00	0.14	0.00
19	0.00	0.00	e0.00	e0.00	1.5	0.62	0.04	0.03	0.00	0.00	0.21	0.00
20	0.00	0.00	e0.00	e0.00	1.2	0.27	0.05	0.03	0.00	0.00	0.20	0.00
21	0.00	0.00	e0.00	e2.0	1.0	0.21	0.05	0.00	0.00	0.00	0.30	0.00
22	0.00	0.00	e0.00	e2.7	1.0	2.6	0.06	0.00	0.00	0.00	0.31	0.00
23	0.00	0.00	e0.00	e2.9	0.99	1.0	0.06	0.00	0.00	0.00	0.30	0.00
24	0.00	20	e0.00	e2.8	0.91	0.27	0.05	0.00	0.00	0.00	0.29	0.00
25	0.00	3.6	e0.00	2.6	0.88	0.08	0.06	0.00	0.00	0.00	0.23	0.00
26	0.00	0.00	e0.00	3.1	0.88	0.06	0.04	0.00	0.00	0.00	0.26	0.00
27	0.00	0.00	e0.00	2.7	0.78	0.04	0.04	0.00	0.00	0.00	0.23	0.00
28	0.00	e0.00	e0.00	4.1	0.73	0.05	0.03	0.00	0.00	0.00	0.22	0.00
29	0.00	e60	e0.00	2.8	---	0.04	0.02	0.00	0.00	0.00	0.16	0.00
30	0.04	e13	e0.00	2.7	---	0.04	0.02	0.00	0.00	0.00	0.19	0.00
31	0.00	---	e0.00	2.4	---	0.03	---	0.00	---	0.00	0.21	---
TOTAL	0.04	96.77	1.75	40.09	50.57	23.58	1.29	19.83	0.00	0.00	3.29	0.37
MEAN	0.001	3.226	0.056	1.293	1.806	0.761	0.043	0.640	0.000	0.000	0.106	0.012
MAX	0.04	60	1.5	4.5	5.3	5.0	0.06	19	0.00	0.00	0.31	0.14
MIN	0.00	0.00	0.00	0.00	0.73	0.03	0.02	0.00	0.00	0.00	0.00	0.00
AC-FT	0.08	192	3.5	80	100	47	2.6	39	0.00	0.00	6.5	0.7

e Estimated.

PAJARO RIVER BASIN

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.817	6.474	18.75	70.66	167.5	142.0	41.38	16.37	7.404	5.151	4.958	4.674
MAX	10.4	54.4	175	581	2350	1545	381	233	76.3	28.3	19.5	16.3
(WY)	1996	1997	1997	1997	1998	1983	1998	1998	1998	1998	1995	1973
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1973	1975	1977	1977	1977	1977	1977	1976	1972	1972	1972	1972

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	2216.55		237.58			
ANNUAL MEAN	6.073		0.651		40.01	
HIGHEST ANNUAL MEAN					287	
LOWEST ANNUAL MEAN					0.000	
HIGHEST DAILY MEAN	208	Mar 6	60	Nov 29	19800	Feb 3 1998
LOWEST DAILY MEAN	0.00	May 4	0.00	Oct 1	0.00	Feb 1 1971
ANNUAL SEVEN-DAY MINIMUM	0.00	May 22	0.00	Oct 1	0.00	Oct 11 1971
MAXIMUM PEAK FLOW			375	May 6	34500	Feb 3 1998
MAXIMUM PEAK STAGE			5.50	May 6	13.48	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	4400		471		28990	
10 PERCENT EXCEEDS	21		1.5		37	
50 PERCENT EXCEEDS	0.00		0.00		1.3	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11159000 PAJARO RIVER AT CHITTENDEN, CA

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 mi².

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."

CHEMICAL DATA: Water years 1952–92.

BIOLOGICAL DATA: Water years 1978–81.

SPECIFIC CONDUCTANCE: Water years 1978–81, daily.

WATER TEMPERATURE: Water years 1978–81, daily.

SEDIMENT DATA: Water years 1978–92.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 81.89 ft above sea level. 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. 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, 25,100 ft³/s, Feb. 3, 1998, gage height, 33.73 ft, from rating curve extended above 8,300 ft³/s, on basis of slope-conveyance study; no flow at times in July and August 1948.

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

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 3	0200	785	8.87	Jan. 3	0830	890	9.24
Dec. 21	1415	2,240	13.06				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	8.0	39	500	75	77	64	46	24	11	8.5	4.7
2	4.1	7.0	243	535	73	73	63	44	24	11	9.2	3.7
3	4.1	7.1	567	839	73	71	61	43	22	11	9.2	3.3
4	5.6	7.6	173	674	72	69	58	41	21	12	8.9	3.6
5	6.8	7.4	91	563	71	69	58	38	19	11	8.4	3.4
6	5.1	8.1	68	493	68	71	57	38	19	11	8.1	5.1
7	5.4	8.9	56	431	69	84	56	36	19	10	8.2	6.5
8	5.5	8.2	48	378	148	99	55	35	19	9.8	8.4	6.4
9	5.1	8.1	43	290	116	86	54	33	19	9.0	8.0	6.4
10	5.1	10	40	226	96	85	53	33	18	9.2	7.0	5.7
11	4.8	9.4	36	175	89	86	51	30	17	10	6.1	6.0
12	e5.2	15	33	151	85	83	51	28	18	9.6	5.7	6.7
13	e5.5	18	31	137	84	79	48	e26	19	9.9	5.2	6.7
14	e5.5	15	72	125	82	77	47	e27	18	9.5	5.7	7.2
15	e5.6	13	93	114	80	76	46	e26	17	8.9	6.1	7.2
16	e5.8	12	61	103	79	75	44	e26	16	8.7	6.2	6.9
17	e6.1	12	53	95	181	79	45	e25	16	8.3	7.1	6.7
18	e6.5	12	58	91	213	87	46	e24	15	9.2	6.6	6.5
19	7.7	12	48	88	131	79	46	e25	14	8.9	5.8	5.9
20	6.2	13	99	85	115	75	42	28	15	8.8	5.3	5.9
21	5.3	13	1580	82	105	74	43	30	15	8.8	5.6	6.2
22	5.2	15	669	80	101	73	44	31	15	8.9	6.2	6.2
23	5.5	15	312	79	97	81	44	e29	14	8.4	5.7	5.0
24	6.3	34	201	77	91	105	43	e28	13	8.3	5.1	4.2
25	5.8	64	152	77	88	90	40	27	13	8.9	5.7	3.5
26	6.4	37	126	78	86	88	42	27	13	9.4	6.0	3.7
27	6.4	26	117	85	84	82	42	27	13	9.1	4.2	4.5
28	5.7	24	118	82	81	77	40	27	13	8.2	4.1	4.6
29	6.1	61	255	82	---	71	43	27	12	8.5	4.9	3.9
30	6.6	59	350	78	---	66	43	27	12	7.9	4.7	3.6
31	8.1	---	522	76	---	64	---	26	---	8.0	4.2	---
TOTAL	177.6	559.8	6354	6969	2733	2451	1469	958	502	291.2	200.1	159.9
MEAN	5.729	18.66	205.0	224.8	97.61	79.06	48.97	30.90	16.73	9.394	6.455	5.330
MAX	8.1	64	1580	839	213	105	64	46	24	12	9.2	7.2
MIN	4.1	7.0	31	76	68	64	40	24	12	7.9	4.1	3.3
AC-FT	352	1110	12600	13820	5420	4860	2910	1900	996	578	397	317

e Estimated.

PAJARO RIVER BASIN

11159000 PAJARO RIVER AT CHITTENDEN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.562	31.67	145.3	433.3	639.0	467.6	249.4	53.27	16.84	8.261	6.399	6.511
MAX	22.7	843	1990	3779	6978	4227	3165	646	162	32.1	22.8	93.3
(WY)	1984	1951	1956	1997	1998	1983	1958	1983	1998	1998	1998	1959
MIN	0.10	0.27	0.60	1.22	1.28	1.50	0.97	0.75	0.66	0.37	0.37	0.24
(WY)	1962	1993	1962	1991	1991	1977	1977	1977	1977	1961	1948	1961

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	25291.9		22824.6			
ANNUAL MEAN	69.29		62.53		169.5	
HIGHEST ANNUAL MEAN					905 1983	
LOWEST ANNUAL MEAN					1.06 1977	
HIGHEST DAILY MEAN	1580	Dec 21	1580	Dec 21	21700	Dec 24 1955
LOWEST DAILY MEAN	3.6	Aug 15	3.3	Sep 3	0.00	Jul 11 1948
ANNUAL SEVEN-DAY MINIMUM	4.6	Aug 23	3.9	Aug 30	0.00	Aug 16 1948
MAXIMUM PEAK FLOW			2240	Dec 21	25100	Feb 3 1998
MAXIMUM PEAK STAGE			13.06	Dec 21	33.73	Feb 3 1998
INSTANTANEOUS LOW FLOW					0.00	Jul 11 1948
ANNUAL RUNOFF (AC-FT)	50170		45270		122800	
10 PERCENT EXCEEDS	155		105		260	
50 PERCENT EXCEEDS	20		26		12	
90 PERCENT EXCEEDS	5.3		5.5		1.3	

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 mi².

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 sea level.

REMARKS.—Records fair except those less than 1 ft³/s, which are poor. No regulation. Watsonville Water Works can divert up to 8.0 ft³/s upstream from station for municipal supply, domestic use, and irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,610 ft³/s, Jan. 4, 1982, gage height, 16.66 ft, from rating curve extended above 1,400 ft³/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 ft³/s, based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 600 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1100	757	6.49	Jan. 2	1715	808	6.66
Dec. 21	0230	867	6.85				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.07	27	58	5.8	6.9	9.9	1.1	0.84	0.02	0.16	0.00
2	0.07	0.04	262	347	5.4	6.2	9.6	0.59	0.40	0.07	0.19	0.00
3	0.28	0.04	43	253	4.9	5.5	9.1	0.37	0.25	0.17	0.16	0.24
4	0.12	0.04	15	117	4.6	5.3	7.9	0.39	0.42	0.07	0.05	0.00
5	0.08	0.03	10	75	4.3	5.0	7.4	0.43	0.52	0.06	0.09	0.00
6	0.06	0.03	14	54	4.1	11	7.0	0.46	0.44	0.15	0.49	0.00
7	0.12	0.04	8.3	41	27	49	6.4	0.50	0.37	0.02	0.17	0.21
8	0.09	0.01	5.7	33	80	35	5.8	0.50	0.92	0.03	0.37	0.02
9	0.08	0.00	4.4	28	28	20	5.7	0.48	0.69	0.54	0.10	0.00
10	0.02	0.02	3.4	22	17	21	5.1	0.48	0.19	0.45	0.07	0.00
11	0.00	0.33	2.7	18	14	17	4.6	0.62	0.21	1.2	0.10	0.0
12	0.00	8.9	2.0	16	12	14	4.1	0.48	0.26	0.27	0.05	0.20
13	0.00	2.1	2.1	14	10	13	3.7	0.55	0.43	0.33	0.03	0.74
14	0.00	0.27	42	12	9.1	11	3.3	0.60	0.26	0.19	0.02	1.5
15	0.00	0.07	14	11	8.1	9.3	2.8	2.1	0.11	0.11	0.07	0.31
16	0.00	0.05	9.2	10	9.2	9.7	2.5	0.87	0.23	0.12	0.57	0.13
17	0.00	0.04	15	9.6	41	12	4.6	0.47	0.06	0.09	0.87	0.46
18	0.02	0.04	14	8.9	19	10	2.0	0.53	0.05	0.12	0.15	3.8
19	0.03	0.03	10	8.2	17	8.1	0.49	0.55	0.13	0.20	0.10	1.5
20	0.03	0.03	100	7.6	19	7.3	0.27	15	0.33	0.23	0.04	0.34
21	0.02	0.03	286	7.1	17	6.8	0.27	10	0.30	0.25	0.02	1.4
22	0.01	0.66	73	6.8	14	9.5	0.70	1.9	0.19	0.32	0.04	0.05
23	0.12	0.07	52	6.3	13	55	0.38	0.63	0.11	0.09	0.02	0.00
24	0.06	21	28	5.9	12	49	0.31	0.42	0.09	0.00	0.12	0.35
25	0.00	4.1	18	5.8	11	29	0.40	0.33	0.12	0.02	0.03	0.29
26	0.00	0.88	13	10	9.5	22	0.40	0.35	0.26	0.09	0.02	0.00
27	0.06	0.46	11	10	8.6	17	0.41	0.48	0.39	0.13	0.0	0.00
28	0.0	0.89	14	8.5	7.7	15	0.40	0.37	0.35	0.02	0.00	0.81
29	0.00	41	74	7.7	---	13	0.66	0.35	0.17	0.00	0.01	0.06
30	0.82	4.4	69	6.7	---	12	0.45	0.25	0.04	0.04	0.0	0.42
31	0.17	---	106	6.1	---	10	---	0.58	---	0.14	0.0	---
TOTAL	2.26	85.67	1347.8	1224.2	432.3	514.6	106.64	42.73	9.13	5.54	4.11	12.83
MEAN	0.073	2.856	43.48	39.49	15.44	16.60	3.555	1.378	0.304	0.179	0.133	0.428
MAX	0.82	41	286	347	80	55	9.9	15	0.92	1.2	0.87	3.8
MIN	0.00	0.00	2.0	5.8	4.1	5.0	0.27	0.25	0.04	0.00	0.00	0.00
AC-FT	4.5	170	2670	2430	857	1020	212	85	18	11	8.2	25

PAJARO RIVER BASIN

11159200 CORRALITOS CREEK AT FREEDOM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.794	4.975	17.13	51.04	60.90	37.39	21.59	5.193	1.115	0.411	0.185	0.586
MAX	17.4	37.3	208	248	263	209	166	39.1	9.10	4.77	1.15	20.8
(WY)	1963	1984	1997	1997	1998	1983	1958	1983	1983	1983	1983	1959
MIN	0.000	0.000	0.000	0.000	0.003	0.076	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1962	1981	1991	1991	1991	1988	1977	1977	1962	1961	1961	1961

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL TOTAL	3710.01		3787.81			
ANNUAL MEAN	10.16		10.38		16.55	
HIGHEST ANNUAL MEAN					56.4 1983	
LOWEST ANNUAL MEAN					0.17 1977	
HIGHEST DAILY MEAN	286	Dec 21	347	Jan 2	2290	Jan 4 1982
LOWEST DAILY MEAN	0.00	Oct 1	0.00	Oct 1	0.00	Jun 12 1957
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 11	0.00	Oct 11	0.00	Jun 12 1957
MAXIMUM PEAK FLOW			867	Dec 21	5610	Jan 4 1982
MAXIMUM PEAK STAGE			6.85	Dec 21	16.66	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	7360		7510		11990	
10 PERCENT EXCEEDS	26		19		34	
50 PERCENT EXCEEDS	0.37		0.49		0.40	
90 PERCENT EXCEEDS	0.05		0.02		0.00	

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 mi².

PERIOD OF RECORD.—May 1951 to current year.

CHEMICAL DATA: Water years 1952–66, 1977.

WATER TEMPERATURE: Water years 1966–79.

SEDIMENT DATA: Water years 1976–77, 1990–93.

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 sea level.

REMARKS.—Records good except for flows below 5 ft³/s, which are poor. No regulation; many diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,800 ft³/s, Dec. 23, 1955, gage height, 22.33 ft, from rating curve extended above 2,900 ft³/s, on basis of slope-area measurement of peak flow; no flow at times in 1977, 1988, 1992–1995.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Feb. 13, 1937, reached a discharge of 5,950 ft³/s, gage height, 12.6 ft, from floodmarks, from precipitation records and comparison with nearby streams. Flood of Nov. 18, 1950, reached a discharge of about 7,800 ft³/s, gage height, about 15.33 ft, from rating curve extended above 2,900 ft³/s, on basis of slope-area measurement of peak flow at gage height 22.33 ft.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1015	1,530	7.76	Jan. 2	1545	1,630	7.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	5.1	108	96	18	20	28	14	9.1	4.9	3.1	2.6
2	1.7	4.3	642	766	18	19	26	14	9.0	4.9	3.3	2.3
3	1.8	3.8	98	307	18	18	26	13	8.9	4.8	3.8	2.4
4	1.9	3.6	42	147	17	18	25	12	8.5	4.8	4.0	2.2
5	1.9	3.4	34	102	17	17	24	12	8.2	4.8	3.6	1.9
6	2.0	3.3	32	81	16	29	23	12	7.8	4.7	3.3	1.9
7	2.4	3.3	25	68	35	103	22	11	7.6	4.6	3.1	1.9
8	2.3	3.1	20	60	81	67	21	11	7.7	4.0	2.9	2.1
9	2.3	3.1	19	53	41	44	21	11	7.4	3.8	2.6	2.0
10	2.3	4.0	17	49	31	49	21	11	7.6	3.6	2.5	1.8
11	2.1	9.7	15	45	27	42	19	11	7.7	3.6	2.7	2.0
12	1.9	29	14	41	24	36	19	11	7.9	3.6	2.8	2.0
13	1.8	17	12	38	23	33	18	10	7.9	3.5	2.7	2.2
14	1.7	8.8	54	35	22	31	17	10	7.9	3.6	2.8	2.2
15	1.7	7.5	26	33	21	29	17	11	7.6	3.7	2.8	2.4
16	2.0	6.8	19	31	22	27	17	11	7.3	3.6	2.8	2.3
17	2.1	6.3	26	29	69	33	18	10	6.8	3.7	3.0	2.2
18	2.2	6.4	25	27	46	29	17	10	6.6	3.6	3.2	2.2
19	2.2	6.3	21	26	40	26	16	14	6.4	3.6	3.2	2.1
20	2.3	6.2	102	24	41	24	16	38	6.5	3.6	2.8	2.1
21	2.3	6.4	277	23	37	23	16	23	6.4	3.8	2.8	2.2
22	2.2	8.8	136	22	33	35	15	17	6.6	3.7	2.7	2.2
23	2.3	7.2	98	21	30	109	14	14	6.6	3.4	2.9	2.0
24	2.3	59	58	20	28	84	14	13	6.4	3.3	2.8	1.8
25	2.2	24	41	20	27	58	14	12	6.3	3.1	2.8	1.7
26	2.1	14	33	26	25	48	14	12	6.2	3.0	2.7	2.1
27	2.5	12	28	26	23	42	15	11	6.0	3.2	2.6	2.4
28	2.5	17	34	25	21	38	14	11	5.9	3.3	2.7	2.7
29	2.6	80	133	22	---	34	14	10	5.6	3.3	2.9	2.3
30	8.4	23	137	20	---	32	14	9.5	5.4	3.5	2.8	2.3
31	8.2	---	209	19	---	29	---	9.1	---	3.1	2.7	---
TOTAL	77.8	392.4	2535	2302	851	1226	555	398.6	215.8	117.7	91.4	64.5
MEAN	2.510	13.08	81.77	74.26	30.39	39.55	18.50	12.86	7.193	3.797	2.948	2.150
MAX	8.4	80	642	766	81	109	28	38	9.1	4.9	4.0	2.7
MIN	1.6	3.1	12	19	16	17	14	9.1	5.4	3.0	2.5	1.7
AC-FT	154	778	5030	4570	1690	2430	1100	791	428	233	181	128

SOQUEL CREEK BASIN

11160000 SOQUEL CREEK AT SOQUEL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.312	16.12	58.61	122.4	128.8	95.78	53.73	20.10	9.597	5.412	3.399	3.271
MAX	111	78.5	625	437	596	577	324	95.9	34.9	17.8	10.9	22.4
(WY)	1963	1973	1956	1997	1986	1983	1982	1983	1998	1998	1998	1959
MIN	0.65	1.36	2.74	2.57	3.96	3.97	2.81	2.26	0.91	0.26	0.17	0.058
(WY)	1989	1991	1991	1991	1977	1988	1977	1977	1977	1977	1977	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL TOTAL	10726.8		8827.2			
ANNUAL MEAN	29.39		24.18		43.24	
HIGHEST ANNUAL MEAN					169 1983	
LOWEST ANNUAL MEAN					2.89 1977	
HIGHEST DAILY MEAN	642	Dec 2	766	Jan 2	8800	Dec 23 1955
LOWEST DAILY MEAN	1.6	Oct 1	1.6	Oct 1	0.00	Jul 30 1977
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 28	1.9	Oct 1	0.00	Aug 15 1992
MAXIMUM PEAK FLOW			1630	Jan 2	15800	Dec 23 1955
MAXIMUM PEAK STAGE			7.95	Jan 2	22.33	Dec 23 1955
INSTANTANEOUS LOW FLOW					0.00	Jul 30 1977
ANNUAL RUNOFF (AC-FT)	21280		17510		31320	
10 PERCENT EXCEEDS	74		43		86	
50 PERCENT EXCEEDS	8.4		11		7.9	
90 PERCENT EXCEEDS	2.1		2.2		1.6	

11160430 BEAN CREEK NEAR SCOTTS VALLEY, CA

LOCATION.—Lat 37°03'19", long 122°02'25", in San Augustine 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 mi².

PERIOD OF RECORD.—January 1989 to current year.

REVISED RECORDS.—WDR CA-93-2: 1989–92 (P).

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 320 ft above sea level, from topographic map.

REMARKS.—Records fair. No regulation; small diversions upstream from station for domestic use.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,710 ft³/s, Feb. 3, 1998, gage height, 10.85 ft, from rating curve extended above 310 ft³/s, on basis of slope-area measurement at gage height 9.29 ft; minimum daily, 0.94 ft³/s, Jan. 31, 1992.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0915	599	7.37	Jan. 2	1500	422	6.76

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.9	58	39	6.3	6.4	7.3	4.0	2.8	2.4	2.1	1.8
2	1.9	1.9	249	238	6.2	6.2	6.8	3.9	2.7	2.4	2.1	1.7
3	2.0	1.9	36	101	6.1	6.0	6.6	3.8	2.7	2.4	2.2	1.7
4	2.0	1.9	19	50	6.0	5.9	6.4	3.8	2.6	2.3	2.1	1.8
5	2.0	1.9	16	36	5.8	5.8	6.2	3.7	2.6	2.2	1.9	1.8
6	2.0	1.9	9.7	28	5.7	11	6.1	3.6	2.6	2.2	2.0	1.9
7	2.0	1.9	6.6	25	14	19	6.1	3.6	2.6	2.2	1.9	1.9
8	1.9	1.9	5.1	23	12	12	5.9	3.6	2.6	2.1	1.9	1.8
9	1.9	1.9	4.7	20	8.0	9.4	5.7	3.5	2.4	2.0	1.9	1.8
10	1.9	3.6	4.2	19	7.3	16	5.6	3.4	2.5	2.1	1.9	1.7
11	1.9	5.2	4.1	17	6.9	11	5.4	3.4	2.5	2.0	2.0	1.8
12	1.9	12	3.7	16	6.7	9.8	5.4	3.4	2.5	2.1	2.0	1.9
13	1.9	2.7	3.2	14	6.5	9.2	5.2	3.3	2.6	2.1	2.1	1.9
14	1.9	2.1	17	12	6.3	8.6	5.2	3.3	2.5	2.2	2.0	1.9
15	1.9	2.0	5.8	11	6.2	8.2	5.1	3.4	2.5	2.3	2.1	1.9
16	2.0	2.0	4.5	9.7	8.1	7.5	5.1	3.3	2.4	2.3	2.1	1.9
17	2.0	2.0	9.3	9.2	25	11	5.1	3.3	2.4	2.2	2.0	1.8
18	2.0	2.0	5.4	8.7	16	7.8	4.9	3.2	2.5	2.2	1.9	1.8
19	2.0	2.0	7.6	8.5	16	7.2	4.8	5.0	2.5	2.2	1.8	1.8
20	2.0	2.0	40	8.2	14	6.8	4.7	4.6	2.4	2.2	1.9	1.8
21	2.0	2.0	67	8.1	12	6.5	4.7	3.4	2.5	2.2	1.9	1.8
22	2.0	2.2	44	8.0	10	15	4.6	3.2	2.4	2.2	1.9	1.8
23	2.0	2.0	32	7.4	9.5	19	4.4	3.1	2.5	2.2	1.9	1.8
24	1.9	16	22	7.2	8.7	18	4.3	3.0	2.5	2.1	1.9	1.8
25	2.0	3.4	18	7.1	8.1	17	4.3	3.0	2.5	2.1	1.9	1.8
26	2.0	2.6	16	11	7.5	15	4.3	3.0	2.6	2.1	1.8	1.9
27	2.0	2.2	13	7.6	7.1	12	4.2	2.9	2.5	2.2	1.8	1.9
28	2.1	12	17	7.6	6.8	10	4.1	2.9	2.5	2.1	1.9	1.9
29	2.1	26	46	6.9	---	9.1	4.2	2.8	2.4	2.1	1.9	1.9
30	4.9	5.6	53	6.6	---	8.4	4.1	2.8	2.3	2.0	1.9	1.9
31	1.9	---	73	6.4	---	7.8	---	2.8	---	2.1	1.8	---
TOTAL	63.9	128.7	909.9	777.2	258.8	322.6	156.8	106.0	75.6	67.5	60.5	54.9
MEAN	2.061	4.290	29.35	25.07	9.243	10.41	5.227	3.419	2.520	2.177	1.952	1.830
MAX	4.9	26	249	238	25	19	7.3	5.0	2.8	2.4	2.2	1.9
MIN	1.9	1.9	3.2	6.4	5.7	5.8	4.1	2.8	2.3	2.0	1.8	1.7
AC-FT	127	255	1800	1540	513	640	311	210	150	134	120	109

SAN LORENZO RIVER BASIN

11160430 BEAN CREEK NEAR SCOTTS VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.469	3.584	12.11	36.23	41.50	22.85	7.923	5.050	3.307	2.461	2.166	2.069
MAX	3.79	5.89	72.5	99.7	167	71.8	21.7	12.2	9.41	4.89	3.31	2.63
(WY)	2001	1998	1997	1995	1998	1995	1998	1998	1998	1998	1998	1998
MIN	1.95	1.96	2.16	2.11	2.42	3.81	2.62	2.33	1.79	1.71	1.84	1.73
(WY)	2000	1993	1991	1991	1991	1994	1990	1989	1994	1991	1989	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	3495.0		2982.4			
ANNUAL MEAN	9.575		8.171		11.99	
HIGHEST ANNUAL MEAN					26.0 1998	
LOWEST ANNUAL MEAN					3.00 1990	
HIGHEST DAILY MEAN	249	Dec 2	249	Dec 2	900	Dec 10 1996
LOWEST DAILY MEAN	1.6	Sep 2	1.7	Sep 2	0.94	Jan 31 1992
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 2	1.8	Aug 30	1.00	Jan 21 1992
MAXIMUM PEAK FLOW			599	Dec 2	1710	Feb 3 1998
MAXIMUM PEAK STAGE			7.37	Dec 2	10.85	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	6930		5920		8680	
10 PERCENT EXCEEDS	26		16		25	
50 PERCENT EXCEEDS	2.4		3.1		2.8	
90 PERCENT EXCEEDS	1.8		1.9		1.9	

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 mi².

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

CHEMICAL DATA: Water years 1906–07, 1952–67, 1969–70, 1973–75, 1977, 1980–81.

WATER TEMPERATURE: Water years 1966–82, daily.

SEDIMENT DISCHARGE: Water years 1973–82, daily; 1986, 1990–93, monthly.

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 sea level. Prior to Oct. 6, 1972, at site 1.3 mi downstream at different datum.

REMARKS.—Records good. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by an inflatable 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 ft³/s, Dec. 23, 1955, gage height, 22.55 ft, site and datum then in use, from rating curve extended above 11,000 ft³/s, on basis of slope-area measurement of peak flow, maximum gage height, 28.85 ft, Jan. 5, 1982; minimum daily discharge, 5.6 ft³/s, July 27, 28, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,800 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0945	7,880	14.29	Jan. 2	1500	2,650	9.46

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	618	441	91	81	91	56	35	25	20	17
2	13	17	3340	1690	89	76	88	53	35	25	20	17
3	14	17	468	872	85	71	85	51	35	25	21	16
4	14	16	219	507	82	69	83	50	34	25	21	16
5	14	16	164	386	81	67	81	50	33	25	20	16
6	14	17	141	323	79	116	79	47	32	24	20	16
7	14	16	112	280	139	232	75	46	32	24	20	16
8	14	16	94	250	186	154	72	46	31	23	20	16
9	14	16	91	226	114	116	71	45	30	23	19	16
10	14	20	81	205	99	170	70	44	30	22	17	16
11	14	57	71	190	91	134	65	44	28	22	17	17
12	14	260	66	177	87	118	63	42	29	22	17	17
13	14	68	60	167	82	107	60	42	30	21	17	19
14	14	33	216	155	80	101	59	42	30	21	17	20
15	16	27	106	145	78	96	58	42	29	21	17	21
16	14	24	85	136	87	92	80	41	28	21	18	19
17	14	23	146	129	218	116	74	40	28	22	18	16
18	14	22	114	124	133	103	67	39	26	22	18	19
19	14	21	110	120	130	88	66	57	24	21	18	18
20	15	21	467	115	139	83	66	62	28	22	18	15
21	14	21	822	112	125	80	63	54	27	22	18	15
22	14	25	501	110	115	140	60	48	28	22	18	15
23	14	23	399	102	106	219	58	43	27	25	18	15
24	14	210	295	98	100	199	58	39	27	23	18	14
25	14	77	241	96	94	157	57	40	26	16	18	14
26	14	42	206	132	89	138	56	39	26	20	18	15
27	15	33	184	118	86	125	57	38	26	21	17	16
28	15	71	240	116	82	116	55	37	26	21	17	16
29	15	445	573	111	---	108	57	37	26	21	18	16
30	38	88	517	99	---	102	56	36	26	20	18	16
31	26	---	677	94	---	96	---	36	---	20	18	---
TOTAL	474	1761	11424	7826	2967	3670	2030	1386	872	687	569	495
MEAN	15.29	58.70	368.5	252.5	106.0	118.4	67.67	44.71	29.07	22.16	18.35	16.50
MAX	38	445	3340	1690	218	232	91	62	35	25	21	21
MIN	13	16	60	94	78	67	55	36	24	16	17	14
AC-FT	940	3490	22660	15520	5890	7280	4030	2750	1730	1360	1130	982

SAN LORENZO RIVER BASIN

11160500 SAN LORENZO RIVER AT BIG TREES, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.12	53.41	151.2	320.2	412.1	298.4	173.1	73.03	41.60	27.09	20.29	18.26
MAX	176	461	1319	1242	1853	1483	1005	322	131	65.8	44.0	52.1
(WY)	1963	1951	1956	1952	1998	1983	1958	1983	1998	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1937 - 2002	
ANNUAL TOTAL	35593		34161			
ANNUAL MEAN	97.52		93.59		132.9	
HIGHEST ANNUAL MEAN					391 1983	
LOWEST ANNUAL MEAN					13.2 1977	
HIGHEST DAILY MEAN	3340	Dec 2	3340	Dec 2	17000	Dec 23 1955
LOWEST DAILY MEAN	13	Oct 1	13	Oct 1	5.6	Jul 27 1977
ANNUAL SEVEN-DAY MINIMUM	14	Sep 27	14	Oct 1	5.8	Jul 26 1977
MAXIMUM PEAK FLOW			7880	Dec 2	30400	Dec 23 1955
MAXIMUM PEAK STAGE			14.29	Dec 2	28.85	Jan 5 1982
INSTANTANEOUS LOW FLOW					5.6	Jul 27 1977
ANNUAL RUNOFF (AC-FT)	70600		67760		96290	
10 PERCENT EXCEEDS	244		180		278	
50 PERCENT EXCEEDS	33		40		34	
90 PERCENT EXCEEDS	15		16		13	

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 mi².

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

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 5.84 ft above sea level (levels by city of Santa Cruz Water Department). October 1952 to September 1960, water-stage recorder at site 0.1 mi downstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Low flow partially regulated by Loch Lomond Reservoir since 1961, capacity, 8,820 acre-ft, and by an inflatable 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 ft³/s, Dec. 23, 1955, gage height, 23.10 ft, site and datum then in use, from rating curve extended above 4,500 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	e1100	e8,900	unknown	Jan. 2	e1600	e2,970	e11.34

e Estimated.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	15	572	429	97	97	105	54	28	16	12	7.0
2	7.0	9.1	e4000	e2000	94	92	101	51	28	16	12	6.4
3	6.5	8.2	584	1090	91	84	101	49	27	16	12	6.0
4	6.5	8.0	257	591	87	83	98	46	26	16	12	6.0
5	6.8	7.8	188	428	85	79	93	46	25	16	12	5.8
6	6.9	8.6	160	347	84	111	91	44	27	15	11	5.9
7	7.2	7.7	122	295	120	241	87	42	23	15	11	6.1
8	7.2	8.6	100	259	222	178	84	42	22	15	10	6.4
9	7.2	8.5	92	233	134	131	84	41	22	14	9.8	6.3
10	6.9	8.1	84	207	117	176	83	39	21	14	9.4	6.2
11	6.7	65	73	190	109	149	79	39	20	13	9.2	6.1
12	6.6	321	67	177	105	128	76	38	21	13	9.2	6.1
13	6.2	111	64	167	102	119	71	36	21	13	8.9	6.2
14	6.3	38	228	155	99	112	68	36	22	13	8.9	7.6
15	7.9	28	113	145	97	108	67	36	21	13	8.8	7.1
16	6.4	22	85	136	98	105	81	35	21	13	8.8	6.2
17	6.5	17	153	131	233	123	74	35	20	13	9.0	6.1
18	6.6	15	122	127	156	120	68	35	20	13	8.9	7.3
19	6.6	12	97	122	144	104	64	50	16	13	8.8	7.0
20	6.8	12	446	117	155	99	67	68	19	13	8.4	6.5
21	6.7	13	949	114	139	95	61	52	19	13	8.0	6.2
22	6.4	20	511	113	128	149	60	47	19	13	8.0	6.0
23	6.7	16	397	107	120	236	57	40	19	13	8.0	6.0
24	6.7	218	269	103	114	223	55	33	19	18	7.7	6.1
25	6.6	108	210	101	109	173	54	35	18	10	7.8	5.7
26	6.6	46	175	125	105	150	53	33	18	11	7.8	5.9
27	6.7	30	155	123	104	137	55	33	18	13	6.9	6.4
28	6.9	30	197	114	98	130	53	31	18	13	7.0	6.7
29	7.5	629	606	114	---	120	56	31	17	13	7.5	6.9
30	40	119	523	104	---	113	54	30	17	12	7.4	6.4
31	34	---	745	99	---	109	---	28	---	12	7.3	---
TOTAL	270.6	1959.6	12344	8563	3346	4074	2200	1255	632	424	283.5	190.6
MEAN	8.729	65.32	398.2	276.2	119.5	131.4	73.33	40.48	21.07	13.68	9.145	6.353
MAX	40	629	4000	2000	233	241	105	68	28	18	12	7.6
MIN	6.2	7.7	64	99	84	79	53	28	16	10	6.9	5.7
AC-FT	537	3890	24480	16980	6640	8080	4360	2490	1250	841	562	378

e Estimated.

SAN LORENZO RIVER BASIN

11161000 SAN LORENZO RIVER AT SANTA CRUZ, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.10	30.71	165.8	339.0	456.4	242.9	142.3	70.20	36.05	19.59	11.83	11.02
MAX	38.5	86.1	1366	1391	2652	999	1017	212	137	67.2	39.9	40.4
(WY)	2001	1998	1956	1997	1998	1995	1958	1998	1998	1998	1998	1959
MIN	1.83	3.45	7.30	5.60	15.3	16.8	15.9	13.7	4.64	1.48	0.27	0.17
(WY)	1989	1991	1991	1991	1991	1988	1990	1988	1988	1988	1960	1960

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1953 - 2002	
ANNUAL TOTAL	38499.4		35542.3			
ANNUAL MEAN	105.5		97.38		126.7	
HIGHEST ANNUAL MEAN					384	
LOWEST ANNUAL MEAN					21.5	
HIGHEST DAILY MEAN	4000	Dec 2	4000	Dec 2	17400	Dec 23 1955
LOWEST DAILY MEAN	3.5	Aug 27	5.7	Sep 25	0.00	Sep 3 1955
ANNUAL SEVEN-DAY MINIMUM	3.9	Aug 21	6.0	Sep 21	0.00	Sep 20 1960
MAXIMUM PEAK FLOW			e8900	Dec 2	30400	Dec 23 1955
MAXIMUM PEAK STAGE			unknown	Dec 2	23.10	Dec 23 1955
ANNUAL RUNOFF (AC-FT)	76360		70500		91770	
10 PERCENT EXCEEDS	257		177		261	
50 PERCENT EXCEEDS	30		35		27	
90 PERCENT EXCEEDS	6.2		6.7		3.5	

e Estimated.

11161300 CARBONERA CREEK AT SCOTTS VALLEY, CA

LOCATION.—Lat 37°03'02", long 122°00'45", in San Augustine 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 mi².

PERIOD OF RECORD.—February 1985 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 550 ft above sea level, from topographic map.

REMARKS.—Records fair except for flows below 1 ft³/s, 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, 1,620 ft³/s, Dec. 10, 1996, gage height, 11.89 ft, from rating curve extended above slope-area measurement made at gage height 9.48 ft; no flow for many days in several years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0200	595	7.75

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.11	0.24	116	16	1.2	1.2	1.8	0.72	0.47	0.11	0.20	0.12
2	0.12	e0.15	189	194	1.2	1.1	1.8	0.66	0.45	0.13	0.22	0.08
3	0.11	0.11	19	37	1.1	1.0	1.7	0.67	0.43	0.16	0.30	0.06
4	0.12	0.09	7.8	17	1.0	1.0	1.6	0.63	0.41	0.20	0.26	0.10
5	0.08	0.08	8.2	11	1.0	1.0	1.5	0.63	0.39	0.19	0.18	0.04
6	0.10	0.10	5.1	7.8	1.0	8.1	1.5	0.56	0.42	0.11	0.17	0.07
7	0.12	0.13	3.9	6.0	14	12	1.4	0.56	0.99	0.19	0.19	0.08
8	0.11	0.10	3.3	4.9	3.9	2.5	1.3	0.54	0.31	0.25	0.11	0.08
9	0.10	0.09	3.4	4.0	2.0	2.0	1.3	0.57	0.27	0.27	0.12	0.08
10	0.06	5.4	2.7	3.4	1.7	8.6	1.3	0.51	0.29	0.42	0.12	0.02
11	0.04	15	2.4	2.8	1.6	2.5	1.3	0.53	0.32	0.26	0.16	0.04
12	0.14	28	2.1	2.4	1.4	2.1	1.2	0.52	0.31	0.29	0.21	0.47
13	0.08	0.92	2.2	2.1	1.4	1.8	1.0	0.48	0.31	0.28	0.25	1.2
14	0.02	0.49	24	1.9	1.3	2.0	1.6	0.55	0.29	0.26	0.26	0.10
15	0.02	0.41	3.9	1.8	1.2	1.7	1.2	0.57	0.26	0.25	0.23	0.09
16	0.04	0.36	3.1	1.7	5.4	1.6	1.2	0.53	0.24	0.25	0.33	0.12
17	0.04	0.32	10	1.6	21	6.7	1.4	0.55	0.22	0.27	0.34	0.12
18	0.11	0.32	3.9	1.6	4.4	1.8	0.98	0.53	0.21	0.27	0.39	0.08
19	0.07	0.29	10	1.5	6.5	1.6	0.92	5.4	0.19	0.40	0.37	0.05
20	0.07	0.34	48	1.4	3.5	1.4	0.89	3.7	0.23	0.31	0.39	0.07
21	0.07	0.37	36	1.8	2.6	1.4	0.86	0.96	0.23	0.36	0.22	0.07
22	0.09	1.0	44	1.4	2.2	15	0.82	0.73	0.23	0.35	0.22	0.06
23	0.10	0.25	17	1.4	1.9	15	0.82	0.63	0.23	0.30	0.25	0.09
24	0.03	38	8.9	1.3	1.8	5.9	0.76	0.57	0.19	0.19	0.30	0.06
25	0.03	1.7	6.5	1.3	1.6	4.2	0.74	0.63	0.20	0.59	0.41	0.32
26	0.06	0.75	5.4	6.4	1.5	3.4	0.77	0.65	0.18	0.20	0.38	0.10
27	0.06	0.53	4.9	1.6	1.4	2.9	1.2	0.52	0.17	0.21	0.27	0.19
28	0.08	34	17	2.8	1.3	2.6	0.73	0.49	0.18	0.22	0.34	0.17
29	0.08	36	53	1.5	---	2.3	1.6	0.46	0.16	0.21	1.0	0.14
30	13	2.2	50	1.3	---	2.1	1.1	0.46	0.14	0.21	0.19	0.16
31	0.33	---	35	1.2	---	2.0	---	0.43	---	0.25	0.15	---
TOTAL	15.59	167.74	745.7	341.9	90.1	118.5	36.29	25.94	8.92	7.96	8.53	4.43
MEAN	0.503	5.591	24.05	11.03	3.218	3.823	1.210	0.837	0.297	0.257	0.275	0.148
MAX	13	38	189	194	21	15	1.8	5.4	0.99	0.59	1.0	1.2
MIN	0.02	0.08	2.1	1.2	1.0	1.0	0.73	0.43	0.14	0.11	0.11	0.02
AC-FT	31	333	1480	678	179	235	72	51	18	16	17	8.8

e Estimated.

SAN LORENZO RIVER BASIN

11161300 CARBONERA CREEK AT SCOTTS VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.746	2.664	7.136	14.98	20.28	10.49	2.314	1.402	0.406	0.204	0.223	0.223
MAX	3.01	6.24	38.3	41.0	68.1	32.0	7.42	5.63	1.95	0.59	0.91	0.68
(WY)	1990	1997	1997	1995	1998	1986	1998	1998	1998	1998	1989	1989
MIN	0.039	0.002	0.51	0.35	0.95	0.25	0.41	0.099	0.002	0.005	0.000	0.000
(WY)	1987	1987	1987	1991	1988	1988	1987	1987	1987	1990	1985	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1985 - 2002	
ANNUAL TOTAL	2152.74		1571.60			
ANNUAL MEAN	5.898		4.306		5.039	
HIGHEST ANNUAL MEAN					10.5	1998
LOWEST ANNUAL MEAN					1.33	1990
HIGHEST DAILY MEAN	189	Dec 2	194	Jan 2	464	Jan 24 2000
LOWEST DAILY MEAN	0.02	Oct 14	0.02	Oct 14	0.00	Jun 28 1985
ANNUAL SEVEN-DAY MINIMUM	0.05	Oct 14	0.05	Oct 14	0.00	Jun 28 1985
MAXIMUM PEAK FLOW			595	Dec 2	1620	Dec 10 1996
MAXIMUM PEAK STAGE			7.75	Dec 2	11.89	Dec 10 1996
INSTANTANEOUS LOW FLOW			0.00	Oct 10		
ANNUAL RUNOFF (AC-FT)	4270		3120		3650	
10 PERCENT EXCEEDS	16		7.1		9.0	
50 PERCENT EXCEEDS	0.49		0.56		0.46	
90 PERCENT EXCEEDS	0.12		0.09		0.00	

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 mi².

PERIOD OF RECORD.—April 1951 to current year.

CHEMICAL DATA: Water year 1977.

WATER TEMPERATURE: Water years 1965–80.

SEDIMENT DATA: Water years 1971, 1973, 1980, 1986, 1990–93.

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 sea level.

REMARKS.—Records fair. Small diversions upstream from station by pumping.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,600 ft³/s, Feb. 3, 1998, gage height, 22.47 ft, from rating curve extended above 2,700 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0915	2,770	10.45	Dec. 21	0430	707	5.48

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.5	33	107	22	26	31	13	7.3	5.5	2.9	2.0
2	1.7	2.0	1080	403	21	24	29	12	7.3	5.2	2.8	1.9
3	1.6	1.8	191	313	20	22	27	12	7.6	4.9	2.9	1.8
4	1.6	1.8	79	168	19	22	27	12	7.5	4.5	2.9	1.8
5	1.6	1.8	50	119	18	21	26	12	7.1	4.6	3.0	1.6
6	1.6	1.8	46	95	18	23	25	11	6.8	4.7	2.7	1.7
7	1.7	1.6	39	79	21	43	24	10	6.5	4.5	2.6	1.7
8	1.8	1.6	33	69	72	47	22	10	6.6	4.4	2.4	1.8
9	1.8	1.6	32	61	44	35	22	9.8	6.5	4.5	2.1	1.8
10	1.7	1.9	29	54	36	39	22	9.5	6.6	4.2	2.1	1.8
11	1.6	5.5	25	48	31	40	20	9.6	6.6	3.8	1.9	1.8
12	1.6	41	22	44	28	36	20	9.5	6.5	3.6	2.0	1.7
13	1.5	24	21	40	27	32	19	9.4	6.5	3.5	1.9	1.7
14	1.4	8.2	74	36	25	30	18	9.3	6.5	3.5	1.9	1.6
15	1.5	5.7	50	33	24	28	18	9.4	6.5	3.6	2.0	1.7
16	1.5	4.9	37	31	24	27	18	9.3	6.5	3.5	2.0	1.8
17	1.5	4.5	41	30	53	31	19	9.2	6.5	3.8	2.0	1.9
18	1.5	4.2	43	28	43	34	18	9.2	6.5	3.7	1.9	1.8
19	1.5	4.3	38	26	44	27	16	10	6.4	3.6	2.0	1.9
20	1.5	4.3	239	24	84	26	15	14	6.3	3.7	2.1	1.8
21	1.6	4.7	447	24	62	24	15	15	6.5	3.6	2.1	1.9
22	1.6	5.8	189	23	51	25	14	13	6.8	3.4	2.0	1.9
23	1.5	6.4	153	21	44	108	14	9.8	7.0	3.4	2.0	1.7
24	1.5	25	107	20	39	124	13	9.4	6.6	3.2	2.1	1.7
25	1.6	26	82	20	36	79	13	8.9	6.5	3.2	2.3	1.6
26	1.6	12	67	25	33	61	13	8.6	6.1	3.1	2.3	1.6
27	1.5	7.9	57	32	31	50	13	8.4	6.0	3.1	2.1	1.6
28	1.5	8.7	61	28	28	43	13	8.3	5.7	3.1	2.1	1.6
29	1.6	87	86	30	---	39	13	8.2	5.8	3.1	1.9	1.8
30	2.2	35	96	26	---	36	13	8.0	5.6	3.1	1.8	2.0
31	4.3	---	133	24	---	33	---	7.6	---	3.0	1.9	---
TOTAL	52.5	343.5	3680	2081	998	1235	570	315.4	197.2	118.6	68.7	53.0
MEAN	1.694	11.45	118.7	67.13	35.64	39.84	19.00	10.17	6.573	3.826	2.216	1.767
MAX	4.3	87	1080	403	84	124	31	15	7.6	5.5	3.0	2.0
MIN	1.4	1.6	21	20	18	21	13	7.6	5.6	3.0	1.8	1.6
AC-FT	104	681	7300	4130	1980	2450	1130	626	391	235	136	105

PESCADERO CREEK BASIN

11162500 PESCADERO CREEK NEAR PESCADERO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.469	13.00	55.95	120.0	137.6	94.52	53.96	18.87	9.056	5.183	3.541	2.771
MAX	92.8	85.9	469	435	865	540	398	93.8	32.5	17.5	11.6	8.64
(WY)	1963	1984	1956	1997	1998	1983	1958	1983	1998	1998	1998	1998
MIN	0.38	1.61	2.30	2.75	2.92	4.25	1.93	2.00	0.78	0.20	0.012	0.083
(WY)	1962	1992	1977	1991	1977	1988	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL TOTAL	10803.6		9712.9			
ANNUAL MEAN	29.60		26.61		42.87	
HIGHEST ANNUAL MEAN					164 1983	
LOWEST ANNUAL MEAN					1.72 1977	
HIGHEST DAILY MEAN	1080	Dec 2	1080	Dec 2	5560	Dec 23 1955
LOWEST DAILY MEAN	1.4	Oct 14	1.4	Oct 14	0.00	Sep 9 1961
ANNUAL SEVEN-DAY MINIMUM	1.5	Oct 13	1.5	Oct 13	0.00	Aug 17 1977
MAXIMUM PEAK FLOW			2770		10600 Feb 3 1998	
MAXIMUM PEAK STAGE			10.45		22.47 Feb 3 1998	
INSTANTANEOUS LOW FLOW			1.2		Oct 14	
ANNUAL RUNOFF (AC-FT)	21430		19270		31060	
10 PERCENT EXCEEDS	78		50		89	
50 PERCENT EXCEEDS	6.2		8.9		7.1	
90 PERCENT EXCEEDS	1.8		1.7		1.5	

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 mi².

PERIOD OF RECORD.—October 1969 to September 1994, May 2001 to current year.

SEDIMENT DATA: Water years 1986, 1990–1993.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 11.40 ft above sea level.

REMARKS.—Records fair. No regulation or known diversion upstream from station. Low flow affected by domestic irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,910 ft³/s, Jan. 4, 1982, gage height, 21.28 ft, from rating curve extended above 560 ft³/s, on basis of contracted-opening measurement of peak flow; no flow for many days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 22, 1955, reached a stage of 15.6 ft, from floodmarks, discharge, 3,620 ft³/s, based on contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0900	2,250	10.52

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	3.6	20	110	21	30	26	12	6.3	2.7	2.1	1.0
2	1.3	2.6	675	595	20	27	24	11	7.2	2.7	1.7	1.3
3	1.2	2.5	83	322	20	25	24	11	7.2	2.5	2.1	0.93
4	0.93	2.5	40	161	19	24	23	10	6.5	3.0	2.0	0.76
5	1.0	2.3	33	109	18	23	21	9.9	5.8	3.0	1.3	1.00
6	1.2	2.4	79	86	16	26	21	9.7	5.9	3.0	1.4	0.71
7	1.6	2.3	46	70	25	43	20	10	5.4	3.3	1.4	0.93
8	1.5	2.0	32	59	98	37	20	9.8	5.2	2.6	0.79	0.92
9	1.1	1.8	30	51	43	29	19	9.3	5.3	1.9	1.2	0.74
10	0.59	2.5	25	44	34	48	20	9.3	4.6	1.7	1.6	0.54
11	0.82	12	21	38	29	40	18	9.4	4.3	1.8	1.4	0.48
12	1.0	65	19	34	27	34	18	8.8	4.3	1.8	0.90	0.42
13	0.87	20	17	31	25	31	16	8.1	4.8	1.7	0.96	0.33
14	0.91	7.3	85	29	23	29	16	7.1	4.8	2.2	1.1	0.77
15	0.74	5.3	38	27	22	27	15	7.1	4.5	2.1	1.3	1.0
16	0.63	4.5	28	25	25	25	15	7.7	4.7	2.4	1.2	1.1
17	0.76	4.1	63	23	101	45	18	7.5	3.9	2.4	1.5	0.67
18	0.91	3.8	49	21	53	36	15	7.2	4.1	2.5	1.4	0.36
19	1.1	3.5	38	20	184	28	13	10	4.1	2.8	1.0	0.78
20	0.91	3.5	286	20	244	26	13	15	3.7	2.5	1.6	0.84
21	0.74	3.8	298	20	116	24	13	16	4.8	2.2	1.4	0.81
22	0.95	5.6	145	21	81	25	12	11	6.7	1.7	1.6	0.88
23	1.2	6.3	99	18	66	121	12	9.5	6.6	1.5	1.7	0.87
24	1.2	25	62	17	54	76	11	9.1	5.5	2.0	2.2	0.85
25	1.1	22	45	16	46	55	11	8.3	4.6	2.3	2.3	0.92
26	1.1	11	36	34	40	47	12	7.9	4.5	2.4	1.9	0.90
27	1.1	7.5	30	34	36	40	12	7.3	4.2	2.0	1.5	0.88
28	1.2	11	86	33	33	36	12	7.1	4.6	2.0	1.2	1.0
29	1.5	63	223	34	---	32	12	6.5	4.5	1.5	1.2	1.3
30	3.1	16	195	27	---	30	12	6.4	3.7	1.5	0.97	1.3
31	6.6	---	216	23	---	28	---	6.1	---	2.1	0.79	---
TOTAL	39.96	324.7	3142	2152	1519	1147	494	285.1	152.3	69.8	44.71	25.29
MEAN	1.289	10.82	101.4	69.42	54.25	37.00	16.47	9.197	5.077	2.252	1.442	0.843
MAX	6.6	65	675	595	244	121	26	16	7.2	3.3	2.3	1.3
MIN	0.59	1.8	17	16	16	23	11	6.1	3.7	1.5	0.79	0.33
AC-FT	79	644	6230	4270	3010	2280	980	565	302	138	89	50

SAN GREGORIO CREEK BASIN

11162570 SAN GREGORIO CREEK AT SAN GREGORIO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.036	24.88	53.70	93.02	103.7	87.40	39.10	12.11	5.764	2.906	1.536	1.209
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	0.000	0.71	1.70	1.17	2.21	2.98	1.05	1.42	0.35	0.019	0.000	0.000
(WY)	1978	1977	1977	1991	1977	1977	1977	1977	1981	1988	1977	1977

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1970 - 2002

ANNUAL TOTAL	9395.86		
ANNUAL MEAN	25.74		35.40
HIGHEST ANNUAL MEAN			111
LOWEST ANNUAL MEAN			1.16
HIGHEST DAILY MEAN	675	Dec 2	4120
LOWEST DAILY MEAN	0.33	Sep 13	0.00
ANNUAL SEVEN-DAY MINIMUM	0.60	Sep 8	0.00
MAXIMUM PEAK FLOW	2250	Dec 2	7910
MAXIMUM PEAK STAGE	10.52	Dec 2	21.28
INSTANTANEOUS LOW FLOW	0.00	Sep 13	0.00
ANNUAL RUNOFF (AC-FT)	18640		25650
10 PERCENT EXCEEDS	52		68
50 PERCENT EXCEEDS	7.5		4.7
90 PERCENT EXCEEDS	0.94		0.21

11162618 PILARCITOS LAKE NEAR HILLSBOROUGH, CA

LOCATION.—Lat 37°32'57", long 122°25'21", in SE 1/4 SE 1/4 sec.28, T.4 S., R.5 W., San Mateo County, Hydrologic Unit 18050006, on dam, west side of spillway, and 2.0 mi southwest of Hillsborough.

DRAINAGE AREA.—3.91 mi².

PERIOD OF RECORD.—October 1999 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level.

REMARKS.—Interruptions in record were due to malfunction of the sensing and (or) recording instruments. Reservoir is formed by earthfill dam; storage began 1866. Capacity is 3,100 acre-ft, spillway at crest is 700.0 ft. Stores water from Hetch-Hetchy Aqueduct for municipal use.

RESERVOIR ELEVATION, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	687.10	687.07	687.53	687.48	689.90	689.11	695.03	694.78	689.50	689.37	694.99	694.87
2	687.09	687.06	687.50	687.48	692.11	689.85	696.07	695.01	689.62	689.49	695.04	694.99
3	687.08	687.05	687.52	687.50	692.58	692.11	696.74	696.07	689.72	689.61	695.02	694.98
4	687.06	687.04	687.54	687.52	692.79	692.58	696.94	696.74	689.83	689.72	694.98	694.93
5	687.05	687.01	687.58	687.54	693.06	692.79	696.91	696.74	689.92	689.82	694.93	694.82
6	687.06	687.03	687.60	687.55	693.56	693.06	696.74	696.30	690.04	689.92	694.86	694.57
7	687.07	687.05	687.60	687.58	693.87	693.56	696.30	695.68	690.29	690.03	694.57	694.28
8	687.09	687.05	687.61	687.59	694.00	693.87	695.68	695.05	690.51	690.29	694.33	694.05
9	687.10	687.08	687.62	687.60	693.91	693.67	695.05	694.41	690.70	690.51	694.18	694.05
10	687.12	687.09	687.73	687.59	693.67	693.37	694.41	693.78	690.88	690.70	694.41	694.09
11	687.21	687.07	687.80	687.73	693.37	693.03	693.78	693.18	691.03	690.87	694.54	694.33
12	687.25	687.18	688.04	687.78	693.05	692.70	693.18	692.64	691.17	691.03	694.61	694.44
13	687.27	687.22	688.08	688.04	692.70	692.40	692.64	692.12	691.31	691.17	694.61	694.48
14	687.28	687.22	688.11	688.07	692.47	692.33	692.12	691.61	691.44	691.31	694.59	694.48
15	687.28	687.13	688.15	688.10	692.33	692.12	691.61	691.12	691.55	691.43	694.59	694.42
16	687.16	687.12	688.17	688.13	692.12	691.88	691.13	690.74	691.71	691.55	694.51	694.39
17	687.17	687.13	688.21	688.15	691.96	691.84	690.74	690.53	691.90	691.71	694.48	694.37
18	687.19	687.14	688.19	688.15	691.96	691.90	690.53	690.28	692.04	691.89	694.40	694.33
19	687.20	687.16	688.21	688.17	691.90	691.76	690.28	690.00	692.52	692.03	694.33	694.25
20	687.23	687.18	688.24	688.21	691.84	691.77	690.01	689.74	693.15	692.52	694.25	694.16
21	687.22	687.19	688.31	688.23	692.23	691.84	689.74	689.51	693.59	693.11	694.19	694.09
22	687.30	687.20	688.34	688.29	692.77	692.23	689.51	689.26	693.91	693.52	694.10	694.01
23	687.32	687.21	688.37	688.33	692.94	692.77	689.26	689.02	694.08	693.83	694.03	693.96
24	687.28	687.25	688.55	688.35	692.94	692.88	689.02	688.81	694.29	694.08	693.97	693.87
25	687.32	687.26	688.57	688.54	692.88	692.73	688.81	688.75	694.45	694.29	693.88	693.79
26	---	---	688.60	688.57	692.73	692.53	688.86	688.76	694.61	694.45	693.79	693.66
27	---	---	688.62	688.60	692.53	692.29	688.89	688.86	694.75	694.61	693.66	693.59
28	687.39	687.33	688.85	688.58	692.42	692.21	689.01	688.89	694.87	694.75	693.66	693.60
29	687.41	687.37	689.05	688.85	693.30	692.42	689.14	689.01	---	---	693.71	693.66
30	687.52	687.40	689.12	689.05	693.95	693.30	689.26	689.13	---	---	693.75	693.71
31	687.55	687.49	---	---	694.78	693.95	689.38	689.25	---	---	693.79	693.75
MONTH	---	---	689.12	687.48	694.78	689.11	696.94	688.75	694.87	689.37	695.04	693.59

11162618 PILARCITOS LAKE NEAR HILLSBOROUGH, CA—Continued

RESERVOIR ELEVATION, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER					
1	693.83	693.79	694.66	694.63	694.77	694.67	692.61	692.51	690.46	690.40	690.36	690.31				
2	693.86	693.82	694.68	694.65	694.72	694.64	692.52	692.43	690.42	690.36	690.36	690.32				
3	693.91	693.86	694.70	694.67	694.64	694.57	692.43	692.33	690.37	690.31	690.39	690.34				
4	693.94	693.90	694.72	694.69	694.58	694.53	692.36	692.25	690.33	690.27	690.41	690.35				
5	693.98	693.94	694.76	694.71	694.53	694.47	692.26	692.15	690.28	690.19	690.41	690.36				
6	694.02	693.98	694.77	694.70	694.48	694.41	692.16	692.06	690.24	690.13	690.42	690.38				
7	694.06	694.01	694.76	694.70	694.42	694.35	692.08	691.98	690.16	690.06	690.43	690.39				
8	694.09	694.06	694.76	694.73	694.36	694.28	692.00	691.90	690.07	689.99	690.44	690.40				
9	694.13	694.08	694.77	694.72	694.30	694.25	691.90	691.81	689.99	689.93	690.46	690.41				
10	694.17	694.13	694.79	694.69	694.25	694.19	691.82	691.73	689.97	689.94	690.47	690.43				
11	694.18	694.15	694.77	694.74	694.19	694.14	691.75	691.66	690.00	689.96	690.49	690.45				
12	694.22	694.18	694.77	694.75	694.15	694.10	691.67	691.58	690.01	689.96	690.51	690.47				
13	694.24	694.20	694.79	694.71	694.11	694.06	691.60	691.51	690.03	689.99	690.53	690.48				
14	694.28	694.20	694.79	694.74	694.06	693.98	691.53	691.42	690.05	690.01	690.54	690.49				
15	694.29	694.20	694.79	694.73	694.02	693.95	691.43	691.35	690.08	690.03	690.57	690.50				
16	694.34	694.25	694.76	694.71	693.97	693.88	691.35	691.27	690.10	690.06	690.60	690.50				
17	694.37	694.33	694.77	694.68	693.93	693.82	691.29	691.18	690.11	690.06	690.61	690.53				
18	694.40	694.36	694.74	694.71	693.83	693.72	691.21	691.13	690.13	690.06	690.62	690.57				
19	694.43	694.38	694.83	694.72	693.73	693.61	691.14	691.07	690.14	690.09	690.64	690.60				
20	694.44	694.41	694.85	694.80	693.61	693.47	691.08	691.01	690.15	690.11	690.66	690.60				
21	694.46	694.43	694.87	694.83	693.51	693.40	691.02	690.95	690.17	690.12	690.69	690.58				
22	694.48	694.45	694.88	694.85	693.41	693.31	690.97	690.90	690.17	690.13	690.71	690.60				
23	694.51	694.47	694.88	694.86	693.33	693.22	690.91	690.84	690.19	690.15	690.76	690.64				
24	694.52	694.48	694.89	694.87	693.24	693.15	690.84	690.77	690.22	690.17	690.77	690.69				
25	694.55	694.51	694.90	694.87	693.16	693.06	690.79	690.73	690.23	690.18	690.79	690.70				
26	694.60	694.50	694.90	694.87	693.06	692.96	690.74	690.68	690.25	690.19	690.81	690.71				
27	694.57	694.53	694.90	694.88	692.97	692.85	690.69	690.62	690.26	690.21	690.85	690.75				
28	694.58	694.56	694.91	694.89	692.88	692.77	690.64	690.58	690.31	690.23	690.87	690.80				
29	694.62	694.58	694.92	694.88	692.82	692.69	690.60	690.54	690.30	690.24	690.90	690.82				
30	694.65	694.61	694.90	694.84	692.70	692.60	690.55	690.50	690.32	690.27	690.91	690.80				
31	---	---	694.84	694.76	---	---	690.51	690.46	690.34	690.29	---	---				
MONTH	694.65	693.79	694.92	694.63	694.77	692.60	692.61	690.46	690.46	689.93	690.91	690.31				

11162620 PILARCITOS CREEK BELOW STONE DAM, NEAR HILLSBOROUGH, CA

LOCATION.—Lat 37°31'29", long 122°23'54", NE 1/4 SW 1/4 sec.3, T.5 S., R.5 W., San Mateo County, Hydrologic Unit 18050006, on left bank, 50 ft downstream of unnamed tributary, 0.2 mi downstream of Stone Dam, and 2.4 mi southwest of Hillsborough.

DRAINAGE AREA.—6.54 mi².

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 500 ft above sea level, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Flow regulated by storage in Pilarcitos Lake, 2.6 mi upstream, capacity, 3,100 acre-ft. Water is diverted by city of San Francisco water system at Pilarcitos Lake and Stone Dam.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 279 ft³/s, Feb. 7, 1999, gage height, 7.46 ft, from rating curve extended above 90 ft³/s; no flow Oct. 13, 14, 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.03	0.72	e2.0	0.68	0.77	0.55	e0.22	e0.18	0.32	0.34	0.24
2	0.04	0.04	12	e55	0.65	0.74	0.54	e0.20	e0.18	0.34	0.30	0.23
3	0.04	0.04	0.74	e35	0.63	0.73	0.53	e0.19	e0.18	0.34	0.31	0.23
4	0.04	0.03	0.46	e28	0.62	0.70	0.51	e0.19	e0.18	0.35	0.33	0.23
5	0.05	0.03	0.53	e26	0.59	e0.80	0.49	e0.19	e0.18	0.41	0.34	0.22
6	0.03	0.03	1.0	e24	0.55	0.96	0.47	e0.18	e0.19	0.45	0.34	0.22
7	0.03	0.04	0.69	e24	0.73	1.3	0.46	e0.18	e0.19	0.49	0.34	0.23
8	0.03	0.04	0.50	26	0.77	1.1	0.45	e0.18	e0.18	0.49	0.35	0.23
9	0.02	0.04	0.45	23	0.67	0.93	0.48	e0.18	e0.17	0.42	0.32	0.22
10	0.02	0.15	0.38	19	0.63	3.4	0.47	e0.17	e0.15	0.32	0.29	0.21
11	0.02	0.16	0.34	17	0.59	2.4	0.44	e0.17	e0.16	0.30	0.28	0.22
12	0.02	0.74	0.31	16	0.58	2.1	0.42	e0.17	e0.17	0.28	0.29	0.21
13	0.00	0.13	0.32	14	0.56	1.8	0.41	e0.16	e0.19	0.27	0.28	0.21
14	0.00	0.10	0.84	11	0.52	1.6	e0.40	e0.16	e0.20	0.29	0.27	0.20
15	0.01	0.09	0.55	9.7	0.51	1.3	e0.58	e0.16	e0.19	0.30	0.28	0.18
16	0.02	0.09	0.47	7.5	0.53	1.1	e0.50	e0.16	e0.18	0.28	0.28	0.19
17	0.02	0.09	1.1	3.0	0.60	1.5	e0.38	e0.16	e0.17	0.26	0.29	0.18
18	0.02	0.09	0.95	3.2	0.54	1.4	0.37	e0.16	e0.16	0.24	0.28	0.16
19	0.02	0.09	0.72	3.6	1.3	1.5	e0.30	e0.38	e0.23	0.22	0.26	0.16
20	0.02	0.09	0.74	2.9	2.1	1.9	e0.28	e0.20	e0.18	0.21	0.25	0.15
21	0.02	0.12	0.99	2.5	1.7	1.8	e0.24	e0.19	e0.18	0.21	0.24	0.15
22	0.02	0.17	1.1	2.1	1.4	1.8	0.30	e0.19	e0.20	0.21	0.24	0.14
23	0.02	0.08	1.1	1.8	1.2	1.9	0.27	e0.18	e0.22	0.22	0.24	0.14
24	0.02	0.28	e0.98	1.4	1.1	1.7	0.27	e0.18	e0.30	0.21	0.25	0.14
25	0.02	0.13	e0.80	1.1	1.1	1.5	0.27	e0.17	e0.28	0.21	0.24	0.14
26	0.02	0.09	e0.65	1.1	0.97	1.4	0.27	e0.17	e0.26	0.22	0.23	0.14
27	0.02	0.08	e0.62	0.99	0.88	1.1	0.27	e0.17	e0.28	0.24	0.22	0.14
28	0.02	0.22	e2.0	0.96	0.82	0.63	e0.25	e0.17	0.32	0.26	0.24	0.15
29	0.02	0.62	e6.2	0.80	---	0.62	0.24	e0.18	0.29	0.30	0.28	0.14
30	0.10	0.23	e4.0	0.75	---	0.59	e0.23	e0.18	0.30	0.34	0.24	0.13
31	0.04	---	e2.5	0.71	---	0.57	---	e0.19	---	0.36	0.25	---
TOTAL	0.81	4.16	44.75	364.11	23.52	41.64	11.64	5.73	6.24	9.36	8.69	5.53
MEAN	0.026	0.139	1.444	11.75	0.840	1.343	0.388	0.185	0.208	0.302	0.280	0.184
MAX	0.10	0.74	12	55	2.1	3.4	0.58	0.38	0.32	0.49	0.35	0.24
MIN	0.00	0.03	0.31	0.71	0.51	0.57	0.23	0.16	0.15	0.21	0.22	0.13
AC-FT	1.6	8.3	89	722	47	83	23	11	12	19	17	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	1998	1999	2000	1998	1998	2000	1999	1998	1998	1998	2002	1998
MEAN	0.157	0.292	0.550	8.655	21.19	3.034	0.723	0.374	0.261	0.237	0.182	0.151
MAX	0.32	0.72	1.44	28.2	60.4	6.99	1.45	0.59	0.46	0.38	0.28	0.22
(WY)	1999	1999	2002	1998	1998	2000	1999	1998	1998	1998	2002	1998
MIN	0.026	0.10	0.074	0.44	0.84	0.58	0.22	0.12	0.062	0.055	0.054	0.056
(WY)	2002	2000	2000	2001	2002	2001	2001	2001	2001	2001	2001	2001

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1998 - 2002

ANNUAL TOTAL	138.92	526.18	
ANNUAL MEAN	0.381	1.442	2.873
HIGHEST ANNUAL MEAN			7.63 1998
LOWEST ANNUAL MEAN			0.31 2001
HIGHEST DAILY MEAN	12 Dec 2	55 Jan 2	102 Feb 7 1998
LOWEST DAILY MEAN	0.00 Oct 13	0.00 Oct 13	0.00 Oct 13 2001
ANNUAL SEVEN-DAY MINIMUM	0.01 Oct 9	0.01 Oct 9	0.01 Oct 9 2001
MAXIMUM PEAK FLOW		94 Dec 2	279 Feb 7 1999
MAXIMUM PEAK STAGE		6.52 Dec 2	7.46 Feb 7 1999
ANNUAL RUNOFF (AC-FT)	276	1040	2080
10 PERCENT EXCEEDS	0.94	1.8	1.9
50 PERCENT EXCEEDS	0.12	0.28	0.27
90 PERCENT EXCEEDS	0.04	0.04	0.06

e Estimated.

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 mi².

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 sea level. Prior to Nov. 17, 1983, at site 800 ft downstream at different datum.

REMARKS.—Records fair. 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 ft³/s, Jan. 4, 1982, gage height, 13.08 ft, site and datum then in use, from rating curve extended above 1,000 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0815	514	8.05	Dec. 29	0600	375	7.37
Dec. 22	1230	621	8.56				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.36	0.39	21	63	14	11	11	5.9	2.7	1.8	1.0	0.80
2	0.21	0.72	155	216	14	10	10	5.4	3.0	1.4	1.4	0.78
3	0.25	0.94	26	131	13	9.7	10	5.2	2.7	1.5	1.5	0.63
4	0.41	1.1	14	86	13	9.1	9.9	5.0	2.2	2.0	2.0	0.53
5	0.47	1.1	16	70	13	8.9	9.7	5.3	1.8	2.1	1.6	0.38
6	0.47	0.96	43	60	13	12	9.7	4.8	1.8	1.7	1.2	0.54
7	0.62	0.91	19	60	17	19	9.5	4.0	1.8	1.7	0.92	0.31
8	0.66	0.72	13	52	19	13	9.4	3.6	1.9	1.6	0.90	0.36
9	0.55	0.48	12	46	16	12	9.1	4.3	1.7	1.0	0.90	0.52
10	0.45	3.3	9.9	39	16	31	9.2	4.4	1.7	0.81	0.89	0.31
11	0.24	3.5	8.7	35	14	24	8.7	4.0	1.2	0.77	1.2	0.38
12	0.36	31	7.9	30	13	21	8.4	4.1	1.2	1.3	1.2	0.44
13	0.25	4.6	9.3	29	12	19	7.9	4.2	1.6	0.84	0.88	0.37
14	0.19	4.0	45	26	12	18	7.6	4.2	1.6	1.1	1.0	0.47
15	0.22	3.5	16	25	11	17	7.1	3.5	1.7	1.3	1.0	0.65
16	0.19	3.7	12	23	14	15	7.4	3.7	2.0	1.6	1.2	0.72
17	0.44	3.4	29	18	22	26	9.0	4.0	1.7	1.6	1.2	0.53
18	0.46	3.0	19	17	17	18	7.1	4.2	1.7	1.8	1.5	0.48
19	0.58	2.7	16	17	47	16	6.5	7.1	1.6	2.1	1.7	0.25
20	0.52	2.1	44	16	50	16	6.4	5.6	1.5	1.4	1.4	0.30
21	0.53	2.1	59	16	31	15	6.9	4.3	1.8	1.8	0.73	0.21
22	0.51	3.2	122	15	23	16	6.3	3.2	3.2	1.7	1.1	0.42
23	0.34	3.0	35	14	19	19	5.9	3.0	3.0	0.97	1.3	0.44
24	0.46	12	19	13	16	17	5.8	2.8	2.9	0.97	1.3	0.20
25	0.42	4.8	13	13	14	15	5.7	3.0	2.6	0.89	1.8	0.09
26	0.41	3.1	10	16	13	14	5.9	3.3	2.6	0.98	1.8	0.33
27	0.59	2.4	8.7	15	12	13	6.1	3.4	2.9	0.98	0.97	0.32
28	0.65	12	45	17	12	12	5.7	3.0	3.1	1.0	0.16	0.37
29	0.52	31	172	16	---	12	6.9	2.4	2.7	1.1	0.54	0.50
30	1.6	7.0	108	15	---	11	5.6	2.3	2.3	0.79	0.47	0.50
31	1.0	---	116	14	---	11	---	2.4	---	0.83	0.87	---
TOTAL	14.93	152.72	1243.5	1223	500	480.7	234.4	125.6	64.2	41.43	35.63	13.13
MEAN	0.482	5.091	40.11	39.45	17.86	15.51	7.813	4.052	2.140	1.336	1.149	0.438
MAX	1.6	31	172	216	50	31	11	7.1	3.2	2.1	2.0	0.80
MIN	0.19	0.39	7.9	13	11	8.9	5.6	2.3	1.2	0.77	0.16	0.09
AC-FT	30	303	2470	2430	992	953	465	249	127	82	71	26

11162630 PILARCITOS CREEK AT HALF MOON BAY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.210	5.517	16.23	47.35	53.43	38.56	18.61	6.156	2.506	1.090	0.683	0.423
MAX	4.44	32.5	92.1	164	329	278	127	37.2	15.8	5.35	2.41	1.89
(WY)	1983	1983	1971	1982	1998	1983	1982	1983	1998	1998	1999	1999
MIN	0.000	0.000	0.59	0.48	0.66	1.44	0.073	0.009	0.000	0.000	0.000	0.000
(WY)	1967	1991	1991	1991	1977	1988	1977	1977	1972	1966	1966	1966

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	3861.38		4129.24			
ANNUAL MEAN	10.58		11.31		15.80	
HIGHEST ANNUAL MEAN					73.9	
LOWEST ANNUAL MEAN					0.51	
HIGHEST DAILY MEAN	172	Dec 29	216	Jan 2	2150	Jan 4 1982
LOWEST DAILY MEAN	0.15	Sep 12	0.09	Sep 25	0.00	Jul 1 1966
ANNUAL SEVEN-DAY MINIMUM	0.27	Oct 11	0.27	Oct 11	0.00	Jul 1 1966
MAXIMUM PEAK FLOW			621	Dec 22	4750	Jan 4 1982
MAXIMUM PEAK STAGE			8.56	Dec 22	13.08	Jan 4 1982
INSTANTANEOUS LOW FLOW			0.00	Oct 3		
ANNUAL RUNOFF (AC-FT)	7660		8190		11450	
10 PERCENT EXCEEDS	28		23		32	
50 PERCENT EXCEEDS	2.2		3.5		2.2	
90 PERCENT EXCEEDS	0.46		0.47		0.00	

11162690 SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION, CA

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 RECORD.—October 1990 to current year.

SPECIFIC CONDUCTANCE: October 1990 to current year.

WATER TEMPERATURE: October 1990 to current year.

PERIOD OF DAILY RECORD.—October 1990 to current year.

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 probes are set about 4 ft below water surface at Mean Lower Low Water (MLLW). MLLW is about 6 ft. Daily maximums and minimums sometimes differ from tidal cycle (24.8 hours) maximums and minimums. The conductivity record is rated good except for the following periods of heavy fouling which are rated poor: Oct. 18–22, Apr. 8–15, May 5–13, May 26 to June 3, June 13–25, July 12–15, July 29 to Aug. 5, and Sept. 7–16. The temperature record is rated excellent except for Oct. 1 to March 2, which is rated good, and June 19–25 which is rated fair.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 50,900 microsiemens, May 26, June 30, July 1, 1991; minimum recorded, 4,250 microsiemens, Feb. 18, 1998.

WATER TEMPERATURE: Maximum recorded, 19.0°C, several days during August and September 1997; minimum recorded, 8.0°C, several days during December 1990 and January 1991.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum recorded, 50,300 microsiemens, July 22, Aug. 27; minimum recorded, 30,900 microsiemens, Jan. 15.

WATER TEMPERATURE: Maximum recorded, 18.0°C, Aug. 8–10; minimum recorded, 10.0°C, several days in January and February.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	50100	48900	49300	47200	48700	46300	47300	41900	45000	41700	47300	44300
2	49900	48800	49300	47900	49300	42300	47400	41700	45100	41800	46800	43900
3	50000	48600	50000	47900	48100	43900	47400	40000	45100	41000	46900	44400
4	50200	49000	49900	48300	47300	44200	46100	37900	45500	42200	47700	44600
5	50200	48400	49900	48600	47300	44000	45400	35400	45900	42100	47700	44900
6	49900	48500	49900	48700	47300	43100	46400	33800	46000	42000	47700	45100
7	49700	48500	50000	48600	46700	42500	45600	32600	45700	42000	47500	43900
8	49500	48600	50000	48500	46800	41200	45000	34300	45600	41800	46900	43100
9	50200	48300	49800	48400	46600	42500	44900	36800	46400	42900	48100	43200
10	50100	48500	49600	48400	46300	42500	45700	34800	46000	42000	47400	43100
11	50200	47400	49400	48000	46400	38100	45200	35000	46300	43000	47400	42800
12	50100	48400	49300	48100	47400	39900	46000	34700	46700	43700	47000	42900
13	49700	48300	49600	48100	47600	44400	43700	35600	46800	43800	46600	42600
14	---	---	49400	47900	47400	44300	45200	35600	47300	44000	47400	42400
15	50000	47900	49300	47600	48100	44500	43700	30900	47200	44500	47300	40900
16	49700	48500	49400	47800	48200	44400	43700	33600	47200	44600	47400	43200
17	49600	48300	49500	47800	47900	44200	44000	35200	46800	44100	47800	41100
18	49900	48400	49500	47400	47900	43300	44200	33900	47200	43800	47400	41400
19	49800	48500	49500	47900	---	---	44100	32000	47000	43700	48000	41600
20	49500	47900	49300	47800	48200	43900	44100	31100	46800	42000	48000	40700
21	49400	48200	49100	47500	47500	40300	44700	31000	46800	40900	47900	40700
22	49300	48200	48800	47500	48500	40300	45400	34400	47300	39900	48500	43100
23	49200	48100	49000	46800	47000	36400	45800	33600	46800	42800	48700	43700
24	49800	47600	49400	47300	47300	36500	46500	33800	46900	40500	48000	43700
25	50000	47800	49400	47200	48000	38700	46600	40400	47000	41700	48000	44100
26	50000	48000	49100	47100	46900	37500	45500	37100	46800	43500	47600	43700
27	49900	48100	48800	47000	47400	40900	45300	39900	46900	43800	47600	44300
28	49800	48400	49100	47100	47600	43200	45400	41000	46900	44000	47200	43400
29	49600	48000	49000	47100	46900	42400	45100	41200	---	---	47100	44900
30	49300	46800	49200	46800	46700	42400	45300	40300	---	---	47100	44700
31	49300	47700	---	---	47200	42400	45300	41300	---	---	47400	42900
MONTH	---	---	50000	46800	---	---	47400	30900	47300	39900	48700	40700

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	47800	44800	48500	45500	49000	46300	49900	46700	49400	47900	49700	48200
2	48200	45000	48600	45100	48600	44400	---	---	49400	48100	49700	48100
3	48500	45000	48100	44600	49200	45200	50200	47900	49500	48000	49700	48400
4	48700	44600	48300	43700	49300	44400	50000	47700	49500	48100	50000	48500
5	48500	44000	47800	43400	49300	45400	49900	48300	49500	48000	49900	48300
6	48400	43100	47900	44100	49300	45600	49800	47600	49600	47900	49600	48300
7	48000	43700	48200	44800	49300	45200	49900	48100	49600	47800	49900	48100
8	48500	44600	48300	45400	49100	45800	49800	47800	49700	47900	49700	48000
9	48200	44500	48200	45100	49100	45700	49900	47400	49700	47900	49300	47900
10	47700	42000	48500	45100	49300	45800	49800	47400	49800	47800	49100	47800
11	47900	45400	49300	45300	49400	46500	49800	47300	49700	47200	49100	47800
12	48000	45100	49000	45800	49100	46500	50000	47500	49800	48200	49000	47900
13	47900	44800	48800	46100	49700	47000	49900	47700	49800	48400	49000	47900
14	48500	45200	49500	45500	49600	46700	49900	47700	49700	48400	49100	47900
15	48900	45200	49600	46000	49300	46900	49600	47500	49600	48300	49100	47700
16	49200	44800	49700	46100	49400	46800	49900	48200	49300	48200	49300	47800
17	49200	45200	49400	46000	49400	47200	49900	48300	49400	48100	49400	48400
18	48500	44300	49000	46200	49800	46900	49900	48400	49500	48300	49400	48300
19	48300	44400	49000	46300	49700	47900	49800	48300	49600	48200	49400	48200
20	49400	44700	49500	46700	49500	47700	49800	48300	49700	48400	49400	48200
21	49400	43400	49100	45300	49400	47800	50000	48400	49900	48300	49300	48400
22	48500	44100	48500	46000	49400	47600	50300	48200	50000	48700	49400	48300
23	48200	44500	48300	46000	49200	47600	49900	48300	50100	48600	49400	48200
24	48200	45500	48300	45500	49400	47500	49900	48200	49800	48600	49600	48300
25	47900	45300	48200	45500	49500	47500	50000	47900	50000	48600	49800	48300
26	48000	45600	48600	45800	50100	48000	49800	47900	50200	48600	49800	48400
27	49000	45600	48400	45900	50000	47900	49500	47900	50300	48700	49900	48500
28	48600	45200	48600	45800	49800	47800	49500	48300	50000	48700	49400	48400
29	48600	45500	48800	45900	49300	47500	49800	48100	49900	48700	49600	47500
30	48600	45700	49000	45800	49700	47000	49400	47900	49900	48400	49700	48100
31	---	---	49100	46200	---	---	49600	47700	49800	48500	---	---
MONTH	49400	42000	49700	43400	50100	44400	---	---	50300	47200	50000	47500

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

TEMPERATURE, WATER, DEGREE. C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

11162750 CRYSTAL SPRINGS RESERVOIR AT DAM, NEAR SAN MATEO, CA

LOCATION.—Lat 37°31'47", long 122°21'43", in Pulgas Grant, San Mateo County, Hydrologic Unit 18050004, at north end of Crystal Springs Reservoir Dam, 0.6 mi upstream of Polhemus Creek, and 0.2 mi west of Hillsborough City boundary.

DRAINAGE AREA.—Indeterminate.

PERIOD OF RECORD.—October 1998 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level.

REMARKS.—Interruptions in record were due to malfunction of the sensing and (or) recording instruments. Lake is formed by gravity type, interlocking concrete blocks. Storage began in 1888. Dam was raised in 1890 and 1911. Capacity is 58,500 acre-ft, spillway at crest is 283.9 ft, capacity can be increased by addition of 4 ft flash boards up to 8 ft. Stores water from Hetch-Hetchy Aqueduct for municipal use.

RESERVOIR ELEVATION (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	266.59	266.55	269.21	268.91	276.85	276.55	281.76	281.67	278.71	278.63	277.27	277.27
2	266.55	266.50	---	269.21	277.59	276.85	282.11	---	278.63	278.56	277.17	277.07
3	266.58	266.54	---	---	---	277.59	---	282.11	278.56	278.47	277.07	277.00
4	266.62	266.57	269.92	269.68	---	---	282.24	---	278.47	278.43	277.00	---
5	266.69	266.62	270.18	269.93	---	---	---	282.23	278.43	278.37	---	276.79
6	266.74	266.69	270.42	270.18	---	---	---	---	278.37	278.30	276.86	276.76
7	266.85	266.74	270.65	270.42	---	---	---	---	278.39	278.25	276.86	276.78
8	266.93	266.84	270.88	270.65	---	---	---	282.19	278.36	278.34	276.83	276.79
9	266.99	266.92	271.11	270.88	---	---	282.26	---	278.35	278.26	276.80	276.71
10	267.01	266.96	271.42	271.11	---	---	---	282.22	278.26	278.20	276.78	276.72
11	267.06	266.99	271.71	271.42	---	---	282.22	---	278.20	278.13	276.75	276.72
12	267.07	267.04	272.15	271.71	---	---	282.22	282.18	278.13	278.07	276.72	276.66
13	267.07	267.04	---	272.15	---	---	---	---	278.07	278.00	276.67	276.60
14	267.09	267.05	---	272.71	---	---	---	282.13	278.01	277.95	276.61	276.52
15	267.13	267.07	272.91	272.71	278.27	278.21	282.13	282.09	277.95	277.91	276.52	276.42
16	267.16	267.09	273.18	272.91	278.33	278.27	282.09	281.67	277.93	277.88	276.43	276.31
17	267.21	267.15	273.43	273.18	278.54	278.33	281.67	281.09	277.94	277.90	276.34	276.28
18	267.34	267.20	---	273.43	278.66	278.54	281.09	280.55	277.91	277.87	276.29	276.20
19	267.44	267.34	---	---	---	278.66	280.55	280.07	277.89	277.85	276.20	276.12
20	267.50	267.44	274.09	---	---	---	280.07	279.59	277.93	277.88	276.23	276.13
21	267.60	267.50	274.35	274.09	---	---	279.59	279.28	277.91	277.84	276.30	276.22
22	267.64	267.43	---	274.35	---	---	279.33	279.26	277.88	277.80	276.30	276.24
23	267.69	267.62	---	---	---	---	279.26	279.19	277.81	277.73	276.42	276.29
24	267.77	267.67	---	---	---	---	279.19	279.11	277.76	277.68	276.57	276.42
25	267.90	267.77	275.49	275.54	---	---	279.11	279.03	277.69	277.61	276.75	276.57
26	268.04	267.90	275.68	275.49	---	---	279.05	279.01	277.61	277.49	276.79	276.75
27	268.19	268.03	275.89	275.68	---	---	279.01	278.92	277.49	277.35	276.78	276.70
28	268.33	268.19	---	275.89	---	---	278.93	278.90	277.35	277.27	276.71	276.64
29	268.48	268.33	276.40	---	---	---	278.90	278.83	---	---	276.64	276.58
30	268.69	268.47	276.55	276.40	---	---	278.84	278.77	---	---	276.65	276.59
31	268.91	268.69	---	---	281.67	---	278.77	278.71	---	---	276.61	276.58
MONTH	268.91	266.50	---	---	---	---	---	---	278.71	277.27	---	---

11162750 CRYSTAL SPRINGS RESERVOIR AT DAM, NEAR SAN MATEO, CA—Continued

RESERVOIR ELEVATION (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	276.62	276.56	277.41	277.45	278.08	278.02	276.64	276.54	273.40	273.32	270.59	270.56
2	276.68	276.58	277.47	277.43	278.06	278.01	276.54	276.38	273.32	273.17	270.58	270.50
3	276.75	276.64	277.47	277.44	278.05	278.01	276.39	276.28	273.22	273.12	270.51	270.42
4	276.81	276.74	277.45	277.41	278.02	277.95	276.28	276.16	273.14	273.09	270.42	270.36
5	276.88	276.80	277.47	277.44	277.95	277.85	276.21	276.14	273.09	272.98	270.36	270.28
6	276.94	276.88	277.43	277.40	277.85	277.78	276.15	276.05	272.99	272.85	270.28	270.19
7	276.99	276.94	277.42	277.37	277.78	277.73	276.07	276.03	272.85	272.74	270.19	270.16
8	277.06	276.99	277.42	277.39	277.75	277.62	276.03	275.95	272.74	272.59	270.19	270.12
9	277.11	277.03	277.43	277.39	277.71	277.68	275.95	275.79	272.59	272.43	270.13	270.08
10	277.17	277.10	277.48	277.40	277.70	277.67	275.79	275.63	272.43	272.25	270.08	269.99
11	277.21	277.14	277.47	277.44	277.67	277.55	275.63	275.47	272.25	272.18	269.99	269.91
12	277.21	277.17	277.54	277.45	277.71	277.59	275.47	275.38	272.19	272.08	269.95	269.89
13	277.23	277.20	277.57	277.52	277.62	277.57	275.39	275.30	272.08	272.01	269.91	269.85
14	277.22	277.16	277.59	277.53	277.58	277.50	275.32	275.26	272.01	271.87	269.86	269.80
15	277.24	277.15	277.63	277.57	277.51	277.45	275.26	275.15	271.87	271.73	269.81	269.78
16	277.25	277.19	277.66	277.60	277.50	277.45	275.15	275.06	271.73	271.59	269.80	269.75
17	277.29	277.23	277.67	277.61	277.47	277.39	275.06	274.91	271.61	271.52	269.77	269.72
18	277.29	277.26	277.68	277.67	277.41	277.21	274.92	274.84	271.52	271.46	269.73	269.62
19	277.30	277.27	277.83	277.68	277.35	277.27	274.85	274.70	271.51	271.45	269.62	269.50
20	277.30	277.26	277.95	277.80	277.27	277.21	274.71	274.58	271.46	271.37	269.50	269.39
21	277.27	277.25	278.05	277.95	277.21	277.11	274.61	274.47	271.37	271.27	269.39	269.30
22	277.27	277.24	278.19	278.05	277.14	277.09	274.49	274.39	271.29	271.19	269.33	269.28
23	277.28	277.22	278.28	278.19	277.10	277.07	274.39	274.25	271.21	271.16	269.32	269.28
24	277.31	277.25	278.28	278.22	277.08	277.04	274.25	274.10	271.16	271.05	269.33	269.26
25	277.28	277.25	278.23	278.16	277.04	276.95	274.10	273.99	271.09	271.04	269.37	269.31
26	277.33	277.26	278.19	278.16	276.99	276.92	273.99	273.85	271.05	270.97	269.51	269.36
27	277.32	277.30	278.22	278.18	276.93	276.82	273.86	273.74	270.97	270.89	269.56	269.47
28	277.39	277.32	278.23	278.18	276.83	276.75	273.77	273.68	270.91	270.75	269.68	269.56
29	277.41	277.37	278.24	278.20	276.76	276.65	273.68	273.61	270.80	270.73	269.80	269.68
30	277.46	277.41	278.22	278.14	276.67	276.63	273.61	273.46	270.73	270.65	269.96	269.80
31	---	---	278.15	278.04	---	---	273.46	273.40	270.65	270.58	---	---
MONTH	277.46	276.56	278.28	277.37	278.08	276.63	276.64	273.40	273.40	270.58	270.59	269.26

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA

LOCATION.—Lat 37°35'04", long 122°14'59", unsurveyed, T.4 S., R.4 W., [San Mateo County](#), Hydrologic Unit 18050004, on Pier 20 of the San Mateo Bridge.

PERIOD OF RECORD.—October 1989 to current year.

SPECIFIC CONDUCTANCE: October 1989 to current year.

WATER TEMPERATURE: October 1989 to current year.

PERIOD OF DAILY RECORD.—October 1989 to current year.

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 usually due to malfunction of the sensing and (or) recording instruments. Upper probe is set about 4 ft below water surface at Mean Lower Low Water (MLLW). Lower probe is set about 38 ft below the surface at MLLW. MLLW is about 48 ft deep. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums. The upper conductivity record is rated fair. The lower conductivity record is rated good except for the following periods of heavy fouling, which are rated fair: July 6–16, and Aug. 20–27. The upper and lower temperature records are rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,200 microsiemens, Sept. 5, 1990; minimum recorded, 11,500 microsiemens, Mar. 17, 1996.

(Lower probe) Maximum recorded, 50,300 microsiemens, Oct. 31, Nov. 4, 9, 1990; minimum recorded, 14,900 microsiemens, Mar. 5, 1998.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.5°C, Aug. 1, 2, 28, 1993, Aug. 8, 1995; 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, Aug. 2–6, 1993, July 16, 31, and several days in August 1995; minimum recorded, 6.5°C, Dec. 30, 1990, to Jan. 2, 1991.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 49,400 microsiemens, Oct. 14; minimum recorded, 35,000 microsiemens, Jan. 14.

(Lower probe) Maximum recorded, 48,100 microsiemens, Nov. 6; minimum recorded, 34,900 microsiemens, Jan. 27.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 22.5°C, Aug. 10, 11; minimum recorded, 9.5°C, several days in January and February.

(Lower probe) Maximum recorded, 22.5°C, Aug. 2, 3, 10, 11; minimum recorded, 9.5°C, several days in January and February.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(UPPER PROBE)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	48700	46900	48700	47000	47400	45800	41300	39900	37700	36000	39900	37500
2	---	---	48800	47200	47200	45200	41000	39600	38000	35800	40100	37800
3	49200	47100	48900	47100	46900	44600	41000	39600	37800	35900	39900	37200
4	48800	47300	48900	47100	46900	45100	40900	39400	38000	35900	39800	37900
5	48900	47700	49000	47000	46800	45300	40800	39400	38300	36400	39800	37900
6	48800	47300	48900	47200	46600	44900	40700	38300	38600	35600	40100	38400
7	48900	46800	49200	46700	46500	44600	40500	37800	38500	35800	40100	38300
8	48800	47200	49200	47500	46400	44600	39900	36400	38500	35900	39400	37200
9	48900	47200	48900	47100	46100	43900	39200	36100	38500	36400	39600	37600
10	48700	47000	48600	47200	45800	44100	38900	36100	38900	36500	39700	37500
11	48700	47000	48600	46700	45700	43200	38700	35900	38900	36600	39600	36900
12	49300	47300	48900	46700	45600	43800	38600	35900	39100	36900	39600	37000
13	49200	47000	48300	46500	46100	44000	38100	35700	39000	37000	39700	37500
14	49400	47000	48100	46600	45700	42500	38200	35000	38800	36200	39600	37400
15	---	---	48300	46400	45600	43700	38000	35200	38900	37100	39500	37500
16	48800	47200	48200	46300	45200	43100	37800	35700	39100	37300	39500	37500
17	48800	46800	48100	46400	45100	42900	37800	36300	39100	37300	39200	37900
18	48700	47100	48100	46200	44900	42600	37600	35800	38900	36700	39300	37600
19	49000	47100	48100	46900	44800	43100	37500	35700	39100	37300	39300	37700
20	48800	47000	48000	46200	44700	42900	37200	35800	39600	36100	39600	37400
21	48900	47700	47900	46500	44300	42800	37000	35400	39600	36800	39500	37200
22	48800	47100	47800	46200	44100	41800	37000	35400	40100	36300	39800	36800
23	48700	46700	47800	46100	43900	41800	37000	35400	40100	36500	40000	37600
24	---	---	48000	46700	43500	41900	36900	35700	40100	37000	39600	37300
25	48700	47400	47800	46200	43100	41700	36800	35200	40200	37600	39600	37300
26	48700	47000	47500	45800	43100	41000	36800	35800	40000	37800	39800	37400
27	48700	47100	47500	45200	42800	40600	36900	35400	40000	37900	39800	36800
28	48700	47000	47500	45700	42600	41200	36900	35600	39900	38000	39900	37400
29	48800	47200	47500	45400	42300	39400	37100	35500	---	---	39700	36800
30	---	---	---	---	41700	39200	37300	36000	---	---	39900	37400
31	48800	47100	---	---	41600	38500	37500	36300	---	---	40100	37700
MONTH	---	---	---	---	47400	38500	41300	35000	40200	35600	40100	36800

11162765 SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(LOWER PROBE)

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1	47700	46900	47900	47000	46900	46000	41300	40000	36800	35300	40200	38800
2	47700	46800	47900	46900	46700	45700	41100	39800	36900	35400	40200	38700
3	47700	46900	47900	46800	46200	45100	40900	40000	37100	35700	40300	38900
4	47700	46700	47800	46600	46000	44800	40800	39900	37300	35800	40200	38800
5	47800	46700	47900	46900	45900	44900	40700	39900	37700	35800	40300	38800
6	47800	46600	48100	46800	45800	44700	40600	40000	38100	35900	40500	38800
7	47800	46500	47900	46700	45700	44700	40300	39200	38500	36100	40800	39100
8	47800	46100	48000	47000	45700	44700	39800	38500	38500	36200	39900	38400
9	47800	46500	47900	46800	45500	44500	39100	37800	38500	36200	40100	38400
10	47800	46700	47800	46800	45400	44300	38500	37200	38800	36400	40400	38800
11	47800	46200	47900	47100	45400	43800	38200	36700	38800	36600	40400	38700
12	47800	46600	48000	47000	45100	43700	38000	36600	38900	36900	40300	38500
13	47800	46800	47700	46700	45000	43800	37800	36200	38900	36800	40100	38100
14	47800	46900	47900	46500	44900	43400	37600	36100	39000	37200	39900	38300
15	---	---	47900	46400	44800	43400	37400	36100	39000	37200	40200	38500
16	47700	46800	47800	46500	44800	43300	37200	36300	39300	37900	40000	38200
17	47800	46600	47700	46500	44600	43500	37100	36300	39400	37900	39900	38800
18	47900	46800	47700	46500	44400	43500	36900	36300	39200	38000	39700	38300
19	47800	46800	47600	46500	44300	43500	36800	36100	40200	38500	39800	38700
20	47800	46700	47500	46600	44200	43700	36600	35500	40500	39200	39900	38600
21	47800	46800	47400	46600	43900	43500	36400	35700	40600	38400	39600	38300
22	47700	46500	47300	46500	43900	43300	36400	35500	40800	38800	39800	38300
23	47700	46400	47200	46200	43700	43100	36200	35600	40400	38300	40100	38300
24	---	---	47300	46400	43400	42900	36100	35300	40400	38000	39800	37700
25	47900	46800	47000	45600	43200	42100	36000	35300	40400	38000	39800	38000
26	47900	47000	47100	46200	43000	42400	35900	35400	40300	38200	39900	38100
27	48000	46800	47200	46000	42600	42000	35800	34900	40300	38400	40000	38100
28	47900	47100	47200	46200	42500	41700	36100	35000	40200	38400	40100	38200
29	48000	47000	47100	45900	42100	41300	36300	35000	---	---	40000	38400
30	47900	46800	---	---	41700	40800	36600	35000	---	---	40100	38100
31	47900	46900	---	---	41500	40100	36800	35100	---	---	40100	38300
MONTH	---	---	---	---	46900	40100	41300	34900	40800	35300	40800	37700
1	40200	38400	40700	39000	43300	40600	43800	42800	---	---	47300	46600
2	40200	38400	40800	39100	43000	41600	43800	42900	45700	45200	47400	46600
3	40200	38300	40700	39200	43000	41700	44000	43000	45900	45400	47300	46200
4	40300	38300	40700	39300	43200	41400	44100	43000	45800	45300	47500	46500
5	40400	38700	41400	39400	43200	41200	44000	43100	46000	45300	47600	46300
6	40400	38400	41500	39500	43200	41300	44400	43300	46300	45400	47700	46800
7	40500	38700	41900	39600	43300	41200	44600	43500	46300	45000	47500	46500
8	40600	38900	42000	40000	43300	41400	45200	43400	46300	45400	47500	46500
9	40700	38800	41800	39900	43200	41600	44500	43200	46300	45400	47500	46400
10	40700	39000	41600	39700	43100	41800	44600	43100	46300	45400	47600	46900
11	40700	39000	41900	39900	43200	41800	44800	43300	46400	45400	---	---
12	40500	38800	41900	39800	43100	41800	44600	43400	---	---	47700	46900
13	40500	38600	41900	39700	42900	41800	44700	43500	---	---	47500	46800
14	40900	38500	41800	39400	43100	42000	44700	43500	---	---	47600	46700
15	40800	38200	41900	40200	42900	42200	---	---	46400	45200	47700	46800
16	40300	38900	42000	40400	43000	42300	---	---	46500	45100	47600	46700
17	40500	39200	42000	40500	43000	42300	44800	43900	46300	45100	47700	46600
18	40400	39200	42100	40700	43100	42400	44800	44200	46400	45700	47600	46900
19	40600	38900	42100	41000	43500	42500	44900	44100	46500	45800	47600	46600
20	40300	39100	42500	40900	43600	42500	45000	44200	46500	45500	47600	46300
21	40300	39200	42500	40900	43700	42500	45100	43500	46600	45800	47600	46700
22	40400	38700	42600	40700	43400	42400	45100	43900	46900	46000	47500	46900
23	40500	38900	42500	40700	43600	42200	45000	44200	46900	46100	47500	46200
24	40800	39100	42800	40800	43900	42200	45000	43800	46800	46200	47600	46300
25	40800	39000	42900	40900	43900	42500	45100	44300	46900	46400	47700	46500
26	40800	39000	42900	41000	44000	42400	45100	44200	47000	46500	47700	46800
27	40700	38700	42900	40900	43900	42500	45300	44500	47300	46300	---	---
28	40500	38800	42700	40900	44100	42600	45300	44500	47300	46600	---	---
29	40700	38800	42700	40900	44000	42600	45300	44400	47400	46100	---	---
30	40600	39000	42900	41000	43800	42800	45100	44500	47300	45900	---	---
31	---	---	42900	40800	---	---	45400	44600	47300	46600	---	---
MONTH	40900	38200	42900	39000	44100	40600	---	---	---	---	---	---

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 mi².

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 sea level. Recording rain gage (station 372724122101201) at 345 Middlefield Road in Menlo Park, 2.5 mi northeast of gage (discontinued Sept. 30, 1995).

REMARKS.—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, 7,200 ft³/s, Feb. 3, 1998, maximum gage height, 13.60 ft, Dec. 22, 1955; no flow at times.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 700 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0845	1,060	4.44

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	0.31	11	59	8.7	13	11	4.5	2.6	0.95	0.51	0.34
2	0.59	0.28	350	288	8.2	12	11	4.4	2.3	0.89	0.49	0.27
3	0.55	0.33	59	150	7.8	11	9.6	4.0	2.2	0.81	0.48	0.24
4	0.61	0.49	19	65	7.5	11	9.0	3.9	1.7	0.75	0.52	0.30
5	0.66	0.37	13	44	7.2	10	8.9	3.7	1.1	0.68	0.52	0.32
6	0.66	0.33	17	35	7.0	14	8.7	3.6	0.73	0.69	0.47	0.33
7	0.67	0.31	13	27	19	36	8.1	3.4	0.46	0.67	0.45	0.36
8	0.75	0.30	9.8	22	69	24	7.7	3.3	0.40	0.66	0.43	0.43
9	0.62	0.40	10	20	26	15	7.3	3.1	0.19	0.59	0.44	0.34
10	0.61	0.60	8.2	17	16	45	7.0	3.2	0.83	0.58	0.33	0.33
11	0.72	2.9	7.0	15	13	26	6.9	3.1	1.4	0.56	0.35	0.35
12	0.76	33	6.1	13	11	18	6.8	3.0	1.5	0.65	0.44	0.38
13	0.70	4.8	5.5	12	11	15	6.6	3.1	1.6	0.63	0.48	0.40
14	0.75	1.6	70	11	10	13	6.4	2.7	1.5	0.62	0.48	0.41
15	0.68	1.0	23	11	9.5	13	6.5	2.6	1.4	0.62	0.50	0.39
16	0.56	0.77	13	9.7	17	12	6.0	2.5	1.4	0.73	0.58	0.36
17	0.60	0.64	38	8.6	72	38	9.0	2.5	1.3	0.94	0.51	0.34
18	0.66	0.58	28	8.0	30	25	7.2	2.2	1.4	0.78	0.55	0.37
19	0.74	0.50	16	7.7	28	16	5.1	2.6	1.3	0.64	0.57	0.30
20	0.68	0.45	167	7.5	56	13	4.8	8.5	1.2	0.62	0.45	0.27
21	0.66	0.47	255	7.2	34	12	5.6	10	1.2	0.55	0.40	0.27
22	0.56	0.90	77	7.9	28	12	5.7	7.7	1.3	0.55	0.39	0.34
23	0.59	0.69	54	6.8	22	109	5.2	5.9	1.3	0.58	0.40	0.31
24	0.58	30	30	6.6	20	46	5.0	5.0	1.2	0.54	0.41	0.26
25	0.54	7.8	22	6.9	17	30	3.9	4.4	1.2	0.51	0.40	0.30
26	0.51	3.4	17	12	15	23	3.9	3.9	1.3	0.53	0.39	0.35
27	0.52	2.5	16	16	15	18	4.1	3.7	1.2	0.56	0.39	0.42
28	0.62	3.4	36	15	14	16	4.0	3.4	1.0	0.57	0.35	0.54
29	0.66	35	128	13	---	14	5.3	3.3	1.00	0.54	0.35	0.53
30	1.1	6.4	123	11	---	13	4.8	3.1	0.97	0.83	0.41	0.51
31	0.45	---	113	9.3	---	11	---	2.7	---	0.62	0.43	---
TOTAL	20.46	140.52	1754.6	942.2	598.9	684	201.1	123.0	38.18	20.44	13.87	10.66
MEAN	0.660	4.684	56.60	30.39	21.39	22.06	6.703	3.968	1.273	0.659	0.447	0.355
MAX	1.1	35	350	288	72	109	11	10	2.6	0.95	0.58	0.54
MIN	0.45	0.28	5.5	6.6	7.0	10	3.9	2.2	0.19	0.51	0.33	0.24
AC-FT	41	279	3480	1870	1190	1360	399	244	76	41	28	21

SAN FRANCISQUITO CREEK BASIN

11164500 SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.945	5.864	24.28	62.39	79.97	52.79	24.94	3.781	1.162	0.481	0.269	0.313
MAX	28.2	92.0	220	301	549	315	232	39.5	11.4	4.20	1.61	2.11
(WY)	1963	1951	1956	1997	1998	1983	1958	1983	1998	1998	1983	1973
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931	1931

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1931 - 2002
ANNUAL TOTAL	5450.80	4547.93	
ANNUAL MEAN	14.93	12.46	21.14
HIGHEST ANNUAL MEAN			83.4 1983
LOWEST ANNUAL MEAN			0.000 1931
HIGHEST DAILY MEAN	350 Dec 2	350 Dec 2	2650 Dec 23 1955
LOWEST DAILY MEAN	0.00 Jun 6	0.19 Jun 9	0.00 Oct 1 1930
ANNUAL SEVEN-DAY MINIMUM	0.08 Jun 1	0.29 Sep 19	0.00 Oct 1 1930
MAXIMUM PEAK FLOW		1060 Dec 2	7200 Feb 3 1998
MAXIMUM PEAK STAGE		4.44 Dec 2	13.60 Dec 22 1955
ANNUAL RUNOFF (AC-FT)	10810	9020	15310
10 PERCENT EXCEEDS	33	27	36
50 PERCENT EXCEEDS	1.3	3.0	0.49
90 PERCENT EXCEEDS	0.24	0.39	0.00

11166000 MATADERO CREEK AT PALO ALTO, CA

LOCATION.—Lat 37°25'18", long 122°08'04", in Rincon de San Francisquito Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank, on Ash Street, 150 ft upstream from Lambert Avenue Bridge, and 2.1 mi southeast of Palo Alto Post Office.

DRAINAGE AREA.—7.26 mi².

PERIOD OF RECORD.—July 1952 to April 1991, June 1992 to current year.

REVISED RECORDS.—WDR CA-80-2: 1971, 1973–74, 1978, 1971–75(P). WDR CA-82-2: 1973–74(P), 1978(P).

GAGE.—Water-stage recorder. Datum of gage is 17.01 ft above sea level. Prior to Sept. 25, 1958, at site 150 ft downstream at different datum. Prior to Apr. 9, 1991, at same site, different datum.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,560 ft³/s, Feb. 2, 1998, gage height, 10.00 ft, from rating curve extended above 300 ft³/s, on basis of step-backwater computation; no flow at times.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 12	0800	321	4.75	Dec. 2	unknown	350	4.85
Nov. 24	0815	288	4.63	Dec. 20	1215	206	4.33

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.31	0.42	e6.8	6.2	1.3	1.3	1.2	0.76	0.47	0.34	e0.27	e0.13
2	0.30	0.42	e59	29	1.4	1.2	1.1	0.76	0.46	0.26	e0.28	0.11
3	0.32	0.42	e35	9.7	1.3	1.1	1.1	0.73	0.49	0.31	e0.33	0.17
4	0.35	0.42	e11	4.3	1.2	1.2	1.1	0.70	0.44	0.30	e0.31	0.35
5	0.36	0.48	6.1	2.9	1.2	1.3	1.1	0.69	1.9	0.33	e0.25	e0.28
6	0.75	0.38	8.2	2.4	1.1	3.0	1.1	0.64	0.53	0.28	0.28	e0.20
7	0.41	0.40	1.2	2.1	7.6	3.4	1.1	0.63	0.37	0.27	e0.24	e0.13
8	0.40	0.39	1.1	1.9	3.1	1.4	1.1	0.64	0.34	0.27	0.29	e0.18
9	0.36	0.36	3.3	1.8	1.4	1.3	0.96	0.62	0.35	0.25	e0.29	e0.22
10	0.86	2.0	1.1	1.6	1.2	4.6	0.95	0.63	0.37	0.44	e0.33	e0.26
11	0.34	1.1	0.96	1.5	1.2	1.4	0.88	0.63	0.29	0.25	e0.32	e0.31
12	0.31	32	0.88	1.4	1.2	1.4	0.85	0.63	0.30	0.28	e0.33	e0.27
13	0.29	1.0	2.0	1.4	1.1	1.7	0.70	0.61	0.39	0.28	0.28	e0.22
14	0.30	0.57	18	1.4	1.1	1.2	0.72	0.68	0.34	0.28	0.31	e0.17
15	0.30	0.51	1.7	1.3	1.1	1.2	0.61	0.69	0.34	0.25	0.33	e0.21
16	0.31	0.46	1.1	1.2	9.1	1.1	0.60	0.63	0.37	0.22	e0.34	e0.17
17	0.35	0.52	5.6	1.2	17	17	1.2	0.59	0.38	0.24	e0.31	e0.14
18	0.31	0.44	1.3	1.2	2.5	1.9	0.55	0.60	0.37	0.25	e0.28	e0.11
19	0.34	2.4	1.1	2.0	4.7	1.4	0.58	0.91	0.39	0.25	0.28	0.11
20	0.36	0.45	49	1.2	2.0	1.3	0.60	4.8	0.37	0.36	e0.25	0.15
21	0.38	0.51	30	1.4	1.8	1.2	0.59	1.5	0.33	0.36	e0.22	0.16
22	0.46	0.54	11	1.7	1.8	2.1	0.54	0.70	0.37	0.26	e0.25	0.19
23	0.32	0.42	5.4	1.2	1.6	22	0.52	0.62	0.38	0.14	e0.26	0.20
24	0.32	34	2.5	1.2	1.5	2.5	0.52	0.63	0.33	0.14	e0.28	0.17
25	0.31	2.5	1.9	1.2	1.5	1.6	0.53	0.63	0.29	0.15	e0.14	0.16
26	0.30	e0.57	1.6	4.6	1.3	1.5	0.58	0.55	0.36	e0.22	e0.22	0.16
27	0.36	e0.51	1.9	1.4	1.7	1.3	0.52	0.49	0.36	e0.32	e0.22	0.23
28	0.46	e2.5	15	3.4	1.8	1.3	0.54	0.50	0.33	0.24	e0.31	0.16
29	0.47	e33	27	1.5	---	1.3	3.4	0.64	0.35	0.18	e0.24	0.14
30	1.4	e2.6	22	1.3	---	1.2	0.86	1.2	0.36	e0.16	e0.14	0.13
31	0.57	---	14	1.3	---	1.2	---	0.54	---	e0.22	e0.20	---
TOTAL	12.98	122.29	346.74	95.9	74.8	86.6	26.70	25.57	12.72	8.10	8.38	5.59
MEAN	0.419	4.076	11.19	3.094	2.671	2.794	0.890	0.825	0.424	0.261	0.270	0.186
MAX	1.4	34	59	29	17	22	3.4	4.8	1.9	0.44	0.34	0.35
MIN	0.29	0.36	0.88	1.2	1.1	1.1	0.52	0.49	0.29	0.14	0.14	0.11
AC-FT	26	243	688	190	148	172	53	51	25	16	17	11

e Estimated.

MATADERO CREEK BASIN

11166000 MATADERO CREEK AT PALO ALTO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.484	1.695	3.579	8.521	9.314	5.502	2.174	0.654	0.325	0.198	0.170	0.174
MAX	3.64	9.83	24.3	32.3	77.7	37.8	25.2	4.54	2.86	1.42	0.70	0.66
(WY)	2001	1973	1956	1983	1998	1983	1958	1998	2000	2000	1983	1983
MIN	0.000	0.000	0.000	0.016	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1953	1953	1954	1954	1964	1959	1954	1953	1953	1953	1953	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1953 - 2002
ANNUAL TOTAL	1303.11	826.37	
ANNUAL MEAN	3.570	2.264	2.733
HIGHEST ANNUAL MEAN			10.9 1983
LOWEST ANNUAL MEAN			0.062 1954
HIGHEST DAILY MEAN	59 Dec 2	59 Dec 2	437 Feb 3 1998
LOWEST DAILY MEAN	0.14 Jun 12	0.11 Sep 2	0.00 Oct 1 1952
ANNUAL SEVEN-DAY MINIMUM	0.23 Jun 12	0.15 Sep 16	0.00 Oct 1 1952
MAXIMUM PEAK FLOW		350 Dec 2	2560 Feb 2 1998
MAXIMUM PEAK STAGE		4.85 Dec 2	10.00 Feb 2 1998
ANNUAL RUNOFF (AC-FT)	2580	1640	1980
10 PERCENT EXCEEDS	8.4	3.2	3.6
50 PERCENT EXCEEDS	0.57	0.59	0.18
90 PERCENT EXCEEDS	0.30	0.22	0.00

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, 1 block below Santa Clara Avenue, and 100 ft downstream from Los Gatos Creek.

DRAINAGE AREA.—146 mi².

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 sea level.

REMARKS.—Records good. Flow regulated by Lexington Reservoir 12 mi upstream and by Calero, Almaden, and Guadalupe Reservoirs, and Lake Elsmar (combined usable capacity, about 42,000 acre-ft), with water released during summer for percolation in spreading basins on tributaries. Diversions into the above impoundments come from San Luis Reservoir (part of the San Felipe Project), from the South Bay Aqueduct, and from the Hetch Hetchy Aqueduct. There are also upstream diversions by the San Jose Water Works for urban use.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,000 ft³/s, Mar. 10, 1995, gage height, 17.4 ft, from rating curve extended above 2,500 ft³/s, on basis of slope-area measurement of peak flow; no flow several days in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	9.4	30	21	5.2	6.4	7.3	14	4.9	3.5	3.0	8.3
2	3.6	9.1	893	187	4.5	5.8	7.2	8.3	4.1	3.5	4.0	7.2
3	4.2	8.9	140	64	4.9	5.0	9.0	6.9	4.9	3.8	4.2	7.4
4	4.2	9.8	52	34	5.1	5.1	6.7	5.4	5.2	3.3	4.4	8.4
5	3.6	7.7	37	26	5.6	5.5	6.3	4.9	4.4	3.6	4.0	6.7
6	4.9	6.2	30	22	6.4	18	5.7	5.6	4.4	3.6	4.1	2.9
7	5.0	5.7	26	25	7.6	87	5.9	7.3	4.4	3.4	4.0	4.5
8	5.1	5.3	24	28	22	25	6.1	4.9	3.3	3.5	4.0	4.0
9	5.2	4.2	42	18	8.3	15	5.5	4.8	3.6	3.4	2.8	4.0
10	3.7	7.8	24	11	7.4	38	6.1	4.2	4.4	3.6	3.3	4.0
11	3.7	13	19	10	9.2	16	6.2	4.0	4.1	3.1	3.8	14
12	4.7	347	23	9.9	7.0	15	5.5	3.6	5.7	2.9	4.0	10
13	4.4	27	23	9.9	6.0	18	4.5	3.4	9.2	3.5	4.4	3.6
14	4.8	11	223	8.6	7.9	14	3.8	3.1	5.4	2.9	3.6	2.5
15	4.8	9.4	24	8.8	6.4	16	3.9	3.0	5.0	2.6	3.8	2.6
16	4.8	7.4	20	8.6	35	12	4.8	3.1	4.1	2.5	4.1	2.5
17	4.3	5.7	23	9.7	225	177	9.6	2.5	4.3	3.2	2.8	2.7
18	5.4	5.0	14	12	25	22	5.1	3.3	3.7	3.5	2.8	2.3
19	5.9	4.5	15	10	40	14	5.8	5.5	4.3	3.8	3.2	3.9
20	5.8	4.6	518	11	15	13	8.7	113	4.1	3.6	3.8	7.9
21	6.1	4.2	442	11	14	12	7.4	50	4.0	3.6	4.3	7.7
22	6.8	4.0	78	16	15	50	6.2	12	3.7	3.6	3.8	6.9
23	6.7	3.4	56	8.7	8.8	268	5.5	8.6	3.9	3.0	4.3	6.6
24	7.2	378	43	9.1	7.4	24	4.7	7.3	4.3	3.4	4.9	4.7
25	8.2	50	43	9.1	5.9	13	5.1	6.3	3.6	4.4	4.7	2.8
26	7.2	10	38	55	5.1	10	4.1	6.2	4.2	4.0	5.3	2.6
27	5.2	7.9	19	26	4.6	7.8	6.7	6.3	4.1	3.8	3.2	3.9
28	7.1	14	34	43	5.0	7.0	7.0	6.6	3.9	3.6	2.3	3.6
29	9.1	220	93	18	---	9.4	17	6.4	3.9	3.6	3.9	3.2
30	26	18	69	13	---	7.7	24	6.2	3.6	2.9	13	3.1
31	11	---	39	9.6	---	7.2	---	5.2	---	2.7	9.3	---
TOTAL	193.3	1218.2	3154	753.0	519.3	943.9	211.4	331.9	132.7	105.4	133.1	154.5
MEAN	6.235	40.61	101.7	24.29	18.55	30.45	7.047	10.71	4.423	3.400	4.294	5.150
MAX	26	378	893	187	225	268	24	113	9.2	4.4	13	14
MIN	3.6	3.4	14	8.6	4.5	5.0	3.8	2.5	3.3	2.5	2.3	2.3
AC-FT	383	2420	6260	1490	1030	1870	419	658	263	209	264	306

GUADALUPE RIVER BASIN

11169000 GUADALUPE RIVER AT SAN JOSE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.799	16.29	40.31	102.7	162.0	135.3	64.59	11.74	4.489	3.656	3.404	3.571
MAX	129	123	311	998	1157	1165	847	219	43.5	24.8	22.4	31.0
(WY)	1963	1984	1932	1997	1998	1983	1982	1983	1998	1998	1998	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1930	1930	1930	1931	1930	1931	1930	1930	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002	
ANNUAL TOTAL	15302.1		7850.7			
ANNUAL MEAN	41.92		21.51		45.63	
HIGHEST ANNUAL MEAN					270	1983
LOWEST ANNUAL MEAN					0.000	1931
HIGHEST DAILY MEAN	893	Dec 2	893	Dec 2	7870	Mar 10 1995
LOWEST DAILY MEAN	3.4	Nov 23	2.3	Aug 28	0.00	Oct 1 1929
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 29	2.9	Sep 13	0.00	Oct 1 1929
MAXIMUM PEAK FLOW			2600		11000	
MAXIMUM PEAK STAGE			5.50		17.40	
ANNUAL RUNOFF (AC-FT)	30350		15570		33060	
10 PERCENT EXCEEDS	78		32		56	
50 PERCENT EXCEEDS	11		6.0		0.86	
90 PERCENT EXCEEDS	4.6		3.4		0.00	

11169025 GUADALUPE RIVER ABOVE HIGHWAY 101, AT SAN JOSE, CA

LOCATION.—Lat 37°22'55", long 121°55'55", Santa Clara County, Hydrologic Unit 18050003, on left bank, approximately 200 ft upstream from Highway 101, and 50 ft downstream of access bridge to San Jose Airport rental car area.

DRAINAGE AREA.—160 mi².

PERIOD OF RECORD.—May 23, 2002, to Sept. 30, 2002.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 20 ft above sea level from topographic map.

REMARKS.—Records good. Flow regulated by Lexington Reservoir 12 mi upstream and by Calero, Almaden, and Guadalupe Reservoirs, and Lake Elsmar (combined usable capacity, about 42,000 acre-ft), with water released during summer for percolation in spreading basins on tributaries. Diversions into the above impoundments come from San Luis Reservoir (part of the San Felipe Project), from the South Bay Aqueduct, and from the Hetch Hetchy Aqueduct. There are upstream diversions by the San Jose Water Works for urban use. In addition, an off-stream holding basin located approximately 150 ft downstream collects runoff from part of San Jose Airport and periodically releases water into the stream causing the gage to be in backwater for a few minutes each day at low flows.

EXTREMES FOR PERIOD OF RECORD.—No extremes published this Water Year. New station with partial record during low flow portion of year only.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	25	21	20	24
2	---	---	---	---	---	---	---	---	23	21	22	23
3	---	---	---	---	---	---	---	---	24	21	22	23
4	---	---	---	---	---	---	---	---	26	21	23	24
5	---	---	---	---	---	---	---	---	24	21	22	23
6	---	---	---	---	---	---	---	---	24	21	22	19
7	---	---	---	---	---	---	---	---	24	21	22	20
8	---	---	---	---	---	---	---	---	22	21	21	20
9	---	---	---	---	---	---	---	---	22	21	20	20
10	---	---	---	---	---	---	---	---	24	21	20	20
11	---	---	---	---	---	---	---	---	24	21	21	27
12	---	---	---	---	---	---	---	---	24	20	21	26
13	---	---	---	---	---	---	---	---	27	21	22	21
14	---	---	---	---	---	---	---	---	23	20	21	19
15	---	---	---	---	---	---	---	---	22	20	21	19
16	---	---	---	---	---	---	---	---	21	19	22	18
17	---	---	---	---	---	---	---	---	22	20	20	18
18	---	---	---	---	---	---	---	---	22	21	20	18
19	---	---	---	---	---	---	---	---	22	21	20	19
20	---	---	---	---	---	---	---	---	22	21	21	23
21	---	---	---	---	---	---	---	---	22	21	22	23
22	---	---	---	---	---	---	---	---	21	21	21	22
23	---	---	---	---	---	---	---	---	29	22	21	22
24	---	---	---	---	---	---	---	---	28	22	21	21
25	---	---	---	---	---	---	---	---	26	22	22	19
26	---	---	---	---	---	---	---	26	22	22	22	18
27	---	---	---	---	---	---	---	26	22	21	21	19
28	---	---	---	---	---	---	---	26	22	21	19	20
29	---	---	---	---	---	---	---	26	22	21	20	20
30	---	---	---	---	---	---	---	26	21	20	28	19
31	---	---	---	---	---	---	---	25	---	20	25	---
TOTAL	---	---	---	---	---	---	---	---	685	644	666	627
MEAN	---	---	---	---	---	---	---	---	22.83	20.77	21.48	20.90
MAX	---	---	---	---	---	---	---	---	27	22	28	27
MIN	---	---	---	---	---	---	---	---	21	19	19	18
AC-FT	---	---	---	---	---	---	---	---	1360	1280	1320	1240

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 mi².

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 sea level, from topographic map. Prior to Dec. 6, 1968, at site 40 ft downstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, 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 ft³/s, Dec. 22, 1955, from rating curve extended above 510 ft³/s, on basis of slope-area measurement of peak flow, site and datum then in use, maximum gage height, 7.80 ft, Feb. 3, 1998; no flow at times.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 110 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 12	1000	163	3.75	Dec. 20	1200	129	3.53
Dec. 2	0530	310	4.25				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.53	1.0	13	14	2.4	1.7	0.96	e1.5	2.3	1.3	0.78	0.61
2	e0.50	1.0	e60	55	2.4	e2.1	0.99	e1.3	2.3	1.3	0.79	0.55
3	0.45	1.1	e22	33	2.2	e2.1	0.99	e1.2	2.1	1.2	0.81	0.51
4	0.47	1.2	e11	e19	2.1	2.0	0.93	e1.1	2.1	1.2	0.87	0.47
5	0.46	1.1	e7.0	e15	2.0	1.8	1.1	e1.0	2.0	1.2	0.86	0.49
6	0.51	1.0	e5.0	7.1	1.9	4.7	1.2	e1.1	2.0	1.2	0.79	0.52
7	0.54	1.0	4.3	6.1	3.7	11	1.0	e1.5	1.8	1.2	0.76	0.60
8	0.56	1.0	4.3	6.4	4.4	e5.0	1.1	e1.2	1.6	1.1	0.66	0.60
9	0.40	1.0	4.4	4.3	3.1	e3.6	1.0	e1.1	1.8	1.0	0.58	0.57
10	0.40	1.1	3.6	3.7	2.7	5.1	1.7	2.0	1.8	0.93	0.57	0.55
11	0.38	2.7	3.4	3.2	3.3	4.0	2.7	1.3	1.6	0.91	0.56	0.48
12	0.37	25	2.9	2.8	2.7	3.4	1.0	1.2	1.7	0.91	0.59	0.54
13	0.34	4.4	2.9	2.5	2.6	3.8	1.0	1.2	1.9	0.88	0.61	0.71
14	0.38	2.8	14	2.3	2.4	3.2	0.93	1.2	1.8	0.91	0.63	0.76
15	0.38	2.5	e4.1	2.0	1.9	3.0	2.3	1.2	1.7	0.89	0.64	0.80
16	0.44	e2.3	e2.7	1.8	2.5	2.6	1.7	1.1	1.8	0.92	0.65	0.78
17	0.48	e2.5	4.9	1.6	9.2	4.1	2.5	1.1	1.8	0.92	0.70	0.76
18	0.51	2.9	3.3	2.2	5.0	3.0	1.6	1.1	1.7	0.96	0.64	0.72
19	0.47	2.7	1.6	2.3	4.0	e2.3	1.6	2.7	1.6	0.95	0.68	0.70
20	0.45	e2.9	56	1.5	3.5	2.1	1.6	3.7	1.5	0.88	0.68	0.75
21	0.49	e3.2	62	1.5	3.3	1.9	1.4	2.6	1.5	0.89	0.67	0.76
22	0.57	3.8	27	1.2	3.0	4.1	1.2	1.6	1.6	0.88	0.71	0.84
23	0.57	3.0	16	3.1	e2.8	15	1.4	1.0	1.6	0.88	0.75	0.70
24	0.55	24	12	2.8	3.4	10	1.00	1.5	1.6	0.89	0.76	0.66
25	0.43	7.0	11	2.2	2.4	6.9	e1.2	1.3	1.5	0.90	0.74	0.70
26	0.42	4.6	9.0	2.9	2.3	5.3	e0.93	1.3	1.5	0.88	0.74	0.72
27	0.44	3.9	9.5	2.5	2.4	4.0	e1.4	1.2	1.4	0.81	0.70	0.82
28	0.48	4.2	10	3.3	2.4	2.6	e1.3	1.2	1.5	0.85	0.68	1.3
29	0.49	16	12	3.1	---	2.0	e2.6	1.6	1.5	0.86	0.73	0.84
30	1.6	4.4	12	2.7	---	1.5	e3.2	2.3	1.4	0.80	0.77	0.76
31	1.2	---	16	2.6	---	1.1	---	2.1	---	0.76	0.73	---
TOTAL	16.26	135.3	426.9	213.7	86.0	125.0	43.53	46.5	52.0	30.16	21.83	20.57
MEAN	0.525	4.510	13.77	6.894	3.071	4.032	1.451	1.500	1.733	0.973	0.704	0.686
MAX	1.6	25	62	55	9.2	15	3.2	3.7	2.3	1.3	0.87	1.3
MIN	0.34	1.0	1.6	1.2	1.9	1.1	0.93	1.0	1.4	0.76	0.56	0.47
AC-FT	32	268	847	424	171	248	86	92	103	60	43	41

e Estimated.

11169500 SARATOGA CREEK AT SARATOGA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.922	2.754	9.051	22.34	30.93	22.89	13.16	3.797	1.362	0.594	0.403	0.413
MAX	17.5	25.5	83.2	104	157	114	131	35.7	6.97	2.95	1.66	2.42
(WY)	1963	1951	1956	1997	1998	1983	1982	1983	1941	1941	1998	1998
MIN	0.000	0.037	0.25	0.31	0.086	0.32	0.24	0.065	0.000	0.000	0.000	0.000
(WY)	1950	1949	1957	1976	1964	1972	1972	1959	1950	1947	1934	1934

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1934 - 2002	
ANNUAL TOTAL	1984.02		1217.75			
ANNUAL MEAN	5.436		3.336		8.938	
HIGHEST ANNUAL MEAN					32.5	1983
LOWEST ANNUAL MEAN					0.54	1977
HIGHEST DAILY MEAN	104	Feb 20	62	Dec 21	1260	Feb 27 1940
LOWEST DAILY MEAN	0.34	Oct 13	0.34	Oct 13	0.00	Oct 1 1933
ANNUAL SEVEN-DAY MINIMUM	0.38	Oct 9	0.38	Oct 9	0.00	Oct 1 1933
MAXIMUM PEAK FLOW			310	Dec 2	2730	Dec 22 1955
MAXIMUM PEAK STAGE			4.25	Dec 2	7.80	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	3940		2420		6480	
10 PERCENT EXCEEDS	14		5.2		20	
50 PERCENT EXCEEDS	1.0		1.5		0.94	
90 PERCENT EXCEEDS	0.51		0.57		0.00	

11172175 COYOTE CREEK ABOVE HIGHWAY 237, AT MILPITAS, CA

LOCATION.—Lat 37°25'20", long 121°55'35", in Rincon de los Esteras Grant, Santa Clara County, Hydrologic Unit 18050003, on right bank, 500 ft upstream from Highway 237 bridge, 1 mi west of Interstate Highway 880, and 2.3 mi upstream from lower Penitencia Creek.

DRAINAGE AREA.—319 mi².

PERIOD OF RECORD.—January 1999 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 10 ft above sea level, from topographic map.

REMARKS.—Records good. Flow regulated by Leroy Andersen Reservoir, usable capacity, 89,073 acre-ft, and Coyote Reservoir, usable capacity, 22,925 acre-ft, with water diverted for percolation in spreading basins adjacent to Coyote Creek.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,550 ft³/s, Jan. 24, 2000, gage height, 13.10 ft, from rating curve extended above 330 ft³/s, on basis of step-backwater computations; minimum daily, 8.7 ft³/s, July 31, 2002.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	48	55	17	24	22	46	15	10	9.4	13
2	22	19	315	122	17	23	20	21	15	10	12	12
3	23	21	102	143	17	23	20	19	16	11	12	12
4	22	21	49	62	17	23	20	19	16	12	10	11
5	20	19	36	45	17	22	21	21	14	12	9.9	12
6	18	18	29	40	17	41	22	19	14	12	13	12
7	18	18	24	42	21	75	21	17	17	12	13	12
8	18	19	24	37	48	46	20	17	13	12	12	13
9	19	20	46	34	23	29	21	18	14	13	12	15
10	18	23	28	31	20	55	20	15	14	12	10	13
11	19	23	21	29	19	36	20	16	12	12	13	14
12	19	187	17	29	18	28	21	14	13	12	12	12
13	17	86	17	27	17	27	19	14	14	11	13	14
14	17	36	209	25	17	26	19	17	14	12	9.4	13
15	16	36	46	24	17	24	17	18	13	9.9	10	13
16	17	32	35	23	23	25	17	16	15	11	12	12
17	20	30	41	21	124	129	25	16	17	12	9.5	12
18	19	30	36	20	44	61	18	16	14	10	10	13
19	18	29	33	20	49	32	17	23	11	9.8	11	14
20	19	30	159	20	41	31	16	119	14	13	12	11
21	19	29	221	25	33	27	16	55	13	12	9.4	14
22	16	32	73	27	30	46	16	25	12	12	12	12
23	18	31	64	19	28	166	16	23	13	12	10	12
24	20	163	52	19	26	76	17	21	14	11	11	14
25	18	78	47	18	27	39	16	20	12	10	13	13
26	16	45	43	56	27	30	19	19	11	e11	12	11
27	18	43	40	53	26	25	17	17	12	e11	11	14
28	18	34	134	38	25	24	18	16	12	e10	11	14
29	18	110	163	29	---	22	25	17	11	e9.5	10	14
30	40	43	103	19	---	22	44	17	11	e9.0	11	11
31	26	---	95	18	---	21	---	16	---	8.7	12	---
TOTAL	605	1324	2350	1170	805	1278	600	727	406	344.9	347.6	382
MEAN	19.52	44.13	75.81	37.74	28.75	41.23	20.00	23.45	13.53	11.13	11.21	12.73
MAX	40	187	315	143	124	166	44	119	17	13	13	15
MIN	16	18	17	18	17	21	16	14	11	8.7	9.4	11
AC-FT	1200	2630	4660	2320	1600	2530	1190	1440	805	684	689	758

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	26.38	32.24	38.63	71.92	115.1	91.90	35.55	20.81	17.71	15.62	15.01	16.85
MEAN	26.38	32.24	38.63	71.92	115.1	91.90	35.55	20.81	17.71	15.62	15.01	16.85
MAX	43.0	44.1	75.8	112	207	205	59.4	23.5	21.3	18.0	17.2	20.4
(WY)	2001	2002	2002	2000	2000	2000	1999	2002	2000	2001	2001	2001
MIN	16.6	25.9	17.7	37.7	28.8	41.2	20.0	18.5	13.5	11.1	11.2	12.7
(WY)	2000	2001	2000	2002	2002	2002	2002	1999	2002	2002	2002	2002

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	15205		10339.5			
ANNUAL MEAN	41.66		28.33		41.62	
HIGHEST ANNUAL MEAN					58.9 2000	
LOWEST ANNUAL MEAN					28.3 2002	
HIGHEST DAILY MEAN	602	Mar 5	315	Dec 2	1240	Feb 23 2000
LOWEST DAILY MEAN	14	Jan 5	8.7	Jul 31	8.7	Jul 31 2002
ANNUAL SEVEN-DAY MINIMUM	16	Jul 30	9.8	Jul 26	9.8	Jul 26 2002
MAXIMUM PEAK FLOW			681	Dec 2	2550	Jan 24 2000
MAXIMUM PEAK STAGE			9.45	Dec 2	13.10	Jan 24 2000
ANNUAL RUNOFF (AC-FT)	30160		20510		30150	
10 PERCENT EXCEEDS	86		47		63	
50 PERCENT EXCEEDS	20		18		19	
90 PERCENT EXCEEDS	16		11		13	

e Estimated.

11172300 AGUA FRIA CREEK AT WARM SPRINGS ROAD, AT FREMONT, CA

LOCATION.—Lat 37°29'19", long 121°55'42", Alameda County, Hydrologic Unit 18050004, in Aqua Caliente Grant, on downstream side of culvert at Warm Springs Road, at Fremont.

DRAINAGE AREA.—1.79 mi².

PERIOD OF RECORD.—October 1999 to current year (storm season only) (discontinued).

SEDIMENT DATA: October 1999 to current year (storm season only) (discontinued).

EXTREMES FOR PERIOD OF RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 124 mg/L, Mar. 9, 2000; minimum sampled, 8 mg/L, Apr. 30, 2002.

SEDIMENT LOAD (storm season only): Maximum sampled, 2.3 tons, Mar. 9, 2000; minimum sampled, 0.01 ton, Mar. 20, 2001, Jan. 10, Apr. 30, 2002.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 78 mg/L, Dec. 20; minimum sampled, 8 mg/L, Apr. 30.

SEDIMENT LOAD (storm season only): Maximum sampled, 1.4 ton, Dec. 20; minimum sampled, 0.01 ton, Jan. 10, Apr. 30.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. THAN .062 MM (70331)
OCT 03...	1130	.35	--	28	.03	25
DEC 20...	1505	6.8	10.0	78	1.4	98
JAN 10...	1130	.41	12.0	13	.01	--
MAR 04...	1625	2.2	13.0	12	.07	26
APR 11...	1050	.34	16.0	16	.02	14
APR 30...	1215	.28	14.0	8	.01	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. THAN .062 MM (80164)	BED MAT. SIEVE DIAM. THAN .125 MM (80165)	BED MAT. SIEVE DIAM. THAN .250 MM (80166)	BED MAT. SIEVE DIAM. THAN .500 MM (80167)
APR 11...	1055	2	.34	16.0	2	6	24	48

Date	BED MAT. SIEVE DIAM. THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. THAN 32.0 MM (80173)
APR 11...	66	76	82	88	94	100

11172360 TOROGES CREEK AT WARM SPRINGS ROAD, AT FREMONT, CA

LOCATION.—Lat 37°28'48", long 121°55'21", in Agua Caliente Grant, Alameda County, Hydrologic Unit 18050004, on upstream side of culvert, at Warm Springs Road, at Fremont.

DRAINAGE AREA.—1.23 mi².

PERIOD OF RECORD.—October 1999 to current year (storm season only) (discontinued).

SEDIMENT DATA: October 1999 to current year (storm season only) (discontinued).

EXTREMES FOR PERIOD OF RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 8,130 mg/L, Mar. 9, 2000; minimum sampled, 2 mg/L, Mar. 28, 2001, Mar. 4, Apr. 30, 2002.

SEDIMENT LOAD (storm season only): Maximum sampled, 48 tons, Mar. 9, 2000; minimum sampled, <0.01 ton, Mar. 28, May 1, 2001, Jan. 10, Mar. 4, 11, Apr. 30, 2002.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 1360 mg/L, Dec. 20; minimum sampled, 2 mg/L, Mar. 4, Apr. 30.

SEDIMENT LOAD (storm season only): Maximum sampled, 11.0 ton, Dec. 20; minimum sampled, <0.01 ton, Jan. 10, Mar. 4, Apr. 11, 30.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. THAN .062 MM (70331)
OCT						
03...	0925	.13	18.0	100	.04	72
DEC						
20...	1600	3.0	9.5	1360	11.0	94
JAN						
10...	1040	.01	10.0	70	<.01	63
MAR						
04...	1600	e.04	19.5	2	<.01	--
APR						
11...	1020	e.04	15.0	3	<.01	84
30...	1125	e.10	16.5	2	<.01	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)
OCT							
03...	1025	1	.13	18.0	3	8	25
03...	1030	1	.13	18.0	9	17	26
03...	1035	1	.13	18.0	7	15	24
03...	1040	1	.13	18.0	6	15	25
03...	1045	1	.13	18.0	6	18	33
03...	1050	1	.13	18.0	4	12	22
03...	1055	1	.13	18.0	6	14	30
03...	1100	1	.13	18.0	3	10	29
03...	1105	1	.13	18.0	2	6	16
APR							
11...	0925	2	e.04	15.0	2	6	17

e Estimated.

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

11172360 TOROGES CREEK AT WARM SPRINGS ROAD, AT FREMONT, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BED	BED	BED	BED	BED	BED	BED
	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.	MAT.
	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER	% FINER
	THAN	THAN	THAN	THAN	THAN	THAN	THAN
	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM
	(80167)	(80168)	(80169)	(80170)	(80171)	(80172)	(80173)
OCT							
03...	47	67	81	88	92	100	--
03...	34	41	50	66	83	100	--
03...	31	41	47	59	74	100	--
03...	34	47	58	73	86	100	--
03...	45	55	64	76	88	100	--
03...	30	43	60	77	100	--	--
03...	45	61	72	84	100	--	--
03...	53	70	79	88	94	100	--
03...	29	42	54	68	75	87	100
APR							
11...	42	72	88	97	100	--	--

11172365 ZONE 6 LINE B AT WARM SPRINGS BOULEVARD, AT FREMONT, CA

LOCATION.—Lat 37°28'11", long 121°55'00", in Rincon de los Esteras Grant, Alameda County, Hydrologic Unit 18050003, on right bank, 25 ft upstream of Warm Springs Boulevard, at Fremont.

DRAINAGE AREA.—0.83 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1999 to current year (discontinued).

GAGE.—Water-stage recorder. Datum of gage is sea level.

REMARKS.—Records poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 79 ft³/s, Feb. 29, 2000, gage height, 44.82 ft, from rating extension above 44.40 ft, maximum gage height, 45.02 ft, Jan. 10, 2001; minimum daily, 0.02 ft³/s, Aug. 19–21, Oct. 5, 6, 2000, and several days July–September 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 75 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 20	1300	45	44.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.06	0.25	2.7	0.04	0.08	0.07	0.29	0.10	0.22	0.05	0.03
2	0.10	0.09	6.4	4.3	0.04	0.07	0.07	0.06	0.10	0.24	0.05	0.02
3	0.12	0.12	2.7	5.6	0.08	0.11	0.07	0.05	0.10	0.27	0.07	0.02
4	0.10	0.05	3.2	3.7	0.14	0.08	0.07	0.06	0.09	0.28	0.06	0.02
5	0.09	0.05	1.2	3.1	0.12	0.07	0.07	0.06	0.11	0.28	0.05	0.03
6	0.09	0.05	0.20	0.77	0.08	0.50	0.07	0.06	0.17	0.23	0.09	0.02
7	0.10	0.05	0.05	0.16	0.28	0.46	0.08	0.06	0.50	0.23	0.04	0.03
8	0.09	0.05	0.04	0.16	0.30	0.08	0.08	0.05	0.39	0.30	0.03	0.03
9	0.09	0.05	0.96	0.26	0.13	0.09	0.08	0.04	0.48	0.47	0.03	0.05
10	0.09	0.08	0.12	0.22	0.07	0.21	0.09	0.04	0.42	0.38	0.02	0.04
11	0.07	0.11	0.07	0.11	0.04	0.07	0.07	0.05	0.28	0.32	0.02	0.03
12	0.07	2.3	0.04	0.15	0.03	0.08	0.06	0.09	0.27	0.24	0.02	0.04
13	0.09	0.33	0.18	1.9	0.04	0.07	0.06	0.06	0.33	0.18	0.02	0.10
14	0.09	0.13	4.7	0.71	0.04	0.06	0.07	0.06	0.31	0.28	0.03	0.06
15	0.08	0.35	0.46	0.28	0.03	0.07	0.07	0.07	0.32	0.36	0.03	0.10
16	0.11	0.08	0.31	0.10	0.13	0.07	0.08	0.06	0.35	0.13	0.03	0.37
17	0.08	0.07	2.3	0.07	0.58	0.16	0.13	0.07	0.30	0.12	0.03	0.41
18	0.07	0.07	0.12	0.07	0.69	0.09	0.08	0.07	0.25	0.12	0.03	0.55
19	0.07	0.07	0.11	0.06	0.54	0.07	0.08	2.9	0.39	0.09	0.03	0.28
20	0.08	0.07	4.6	0.04	0.26	0.07	0.07	3.1	0.42	0.04	0.03	0.05
21	0.08	0.08	1.3	0.08	0.08	0.07	0.07	0.44	0.41	0.03	0.04	0.09
22	0.07	0.08	0.53	0.03	0.06	0.15	0.07	0.11	0.42	0.02	0.04	0.12
23	0.07	0.07	0.42	0.04	0.05	0.24	0.07	0.10	0.43	0.02	0.04	0.14
24	0.07	2.6	0.07	0.06	0.09	0.10	0.08	0.09	0.43	0.02	0.04	0.22
25	0.07	0.39	0.07	0.07	0.09	0.08	0.08	0.09	0.25	0.03	0.04	0.21
26	0.07	0.40	0.07	2.2	0.08	0.07	0.08	0.09	0.28	0.04	0.04	0.21
27	0.07	0.15	3.0	0.85	0.09	0.07	0.09	0.10	0.36	0.05	0.04	0.23
28	0.06	0.17	3.0	0.24	0.10	0.07	0.09	0.10	0.31	0.05	0.04	6.1
29	0.07	1.6	2.6	0.05	---	0.06	0.20	0.12	0.34	0.05	0.04	1.4
30	0.80	0.07	4.1	0.04	---	0.07	1.8	0.09	0.25	0.05	0.03	0.06
31	0.07	---	2.7	0.05	---	0.07	---	0.09	---	0.05	0.03	---
TOTAL	3.22	9.84	45.87	28.17	4.30	3.61	4.15	8.72	9.16	5.19	1.18	11.06
MEAN	0.104	0.328	1.480	0.909	0.154	0.116	0.138	0.281	0.305	0.167	0.038	0.369
MAX	0.80	2.6	6.4	5.6	0.69	0.50	1.8	3.1	0.50	0.47	0.09	6.1
MIN	0.04	0.05	0.04	0.03	0.03	0.06	0.06	0.04	0.09	0.02	0.02	0.02
AC-FT	6.4	20	91	56	8.5	7.2	8.2	17	18	10	2.3	22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	0.472	0.703	0.784	2.306	3.844	1.372	0.682	0.785	0.197	0.101	0.048	0.251
MAX	1.13	1.02	1.48	4.00	7.57	2.50	1.45	1.24	0.31	0.17	0.063	0.37
(WY)	2001	2001	2002	2000	2000	2000	2001	2001	2002	2002	2001	2002
MIN	0.10	0.33	0.24	0.91	0.15	0.12	0.14	0.28	0.13	0.066	0.038	0.11
(WY)	2002	2002	2000	2002	2002	2002	2002	2002	2000	2001	2002	2001

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 2000 - 2002

ANNUAL TOTAL	364.46	134.47	
ANNUAL MEAN	0.999	0.368	0.946
HIGHEST ANNUAL MEAN			1.40
LOWEST ANNUAL MEAN			0.37
HIGHEST DAILY MEAN	17	Mar 4	42
LOWEST DAILY MEAN	0.03	Mar 30	0.02
ANNUAL SEVEN-DAY MINIMUM	0.03	Aug 9	0.02
MAXIMUM PEAK FLOW			45
MAXIMUM PEAK STAGE			44.98
ANNUAL RUNOFF (AC-FT)	723	267	686
10 PERCENT EXCEEDS	3.1	0.54	2.2
50 PERCENT EXCEEDS	0.11	0.08	0.11
90 PERCENT EXCEEDS	0.04	0.04	0.04

11172365 ZONE 6 LINE B AT WARM SPRINGS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 1999 to current year (storm season only) (discontinued).

WATER TEMPERATURE: October 1999 to current year (storm season only) (discontinued).

SEDIMENT DATA: October 1999 to current year (storm season only) (discontinued).

PERIOD OF DAILY RECORD.—

SUSPENDED SEDIMENT DISCHARGE: October 1999 to current year (storm season only) (discontinued).

REMARKS.—Sediment samples were collected on most days where water temperature is published. Zero bed-load discharge observed for flows less than 0.32 ft³/s.

EXTREMES FOR PERIOD OF RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 48,000 mg/L, estimated, Feb. 23, 2000; minimum daily mean, 3 mg/L, estimated, Oct. 25, 1999.

SEDIMENT LOAD (storm season only): Maximum daily, 3,890 tons, estimated, Feb. 23, 2000; minimum daily, 0 ton, several days during most years.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 6,210 mg/L, Dec. 2; minimum daily mean, 4 mg/L, Jan. 21, 22, 25, Feb. 1.

SEDIMENT LOAD (storm season only): Maximum daily, 211 tons, Dec. 2; minimum daily, 0 ton, several days in most months.

WATER TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	12.0	---	---	---	---	---	---	---	---
2	24.5	---	10.5	---	---	---	---	---	---	---	---	---
3	---	---	---	---	15.5	25.0	---	---	---	---	---	---
4	---	---	17.0	---	---	22.5	---	---	---	---	---	---
5	16.0	---	15.0	---	---	---	---	---	---	---	---	---
6	---	---	---	15.0	15.0	20.0	---	---	---	---	---	---
7	---	17.0	---	---	---	15.0	---	---	---	---	---	---
8	---	---	10.0	---	10.5	---	---	---	---	---	---	---
9	---	15.5	---	15.0	---	---	---	---	---	---	---	---
10	---	---	---	10.0	---	20.5	---	---	---	---	---	---
11	---	---	10.0	---	10.0	---	14.5	---	---	---	---	---
12	---	15.0	---	15.0	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	10.0	---	10.5	---	---	---	---	---	---	---
15	---	15.0	---	10.0	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	10.5	---	---	10.0	---	---	---	---	---	---
18	---	---	---	5.0	---	20.5	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	10.0	---	18.5	---	---	---	---	---	---	---
21	---	16.0	---	15.0	---	25.0	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	10.5	---	16.0	15.0	---	---	---	---	---	---
24	---	---	---	5.0	---	---	---	---	---	---	---	---
25	---	11.0	---	---	16.5	---	---	---	---	27.0	---	---
26	---	---	10.5	10.5	---	15.5	---	---	---	---	---	---
27	---	---	---	---	16.5	---	---	---	---	---	---	---
28	---	---	---	5.5	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	10.0	---	---	---	---	13.5	---	---	---	---	---
31	---	---	---	10.5	---	21.0	---	---	---	---	---	---

11172365 ZONE 6 LINE B AT WARM SPRINGS, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN (70337)	SED. SUSP. FALL DIAM. % FINER THAN (70338)	SED. SUSP. FALL DIAM. % FINER THAN (70339)
OCT								
02...	0845	.12	17.0	102	.03	--	--	--
05...	0700	.09	16.0	58	.01	--	--	--
NOV								
07...	1000	.03	17.0	100	.01	--	--	--
12...	1000	18	15.0	23800	1160	49	58	63
DEC								
02...	1035	9.1	10.5	2400	59	--	--	--
04...	1020	.12	9.5	10	<.01	--	--	--
04...	1055	3.5	9.5	5550	52.4	30	31	33
04...	1350	6.8	17.0	76	1.4	--	--	--
04...	1355	4.5	17.0	85	1.0	--	--	--
20...	1205	19	10.0	8940	466	--	--	--
20...	1215	14	10.0	5970	226	--	--	--
20...	1300	45	10.0	31100	3780	22	29	31
20...	1305	35	10.0	17600	1680	--	--	--
20...	1330	16	10.0	6290	272	--	--	--
JAN								
26...	1150	.45	10.5	1400	1.7	--	--	--
MAR								
06...	1350	.98	20.0	4630	12	--	--	--
07...	1420	.51	15.0	2110	2.9	--	--	--
23...	0840	.32	15.0	1200	1.0	--	--	--
31...	1625	.07	21.0	186	.04	--	--	--
APR								
11...	0910	.09	14.5	26	.01	--	--	--

Date	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT							
02...	--	--	30	--	--	--	--
05...	--	--	41	--	--	--	--
NOV							
07...	--	--	24	--	--	--	--
12...	75	85	93	99	100	--	--
DEC							
02...	--	--	87	--	--	--	--
04...	--	--	52	--	--	--	--
04...	43	56	73	93	100	--	--
04...	--	--	55	--	--	--	--
04...	--	--	48	--	--	--	--
20...	--	--	64	81	96	100	--
20...	--	--	72	--	--	--	--
20...	38	47	56	74	93	99	100
20...	--	--	64	--	--	--	--
20...	--	--	75	--	--	--	--
JAN							
26...	--	--	98	--	--	--	--
MAR							
06...	--	--	86	--	--	--	--
07...	--	--	90	--	--	--	--
23...	--	--	84	--	--	--	--
31...	--	--	98	--	--	--	--
APR							
11...	--	--	63	--	--	--	--

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

11172365 ZONE 6 LINE B AT WARM SPRINGS, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAMPLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)
OCT							
02...	1015	1	.12	17.0	3	12	38
02...	1020	1	.12	17.0	2	5	19
02...	1025	1	.12	17.0	2	5	17
02...	1030	1	.12	17.0	3	11	27
02...	1035	1	.12	17.0	2	7	18
02...	1040	1	.12	17.0	2	5	15
02...	1045	1	.12	17.0	1	4	12
APR							
11...	0915	2	.09	14.5	2	4	9

Date	BED MAT. SIEVE DIAM. % FINER THAN (80167)	BED MAT. SIEVE DIAM. % FINER THAN (80168)	BED MAT. SIEVE DIAM. % FINER THAN (80169)	BED MAT. SIEVE DIAM. % FINER THAN (80170)	BED MAT. SIEVE DIAM. % FINER THAN (80171)	BED MAT. SIEVE DIAM. % FINER THAN (80172)	BED MAT. SIEVE DIAM. % FINER THAN (80173)
OCT							
02...	52	62	68	78	89	100	--
02...	31	41	46	59	71	86	100
02...	26	32	38	47	58	70	100
02...	39	46	53	63	73	90	100
02...	28	38	46	60	72	88	100
02...	27	41	50	68	82	99	100
02...	24	32	42	57	69	98	100
APR							
11...	20	32	46	68	84	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE) (04117)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS) (82074)	TIME ON BED FOR SAMPLE (SEC) (04120)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET) (04121)
DEC									
20...	1340	1000	1130	.25	0	1335	1350	30	1.5
DEC									
Date	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (04118)	VER-TICALS IN COM-POSITE SAMPLE (04119)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM SAMPLE (04122)	SEDI-MENT DIS-CHARGE, (TONS/ DAY) (80225)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80226)
20...	1	3	3	1.0	5.6	10.0	4.5	14	1
DEC									
Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80227)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80235)
20...	2	11	39	51	63	75	84	97	100

11172365 ZONE 6 LINE B AT WARM SPRINGS, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	0.04	33	0.00	0.06	263	0.04	0.25	681	0.65
2	0.10	53	0.01	0.09	229	0.05	6.4	6210	211
3	0.12	39	0.01	0.12	203	0.07	2.7	1330	23.8
4	0.10	50	0.01	0.05	177	0.02	3.2	2390	101
5	0.09	58	0.01	0.05	150	0.02	1.2	334	1.5
6	0.09	60	0.01	0.05	124	0.02	0.20	38	0.02
7	0.10	62	0.02	0.05	97	0.01	0.05	24	0.00
8	0.09	63	0.02	0.05	66	0.00	0.04	20	0.00
9	0.09	65	0.02	0.05	38	0.00	0.96	264	2.1
10	0.09	67	0.02	0.08	30	0.00	0.12	24	0.00
11	0.07	68	0.01	0.11	24	0.00	0.07	12	0.00
12	0.07	70	0.01	2.3	3290	60.7	0.04	10	0.00
13	0.09	72	0.02	0.33	149	0.16	0.18	184	1.6
14	0.09	73	0.02	0.13	52	0.02	4.7	2410	94.3
15	0.08	75	0.02	0.35	223	0.64	0.46	49	0.06
16	0.11	76	0.02	0.08	203	0.05	0.31	52	0.04
17	0.08	78	0.02	0.07	246	0.05	2.3	845	17.4
18	0.07	80	0.01	0.07	214	0.04	0.12	7.0	0.00
19	0.07	81	0.02	0.07	183	0.03	0.11	7.0	0.00
20	0.08	83	0.02	0.07	151	0.03	4.6	2490	86.1
21	0.08	85	0.02	0.08	120	0.02	1.3	374	4.1
22	0.07	86	0.02	0.08	94	0.02	0.53	131	0.32
23	0.07	88	0.02	0.07	71	0.01	0.42	270	0.88
24	0.07	90	0.02	2.6	2110	30.7	0.07	33	0.00
25	0.07	91	0.02	0.39	120	0.31	0.07	32	0.00
26	0.07	93	0.02	0.40	245	0.93	0.07	28	0.00
27	0.07	95	0.02	0.15	86	0.12	3.0	1240	26.3
28	0.06	96	0.01	0.17	91	0.16	3.0	1020	15.0
29	0.07	98	0.02	1.6	1280	9.7	2.6	1100	14.0
30	0.80	2160	16.9	0.07	70	0.02	4.1	1620	32.6
31	0.07	407	0.08	---	---	---	2.7	984	29.5
TOTAL	3.22	---	17.45	9.84	---	103.94	45.87	---	662.27
	JANUARY			FEBRUARY			MARCH		
1	2.7	1140	35.3	0.04	4.0	0.00	0.08	11	0.00
2	4.3	1680	51.4	0.04	5.0	0.00	0.07	9.0	0.00
3	5.6	808	25.1	0.08	5.0	0.00	0.11	7.0	0.00
4	3.7	602	11.0	0.14	5.0	0.00	0.08	5.0	0.00
5	3.1	380	4.7	0.12	6.0	0.00	0.07	9.0	0.00
6	0.77	197	0.65	0.08	6.0	0.00	0.50	17	0.20
7	0.16	11	0.00	0.28	150	1.7	0.46	1680	6.8
8	0.16	8.0	0.00	0.30	52	0.07	0.08	581	0.19
9	0.26	93	0.19	0.13	15	0.00	0.09	544	0.17
10	0.22	51	0.04	0.07	19	0.00	0.21	1640	3.2
11	0.11	18	0.00	0.04	22	0.00	0.07	319	0.06
12	0.15	5.0	0.00	0.03	19	0.00	0.08	355	0.08
13	1.9	738	10.0	0.04	15	0.00	0.07	391	0.08
14	0.71	234	1.6	0.04	12	0.00	0.06	367	0.06
15	0.28	9.0	0.00	0.03	8.0	0.00	0.07	305	0.06
16	0.10	7.0	0.00	0.13	15	0.02	0.07	243	0.05
17	0.07	11	0.00	0.58	213	1.7	0.16	2360	1.4
18	0.07	14	0.00	0.69	201	0.78	0.09	103	0.04
19	0.06	11	0.00	0.54	151	0.90	0.07	11	0.00
20	0.04	7.0	0.00	0.26	75	0.55	0.07	12	0.00
21	0.08	4.0	0.00	0.08	16	0.00	0.07	16	0.00
22	0.03	4.0	0.00	0.06	11	0.00	0.15	427	0.33
23	0.04	5.0	0.00	0.05	6.0	0.00	0.24	1440	2.2
24	0.06	6.0	0.00	0.09	5.0	0.00	0.10	564	0.34
25	0.07	4.0	0.00	0.09	5.0	0.00	0.08	81	0.02
26	2.2	1570	30.3	0.08	9.0	0.00	0.07	98	0.02
27	0.85	355	2.6	0.09	14	0.00	0.07	45	0.00
28	0.24	62	0.07	0.10	13	0.00	0.07	177	0.03
29	0.05	21	0.00	---	---	---	0.06	180	0.03
30	0.04	12	0.00	---	---	---	0.07	183	0.03
31	0.05	6.0	0.00	---	---	---	0.07	185	0.04
TOTAL	28.17	---	172.95	4.30	---	5.72	3.61	---	15.43

11172365 ZONE 6 LINE B AT WARM SPRINGS, CA—Continued

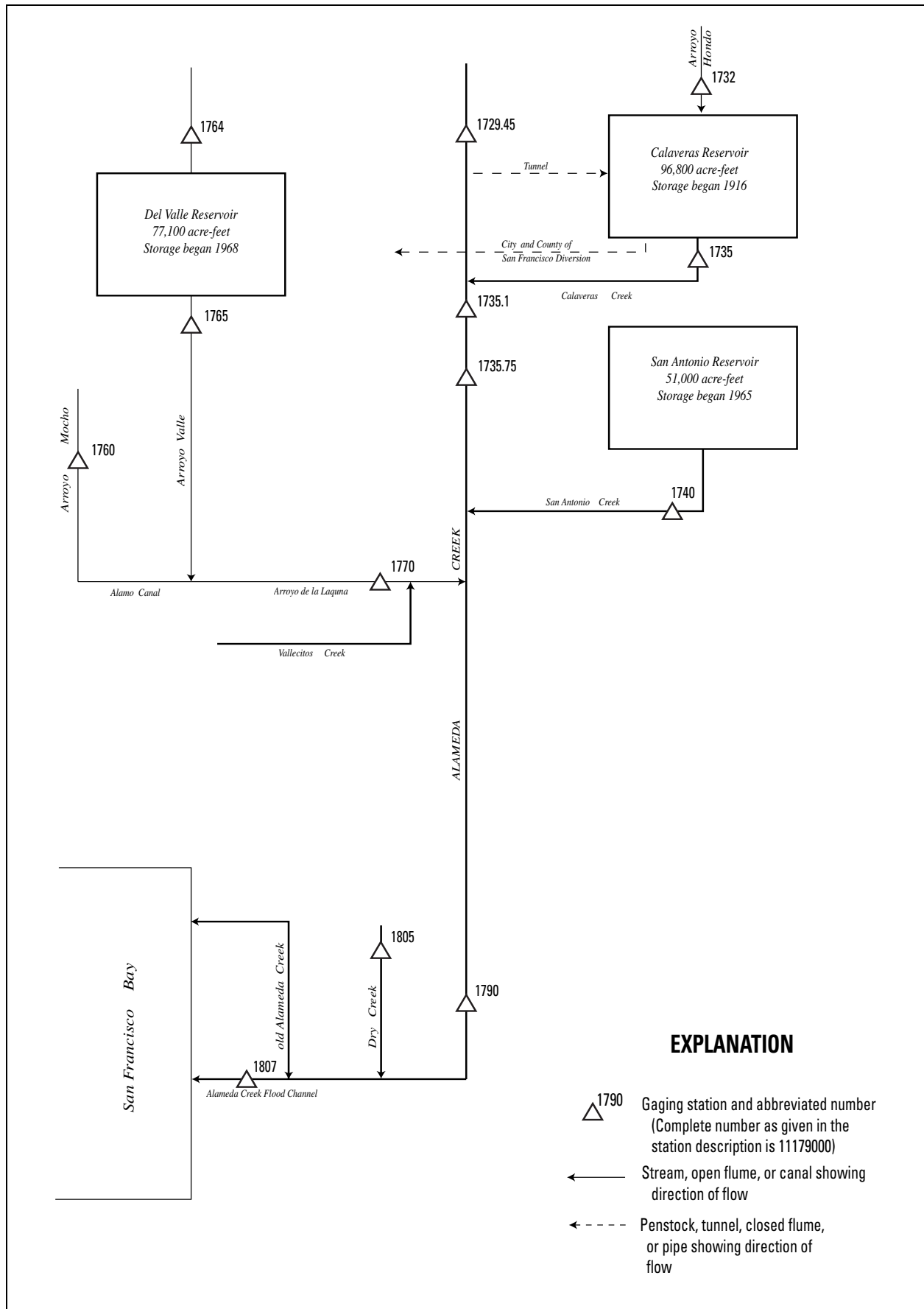
SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	0.07	174	0.03
2	0.07	159	0.03
3	0.07	144	0.03
4	0.07	129	0.02
5	0.07	114	0.02
6	0.07	99	0.02
7	0.08	84	0.02
8	0.08	69	0.02
9	0.08	54	0.01
10	0.09	39	0.00
11	0.07	26	0.00
12	0.06	23	0.00
13	0.06	20	0.00
14	0.07	17	0.00
15	0.07	14	0.00
16	0.08	20	0.00
17	0.13	77	0.04
18	0.08	15	0.00
19	0.08	8.0	0.00
20	0.07	8.0	0.00
21	0.07	8.0	0.00
22	0.07	8.0	0.00
23	0.07	8.0	0.00
24	0.08	8.0	0.00
25	0.08	8.0	0.00
26	0.08	8.0	0.00
27	0.09	8.0	0.00
28	0.09	8.0	0.00
29	0.20	8.0	0.00
30	1.8	810	20.7
31	---	---	---
TOTAL	4.15	---	20.94
PERIOD	99.16		998.70

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	3.22	17.45	70	87
NOVEMBER	9.84	103.94	155	259
DECEMBER	45.87	662.27	952	1614
JANUARY 2002	28.17	172.95	690	863
FEBRUARY	4.30	5.72	208	214
MARCH	3.61	15.43	20	35
APRIL	4.15	20.94	128	149
TOTAL	99.16	998.70	2223	3221

ALAMEDA CREEK BASIN



EXPLANATION




-  1790 Gaging station and abbreviated number (Complete number as given in the station description is 11179000)
-  Stream, open flume, or canal showing direction of flow
-  Penstock, tunnel, closed flume, or pipe showing direction of flow

Figure 21. Diversions and storage in Alameda Creek Basin.

11172945 ALAMEDA CREEK ABOVE DIVERSION DAM, NEAR SUNOL, CA

LOCATION.—Lat 37°29'51", long 121°46'21", in SE 1/4 NE 1/4 sec.17, T.5 S., R.2 E., Alameda County, Hydrologic Unit 18050004, on right bank, 700 ft upstream from diversion dam, and 9.3 mi southeast of Sunol.

DRAINAGE AREA.—33.3 mi².

PERIOD OF RECORD.—October 1994 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 930 ft above sea level, from topographic map.

REMARKS.—Records fair. No regulation or diversion upstream from gage. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,390 ft³/s, Jan. 9, 1995, gage height, 7.96 ft, from rating curve extended above 100 ft³/s, on basis of flow over dam computation; no flow several days in 1994, Sep. 7, 8, 2001, several days in October 2001 and September 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 29	0830	518	3.75

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.14	1.4	38	6.1	9.3	11	3.8	2.1	0.58	0.11	0.06
2	0.02	0.10	126	131	5.9	8.7	10	3.8	2.2	0.56	0.09	0.02
3	0.01	0.09	63	145	5.5	8.3	9.6	3.7	2.3	0.50	0.10	0.00
4	0.00	0.09	18	47	5.3	8.1	9.3	3.5	2.0	0.47	0.10	0.00
5	0.06	0.09	8.8	30	5.1	7.7	8.5	3.2	1.7	0.47	0.12	0.00
6	0.09	0.09	10	23	4.9	8.2	7.9	3.1	1.6	0.45	0.10	0.04
7	0.09	0.09	8.5	18	5.8	28	7.6	3.0	1.7	0.44	0.10	0.16
8	0.08	0.10	6.0	15	28	25	7.2	2.9	1.6	0.44	0.08	0.13
9	0.05	0.09	5.0	13	17	15	7.0	2.9	1.7	0.35	0.05	0.05
10	0.00	0.09	9.0	12	13	27	7.1	2.8	1.5	0.28	0.03	0.00
11	0.00	0.13	5.9	11	12	23	6.2	2.7	1.5	0.23	0.02	0.00
12	0.01	0.78	4.4	9.3	11	17	5.7	3.4	1.5	0.23	0.01	0.00
13	0.00	0.47	4.0	8.6	9.8	15	5.4	3.4	1.4	0.20	0.02	0.00
14	0.00	0.26	35	8.0	9.3	13	5.1	2.5	1.3	0.19	0.02	0.00
15	0.00	0.28	16	7.6	8.7	12	4.9	2.4	1.4	0.20	0.02	0.00
16	0.00	0.32	8.3	6.9	8.4	11	4.8	2.4	1.1	0.24	0.05	0.04
17	0.00	0.33	6.5	6.5	12	12	6.5	2.4	0.95	0.22	0.08	0.06
18	0.04	0.34	8.8	6.3	16	15	6.3	2.5	0.98	0.22	0.09	0.03
19	0.03	0.32	6.7	5.9	18	15	5.3	2.6	1.0	0.21	0.11	0.02
20	0.02	0.32	70	5.8	33	12	4.5	2.9	0.96	0.17	0.13	0.00
21	0.02	0.40	168	5.6	22	11	4.3	5.0	0.85	0.14	0.11	0.00
22	0.07	0.45	30	5.7	18	11	4.2	4.5	0.92	0.16	0.13	0.00
23	0.04	0.42	21	5.3	16	72	4.0	3.6	0.86	0.19	0.19	0.00
24	0.00	1.7	15	4.9	14	129	3.7	3.1	0.75	0.17	0.22	0.00
25	0.00	1.7	11	4.9	13	52	3.6	2.9	0.63	0.14	0.20	0.00
26	0.00	0.98	9.3	5.6	12	32	3.5	2.6	0.67	0.14	0.15	0.00
27	0.00	0.83	8.8	8.4	11	24	3.7	2.5	0.71	0.12	0.08	0.00
28	0.01	0.87	40	7.2	10	20	3.7	2.3	0.71	0.11	0.06	0.00
29	0.00	1.9	324	7.4	---	16	3.6	2.4	0.68	0.11	0.13	0.01
30	0.15	1.6	115	8.0	---	14	3.6	2.3	0.64	0.11	0.16	0.00
31	0.17	---	77	6.8	---	12	---	2.0	---	0.10	0.12	---
TOTAL	1.00	15.37	1240.4	617.7	350.8	683.3	177.8	93.1	37.91	8.14	2.98	0.62
MEAN	0.032	0.512	40.01	19.93	12.53	22.04	5.927	3.003	1.264	0.263	0.096	0.021
MAX	0.17	1.9	324	145	33	129	11	5.0	2.3	0.58	0.22	0.16
MIN	0.00	0.09	1.4	4.9	4.9	7.7	3.5	2.0	0.63	0.10	0.01	0.00
AC-FT	2.0	30	2460	1230	696	1360	353	185	75	16	5.9	1.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	0.262	3.804	26.18	113.2	114.8	69.59	22.00	9.656	3.858	1.309	0.519	0.324				
MAX	0.83	22.7	125	237	306	211	55.2	27.3	9.79	3.76	1.81	1.22				
(WY)	1999	1997	1997	1997	1998	1995	1998	1995	1995	1998	1998	1998				
MIN	0.009	0.17	0.58	6.33	12.5	10.7	5.58	2.68	0.61	0.15	0.082	0.021				
(WY)	1995	1996	2001	2001	2002	1997	1997	2001	2001	2001	2001	2002				

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	4371.00		3229.12			
ANNUAL MEAN	11.98		8.847		30.08	
HIGHEST ANNUAL MEAN					49.8	
LOWEST ANNUAL MEAN					8.62	
HIGHEST DAILY MEAN	324	Dec 29	324	Dec 29	1200	Jan 10 1995
LOWEST DAILY MEAN	0.00	Sep 7	0.00	Oct 4	0.00	Oct 1 1994
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 10	0.00	Sep 20	0.00	Oct 13 1994
MAXIMUM PEAK FLOW			518		3390	
MAXIMUM PEAK STAGE			3.75		7.96	
INSTANTANEOUS LOW FLOW			0.00		0.00	
ANNUAL RUNOFF (AC-FT)	8670		6400		21790	
10 PERCENT EXCEEDS	31		16		64	
50 PERCENT EXCEEDS	1.1		2.1		2.4	
90 PERCENT EXCEEDS	0.02		0.01		0.13	

11173200 ARROYO HONDO NEAR SAN JOSE, CA

LOCATION.—Lat 37°27'42", long 121°46'06", in NE 1/4 NE 1/4 sec.32, T.5 S., R.2 E., [Santa Clara County](#), Hydrologic Unit 18050004, on right bank, 150 ft upstream from road bridge, 3.5 mi southeast of Calaveras Dam, and 3.5 mi northeast of city limits of San Jose.

DRAINAGE AREA.—77.1 mi².

PERIOD OF RECORD.—October 1968 to September 1981, October 1994 to current year.

GAGE.—Water-stage recorder. Datum of gage is 783.86 ft above sea level.

REMARKS.—Records good except for estimated daily discharges and flows below 1 ft³/s, which are poor. No regulation or diversion upstream from station. See schematic diagram of [Alameda Creek Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,340 ft³/s, Feb. 3, 1998, gage height, 15.85 ft; minimum daily, 0.11 ft³/s, July 28–30, 1972.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 800 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 21	0445	843	8.11

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.55	0.90	5.1	113	14	20	33	11	4.6	1.3	0.44	0.31
2	0.51	0.90	161	195	14	19	30	10	4.6	1.2	0.44	0.29
3	0.50	0.90	138	337	14	17	28	9.2	4.7	1.2	0.42	0.26
4	0.52	0.96	45	149	13	16	26	8.5	4.6	1.1	0.42	0.26
5	0.55	1.0	24	92	13	16	25	8.1	4.4	1.0	0.41	0.26
6	0.55	1.1	22	64	13	18	23	7.6	4.0	0.93	0.41	0.28
7	0.56	1.1	20	49	13	72	22	7.2	3.8	0.91	0.37	0.32
8	0.57	1.0	15	40	32	114	20	6.9	3.5	0.86	0.36	0.32
9	0.56	1.2	13	35	32	58	19	e7.0	3.2	0.79	0.34	0.30
10	0.57	1.5	17	30	29	76	18	e6.8	3.2	0.75	0.34	0.29
11	0.58	1.7	15	26	21	95	17	e7.0	2.9	0.65	0.34	0.27
12	0.57	2.9	12	23	18	63	16	e7.4	2.8	0.59	0.33	0.29
13	0.57	1.7	9.7	22	17	50	14	e7.0	2.9	0.68	0.35	0.32
14	0.59	1.9	40	20	16	42	14	e6.3	3.0	1.0	0.35	0.33
15	0.58	3.1	47	19	15	36	13	e6.2	3.1	0.95	0.34	0.30
16	0.58	3.4	25	18	14	33	13	e6.2	3.1	0.90	0.35	0.33
17	0.58	3.4	19	16	23	34	17	e6.2	3.0	0.69	0.35	0.32
18	0.59	3.1	29	16	48	43	16	e6.3	3.0	0.65	0.34	0.31
19	0.59	2.9	25	14	43	37	13	e6.5	3.0	0.63	0.36	0.30
20	0.61	2.9	77	14	100	33	12	e9.4	2.9	0.59	0.36	0.29
21	0.65	2.9	459	14	66	30	11	e12	2.7	0.58	0.36	0.28
22	0.65	3.1	127	15	48	28	11	e10	2.5	0.57	0.37	0.27
23	0.66	2.9	71	14	39	182	9.9	8.6	2.4	0.57	0.38	0.25
24	0.66	5.2	45	13	33	252	9.6	7.0	2.3	0.56	0.39	0.22
25	0.66	12	33	13	29	130	9.2	6.2	2.2	0.61	0.38	0.21
26	0.67	6.8	26	14	25	93	9.3	5.8	2.2	0.58	0.36	0.25
27	0.69	3.7	22	21	23	72	9.9	5.6	2.0	0.50	0.35	0.30
28	0.73	2.7	25	21	22	59	10	5.5	1.8	0.51	0.33	0.33
29	0.80	3.4	323	20	---	49	9.5	5.4	1.6	0.52	0.35	0.33
30	0.91	5.2	234	18	---	42	9.8	5.2	1.6	0.50	0.36	0.35
31	0.90	---	182	16	---	37	---	4.9	---	0.48	0.35	---
TOTAL	19.26	85.46	2305.8	1471	787	1866	488.2	227.0	91.6	23.35	11.40	8.74
MEAN	0.621	2.849	74.38	47.45	28.11	60.19	16.27	7.323	3.053	0.753	0.368	0.291
MAX	0.91	12	459	337	100	252	33	12	4.7	1.3	0.44	0.35
MIN	0.50	0.90	5.1	13	13	16	9.2	4.9	1.6	0.48	0.33	0.21
AC-FT	38	170	4570	2920	1560	3700	968	450	182	46	23	17

e Estimated.

11173200 ARROYO HONDO NEAR SAN JOSE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.663	12.48	49.64	175.9	212.0	135.9	49.17	15.55	6.944	2.932	1.479	1.168
MAX	4.74	69.4	312	595	888	523	178	55.0	27.0	12.7	6.09	3.98
(WY)	1999	1973	1997	1997	1998	1995	1974	1998	1998	1998	1998	1998
MIN	0.24	0.67	1.42	3.35	2.98	5.58	2.93	1.67	0.74	0.33	0.18	0.25
(WY)	1978	1978	1977	1976	1977	1977	1977	1976	1976	1977	1972	1977

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	10939.69		7384.81			
ANNUAL MEAN	29.97		20.23		54.63	
HIGHEST ANNUAL MEAN					132 1998	
LOWEST ANNUAL MEAN					2.12 1977	
HIGHEST DAILY MEAN	942	Mar 5	459	Dec 21	3580	Jan 10 1995
LOWEST DAILY MEAN	0.42	Sep 7	0.21	Sep 25	0.11	Jul 28 1972
ANNUAL SEVEN-DAY MINIMUM	0.45	Sep 5	0.25	Sep 20	0.13	Jul 27 1972
MAXIMUM PEAK FLOW			843	Dec 21	7340	Feb 3 1998
MAXIMUM PEAK STAGE			8.11	Dec 21	15.85	Feb 3 1998
INSTANTANEOUS LOW FLOW			0.17	Sep 23		
ANNUAL RUNOFF (AC-FT)	21700		14650		39580	
10 PERCENT EXCEEDS	71		45		113	
50 PERCENT EXCEEDS	3.7		5.2		4.7	
90 PERCENT EXCEEDS	0.56		0.35		0.68	

11173500 CALAVERAS CREEK NEAR SUNOL, CA

LOCATION.—Lat 37°29'52", long 121°49'00", in NE 1/4 SW 1/4 sec.13, T.5 S., R.1 E., [Alameda County](#), Hydrologic Unit 18050004, 1000 ft downstream from Calaveras Dam, and 7.3 mi southeast of Sunol.

DRAINAGE AREA.—98.7 mi².

PERIOD OF RECORD.—April 1898 to September 1908 and June 15, 1910, to June 30, 1930 (records furnished by Spring Valley Water Company). May 23, 2002 to Sept. 30, 2002. Monthly flows for water years 1898–1930 published in WSP 1315-B. Water years 1920–24, daily and monthly discharges published in WSP 591. Water years 1925–29, daily flows published in WSP 611, 631, 651, 671, 721. Station reestablished May 23, 2002, by U.S. Geological Survey.

GAGE.—Water-stage recorder, concrete control and bank-operated cableway. Elevation of gage is 550 ft above sea level, from topographic map. Prior to 1913 at site 400 ft upstream at different datum. 1913–30 at site 500 ft upstream at different datum.

REMARKS.—Records poor. Flow regulated by Calaveras Reservoir beginning in 1916, usable capacity, 96,800 acre-ft. Dam completed in 1925. Dead storage, 3,200 acre-ft. Flow is diverted out of basin from Calaveras Reservoir by city and county of San Francisco for domestic use. See schematic diagram of [Alameda Creek Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum mean daily discharge prior to start of regulation: 6,980 ft³/s, Nov. 21, 1900. Maximum mean daily discharge after dam completion in 1925: 122 ft³/s, May 11, 1926. No flow many days most years since construction of Calaveras Dam was begun in 1916. No instantaneous maximum or minimum flow data are available prior to May 2002.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	0.11	0.16	0.06	0.03
2	---	---	---	---	---	---	---	---	0.06	0.21	0.06	0.00
3	---	---	---	---	---	---	---	---	0.01	0.14	0.06	0.00
4	---	---	---	---	---	---	---	---	0.00	0.08	0.03	0.02
5	---	---	---	---	---	---	---	---	0.04	0.10	0.01	0.02
6	---	---	---	---	---	---	---	---	0.05	0.11	0.00	0.05
7	---	---	---	---	---	---	---	---	0.00	0.02	0.00	0.06
8	---	---	---	---	---	---	---	---	0.00	0.12	0.00	0.05
9	---	---	---	---	---	---	---	---	0.00	0.34	0.03	0.02
10	---	---	---	---	---	---	---	---	0.00	0.33	0.03	0.02
11	---	---	---	---	---	---	---	---	0.01	0.11	0.14	0.07
12	---	---	---	---	---	---	---	---	0.00	0.02	0.06	0.21
13	---	---	---	---	---	---	---	---	0.02	0.01	0.03	0.27
14	---	---	---	---	---	---	---	---	0.10	0.01	0.02	0.24
15	---	---	---	---	---	---	---	---	0.09	0.02	0.01	0.12
16	---	---	---	---	---	---	---	---	0.06	0.04	0.00	0.14
17	---	---	---	---	---	---	---	---	0.07	0.00	0.00	0.13
18	---	---	---	---	---	---	---	---	0.09	0.00	0.00	0.12
19	---	---	---	---	---	---	---	---	0.08	0.00	0.02	0.05
20	---	---	---	---	---	---	---	---	0.02	0.00	0.00	0.06
21	---	---	---	---	---	---	---	---	0.05	0.00	0.00	0.06
22	---	---	---	---	---	---	---	---	0.09	0.01	0.09	0.10
23	---	---	---	---	---	---	---	0.13	0.07	0.02	0.11	0.13
24	---	---	---	---	---	---	---	0.13	0.03	0.00	0.07	0.14
25	---	---	---	---	---	---	---	0.14	0.01	0.00	0.05	0.14
26	---	---	---	---	---	---	---	0.07	0.04	0.00	0.02	0.12
27	---	---	---	---	---	---	---	0.03	0.04	0.02	0.02	0.06
28	---	---	---	---	---	---	---	0.03	0.01	0.04	0.00	0.09
29	---	---	---	---	---	---	---	0.06	0.00	0.06	0.00	0.15
30	---	---	---	---	---	---	---	0.05	0.00	0.08	0.00	0.20
31	---	---	---	---	---	---	---	0.07	---	0.08	0.04	---
TOTAL	---	---	---	---	---	---	---	---	1.15	2.13	0.96	2.87
MEAN	---	---	---	---	---	---	---	---	0.038	0.069	0.031	0.096
MAX	---	---	---	---	---	---	---	---	0.11	0.34	0.14	0.27
MIN	---	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00
AC-FT	---	---	---	---	---	---	---	---	2.3	4.2	1.9	5.7

11173500 CALAVERAS CREEK NEAR SUNOL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1916

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.769	29.11	43.23	252.5	195.4	218.2	64.94	39.31	14.53	6.543	3.951	2.916
MAX	8.61	317	167	777	717	799	208	175	34.3	16.0	20.0	17.9
MIN	0.000	0.000	0.25	7.73	8.50	14.6	4.75	4.14	2.29	0.000	0.000	0.000

SUMMARY STATISTICS

WATER YEARS 1898 - 1916

ANNUAL MEAN	72.92
HIGHEST ANNUAL MEAN	149 1907
LOWEST ANNUAL MEAN	13.1 1913
HIGHEST DAILY MEAN	6980 Nov 21 1900
LOWEST DAILY MEAN	0.00 Jun 29 1914
ANNUAL SEVEN-DAY MINIMUM	0.00 Jun 29 1914
ANNUAL RUNOFF (AC-FT)	52830
10 PERCENT EXCEEDS	152
50 PERCENT EXCEEDS	10
90 PERCENT EXCEEDS	1.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

	1925	1925	1925	1925	1925	1925	1925	1925	1925	1925	1925	1925
MEAN	38.84	33.40	31.65	19.86	9.941	10.24	20.03	64.72	46.21	41.61	37.34	36.97
MAX	62.8	62.3	54.0	35.9	22.1	22.0	26.8	94.0	97.1	84.3	64.9	64.0
(WY)	1927	1928	1927	1927	1929	1929	1929	1927	1927	1927	1926	1926
MIN	2.18	4.15	2.57	0.24	0.14	0.000	9.47	25.0	0.000	0.069	0.031	0.096
(WY)	1925	1925	1925	1925	1925	1925	1926	1925	1929	2002	2002	2002

SUMMARY STATISTICS

WATER YEARS 1925 - 2002

ANNUAL MEAN	36.46
HIGHEST ANNUAL MEAN	53.3 1927
LOWEST ANNUAL MEAN	17.1 1925
HIGHEST DAILY MEAN	122 May 11 1926
LOWEST DAILY MEAN	0.00 Oct 7 1924
ANNUAL SEVEN-DAY MINIMUM	0.00 Dec 23 1924
ANNUAL RUNOFF (AC-FT)	26410
10 PERCENT EXCEEDS	66
50 PERCENT EXCEEDS	32
90 PERCENT EXCEEDS	0.00

11173510 ALAMEDA CREEK BELOW CALAVERAS CREEK, NEAR SUNOL, CA

LOCATION.—Lat 37°30'13", long 121°49'25", in NE 1/4 NE 1/4 sec.13, T.5 S., R.1 E., [Alameda County](#), Hydrologic Unit 18050004, on right bank, 0.2 mi downstream from Calaveras Creek, 1.1 mi downstream from Calaveras Dam, and 7.3 mi southeast of Sunol.

DRAINAGE AREA.—135 mi².

PERIOD OF RECORD.—October 1995 to current year (low-flow records only).

GAGE.—Water-stage recorder. Elevation of gage is 430 ft above sea level, from topographic map.

REMARKS.—Records good. No records computed above 200 ft³/s. Flow regulated by Calaveras Reservoir, usable capacity, 96,800 acre-ft, 1.1 mi upstream from gage and by diversion dam on Alameda Creek, 2.9 mi upstream. Dead storage, 3,200 acre-ft. Flow is diverted out of basin from Calaveras Reservoir by city and county of San Francisco for domestic use. See schematic diagram of [Alameda Creek Basin](#).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.17	1.1	0.82	---	121	9.6	12	5.2	2.2	1.0	0.35	0.14
2	0.16	0.70	125	---	121	9.1	11	4.9	2.2	0.93	0.36	0.12
3	0.15	0.48	61	---	121	8.5	9.6	4.6	2.0	0.93	0.35	0.12
4	9.2	0.16	17	---	121	8.1	9.2	4.3	1.9	0.86	0.35	0.12
5	21	0.13	8.4	---	80	7.8	8.7	3.8	1.8	0.83	0.33	0.13
6	21	0.13	9.1	---	32	9.3	8.3	3.1	1.8	0.80	0.31	0.13
7	22	0.12	8.6	---	7.9	28	7.8	3.0	1.6	0.82	0.30	0.14
8	22	0.12	6.0	---	32	30	7.1	2.8	1.5	0.76	0.29	0.13
9	14	0.12	4.8	---	20	17	6.8	2.6	1.4	0.72	0.28	0.13
10	1.0	0.13	7.6	---	15	28	6.5	2.6	1.4	0.67	0.26	0.10
11	0.64	0.14	5.9	---	13	27	6.2	2.5	1.3	0.63	0.26	0.08
12	0.66	0.49	4.3	197	11	19	5.8	2.4	1.3	0.61	0.25	0.08
13	0.82	0.21	3.7	195	10	16	5.5	2.3	1.3	0.61	0.25	0.09
14	0.89	0.15	39	194	9.7	14	5.5	2.3	1.4	0.60	0.26	0.09
15	19	0.14	19	129	9.1	13	5.7	2.2	1.5	0.55	0.25	0.09
16	36	0.14	10	82	9.0	12	5.5	2.1	1.6	0.52	0.25	0.10
17	36	0.14	7.8	82	13	15	7.7	2.1	1.6	0.51	0.24	0.10
18	36	0.14	9.4	---	18	18	7.6	2.1	1.6	0.50	0.18	0.11
19	36	0.14	73	---	18	17	6.3	2.6	1.6	0.49	0.20	0.09
20	36	0.13	---	---	37	15	5.5	3.5	1.5	0.46	0.20	0.09
21	36	0.13	---	---	25	13	5.2	5.3	1.6	0.46	0.19	0.10
22	36	0.16	---	---	20	12	4.9	5.6	1.5	0.46	0.19	0.10
23	36	0.26	189	---	17	62	4.6	4.2	1.4	0.44	0.19	0.09
24	36	1.6	178	---	16	105	4.4	3.4	1.4	0.42	0.20	0.09
25	36	1.1	172	---	14	47	4.3	3.0	1.3	0.41	0.19	0.09
26	36	0.68	169	---	12	33	4.3	2.7	1.2	0.38	0.18	0.10
27	36	0.63	166	---	11	26	4.4	2.5	1.2	0.39	0.16	0.10
28	36	0.65	---	---	11	21	4.6	2.3	1.2	0.41	0.15	0.12
29	21	1.2	---	174	---	17	4.6	2.2	1.1	0.42	0.15	0.13
30	1.6	0.84	---	123	---	15	4.7	2.1	1.1	0.40	0.15	0.12
31	0.86	---	---	121	---	13	---	2.1	---	0.37	0.14	---
TOTAL	624.15	12.26	---	---	944.7	685.4	194.3	96.4	45.5	18.36	7.41	3.22
MEAN	20.13	0.409	---	---	33.74	22.11	6.477	3.110	1.517	0.592	0.239	0.107
MAX	36	1.6	---	---	121	105	12	5.6	2.2	1.0	0.36	0.14
MIN	0.15	0.12	---	---	7.9	7.8	4.3	2.1	1.1	0.37	0.14	0.08
AC-FT	1240	24	---	---	1870	1360	385	191	90	36	15	6.4

11173575 ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL, CA

LOCATION.—Lat 37°32'26", long 121°51'19", in Valle de San Jose Grant in unsurveyed section, T.4 S., R.1 E., Alameda County, Hydrologic Unit 18050004, on left bank, 0.3 mi downstream from Welch Creek, 4.0 mi southeast of Sunol, at bridge to entrance at city of San Francisco Water Department Filtration Plant.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.—145 mi².

PERIOD OF RECORD.—October 1999 to current year.

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

REMARKS.—Records good except those below 1 ft³/s, which are poor. Flow regulated by Calaveras Reservoir, usable capacity, 96,800 acre-ft, 3.7 mi upstream from gage and by diversion dam on Alameda Creek, 5.5 mi upstream. Dead storage, 3,200 acre-feet. Flow is diverted out of basin from Calaveras Reservoir by city and county of San Francisco for domestic use. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,910 ft³/s, Feb. 13, 2000, gage height, 15.98 ft, from rating curve extension above 664 ft³/s; minimum daily, no flow many days August–September 2002.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.17	0.60	1.2	279	130	12	14	5.6	3.1	0.94	0.20	0.06
2	0.15	0.60	120	356	130	10	12	5.4	3.2	0.86	0.22	0.09
3	0.13	0.61	72	442	127	9.4	12	5.4	3.1	0.87	0.18	0.14
4	2.4	0.57	15	299	126	8.9	11	5.1	3.0	0.91	0.17	0.13
5	18	0.41	6.5	267	93	8.8	10	4.8	2.7	0.90	0.19	0.00
6	19	0.36	5.7	250	45	10	10	4.6	2.5	0.87	0.20	0.00
7	19	0.33	7.0	244	9.2	32	9.7	4.4	2.5	0.79	0.19	0.00
8	18	0.38	4.8	241	36	44	9.0	4.0	2.4	0.74	0.17	0.00
9	14	0.42	4.0	236	22	21	8.5	3.9	2.3	0.65	0.16	0.00
10	1.4	0.47	4.9	329	16	32	8.2	3.9	2.2	0.50	0.15	0.00
11	0.48	0.49	4.4	345	13	36	8.0	3.8	2.1	0.45	0.11	0.00
12	0.30	1.5	3.2	206	12	23	7.5	3.7	2.0	0.40	0.00	0.00
13	0.25	1.2	2.6	204	11	19	7.1	3.7	1.9	0.35	0.00	0.00
14	0.24	0.78	36	204	10	16	6.7	3.8	1.9	0.26	0.00	0.00
15	9.3	0.72	18	146	9.6	14	6.5	3.7	1.9	3.9	0.07	0.00
16	e34	0.64	7.6	92	9.7	13	6.4	3.6	1.8	3.2	0.09	0.00
17	e31	0.59	5.4	93	13	16	7.9	3.4	1.7	0.49	0.10	0.00
18	31	0.59	5.9	226	18	20	8.2	3.6	1.6	0.57	0.11	0.00
19	30	0.64	57	471	17	19	7.1	4.3	1.5	0.51	0.00	0.00
20	30	0.67	218	465	44	16	6.6	5.3	1.3	0.43	0.00	0.00
21	30	0.69	384	460	28	14	6.1	5.8	1.3	0.40	0.00	0.00
22	31	0.77	180	458	22	14	5.6	6.3	1.4	0.38	0.05	0.00
23	31	0.68	161	448	19	70	5.4	5.3	1.3	0.36	0.09	0.00
24	30	2.7	150	431	17	159	5.4	4.7	1.1	0.33	0.09	0.00
25	31	2.3	145	372	15	68	5.3	4.3	0.95	0.32	0.07	0.00
26	30	1.3	142	239	15	44	5.3	3.9	0.96	0.24	0.05	0.00
27	30	0.87	141	241	14	33	5.4	3.7	1.0	0.17	0.04	0.00
28	30	0.76	206	240	12	27	5.4	3.5	1.1	0.15	0.03	0.00
29	24	1.5	625	189	---	21	5.1	3.4	1.1	0.13	0.07	0.01
30	4.9	1.4	378	134	---	18	5.2	3.3	1.0	0.16	0.08	0.07
31	2.1	---	345	131	---	15	---	3.2	---	0.19	0.07	---
TOTAL	532.82	25.54	3456.2	8738	1033.5	863.1	230.6	133.4	55.91	21.42	2.95	0.50
MEAN	17.19	0.851	111.5	281.9	36.91	27.84	7.687	4.303	1.864	0.691	0.095	0.017
MAX	34	2.7	625	471	130	159	14	6.3	3.2	3.9	0.22	0.14
MIN	0.13	0.33	1.2	92	9.2	8.8	5.1	3.2	0.95	0.13	0.00	0.00
AC-FT	1060	51	6860	17330	2050	1710	457	265	111	42	5.9	1.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	6.180	0.902	38.07	100.5	76.89	107.6	8.153	4.532	2.065	0.919	0.331	0.256
MAX	17.2	1.02	111	282	183	287	13.3	7.60	3.39	1.66	0.63	0.62
(WY)	2002	2001	2002	2002	2000	2000	2000	2000	2000	2000	2000	2000
MIN	0.42	0.83	1.13	2.93	7.09	7.96	3.46	1.70	0.95	0.41	0.095	0.017
(WY)	2000	2000	2001	2001	2001	2001	2001	2001	2001	2001	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	4760.19		15093.94			
ANNUAL MEAN	13.04		41.35		28.80	
HIGHEST ANNUAL MEAN					42.7	
LOWEST ANNUAL MEAN					2.30	
HIGHEST DAILY MEAN	625	Dec 29	625	Dec 29	1040	Feb 28 2000
LOWEST DAILY MEAN	0.04	Sep 13	0.00	Aug 12	0.00	Aug 12 2002
ANNUAL SEVEN-DAY MINIMUM	0.05	Sep 11	0.00	Sep 5	0.00	Sep 5 2002
MAXIMUM PEAK FLOW			967		2910	
MAXIMUM PEAK STAGE			12.88		15.98	
ANNUAL RUNOFF (AC-FT)	9440		29940		20870	
10 PERCENT EXCEEDS	18		148		31	
50 PERCENT EXCEEDS	1.6		4.0		1.7	
90 PERCENT EXCEEDS	0.17		0.07		0.23	

e Estimated.

11173575 ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 1999 to current year (storm season only).

WATER TEMPERATURE: October 1999 to current year.

SEDIMENT DATA: October 1999 to current year.

PERIOD OF DAILY RECORD.—October 1999 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1999 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SEDIMENT CONCENTRATION: Maximum daily mean, 1,180 mg/L, Feb. 14, 2000; minimum daily mean, 0 mg/L, Feb. 5–7, 2001, Oct. 14, and Nov. 7, 8, 2002.

SEDIMENT LOAD: Maximum daily, 5,230 tons, Feb. 13, 2000; minimum daily, 0 ton, many days.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 244 mg/L, Dec. 29; minimum daily mean, 0 mg/L, Oct. 14, Nov. 7, 8.

SEDIMENT LOAD (storm season only): Maximum daily, 482 tons, Dec. 29; minimum daily, 0 ton, many days.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT										
16...	1555	35	19.0	8.0	.76	66	--	--	--	--
DEC										
03...	1135	72	9.5	24	4.7	92	97	100	--	--
03...	1645	45	10.0	16	1.9	85	--	--	--	--
19...	1620	113	11.0	20	6.1	74	--	--	--	--
20...	0830	116	11.0	10	3.1	75	--	--	--	--
28...	1225	183	10.5	17	8.4	74	--	--	--	--
29...	1055	863	9.5	426	993	70	87	95	98	100
JAN										
30...	1200	134	8.5	6.0	2.2	71	--	--	--	--
FEB										
19...	1640	17	12.5	13	.60	92	--	--	--	--
MAR										
17...	1430	19	9.5	16	.82	96	--	--	--	--
21...	0915	15	11.0	1.0	.04	--	--	--	--	--
23...	1310	48	13.0	159	20.6	95	100	--	--	--
25...	1715	58	12.0	15	2.3	91	--	--	--	--
APR										
24...	1010	5.4	14.5	1.0	.01	--	--	--	--	--

11173575 ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAMPLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)	BED MAT. SIEVE DIAM. % FINER THAN (80167)
------	------	---	---	------------------------------------	---	---	---	---

MAR

21...	1050	1	14	11.0	11	36	58	66
21...	1053	1	14	11.0	3	9	16	22
21...	1056	1	14	11.0	--	1	3	10
21...	1059	1	14	11.0	--	--	--	1
21...	1102	1	14	11.0	--	--	--	1
21...	1105	1	14	11.0	--	1	2	6
21...	1108	1	14	11.0	4	12	22	31

Date	BED MAT. SIEVE DIAM. % FINER THAN (80168)	BED MAT. SIEVE DIAM. % FINER THAN (80169)	BED MAT. SIEVE DIAM. % FINER THAN (80170)	BED MAT. SIEVE DIAM. % FINER THAN (80171)	BED MAT. SIEVE DIAM. % FINER THAN (80172)	BED MAT. SIEVE DIAM. % FINER THAN (80173)	BED MAT. SIEVE DIAM. % FINER THAN (80174)	BED MAT. SIEVE DIAM. % FINER THAN (80175)
------	---	---	---	---	---	---	---	---

MAR

21...	71	76	83	90	95	100	--	--
21...	26	30	35	40	46	53	61	100
21...	22	36	47	57	68	91	100	--
21...	3	6	10	15	23	40	100	--
21...	2	4	8	12	16	29	44	100
21...	10	15	21	27	33	56	100	--
21...	36	39	43	46	48	52	67	100

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD (MM) (30333)	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)
------	------	---------------------------------	-----------------------------	------------------------------------	---	-------------------------------------	-----------------------------------	---

DEC

28...	1249	1000	1150	.250	0	1240	1258	60
28...	1317	1000	1150	.250	0	1308	1325	60
29...	1128	1000	1150	.250	0	1125	1132	30
29...	1148	1000	1150	.250	0	1145	1152	30

Date	HORI-ZONTAL WIDTH OF VER-TICAL (FEET) (04121)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER-TICALS IN COM-POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT (04122)
------	---	--	---	--	--	---	------------------------------------	---

DEC

28...	2.0	2	17	17	1.00	186	10.5	.02
28...	2.0	2	17	17	1.00	192	10.5	.03
29...	5.0	2	10	10	2.50	844	9.5	1.80
29...	5.0	2	10	10	2.50	840	9.5	.42

Date	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/ DAY) (80225)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80235)
------	---	---	---	---	---	---	---	---	---

DEC

28...	.88	2	25	60	85	96	100	--	--
28...	.88	2	24	54	71	81	87	90	100
29...	56	1	8	21	36	56	72	84	100
29...	56	2	17	42	57	64	67	72	100

11173575 ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL, CA—Continued

WATER TEMPERATURE (INSTANTANEOUS), DEGREES C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	12.0	---	---	---	---	---	---	---	---	---
2	22.5	16.0	---	12.5	---	---	17.0	---	---	---	---	---
3	---	---	10.0	---	---	---	---	---	---	---	---	---
4	---	---	---	11.0	---	---	13.5	---	---	---	---	21.0
5	---	15.5	10.5	---	---	13.5	---	---	---	---	---	---
6	---	---	---	---	9.5	13.5	---	---	---	---	---	---
7	---	13.5	---	11.5	---	---	15.0	---	---	---	---	---
8	---	---	---	---	---	10.5	---	---	---	---	---	---
9	---	15.0	11.0	---	9.0	---	15.0	---	---	---	---	---
10	17.5	---	---	9.5	---	12.0	---	---	---	---	---	---
11	---	16.0	---	---	11.0	---	17.5	---	---	---	---	---
12	---	15.0	10.5	---	---	12.5	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	8.5	12.5	---	---	---	---	---	---
15	---	---	7.0	9.5	---	---	---	---	---	---	---	---
16	19.0	15.5	---	---	11.0	---	---	---	---	---	---	---
17	---	---	11.0	---	9.5	9.5	11.5	---	---	---	---	---
18	---	---	---	9.5	---	---	---	---	---	---	---	---
19	---	14.5	11.0	---	12.5	12.0	---	---	---	---	---	---
20	---	---	11.0	8.5	---	---	14.5	---	---	---	---	---
21	---	15.5	---	---	13.5	11.0	---	---	---	---	---	---
22	---	---	---	8.5	---	13.0	---	---	---	---	---	---
23	---	---	11.5	---	12.0	13.0	---	---	---	---	---	---
24	17.0	14.0	---	---	---	---	14.5	---	---	---	---	---
25	---	12.0	---	10.0	---	12.0	---	---	---	---	---	---
26	17.0	---	---	9.5	13.0	---	13.5	---	23.0	---	---	---
27	---	11.0	11.5	---	---	15.0	12.5	---	---	---	---	---
28	---	---	10.5	9.5	13.0	---	---	---	---	---	---	---
29	17.5	11.5	10.5	---	---	16.0	---	---	---	---	---	---
30	17.0	11.5	---	8.5	---	---	13.0	19.5	---	---	---	---
31	---	---	11.5	---	---	---	---	---	---	18.5	---	---

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0.17	2.0	0.00	0.60	2.0	0.00	1.2	1.0	0.00
2	0.15	2.0	0.00	0.60	2.0	0.00	120	62	53.0
3	0.13	2.0	0.00	0.61	2.0	0.00	72	29	6.8
4	2.4	3.0	0.09	0.57	1.0	0.00	15	6.0	0.28
5	18	12	0.57	0.41	1.0	0.00	6.5	2.0	0.04
6	19	9.0	0.44	0.36	1.0	0.00	5.7	2.0	0.03
7	19	6.0	0.32	0.33	0.0	0.00	7.0	2.0	0.03
8	18	5.0	0.25	0.38	0.0	0.00	4.8	1.0	0.02
9	14	4.0	0.16	0.42	1.0	0.00	4.0	1.0	0.01
10	1.4	3.0	0.01	0.47	1.0	0.00	4.9	1.0	0.01
11	0.48	3.0	0.00	0.49	1.0	0.00	4.4	1.0	0.01
12	0.30	2.0	0.00	1.5	12	0.06	3.2	1.0	0.00
13	0.25	1.0	0.00	1.2	14	0.05	2.6	1.0	0.00
14	0.24	0.0	0.00	0.78	11	0.02	36	13	2.5
15	9.3	3.0	0.18	0.72	8.0	0.02	18	6.0	0.33
16	e34	9.0	e0.79	0.64	6.0	0.01	7.6	3.0	0.06
17	e31	7.0	e0.61	0.59	5.0	0.00	5.4	2.0	0.03
18	31	6.0	0.55	0.59	3.0	0.00	5.9	2.0	0.03
19	30	6.0	0.48	0.64	1.0	0.00	57	11	3.1
20	30	5.0	0.43	0.67	1.0	0.00	218	69	73.0
21	30	5.0	0.39	0.69	1.0	0.00	384	167	209
22	31	4.0	0.35	0.77	1.0	0.00	180	37	18.0
23	31	4.0	0.30	0.68	2.0	0.00	161	13	5.9
24	30	3.0	0.25	2.7	4.0	0.04	150	8.0	3.4
25	31	3.0	0.22	2.3	4.0	0.02	145	9.0	3.5
26	30	2.0	0.17	1.3	3.0	0.00	142	9.0	3.6
27	30	2.0	0.17	0.87	1.0	0.00	141	10	3.8
28	30	2.0	0.16	0.76	1.0	0.00	206	29	23.0
29	24	3.0	0.22	1.5	2.0	0.00	625	244	482
30	4.9	2.0	0.02	1.4	1.0	0.00	378	51	54.0
31	2.1	1.0	0.00	---	---	---	345	28	27.0
TOTAL	532.82	---	7.13	25.54	---	0.22	3456.2	---	972.48

e Estimated.

11173575 ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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	279	19	14.0	130	4.0	1.3	12	1.0	0.03
2	356	52	68.0	130	4.0	1.3	10	1.0	0.03
3	442	76	104	127	4.0	1.2	9.4	1.0	0.03
4	299	16	13.0	126	4.0	1.2	8.9	1.0	0.02
5	267	11	7.7	93	3.0	0.85	8.8	1.0	0.02
6	250	10	7.0	45	3.0	0.37	10	2.0	0.07
7	244	10	6.6	9.2	3.0	0.07	32	20	2.4
8	241	10	6.3	36	11	1.1	44	12	1.8
9	236	9.0	5.9	22	8.0	0.48	21	4.0	0.20
10	329	22	22.0	16	4.0	0.18	32	15	2.5
11	345	21	21.0	13	2.0	0.08	36	11	1.3
12	206	13	7.5	12	2.0	0.05	23	2.0	0.14
13	204	10	5.6	11	1.0	0.04	19	2.0	0.09
14	204	8.0	4.5	10	1.0	0.03	16	3.0	0.11
15	146	6.0	2.6	9.6	2.0	0.04	14	2.0	0.06
16	92	5.0	1.1	9.7	2.0	0.05	13	1.0	0.03
17	93	3.0	0.70	13	8.0	0.31	16	8.0	0.43
18	226	16	19.0	18	15	0.73	20	14	0.78
19	471	28	36.0	17	14	0.72	19	7.0	0.35
20	465	18	23.0	44	37	4.6	16	2.0	0.07
21	460	16	19.0	28	3.0	0.25	14	1.0	0.04
22	458	14	17.0	22	1.0	0.06	14	2.0	0.08
23	448	14	17.0	19	1.0	0.05	70	71	32.0
24	431	14	16.0	17	1.0	0.06	159	132	69.0
25	372	13	13.0	15	2.0	0.06	68	23	4.5
26	239	7.0	4.3	15	2.0	0.07	44	10	1.2
27	241	6.0	3.6	14	2.0	0.06	33	4.0	0.34
28	240	5.0	3.3	12	1.0	0.04	27	2.0	0.15
29	189	5.0	2.4	---	---	---	21	2.0	0.12
30	134	5.0	1.7	---	---	---	18	2.0	0.10
31	131	4.0	1.4	---	---	---	15	2.0	0.08
TOTAL	8738	---	474.20	1033.5	---	15.35	863.1	---	118.07

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	14	2.0	0.07
2	12	2.0	0.07
3	12	2.0	0.06
4	11	2.0	0.06
5	10	2.0	0.06
6	10	2.0	0.05
7	9.7	2.0	0.05
8	9.0	2.0	0.05
9	8.5	2.0	0.05
10	8.2	2.0	0.04
11	8.0	2.0	0.04
12	7.5	2.0	0.04
13	7.1	2.0	0.04
14	6.7	2.0	0.04
15	6.5	2.0	0.03
16	6.4	2.0	0.03
17	7.9	2.0	0.04
18	8.2	2.0	0.04
19	7.1	1.0	0.03
20	6.6	1.0	0.02
21	6.1	1.0	0.02
22	5.6	1.0	0.02
23	5.4	1.0	0.01
24	5.4	1.0	0.02
25	5.3	2.0	0.03
26	5.3	4.0	0.05
27	5.4	2.0	0.03
28	5.4	2.0	0.02
29	5.1	1.0	0.02
30	5.2	1.0	0.01
31	---	---	---
TOTAL PERIOD	230.6	---	1.14
	14879.76		1588.59

ALAMEDA CREEK BASIN

11173575 ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL, CA—Continued

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	532.82	7.13	0	7
NOVEMBER	25.54	0.22	0	0
DECEMBER	3456.20	972.48	74	1046
JANUARY 2002	8738.00	474.20	194	668
FEBRUARY	1033.50	15.35	0	15
MARCH	863.10	118.07	1	119
APRIL	230.60	1.14	0	1
PERIOD	14879.76	1588.59	269	1857

11174000 SAN ANTONIO CREEK NEAR SUNOL, CA

LOCATION.—Lat 37°34'39", long 121°51'24", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank, 0.4 mi upstream from Calaveras Road Bridge, 0.85 mi upstream from mouth, and 2 mi southeast of town of Sunol.

DRAINAGE AREA.—37.0 mi².

PERIOD OF RECORD.—January 1912 to September 1930 (records furnished by Spring Valley Water Company), February 1960 to September 1965, and October 1999 to current year. Monthly discharge only for some periods, published in WSP 1315-B (published as "La Costa Creek near Sunol").

SEDIMENT DATA: Water years 2000–01.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 271.56 ft above sea level (levels by City of San Francisco). Prior to Feb. 8, 1960, at site 0.65 mi upstream at different datum.

REMARKS.—Records good. Flows regulated by Lake San Antonio located 0.6 mi upstream of gage beginning in October 1964. Reservoir filling completion date was February 1965. Flows can be released for emergency flood conditions, but purpose of the reservoir is for water supply. Total storage capacity is 50,500 acre-ft.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge prior to regulation for years with available instantaneous maxima (1921–30 and 1960–63), 1,970 ft³/s, Jan. 31, 1963, gage height, 7.16 ft.

Maximum discharge for period after regulation, 320 ft³/s, Jan. 16, 2001, gage height, 4.72 ft; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 23, 1955, 5,180 ft³/s (by slope-area measurement of peak flow).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.08	0.15	0.88	0.15	0.16	0.13	0.10	0.11	0.03	0.00	0.00
2	0.03	0.08	1.1	1.6	0.15	0.15	0.14	0.10	0.13	0.02	0.00	0.00
3	0.04	0.07	0.45	0.97	0.15	0.15	0.15	0.10	0.12	0.01	0.00	0.00
4	0.04	0.06	0.23	0.52	0.15	0.15	0.13	0.09	0.12	0.00	0.00	0.00
5	0.05	0.06	0.20	0.40	0.15	0.15	0.12	0.08	0.12	0.00	0.00	0.00
6	0.06	0.06	0.19	0.35	0.13	0.17	0.11	0.08	0.12	0.00	0.00	0.00
7	0.06	0.06	0.17	0.31	0.15	0.19	0.11	0.09	0.14	0.00	0.00	0.00
8	0.06	0.06	0.16	0.29	0.19	0.17	0.11	0.08	0.16	0.00	0.00	0.00
9	0.06	0.06	0.15	0.27	0.16	0.16	0.11	0.08	0.16	0.00	0.00	0.00
10	0.05	0.06	0.15	0.24	0.15	0.16	0.11	0.08	0.14	0.00	0.00	0.00
11	0.05	0.07	0.14	0.23	0.15	0.15	0.11	0.09	0.03	0.00	0.00	0.00
12	0.05	0.19	0.13	0.22	0.15	0.15	0.11	0.09	0.03	0.00	0.00	0.00
13	0.04	0.12	0.13	0.21	0.15	0.15	0.11	0.08	0.04	0.00	0.00	0.00
14	0.04	0.10	0.25	0.20	0.15	0.14	0.10	0.08	0.05	0.00	0.00	0.00
15	0.04	0.10	0.19	0.19	0.15	0.13	0.10	0.08	0.05	0.00	0.00	0.00
16	0.04	0.09	0.17	0.18	0.16	0.13	0.11	0.07	0.05	0.00	0.00	0.00
17	0.05	0.09	0.18	0.17	0.22	0.23	0.14	0.07	0.05	0.00	0.00	0.00
18	0.05	0.09	0.17	0.17	0.18	0.19	0.12	0.07	0.05	0.00	0.00	0.00
19	0.06	0.09	0.17	0.17	0.18	0.16	0.11	0.11	0.04	0.00	0.00	0.00
20	0.06	0.09	0.94	0.17	0.17	0.15	0.11	0.15	0.03	0.00	0.00	0.00
21	0.06	0.09	0.50	0.17	0.17	0.14	0.11	0.11	0.04	0.00	0.00	0.00
22	0.06	0.10	0.30	0.17	0.17	0.16	0.11	0.09	0.05	0.00	0.00	0.00
23	0.06	0.09	0.26	0.16	0.17	0.25	0.10	0.09	0.04	0.00	0.00	0.00
24	0.05	0.16	0.23	0.15	0.17	0.20	0.10	0.09	0.04	0.00	0.00	0.00
25	0.05	0.15	0.22	0.15	0.17	0.18	0.10	0.09	0.04	0.00	0.00	0.00
26	0.05	0.13	0.21	0.17	0.17	0.17	0.10	0.09	0.03	0.00	0.00	0.00
27	0.06	0.13	0.21	0.17	0.17	0.16	0.10	0.08	0.03	0.00	0.00	0.00
28	0.06	0.13	0.61	0.17	0.17	0.15	0.10	0.09	0.04	0.00	0.00	0.00
29	0.06	0.19	6.9	0.17	---	0.14	0.09	0.09	0.04	0.00	0.00	0.00
30	0.09	0.15	3.7	0.16	---	0.13	0.10	0.10	0.03	0.00	0.00	0.00
31	0.08	---	2.4	0.15	---	0.13	---	0.10	---	0.00	0.00	---
TOTAL	1.65	3.00	20.96	9.53	4.55	5.00	3.35	2.79	2.12	0.06	0.00	0.00
MEAN	0.053	0.100	0.676	0.307	0.163	0.161	0.112	0.090	0.071	0.002	0.000	0.000
MAX	0.09	0.19	6.9	1.6	0.22	0.25	0.15	0.15	0.16	0.03	0.00	0.00
MIN	0.03	0.06	0.13	0.15	0.13	0.13	0.09	0.07	0.03	0.00	0.00	0.00
AC-FT	3.3	6.0	42	19	9.0	9.9	6.6	5.5	4.2	0.1	0.00	0.00

ALAMEDA CREEK BASIN

11174000 SAN ANTONIO CREEK NEAR SUNOL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1963, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	.14	.55	7.60	29.5	45.9	22.9	10.1	4.31	.91	.10	.043	.17
MAX	2.00	5.11	37.7	258	205	74.4	48.6	42.8	5.11	.90	.47	2.84
(WY)	1963	1927	1923	1916	1915	1919	1963	1915	1915	1915	1915	1918
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1913	1915	1924	1924	1924	1924	1924	1924	1918	1914	1913	1912

SUMMARY STATISTICS

WATER YEARS 1912 - 1963

ANNUAL MEAN	10.3	
HIGHEST ANNUAL MEAN	36.0	1916
LOWEST ANNUAL MEAN	.000	1924
HIGHEST DAILY MEAN	1460	Jan 3 1916
LOWEST DAILY MEAN	.00	Jul 26 1912
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 3 1912
MAXIMUM PEAK FLOW	1970	Jan 31 1963
MAXIMUM PEAK STAGE	7.16	Jan 31 1963
ANNUAL RUNOFF (AC-FT)	7510	
10 PERCENT EXCEEDS	17	
50 PERCENT EXCEEDS	.30	
90 PERCENT EXCEEDS	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
MEAN	0.034	0.069	0.260	0.873	0.678	0.344	0.137	0.102	0.048	0.004	0.002	0.009
MAX	0.053	0.10	0.68	2.14	1.61	0.65	0.17	0.16	0.074	0.009	0.005	0.027
(WY)	2002	2002	2002	2001	2000	2000	2000	2000	2000	2000	2001	2001
MIN	0.007	0.025	0.027	0.17	0.16	0.16	0.11	0.060	0.000	0.000	0.000	0.000
(WY)	2000	2000	2000	2000	2002	2002	2002	2001	2001	2001	2000	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 2000 - 2002

ANNUAL TOTAL	111.91	53.01	
ANNUAL MEAN	0.307	0.145	0.212
HIGHEST ANNUAL MEAN			0.25 2001
LOWEST ANNUAL MEAN			0.15 2002
HIGHEST DAILY MEAN	61 Jan 16	6.9 Dec 29	61 Jan 16 2001
LOWEST DAILY MEAN	0.00 May 31	0.00 Jul 4	0.00 Oct 1 1999
ANNUAL SEVEN-DAY MINIMUM	0.00 May 31	0.00 Jul 4	0.00 Oct 1 1999
MAXIMUM PEAK FLOW		15 Dec 29	320 Jan 16 2001
MAXIMUM PEAK STAGE		3.40 Dec 29	4.72 Jan 16 2001
ANNUAL RUNOFF (AC-FT)	222	105	153
10 PERCENT EXCEEDS	0.22	0.19	0.21
50 PERCENT EXCEEDS	0.08	0.09	0.07
90 PERCENT EXCEEDS	0.00	0.00	0.00

11174060 ALAMEDA CREEK AT HIGHWAY 680, NEAR SUNOL, CA

LOCATION.—Lat 37°34'33", long 121°52'23", in Valle de San Jose Grant, Alameda County, Hydrologic Unit 18050004, on right bank of creek at Highway 680, 1 mi upstream of mouth of Arroyo de la Laguna, and 1 mi southeast of town of Sunol.

DRAINAGE AREA.—191 mi².

PERIOD OF RECORD.—October 1999 to April 2002 (discontinued).

SEDIMENT DATA.—October 1999 to April 2002 (discontinued).

GAGE.—Outside staff gage only. Elevation of gage is 250 ft above sea level, from topographic map.

REMARKS.—Periodic total-load sampling site. Discharge measurements made in conjunction with sediment samples are published in the tables with sample data. Flow regulated by Calaveras Reservoir, usable capacity, 96,800 acre-ft, dead storage, 3,200 acre-ft. Zero bed-load discharge observed for flows less than 118 ft³/s during current year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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 (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
		(00061)	(00010)	(80154)	(80155)				
OCT 17...	0945	2.9	18.0	29	.23	94	--	--	--
NOV 07...	0945	4.8	16.5	6.0	.08	--	--	--	--
DEC 04...	0925	21	10.0	14	.81	88	91	100	--
JAN 03...	1410	319	11.5	25	21.5	87	96	99	100
31...	1400	118	10.5	8.0	2.5	--	--	--	--
MAR 21...	1340	11	15.5	3.0	.09	--	--	--	--
APR 24...	1325	8.6	18.5	5.0	.12	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM-PLING POINTS (COUNT)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	TEMPER-ATURE WATER (DEG C)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)
		(00063)	(00061)	(00010)				
APR 24...	1500	1	8.6	18.5	6	14	20	23
24...	1505	1	8.6	18.5	4	10	18	25
24...	1510	1	8.6	18.5	3	8	20	46
24...	1515	1	8.6	18.5	<1	1	2	7
24...	1520	1	8.6	18.5	<1	1	3	9
24...	1525	1	8.6	18.5	--	1	2	5
24...	1530	1	8.6	18.5	1	2	3	7

Date	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)	BED MAT. SIEVE DIAM. % FINER THAN 128 MM (80175)
	APR 24...	25	28	31	33	34	37	41
24...	31	39	51	65	89	100	--	--
24...	64	75	82	87	90	100	--	--
24...	14	20	26	37	55	73	100	--
24...	17	24	30	38	56	75	100	--
24...	11	15	20	32	56	100	--	--
24...	14	23	36	52	80	100	--	--

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

ALAMEDA CREEK BASIN

11174060 ALAMEDA CREEK AT HIGHWAY 680, NEAR SUNOL, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE) (04117)	START- ING TIME (2400 HOURS) (82073)	END- ING TIME (2400 HOURS) (82074)	TIME	HORI-
								ON BED FOR BED LOAD SAMPLE (SEC) (04120)	ZONTAL WIDTH OF VER- TICAL (FEET) (04121)
JAN 03...	1525	10	1140	.025	0	1500	1550	120	2.0
Date	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER- TICALS IN COM- POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE (TONS/ T/D/FT DAY) (04122)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY) (80225)	
									JAN 03...
Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM (80235)	
									JAN 03...

11176325 ARROYO MOCHO AT HOPYARD ROAD, AT PLEASANTON, CA

LOCATION.—Lat 37°40'49", long 121°54'10", Alameda County, Hydrologic Unit 18050004, at Hopyard Road bridge over Arroyo Mocho, in Pleasanton City limits.

DRAINAGE AREA.—170 mi².

PERIOD OF RECORD.—October 1999 to current year (storm season only) (discontinued).

SEDIMENT DATA: October 1999 to current year (storm season only) (discontinued).

EXTREMES FOR PERIOD OF RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 414 mg/L, Mar. 8, 2000; minimum sampled, 21 mg/L, Jan. 28, 2002.

SEDIMENT LOAD (storm season only): Maximum sampled, 184 tons, Jan. 25, 2000; minimum sampled, 0.17 tons, May 7, 2002.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 64 mg/L, Oct. 5; minimum sampled, 21 mg/L, Jan. 28.

SEDIMENT LOAD (storm season only): Maximum sampled, 0.58 tons, Oct. 5; minimum sampled, 0.17 tons, May 7.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPERATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT 05...	1640	3.3	19.0	64	.58	80	--	--
DEC 19...	1415	3.5	10.0	44	.41	94	97	100
JAN 28...	1400	4.5	--	21	.26	82	--	--
MAR 21...	1600	3.9	18.5	30	.31	90	--	--
MAY 07...	1430	2.0	22.0	32	.17	99	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPERATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)
OCT 05...	1700	1	3.3	19.0	1	2	7	17
OCT 05...	1705	1	3.3	19.0	--	1	7	32
OCT 05...	1710	1	3.3	19.0	--	1	4	21
OCT 05...	1715	1	3.3	19.0	--	1	4	18
OCT 05...	1720	1	3.3	19.0	--	--	3	17
MAY 07...	1510	1	2.0	22.0	5	16	36	47
MAY 07...	1515	1	2.0	22.0	1	4	10	23
MAY 07...	1520	1	2.0	22.0	--	1	3	14
MAY 07...	1525	1	2.0	22.0	11	18	24	37
MAY 07...	1530	1	2.0	22.0	4	9	20	35

Date	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
OCT 05...	28	34	48	65	88	100	--
OCT 05...	54	61	71	78	86	100	--
OCT 05...	39	53	70	82	97	100	--
OCT 05...	31	40	58	74	86	92	100
OCT 05...	29	35	45	55	66	72	100
MAY 07...	53	61	74	86	100	--	--
MAY 07...	32	39	48	58	81	100	--
MAY 07...	26	32	39	44	54	70	100
MAY 07...	48	58	72	89	94	100	--
MAY 07...	45	56	74	93	98	100	--

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 mi².

PERIOD OF RECORD.—October 1963 to current year. Prior to October 1974, published as "above Lang Canyon, near Livermore."

SEDIMENT DATA: Water years 1963, 1965, 1974–76, 1978, and 1979.

GAGE.—Water-stage recorder. Concrete control since June 19, 1975. Elevation of gage is 750 ft above sea level, from topographic map. Prior to June 19, 1975, at site 1.4 mi upstream at different datum.

REMARKS.—Records good except for flows below 5 ft³/s, which are poor. No regulation or diversion upstream from station. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,790 ft³/s, Feb. 17, 1986, gage height, 7.36 ft, from rating curve extended above 1,000 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 29	1930	448	1.97

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	2.0	96	7.1	6.3	12	5.0	0.71	0.00	0.00	0.00
2	0.00	0.00	72	116	6.9	5.8	10	4.8	0.66	0.00	0.00	0.00
3	0.00	0.00	60	282	6.7	5.6	8.8	4.4	0.61	0.00	0.00	0.00
4	0.00	0.00	16	118	6.5	5.5	8.0	4.2	0.47	0.00	0.00	0.00
5	0.00	0.00	7.3	68	6.3	5.5	7.7	4.1	0.32	0.00	0.00	0.00
6	0.00	0.00	5.0	48	6.1	6.3	7.5	3.8	0.18	0.00	0.00	0.00
7	0.00	0.00	3.8	36	6.7	11	7.2	3.5	0.04	0.00	0.00	0.00
8	0.00	0.00	3.0	30	19	14	6.8	3.4	0.00	0.00	0.00	0.00
9	0.00	0.00	3.1	25	12	12	6.6	2.7	0.00	0.00	0.00	0.00
10	0.00	0.00	3.5	20	9.7	15	6.6	2.3	0.00	0.00	0.00	0.00
11	0.00	0.00	2.9	17	8.1	19	6.3	2.5	0.00	0.00	0.00	0.00
12	0.00	0.00	2.5	14	7.4	15	6.1	2.4	0.00	0.00	0.00	0.00
13	0.00	0.00	2.3	13	6.9	13	5.9	2.1	0.00	0.00	0.00	0.00
14	0.00	0.00	10	12	6.6	12	5.5	2.2	0.00	0.00	0.00	0.00
15	0.00	0.00	13	12	6.2	12	5.0	2.0	0.00	0.00	0.00	0.00
16	0.00	0.00	7.5	11	6.2	11	4.9	1.9	0.00	0.00	0.00	0.00
17	0.00	0.00	5.7	9.9	8.9	14	6.6	1.7	0.00	0.00	0.00	0.00
18	0.00	0.00	5.4	9.2	11	20	6.2	1.6	0.00	0.00	0.00	0.00
19	0.00	0.00	4.5	8.7	11	20	5.2	1.8	0.00	0.00	0.00	0.00
20	0.00	0.00	15	8.5	17	20	4.9	4.0	0.00	0.00	0.00	0.00
21	0.00	0.00	136	8.2	13	17	4.8	6.9	0.00	0.00	0.00	0.00
22	0.00	0.00	59	8.4	12	15	4.6	4.5	0.00	0.00	0.00	0.00
23	0.00	0.00	40	7.7	11	31	4.3	3.2	0.00	0.00	0.00	0.00
24	0.00	0.00	27	7.4	9.3	57	4.2	2.7	0.00	0.00	0.00	0.00
25	0.00	0.00	19	7.0	8.3	41	4.1	2.2	0.00	0.00	0.00	0.00
26	0.00	1.9	14	7.9	7.5	32	4.2	1.9	0.00	0.00	0.00	0.00
27	0.00	0.81	12	9.8	7.0	25	4.3	1.6	0.00	0.00	0.00	0.00
28	0.00	0.84	21	9.3	6.7	21	4.5	1.5	0.00	0.00	0.00	0.00
29	0.00	3.3	312	9.8	---	17	4.3	1.4	0.00	0.00	0.00	0.00
30	0.00	2.2	237	8.5	---	15	4.4	1.1	0.00	0.00	0.00	0.00
31	0.00	---	159	7.5	---	13	---	0.85	---	0.00	0.00	---
TOTAL	0.00	9.05	1280.5	1045.8	251.1	527.0	181.5	88.25	2.99	0.00	0.00	0.00
MEAN	0.000	0.302	41.31	33.74	8.968	17.00	6.050	2.847	0.100	0.000	0.000	0.000
MAX	0.00	3.3	312	282	19	57	12	6.9	0.71	0.00	0.00	0.00
MIN	0.00	0.00	2.0	7.0	6.1	5.5	4.1	0.85	0.00	0.00	0.00	0.00
AC-FT	0.00	18	2540	2070	498	1050	360	175	5.9	0.00	0.00	0.00

11176400 ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.227	6.736	31.86	114.6	152.9	100.6	37.57	9.191	2.857	0.722	0.176	0.102
MAX	3.12	79.2	216	588	986	625	322	71.5	18.9	7.43	3.67	2.00
(WY)	1984	1983	1984	1997	1998	1983	1982	1983	1998	1983	1983	1983
MIN	0.000	0.000	0.000	0.000	0.24	0.82	0.14	0.001	0.000	0.000	0.000	0.000
(WY)	1965	1977	1990	1991	1991	1977	1977	1977	1976	1964	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1964 - 2002
ANNUAL TOTAL	5797.40	3386.19	
ANNUAL MEAN	15.88	9.277	37.55
HIGHEST ANNUAL MEAN			174 1983
LOWEST ANNUAL MEAN			0.24 1977
HIGHEST DAILY MEAN	945 Mar 5	312 Dec 29	4920 Feb 3 1998
LOWEST DAILY MEAN	0.00 Jun 1	0.00 Oct 1	0.00 Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	0.00 Jun 1	0.00 Oct 1	0.00 Oct 1 1963
MAXIMUM PEAK FLOW		448 Dec 29	8790 Feb 17 1986
MAXIMUM PEAK STAGE		1.97 Dec 29	7.36 Feb 17 1986
ANNUAL RUNOFF (AC-FT)	11500	6720	27200
10 PERCENT EXCEEDS	26	16	56
50 PERCENT EXCEEDS	0.76	1.4	1.4
90 PERCENT EXCEEDS	0.00	0.00	0.00

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 mi².

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.

SEDIMENT DATA: Water years 1966 and 1967.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 510.44 ft above sea level. 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 good, except for discharges below 1.0 ft³/s, which are poor. 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 above or below the gage for downstream percolation or returned to the South Bay Aqueduct. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,200 ft³/s, Apr. 2, 1958, gage height, 10.91 ft; no flow at times. Maximum discharge since construction of Del Valle Dam in 1968, 2,980 ft³/s, Feb. 4, 1998, gage height, 9.17 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 23, 1955, reached a stage of 13.9 ft, from floodmarks, discharge, 18,200 ft³/s, on basis of contracted-opening and slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.3	0.51	380	0.20	0.30	8.8	6.8	7.5	0.70	0.66	0.42
2	10	7.5	2.5	109	0.25	0.27	8.8	6.8	7.8	0.71	0.67	0.41
3	8.8	7.2	2.7	1.3	0.33	0.27	8.8	6.8	8.0	0.69	0.64	0.41
4	8.8	7.2	1.5	0.72	0.36	0.27	8.6	6.8	7.9	0.68	0.60	3.7
5	8.9	7.7	1.0	0.53	0.28	0.28	7.9	6.8	7.9	0.72	0.56	10
6	9.2	8.0	0.92	0.47	0.21	0.34	7.5	6.8	7.5	0.72	0.56	16
7	9.1	7.6	0.81	0.38	0.26	0.40	7.2	6.8	7.7	0.71	0.65	22
8	8.8	7.2	0.81	0.36	0.28	0.34	7.2	6.8	7.7	0.61	0.56	22
9	8.8	7.2	0.87	0.33	0.23	0.34	7.2	6.8	7.5	0.58	0.52	27
10	8.8	7.2	0.94	0.33	0.23	0.48	7.2	6.9	7.6	0.57	0.47	30
11	8.8	7.2	0.92	0.29	0.28	0.47	7.2	7.0	7.4	0.62	0.46	29
12	8.8	7.8	0.89	0.27	0.32	0.51	5.3	7.0	7.1	0.67	0.43	29
13	8.8	7.5	0.82	0.27	0.30	0.55	7.2	7.2	7.2	0.78	0.37	24
14	8.8	7.2	2.1	0.27	0.27	0.57	7.2	7.2	7.0	0.93	0.36	15
15	8.8	6.6	1.5	0.24	0.28	0.63	7.2	7.1	6.8	1.1	0.38	15
16	8.8	7.2	1.4	0.27	0.34	0.49	e6.8	7.2	7.0	1.2	0.41	15
17	8.8	7.2	1.5	0.27	0.47	0.95	5.2	7.5	7.1	1.3	0.41	19
18	8.8	7.2	0.88	0.27	0.40	0.66	5.1	7.6	6.3	1.6	0.40	25
19	8.8	5.6	0.23	0.27	0.40	0.57	4.9	7.7	4.7	1.6	1.5	25
20	8.8	0.38	0.69	0.27	0.36	0.55	5.0	7.8	0.89	1.3	0.89	18
21	9.1	0.33	0.76	0.29	0.33	0.55	5.1	8.0	0.83	1.1	0.96	10
22	9.4	0.58	0.41	0.28	0.32	0.61	6.1	7.8	0.77	1.1	1.1	9.9
23	9.4	0.59	0.34	0.29	0.32	0.86	7.7	7.9	0.77	1.0	0.58	9.9
24	9.4	1.1	0.28	0.27	0.31	0.63	7.7	7.7	0.78	0.90	0.53	9.9
25	9.4	1.1	0.27	0.27	0.29	0.63	7.2	7.7	0.72	0.80	0.48	9.9
26	8.3	0.90	0.27	0.32	0.31	0.68	7.1	7.6	0.73	0.78	0.43	11
27	7.2	0.81	0.27	0.32	0.32	0.72	6.8	7.7	0.74	0.67	0.42	10
28	7.2	0.81	1.1	0.31	0.32	0.72	6.8	7.7	0.75	0.64	0.41	7.9
29	7.2	1.9	135	0.30	---	3.6	6.8	7.7	0.72	0.62	0.44	9.6
30	7.5	0.65	521	0.23	---	8.7	6.8	7.5	0.74	0.60	0.46	9.5
31	7.2	---	481	0.21	---	8.8	---	7.2	---	0.65	0.45	---
TOTAL	271.5	146.75	1164.19	499.20	8.57	35.74	208.4	225.9	146.14	26.65	17.76	443.54
MEAN	8.758	4.892	37.55	16.10	0.306	1.153	6.947	7.287	4.871	0.860	0.573	14.78
MAX	11	8.0	521	380	0.47	8.8	8.8	8.0	8.0	1.6	1.5	30
MIN	7.2	0.33	0.23	0.21	0.20	0.27	4.9	6.8	0.72	0.57	0.36	0.41
AC-FT	539	291	2310	990	17	71	413	448	290	53	35	880

e Estimated.

11176600 ARROYO VALLE AT PLEASANTON, CA

LOCATION.—Lat 37°40'02", long 121°52'54", Alameda County, Hydrologic Unit 18050004, Valle de San Jose Grant, on right bank, 400 ft upstream from Hopyard Road bridge, 0.6 mi northwest of Pleasanton City Hall, and 10 mi below Del Valle Reservoir.

DRAINAGE AREA.—171 mi².

PERIOD OF RECORD.—October 1957 to December 1985, October 1999 to current year (storm season only) (discontinued).

CHEMICAL ANALYSES: Water years 1975, 1978–1983.

SPECIFIC CONDUCTANCE: Water years 1975–1983.

WATER TEMPERATURE: Water years 1975–1978.

SEDIMENT DATA: October 1999 to current year (storm season only) (discontinued).

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: December 1974 to September 1983.

WATER TEMPERATURE: December 1974 to September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 2,080 microsiemens, May 17, 1983; minimum recorded, 82 microsiemens, Mar. 2, 1976.

WATER TEMPERATURE: Maximum recorded, 30.5°C, Aug. 6, 8, 1978; minimum recorded, 3.0°C, Jan. 1, 1975.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 10 mg/L, Dec. 19; minimum sampled, 1 mg/L, Jan 28, Mar. 21.

SEDIMENT LOAD (storm season only): Maximum sampled, 0.04 ton, Oct. 6, Dec. 19; minimum sampled, 0.01 ton, Mar. 21.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
06...	1540	3.3	17.0	5	.04	--
DEC						
19...	1115	1.4	10.0	10	.04	78
JAN						
28...	1555	5.6	7.0	1	.02	67
MAR						
21...	1445	1.9	14.5	1	.01	--
MAY						
10...	1230	1.8	17.5	4	.02	92

11176710 ARROYO DE LA LAGUNA AT BERNAL AVENUE, AT PLEASANTON, CA

LOCATION.—Lat 37°39'19", long 121°54'15", Alameda County, Hydrologic Unit 18050004, located 100 ft upstream of Bernal Avenue bridge over Arroyo de la Laguna.

DRAINAGE AREA.—396 mi².

PERIOD OF RECORD.—October 1999 to current year (storm season only) (discontinued).

SEDIMENT DATA: October 1999 to current year (storm season only) (discontinued).

EXTREMES FOR PERIOD OF RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 126 mg/L, Jan. 11, 2001; minimum sampled, 15 mg/L, Apr. 5, 2001.

SEDIMENT LOAD (storm season only): Maximum sampled, 38 tons, Jan. 11, 2001; minimum sampled, 0.58 tons, Feb. 28, 2002.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum sampled, 66 mg/L, Oct. 5; minimum sampled, 18 mg/L, Feb. 28.

SEDIMENT LOAD (storm season only): Maximum sampled, 2.3 tons, Oct. 5; minimum sampled, 0.58 ton, Feb. 28.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT 05...	1330	13	19.0	66	2.3	71	--	--
DEC 19...	1630	17	11.5	40	1.8	84	94	100
JAN 23...	1225	23	7.0	34	2.1	94	--	--
FEB 28...	1530	12	17.5	18	.58	64	--	--
APR 12...	1320	13	21.0	30	1.0	62	--	--
MAY 07...	1100	10	16.0	32	.90	84	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)
OCT 05...	1400	1	13	19.0	1	4	11	21
OCT 05...	1405	1	13	19.0	--	--	1	7
OCT 05...	1410	1	13	19.0	--	--	1	8
OCT 05...	1415	1	13	19.0	--	--	1	9
OCT 05...	1420	1	13	19.0	--	--	2	14
MAY 07...	1140	1	10	16.0	1	4	11	23
MAY 07...	1145	1	10	16.0	3	11	17	22
MAY 07...	1150	1	10	16.0	--	1	2	9
MAY 07...	1155	1	10	16.0	1	1	3	5
MAY 07...	1200	1	10	16.0	8	26	53	70

Date	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
OCT 05...	42	47	52	60	74	100	--
OCT 05...	17	22	26	36	52	83	100
OCT 05...	17	24	30	39	53	89	100
OCT 05...	23	28	35	46	61	93	100
OCT 05...	42	62	82	88	94	100	--
MAY 07...	29	35	43	53	64	69	100
MAY 07...	27	31	36	41	42	52	100
MAY 07...	21	28	34	41	58	77	100
MAY 07...	12	20	29	36	53	100	--
MAY 07...	79	84	91	100	--	--	--

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 mi².

WATER-DISCHARGE RECORDS

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 sea level. 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.—Records fair except for estimated daily discharges, which are poor. 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](#)). See schematic diagram of [Alameda Creek Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 11,400 ft³/s, Jan. 5, 1982, gage height, 22.61 ft, present datum; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	53	411	14	13	15	12	17	6.9	11	9.0
2	11	11	705	481	13	13	16	12	16	7.9	10	7.5
3	11	9.3	185	291	13	12	17	12	18	6.7	9.9	6.9
4	11	8.5	47	117	12	13	17	12	15	6.5	9.8	6.3
5	11	8.3	36	64	13	12	17	12	14	6.3	9.0	7.7
6	11	8.4	32	52	13	64	16	12	14	6.2	9.2	7.1
7	11	8.5	20	46	69	167	16	11	12	6.4	9.1	7.8
8	11	8.4	16	48	96	37	16	11	11	6.7	9.6	9.1
9	10	8.0	17	45	27	21	16	10	11	6.9	10	e9.3
10	10	8.4	17	45	20	88	15	11	10	6.8	12	e9.5
11	11	21	13	40	17	31	15	12	8.7	7.1	10	e9.8
12	9.8	312	11	36	16	20	14	11	8.7	7.2	9.8	e10
13	8.9	68	11	34	15	18	14	12	9.5	7.3	8.8	e9.9
14	8.8	18	380	32	17	16	14	13	10	8.4	10	e9.7
15	8.2	12	47	30	15	15	13	13	9.8	9.1	11	e10
16	8.3	9.1	27	28	40	13	13	13	8.7	7.2	11	e11
17	8.8	8.1	97	27	133	159	50	12	8.3	7.3	11	e12
18	10	7.5	42	26	37	63	19	12	9.2	8.4	10	12
19	9.3	6.9	23	25	37	23	14	57	7.3	9.9	9.0	12
20	9.3	6.3	370	22	35	18	13	146	7.1	9.8	9.6	17
21	8.9	7.2	264	24	21	17	12	194	7.6	9.5	9.1	18
22	9.7	19	118	26	18	51	12	47	8.5	10	9.7	15
23	9.9	8.3	69	23	17	346	12	34	8.3	9.5	8.6	12
24	10	322	35	19	15	70	11	31	7.9	9.7	7.9	11
25	9.5	80	25	16	13	30	11	27	7.5	e9.6	9.6	9.6
26	8.6	18	21	33	13	21	16	24	8.5	e9.7	8.4	11
27	8.7	10	20	24	13	19	16	23	6.5	e9.5	7.8	11
28	11	15	397	20	13	18	13	21	8.0	e9.8	8.2	11
29	9.2	184	892	42	---	17	12	20	7.6	e9.6	9.4	13
30	64	29	645	17	---	16	13	20	7.3	e9.5	9.9	12
31	30	---	754	15	---	16	---	18	---	9.4	8.7	---
TOTAL	379.9	1253.2	5389	2159	775	1437	468	875	303.0	254.8	297.1	317.2
MEAN	12.25	41.77	173.8	69.65	27.68	46.35	15.60	28.23	10.10	8.219	9.584	10.57
MAX	64	322	892	481	133	346	50	194	18	10	12	18
MIN	8.2	6.3	11	15	12	12	11	10	6.5	6.2	7.8	6.3
AC-FT	754	2490	10690	4280	1540	2850	928	1740	601	505	589	629

e Estimated.

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1979–1983, October 1999 to current year (storm season only).

CHEMICAL ANALYSES: Water years 1979–1983.

SPECIFIC CONDUCTANCE: Water years 1979–1983.

WATER TEMPERATURE: December 17, 1999 to current year (storm season only).

SEDIMENT DATA: October 1999 to current year (storm season only).

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: August 1979 to September 1983.

WATER TEMPERATURE: December 17, 1999 to May 2000.

SUSPENDED-SEDIMENT DISCHARGE: October 1999 to current year (storm season only).

REMARKS.—Sediment samples were collected on most days where water temperature is published. Zero bed-load discharge observed for flows less than 25.5 ft³/s.

EXTREMES FOR PERIOD OF RECORD.—

WATER TEMPERATURE (continuous-storm season only): Maximum recorded, 23.0°C, May 2, 2000; minimum recorded, 5.0°C, Dec. 31, 1999.

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 1,860 mg/L, Feb. 14, 2000; minimum daily mean, 5 mg/L, Jan. 7, 2001.

SEDIMENT LOAD (storm season only): Maximum daily, 12,400 tons, Feb. 14, 2000; minimum daily, 0.16 ton, Dec. 31, 1999.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 1,100 mg/L, Dec. 29; minimum daily mean, 7 mg/L, Jan. 20, Feb. 2–4, 26.

SEDIMENT LOAD (storm season only): Maximum daily, 3,710 tons, Dec. 2; minimum daily, 0.25 ton, Feb. 4, 26.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
		OCT								
06...	1130	11	17.5	62	1.8	50	--	--	--	--
DEC										
02...	1530	654	12.0	976	1720	97	--	--	--	--
07...	1325	20	12.5	22	1.2	90	--	--	--	--
JAN										
02...	1305	439	13.0	184	218	62	70	81	96	100
02...	1340	445	13.0	163	196	63	72	82	100	--
FEB										
17...	1015	209	10.5	224	126	90	--	--	--	--
27...	1145	13	15.5	20	.70	64	--	--	--	--
MAR										
18...	0740	70	8.0	94	18.0	97	--	--	--	--
19...	1345	21	14.5	20	1.1	90	--	--	--	--
MAY										
02...	1145	12	16.5	28	.91	66	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, OF SAM- PLING POINTS (COUNT) (00063)	TEMPER- ATURE WATER (DEG C) (00010)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)
		OCT						
06...	1200	1	11	11	17.5	--	1	2
06...	1202	1	11	11	17.5	--	1	2
06...	1204	1	11	11	17.5	--	1	2
06...	1206	1	11	11	17.5	--	--	1
06...	1208	1	11	11	17.5	--	1	3
MAY								
02...	1200	1	12	12	16.5	5	13	31
02...	1235	1	12	12	16.5	--	--	2
02...	1240	1	12	12	16.5	--	--	1
02...	1245	1	12	12	16.5	--	1	2
02...	1250	1	12	12	16.5	1	2	5
02...	1255	1	12	12	16.5	1	2	9
02...	1300	1	12	12	16.5	5	15	26

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
	% FINER THAN 500 MM (80167)	% FINER THAN 1.00 MM (80168)	% FINER THAN 2.00 MM (80169)	% FINER THAN 4.00 MM (80170)	% FINER THAN 8.00 MM (80171)	% FINER THAN 16.0 MM (80172)	% FINER THAN 32.0 MM (80173)	% FINER THAN 64.0 MM (80174)
OCT								
06...	9	18	27	38	51	71	100	--
06...	8	14	21	31	46	65	100	--
06...	8	12	20	30	46	64	88	100
06...	7	14	22	34	54	78	86	100
06...	12	23	42	65	82	96	100	--
MAY								
02...	44	50	59	72	84	100	--	--
02...	8	14	21	31	46	68	100	--
02...	4	5	7	58	63	83	100	--
02...	6	11	16	25	38	62	100	--
02...	11	14	20	30	45	69	100	--
02...	14	15	18	26	44	72	100	--
02...	30	34	39	49	63	100	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAMPLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)	HORIZONTAL WIDTH OF VER-TICAL (FEET) (04121)
				SAMPLER (MM) (30333)					
JAN									
02...	1440	1000	1120	.25	0	1430	1450	30	3.6
02...	1512	1000	1120	.25	0	1500	1525	30	3.6

Date	COMPSTD IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER-TICALS COM-POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, INST. CROSS SECTION (FT FM L BANK) (00009)	DIS-CHARGE, CUBIC FEET PER SECOND (00061)	TEMPER-WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM SAMPLE (TONS/T/D/FT) (04122)	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/DAY) (80225)
JAN								
02...	1	20	20	1.80	457	13.0	.76	54
02...	1	20	20	1.80	451	13.0	1.03	74

Date	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.	SED. BEDLOAD SIEVE DIAM.
	% FINER THAN .250 MM (80228)	% FINER THAN .500 MM (80229)	% FINER THAN 1.00 MM (80230)	% FINER THAN 2.00 MM (80231)	% FINER THAN 4.00 MM (80232)	% FINER THAN 8.00 MM (80233)	% FINER THAN 16.0 MM (80234)	% FINER THAN 32.0 MM (80235)
JAN								
02...	1	19	32	42	56	72	93	100
02...	1	11	20	32	50	68	87	100

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	11	55	1.6	13	110	3.9	53	77	13.6
2	11	56	1.7	11	93	2.8	705	1090	3710
3	11	58	1.8	9.3	78	2.0	185	310	215
4	11	59	1.8	8.5	63	1.4	47	73	9.4
5	11	61	1.8	8.3	47	1.1	36	51	4.8
6	11	62	1.9	8.4	39	0.90	32	36	3.2
7	11	64	1.9	8.5	35	0.81	20	25	1.3
8	11	66	2.0	8.4	33	0.74	16	38	1.6
9	10	68	1.9	8.0	31	0.68	17	55	2.5
10	10	70	2.0	8.4	29	0.66	17	77	3.5
11	11	72	2.1	21	78	4.9	13	99	3.4
12	9.8	72	1.9	312	291	538	11	121	3.6
13	8.9	73	1.8	68	71	18.9	11	133	3.9
14	8.8	73	1.7	18	31	1.5	380	757	1220
15	8.2	74	1.6	12	19	0.62	47	116	15.5
16	8.3	74	1.7	9.1	17	0.42	27	80	6.0
17	8.8	75	1.8	8.1	19	0.41	97	136	63.0
18	10	75	2.0	7.5	17	0.35	42	24	3.4
19	9.3	76	1.9	6.9	16	0.29	23	9.0	0.55
20	9.3	76	1.9	6.3	20	0.34	370	393	658
21	8.9	77	1.8	7.2	28	0.57	264	321	293
22	9.7	77	2.0	19	90	6.3	118	114	43.7
23	9.9	77	2.1	8.3	37	0.82	69	56	10.8
24	10	77	2.1	322	357	570	35	37	3.5
25	9.5	64	1.6	80	142	40.5	25	25	1.7
26	8.6	47	1.1	18	33	1.7	21	14	0.77
27	8.7	44	1.0	10	18	0.50	20	13	0.71
28	11	45	1.4	15	21	3.0	397	510	955
29	9.2	45	1.1	184	177	99.0	892	1100	2960
30	64	309	102	29	49	4.3	645	862	2140
31	30	136	11.0	---	---	---	754	867	2130
TOTAL	379.9	---	164.0	1253.2	---	1307.41	5389	---	14481.43
	JANUARY			FEBRUARY			MARCH		
1	411	428	477	14	7.0	0.28	13	18	0.63
2	481	461	621	13	7.0	0.26	13	17	0.58
3	291	278	246	13	7.0	0.26	12	15	0.51
4	117	62	21.2	12	8.0	0.25	13	14	0.47
5	64	31	5.3	13	8.0	0.28	12	14	0.46
6	52	27	3.8	13	8.0	0.29	64	149	80.5
7	46	22	2.8	69	82	81.8	167	212	126
8	48	18	2.3	96	115	53.8	37	25	2.8
9	45	15	1.8	27	23	1.7	21	10	0.58
10	45	13	1.5	20	16	0.82	88	96	35.7
11	40	10	1.1	17	12	0.57	31	21	1.9
12	36	9.0	0.87	16	9.0	0.38	20	17	0.92
13	34	9.0	0.83	15	9.0	0.36	18	17	0.86
14	32	9.0	0.77	17	10	0.43	16	16	0.66
15	30	9.0	0.74	15	9.0	0.34	15	16	0.64
16	28	10	0.74	40	37	18.5	13	17	0.60
17	27	10	0.72	133	141	61.3	159	159	151
18	26	9.0	0.65	37	27	3.1	63	87	18.0
19	25	8.0	0.54	37	30	3.6	23	25	1.7
20	22	7.0	0.44	35	37	3.7	18	13	0.64
21	24	10	0.66	21	15	0.91	17	16	0.73
22	26	13	0.91	18	10	0.51	51	97	27.3
23	23	14	0.88	17	12	0.54	346	308	343
24	19	15	0.76	15	10	0.41	70	72	15.2
25	16	16	0.68	13	8.0	0.30	30	40	3.3
26	33	54	7.6	13	7.0	0.25	21	35	2.0
27	24	56	3.8	13	18	0.64	19	34	1.7
28	20	21	1.3	13	19	0.69	18	35	1.7
29	42	42	9.1	---	---	---	17	37	1.7
30	17	13	0.61	---	---	---	16	37	1.7
31	15	9.0	0.35	---	---	---	16	37	1.6
TOTAL	2159	---	1416.75	775	---	236.27	1437	---	825.08

ALAMEDA CREEK BASIN

11177000 ARROYO DE LA LAGUNA NEAR PLEASANTON, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	15	37	1.5
2	16	37	1.6
3	17	32	1.4
4	17	25	1.1
5	17	23	1.0
6	16	22	0.99
7	16	22	0.95
8	16	24	1.1
9	16	26	1.1
10	15	27	1.1
11	15	28	1.1
12	14	30	1.2
13	14	33	1.2
14	14	33	1.2
15	13	33	1.2
16	13	37	1.3
17	50	107	19.2
18	19	32	1.7
19	14	19	0.73
20	13	16	0.56
21	12	16	0.55
22	12	18	0.59
23	12	16	0.51
24	11	14	0.43
25	11	19	0.59
26	16	25	1.1
27	16	22	0.94
28	13	21	0.73
29	12	20	0.69
30	13	20	0.72
31	---	---	---
TOTAL	468	---	48.08
PERIOD	11861.10		18479.02

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	379.90	164.00	5	169
NOVEMBER	1253.20	1307.41	604	1911
DECEMBER	5389.00	14481.43	4153	18634
JANUARY 2002	2159.00	1416.75	878	2295
FEBRUARY	775.00	236.27	92	328
MARCH	1437.00	825.08	412	1237
APRIL	468.00	48.08	0	48
TOTAL	11861.10	18479.02	6144	24622

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 mi².

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 sea level. 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.—Records good except for estimated daily discharges, which are fair. 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. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 29,000 ft³/s, Dec. 23, 1955, gage height, 14.9 ft; minimum (water years 1892–1962), no flow at times, minimum daily (water years 1963–96), 0.63 ft³/s, Oct. 7–10, 1984.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	e18	58	734	138	23	26	20	20	36	43	34
2	26	e16	772	844	136	26	28	22	20	34	42	34
3	26	e15	343	783	135	22	30	25	20	38	42	35
4	27	e14	87	408	133	24	27	22	20	40	44	36
5	27	e13	47	317	117	25	27	21	22	40	42	37
6	28	e12	53	286	74	42	27	20	20	39	40	36
7	30	13	30	268	37	224	26	19	20	40	40	38
8	29	18	26	258	195	94	27	22	20	40	40	40
9	28	43	25	250	64	50	28	18	19	38	41	37
10	25	43	25	298	42	104	31	18	18	36	40	35
11	29	51	19	377	36	82	27	23	18	35	39	34
12	28	278	17	223	36	49	28	19	17	35	37	34
13	27	123	15	214	33	40	29	19	17	39	38	32
14	28	34	419	212	30	32	24	21	30	41	36	33
15	27	24	88	180	30	29	24	19	38	42	37	35
16	27	20	41	116	29	27	27	20	40	38	39	36
17	26	16	88	112	168	158	58	19	42	40	40	35
18	28	14	62	167	71	116	32	19	43	41	41	34
19	29	13	40	421	62	51	26	44	40	40	37	34
20	34	13	494	419	93	35	25	150	39	40	33	38
21	35	13	705	420	66	31	22	227	39	42	36	43
22	38	26	322	426	54	44	19	62	39	43	36	42
23	40	18	255	415	43	420	20	37	40	40	36	39
24	e40	293	198	400	40	226	21	30	e38	36	37	37
25	e40	130	178	369	35	107	19	26	e37	36	37	34
26	e38	36	169	250	30	75	23	23	e37	35	37	36
27	e38	23	168	248	26	57	28	21	e36	38	e36	32
28	e39	18	552	239	23	48	24	22	e36	42	e35	18
29	e30	186	1650	236	---	39	22	19	39	42	e34	42
30	e82	59	1060	152	---	32	22	20	38	42	34	40
31	e40	---	1340	143	---	29	---	19	---	43	34	---
TOTAL	1016	1593	9346	10185	1976	2361	797	1066	902	1211	1183	1070
MEAN	32.77	53.10	301.5	328.5	70.57	76.16	26.57	34.39	30.07	39.06	38.16	35.67
MAX	82	293	1650	844	195	420	58	227	43	43	44	43
MIN	25	12	15	112	23	22	19	18	17	34	33	18
AC-FT	2020	3160	18540	20200	3920	4680	1580	2110	1790	2400	2350	2120

e Estimated.

11179000 ALAMEDA CREEK NEAR NILES, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1906, 1952–73, 1975–93, October 1999 to current year (storm season only).
 CHEMICAL DATA: Water years 1906, 1952–67, 1969, 1975–79.
 SPECIFIC CONDUCTANCE: Water years 1956–57, 1959–62, 1976–93.
 WATER TEMPERATURE: Water years 1956–73, 1976–78, October 1999 to current year (storm season only).
 SEDIMENT DATA: Water years 1957–73, October 1999 to current year (storm season only).

PERIOD OF DAILY RECORD.—
 SPECIFIC CONDUCTANCE: July 1956 to July 1957, August 1959 to September 1962, October 1975 to September 1993.
 WATER TEMPERATURE: July 1956 to September 1973, October 1975 to September 1978 (storm season only).
 SUSPENDED-SEDIMENT DISCHARGE: October 1999 to current year (storm season only).

REMARKS.—Sediment samples were collected on most days where water temperature is published. Zero bed-load discharge observed at flows less than 421 ft³/s.

EXTREMES FOR PERIOD OF DAILY RECORD.—
 SPECIFIC CONDUCTANCE: Maximum recorded, 1,530 microsiemens, Nov. 19, 1977; minimum recorded, 122 microsiemens, Jan. 22, 1983.
 WATER TEMPERATURE: Maximum daily recorded, 31.0°C, June 1, 1960; minimum daily, 2.5°C, Dec. 12, 1972.
 SEDIMENT CONCENTRATION: Maximum daily, 5,340 mg/L, Apr. 3, 1958; minimum daily, no flow for many days in 1957, 1959–61.
 SEDIMENT LOAD: Maximum daily, 285,000 tons, Apr. 3, 1958; minimum daily, 0 ton, many days in 1957, 1959–61.

EXTREMES FOR CURRENT YEAR.—
 SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 349 mg/L, Dec. 14; minimum daily mean, 2 mg/L, several days in February, Apr. 25, 26.
 SEDIMENT LOAD (storm season only): Maximum daily mean, 1,430 tons, Dec. 29; minimum daily mean, 0.11 ton, Nov. 7

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
NOV								
11...	0815	50	14.5	16	2.2	78	--	--
12...	1550	955	14.5	1080	2780	95	--	--
29...	0800	311	10.0	185	155	98	--	--
DEC								
02...	1500	1010	11.5	628	1710	94	--	--
06...	1010	57	12.5	38	5.8	94	98	100
17...	1530	326	11.0	183	161	98	--	--
18...	1345	53	11.0	25	3.6	95	--	--
30...	1415	811	11.5	160	350	95	--	--
JAN								
23...	1530	421	10.0	13	15	81	95	100
FEB								
28...	1245	23	14.5	5	.31	62	--	--
APR								
02...	1330	28	18.5	8	.60	56	--	--
MAY								
02...	1530	22	18.5	5	.30	68	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	TEMPER-ATURE (DEG C) (00010)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT								
05...	1040	17.5	1	29	--	--	2	6
05...	1045	17.5	1	29	--	--	1	6
05...	1050	17.5	1	29	--	1	2	14
05...	1055	17.5	1	29	--	--	1	7
05...	1100	17.5	1	29	--	1	1	2
MAY								
02...	1550	18.5	1	22	8	18	30	40
02...	1555	18.5	1	22	--	1	2	6
02...	1600	18.5	1	22	--	2	3	5
02...	1605	18.5	1	22	1	3	4	6
02...	1610	18.5	1	22	6	15	32	52

11179000 ALAMEDA CREEK NEAR NILES, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	27	4.0	0.29	e18	e14	e1.1	58	20	3.8
2	26	4.0	0.28	e16	e4.0	e0.18	772	343	1220
3	26	4.0	0.28	e15	e4.0	e0.17	343	159	191
4	27	4.0	0.30	e14	e4.0	e0.18	87	37	9.5
5	27	4.0	0.30	e13	e5.0	e0.18	47	15	1.9
6	28	5.0	0.38	e12	e4.0	e0.14	53	29	4.6
7	30	5.0	0.40	13	3.0	0.11	30	5.0	0.45
8	29	4.0	0.35	18	5.0	0.26	26	3.0	0.23
9	28	3.0	0.26	43	7.0	0.86	25	3.0	0.23
10	25	3.0	0.21	43	9.0	1.0	25	19	1.3
11	29	4.0	0.31	51	22	3.3	19	22	1.2
12	28	4.0	0.30	278	263	550	17	18	0.82
13	27	4.0	0.29	123	42	22.0	15	17	0.71
14	28	4.0	0.30	34	14	1.3	419	349	667
15	27	4.0	0.29	24	8.0	0.50	88	76	20.3
16	27	4.0	0.29	20	5.0	0.28	41	33	3.7
17	26	4.0	0.26	16	4.0	0.19	88	52	21.5
18	28	4.0	0.30	14	5.0	0.19	62	30	5.6
19	29	5.0	0.35	13	6.0	0.22	40	17	2.3
20	34	5.0	0.46	13	7.0	0.25	494	184	428
21	35	5.0	0.48	13	8.0	0.27	705	159	394
22	38	5.0	0.51	26	12	0.92	322	19	17.4
23	40	5.0	0.54	18	9.0	0.45	255	15	10.7
24	e40	e5.0	e0.56	293	185	285	198	11	6.1
25	e40	e4.0	e0.47	130	117	55.1	178	8.0	4.0
26	e38	e3.0	e0.36	36	20	2.0	169	6.0	2.6
27	e38	e3.0	e0.35	23	12	0.72	168	5.0	2.3
28	e39	e4.0	e0.39	18	7.0	0.34	552	17	43.9
29	e30	e3.0	e0.23	186	112	69.2	1650	284	1430
30	e82	e46	e6.9	59	33	6.1	1060	214	719
31	e40	e57	e9.4	---	---	---	1340	225	931
TOTAL	1016	---	26.39	1593	---	1002.51	9346	---	6145.14
	JANUARY			FEBRUARY			MARCH		
1	734	109	217	138	9.0	3.5	23	3.0	0.18
2	844	131	318	136	9.0	3.3	26	3.0	0.21
3	783	69	170	135	9.0	3.2	22	3.0	0.18
4	408	24	27.5	133	8.0	3.0	24	3.0	0.19
5	317	15	12.7	117	7.0	2.3	25	3.0	0.21
6	286	12	9.5	74	8.0	1.7	42	11	1.8
7	268	10	7.5	37	6.0	0.70	224	95	64.5
8	258	8.0	5.9	195	55	43.3	94	60	16.0
9	250	8.0	5.4	64	15	2.6	50	33	4.6
10	298	11	9.6	42	9.0	1.0	104	80	32.4
11	377	22	22.7	36	4.0	0.40	82	28	7.4
12	223	20	12.3	36	3.0	0.27	49	7.0	0.91
13	214	19	10.9	33	2.0	0.21	40	5.0	0.58
14	212	17	9.8	30	2.0	0.17	32	6.0	0.51
15	180	14	7.0	30	2.0	0.16	29	6.0	0.44
16	116	8.0	2.6	29	2.0	0.17	27	5.0	0.38
17	112	6.0	1.9	168	77	43.0	158	113	127
18	167	5.0	3.0	71	10	2.0	116	91	34.1
19	421	13	14.4	62	6.0	1.2	51	17	2.5
20	419	12	13.8	93	8.0	2.1	35	8.0	0.72
21	420	13	15.1	66	4.0	0.76	31	7.0	0.58
22	426	13	15.2	54	3.0	0.44	44	10	2.1
23	415	12	13.5	43	2.0	0.24	420	209	286
24	400	10	11.2	40	2.0	0.22	226	68	46.7
25	369	8.0	8.2	35	2.0	0.19	107	19	5.7
26	250	6.0	4.0	30	2.0	0.17	75	12	2.5
27	248	7.0	4.9	26	2.0	0.17	57	6.0	0.99
28	239	6.0	4.0	23	3.0	0.18	48	5.0	0.70
29	236	18	11.8	---	---	---	39	6.0	0.62
30	152	12	4.9	---	---	---	32	6.0	0.53
31	143	10	3.7	---	---	---	29	6.0	0.46
TOTAL	10185	---	978.0	1976	---	116.65	2361	---	641.69

e Estimated.

ALAMEDA CREEK BASIN

11179000 ALAMEDA CREEK NEAR NILES, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	26	6.0	0.43
2	28	7.0	0.51
3	30	6.0	0.51
4	27	5.0	0.33
5	27	5.0	0.38
6	27	7.0	0.49
7	26	8.0	0.53
8	27	6.0	0.44
9	28	4.0	0.33
10	31	5.0	0.39
11	27	6.0	0.42
12	28	6.0	0.45
13	29	6.0	0.50
14	24	7.0	0.42
15	24	7.0	0.44
16	27	7.0	0.50
17	58	30	6.9
18	32	7.0	0.61
19	26	6.0	0.40
20	25	4.0	0.28
21	22	4.0	0.22
22	19	3.0	0.18
23	20	3.0	0.16
24	21	3.0	0.15
25	19	2.0	0.13
26	23	2.0	0.15
27	28	4.0	0.30
28	24	4.0	0.26
29	22	4.0	0.24
30	22	4.0	0.24
31	---	---	---
TOTAL	797	---	17.29
PERIOD	27274.00		8927.67

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	1016.00	26.39	0	26
NOVEMBER	1593.00	1002.51	108	1111
DECEMBER	9346.00	6145.14	960	7105
JANUARY 2002	10185.00	978.00	152	1130
FEBRUARY	1976.00	116.65	11	128
MARCH	2361.00	641.69	42	684
APRIL	797.00	17.29	0	17
TOTAL	27274.00	8927.67	1273	10201

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 mi².

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 sea level. Prior to Apr. 1, 1959, at site 1.4 mi downstream at different datum.

REMARKS.—Records good. No regulation or diversion upstream from station. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,680 ft³/s, Jan. 9, 1995, gage height, 5.32 ft, from rating curve extended above 600 ft³/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 90 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 30	2115	188	3.00

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	13	0.56	1.2	0.67	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	1.9	32	0.55	1.1	0.63	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.10	19	0.51	0.93	0.58	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	9.2	0.48	0.86	0.56	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.04	5.3	0.48	0.81	0.56	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	3.6	0.48	1.2	0.54	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	2.7	0.66	3.6	0.50	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	2.2	2.6	2.0	0.48	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	1.8	0.96	1.4	0.48	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	1.6	0.64	2.3	0.46	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	2.2	0.62	1.6	0.43	0.00	0.00	0.00	0.00	0.00
12	0.00	0.34	0.00	1.8	0.63	1.2	0.40	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.04	1.5	0.60	1.0	0.35	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	3.3	1.3	0.58	0.86	0.33	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.83	1.2	0.53	0.82	0.28	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.28	0.92	0.71	0.78	0.28	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.96	0.80	2.6	3.9	0.39	0.00	0.00	0.00	0.00	0.00
18	0.00	0.01	0.62	0.71	1.7	2.1	0.32	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.28	0.68	9.9	1.2	0.28	0.07	0.00	0.00	0.00	0.00
20	0.00	0.00	5.8	0.61	15	0.96	0.22	0.23	0.00	0.00	0.00	0.00
21	0.00	0.01	12	0.65	6.7	0.84	0.16	0.42	0.00	0.00	0.00	0.00
22	0.00	0.00	10	0.79	4.6	1.3	0.10	0.20	0.00	0.00	0.00	0.00
23	0.00	0.00	7.8	0.60	3.7	6.4	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.21	4.4	0.53	2.9	3.1	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.02	2.8	0.52	2.4	2.2	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	2.0	1.3	1.9	1.9	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	1.6	1.6	1.7	1.5	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.03	15	1.0	1.5	1.2	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.08	58	0.96	---	0.92	0.00	0.00	0.00	0.00	0.00	0.00
30	0.07	0.00	47	0.73	---	0.78	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	33	0.60	---	0.73	---	0.00	---	0.00	0.00	---
TOTAL	0.07	0.70	207.75	111.40	66.19	50.69	9.00	0.92	0.00	0.00	0.00	0.00
MEAN	0.002	0.023	6.702	3.594	2.364	1.635	0.300	0.030	0.000	0.000	0.000	0.000
MAX	0.07	0.34	58	32	15	6.4	0.67	0.42	0.00	0.00	0.00	0.00
MIN	0.00	0.00	0.00	0.52	0.48	0.73	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.1	1.4	412	221	131	101	18	1.8	0.00	0.00	0.00	0.00

ALAMEDA CREEK BASIN

11180500 DRY CREEK AT UNION CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.145	0.534	2.379	8.226	10.30	6.746	2.887	0.626	0.175	0.035	0.012	0.004
MAX	6.31	11.3	21.0	33.8	70.1	58.2	20.1	6.45	2.87	0.82	0.51	0.10
(WY)	1963	1984	1974	1997	1998	1983	1982	1983	1983	1983	1983	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1917	1917	1918	1918	1918	1972	1917	1917	1917	1917	1917	1917

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1917 - 2002	
ANNUAL TOTAL	403.57		446.72			
ANNUAL MEAN	1.106		1.224		2.640	
HIGHEST ANNUAL MEAN					13.0	1983
LOWEST ANNUAL MEAN					0.002	1977
HIGHEST DAILY MEAN	58	Dec 29	58	Dec 29	453	Feb 3 1998
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1916
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Oct 1 1916
MAXIMUM PEAK FLOW			188	Dec 30	1680	Jan 9 1995
MAXIMUM PEAK STAGE			3.00	Dec 30	5.32	Jan 9 1995
ANNUAL RUNOFF (AC-FT)	800		886		1910	
10 PERCENT EXCEEDS	1.9		2.0		4.7	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11180700 ALAMEDA CREEK FLOOD CHANNEL AT UNION CITY, CA

LOCATION.—Lat 37°35'09", 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.

DRAINAGE AREA.—629 mi².

PERIOD OF RECORD.—October 1958 to current year. Published as "Patterson Creek at Union City" 1958–2001.

GAGE.—Water-stage recorder. Datum of gage is 4.13 ft above sea level. Prior to Oct. 26, 1966, at site 0.2 mi downstream at same datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. 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. See schematic diagram of Alameda Creek Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 25,800 ft³/s, Feb. 3, 1998, gage height, 20.43 ft; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.80	1.5	2.6	781	76	2.2	3.1	5.6	4.1	1.0	e1.0	0.62
2	0.73	0.71	889	863	96	2.1	3.3	2.8	3.6	0.98	0.90	0.68
3	0.70	0.55	325	958	118	3.0	3.4	2.2	3.2	1.00	0.98	0.66
4	0.57	0.53	21	465	109	4.7	3.5	2.4	2.5	1.1	0.93	0.66
5	0.46	0.52	14	400	99	4.9	3.4	2.6	2.4	1.3	0.95	0.66
6	0.39	0.53	9.9	349	76	7.4	3.3	2.4	4.3	1.3	1.0	0.65
7	0.39	0.49	5.7	237	50	89	3.0	2.1	3.2	1.1	1.1	0.70
8	0.36	0.45	3.9	58	158	49	3.4	2.3	2.4	0.96	1.2	0.59
9	0.33	0.51	0.55	53	81	4.9	3.9	2.3	1.9	1.3	1.2	0.49
10	0.31	1.0	0.22	47	43	12	3.8	2.5	2.0	9.5	1.3	0.50
11	0.31	3.6	0.18	273	22	3.8	3.6	2.4	1.9	3.0	1.5	0.51
12	0.31	386	0.16	189	20	3.5	3.7	2.3	1.7	1.6	1.5	0.52
13	0.37	318	0.51	108	18	3.4	3.9	2.2	1.7	1.3	1.4	0.57
14	0.38	7.5	220	72	14	3.4	3.7	2.3	1.6	1.2	1.5	0.61
15	0.38	1.6	6.5	49	34	3.5	3.0	2.3	1.5	1.0	e1.3	0.67
16	0.38	0.78	1.0	97	85	3.0	3.1	2.3	1.5	1.1	e1.2	0.61
17	0.39	0.52	8.2	38	172	108	7.9	2.3	1.4	1.1	e1.2	0.63
18	0.39	0.45	0.90	31	79	59	2.5	2.2	1.2	1.2	e1.1	0.81
19	0.39	0.45	4.4	230	60	6.2	2.6	15	1.3	0.98	e1.0	0.76
20	0.39	0.45	428	294	83	6.0	2.8	52	1.3	0.93	e0.95	0.53
21	0.37	0.55	747	420	61	5.9	2.8	231	1.6	0.91	e0.91	0.49
22	0.33	2.2	142	294	33	12	2.4	26	1.4	0.94	e0.89	0.52
23	0.33	1.0	14	253	24	471	3.0	2.0	1.4	1.00	e0.87	0.53
24	0.33	325	7.2	266	19	159	3.9	1.9	1.3	1.1	e0.85	0.54
25	0.29	236	4.0	251	11	40	3.1	1.8	1.3	1.1	e0.82	0.59
26	0.31	14	3.7	98	7.1	25	2.7	1.8	1.4	1.1	e0.80	0.61
27	0.33	8.5	2.9	83	3.4	14	2.3	2.2	1.4	1.1	e0.78	0.72
28	0.33	4.2	501	84	2.7	9.3	2.2	3.4	1.3	e1.1	e0.76	0.67
29	0.33	25	2030	83	---	6.8	3.4	3.5	1.2	e1.1	e0.74	0.62
30	19	2.3	1150	20	---	4.5	4.2	4.7	1.1	e1.1	e0.72	0.61
31	6.9	---	1650	22	---	3.2	---	4.7	---	e1.0	0.72	---
TOTAL	37.58	1344.89	8193.52	7466	1654.2	1129.7	100.9	395.5	58.1	44.50	32.07	18.33
MEAN	1.212	44.83	264.3	240.8	59.08	36.44	3.363	12.76	1.937	1.435	1.035	0.611
MAX	19	386	2030	958	172	471	7.9	231	4.3	9.5	1.5	0.81
MIN	0.29	0.45	0.16	20	2.7	2.1	2.2	1.8	1.1	0.91	0.72	0.49
AC-FT	75	2670	16250	14810	3280	2240	200	784	115	88	64	36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

	6.366	40.98	90.78	268.2	396.3	261.4	108.7	27.44	9.228	2.084	0.623	1.188
MEAN	6.366	40.98	90.78	268.2	396.3	261.4	108.7	27.44	9.228	2.084	0.623	1.188
MAX	53.0	404	757	2073	4196	3007	1091	312	120	27.1	8.73	19.1
(WY)	1963	1984	1997	1997	1998	1983	1982	1983	1973	1995	1970	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1959	1959	1959	1959	1961	1960	1959	1959	1959	1959	1959	1959

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1959 - 2002	
ANNUAL TOTAL	13340.35		20475.29			
ANNUAL MEAN	36.55		56.10		99.55	
HIGHEST ANNUAL MEAN					703	1983
LOWEST ANNUAL MEAN					0.000	1961
HIGHEST DAILY MEAN	2030	Dec 29	2030	Dec 29	14400	Feb 3 1998
LOWEST DAILY MEAN	0.16	Dec 12	0.16	Dec 12	0.00	Oct 1 1958
ANNUAL SEVEN-DAY MINIMUM	0.32	Oct 22	0.32	Oct 22	0.00	Oct 1 1958
MAXIMUM PEAK FLOW			3180	Dec 2	25800	Feb 3 1998
MAXIMUM PEAK STAGE			11.13	Dec 2	20.43	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	26460		40610		72120	
10 PERCENT EXCEEDS	19		113		144	
50 PERCENT EXCEEDS	2.2		2.3		0.07	
90 PERCENT EXCEEDS	0.45		0.51		0.00	

e Estimated.

11180810 PALOMARES CREEK NEAR HAYWARD, CA

LOCATION.—Lat 37°41'40", long 122°01'26", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on left bank, at Palomares School, 0.1 mi upstream of confluence with San Lorenzo Creek, and 3.6 mi northeast of Hayward.

DRAINAGE AREA.—9.08 mi².

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 310 ft above sea level, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,940 ft³/s, Feb. 3, 1998, gage height, 10.67 ft, from rating curve extended above 300 ft³/s; no flow many days during water years 2000–2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 250 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 30	2200	74	2.88

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.23	1.2	1.3	2.1	2.2	0.65	0.56	0.09	0.03	0.00
2	0.00	0.00	2.6	2.3	1.3	1.9	2.0	0.66	0.56	0.09	0.05	0.00
3	0.00	0.00	0.26	1.7	1.2	1.8	2.0	0.65	0.59	0.09	0.05	0.00
4	0.00	0.00	0.13	1.2	1.2	1.8	1.9	0.60	0.51	0.10	0.04	0.00
5	0.00	0.00	0.18	9.0	1.1	1.7	1.8	0.57	0.49	0.09	0.04	0.00
6	0.00	0.00	0.15	7.3	1.1	2.6	1.7	0.52	0.38	0.09	0.03	0.00
7	0.00	0.00	0.14	6.1	2.0	4.3	1.6	0.48	0.25	0.09	0.01	0.00
8	0.00	0.00	0.16	5.3	2.8	3.1	1.4	0.43	0.21	0.08	0.01	0.00
9	0.00	0.00	0.22	4.6	1.7	2.4	1.3	0.46	0.24	0.07	0.00	0.00
10	0.00	0.00	0.26	4.0	1.4	3.5	1.3	0.47	0.28	0.05	0.00	0.00
11	0.00	0.00	0.28	3.6	1.4	2.6	1.2	0.45	0.22	0.05	0.00	0.00
12	0.00	0.78	0.28	3.4	1.4	2.3	1.2	0.42	0.26	0.04	0.00	0.00
13	0.00	0.07	0.37	3.2	1.4	2.1	1.1	0.41	0.32	0.05	0.00	0.00
14	0.00	0.06	2.4	3.0	1.4	2.0	1.1	0.41	0.28	0.05	0.00	0.00
15	0.00	0.07	0.19	2.7	1.3	1.9	1.0	0.41	0.19	0.05	0.00	0.00
16	0.00	0.07	0.15	2.5	1.7	1.7	0.98	0.39	0.22	0.04	0.00	0.00
17	0.00	0.07	0.75	2.3	3.8	3.6	1.1	0.39	0.18	0.04	0.00	0.00
18	0.00	0.07	0.20	2.1	2.4	2.6	0.98	0.37	0.17	0.05	0.00	0.00
19	0.00	0.07	0.17	1.9	4.1	2.1	0.96	0.65	0.19	0.03	0.00	0.00
20	0.00	0.08	4.2	1.7	6.8	1.8	0.93	1.3	0.21	0.06	0.01	0.00
21	0.00	0.10	3.2	1.8	5.2	1.8	0.90	1.1	0.21	0.05	0.00	0.00
22	0.00	0.20	3.6	1.6	4.6	2.1	0.84	0.63	0.20	0.05	0.00	0.00
23	0.00	0.10	2.7	1.4	4.1	8.9	0.79	0.65	0.17	0.05	0.00	0.00
24	0.00	0.54	1.8	1.4	3.7	5.1	0.77	0.56	0.14	0.03	0.02	0.00
25	0.00	0.11	1.4	1.4	3.3	4.3	0.81	0.52	0.11	0.04	0.03	0.00
26	0.00	0.09	1.1	2.1	3.0	4.3	0.78	0.54	0.11	0.03	0.02	0.00
27	0.00	0.10	1.0	1.7	2.7	3.9	0.69	0.56	0.12	0.02	0.00	0.00
28	0.00	0.14	7.6	1.7	2.4	3.3	0.64	0.50	0.12	0.0	0.00	0.00
29	0.00	0.47	35	1.5	---	2.8	0.68	0.54	0.12	0.00	0.00	0.00
30	0.00	0.17	27	1.4	---	1.6	0.69	0.51	0.11	0.01	0.00	0.00
31	0.00	---	21	1.4	---	2.0	---	0.52	---	0.02	0.00	---
TOTAL	0.00	3.36	118.72	144.1	69.8	88.0	35.34	17.32	7.72	1.60	0.34	0.00
MEAN	0.000	0.112	3.830	4.648	2.493	2.839	1.178	0.559	0.257	0.052	0.011	0.000
MAX	0.00	0.78	35	23	6.8	8.9	2.2	1.3	0.59	0.10	0.05	0.00
MIN	0.00	0.00	0.13	1.4	1.1	1.6	0.64	0.37	0.11	0.00	0.00	0.00
AC-FT	0.00	6.7	235	286	138	175	70	34	15	3.2	0.7	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	0.147	0.307	1.244	9.224	27.21	9.014	4.185	1.451	0.670	0.312	0.125	0.094
MAX	0.24	0.57	3.83	30.8	72.1	18.1	10.0	3.16	1.70	0.76	0.37	0.27
(WY)	2000	1998	2002	1998	1998	2000	1998	1998	1998	1998	1998	1998
MIN	0.000	0.11	0.18	0.32	2.49	2.84	1.18	0.56	0.18	0.052	0.005	0.000
(WY)	2002	2002	2001	2001	2002	2002	2002	2002	2001	2002	2001	2002

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1998 - 2002

ANNUAL TOTAL	448.90	486.30	
ANNUAL MEAN	1.230	1.332	4.359
HIGHEST ANNUAL MEAN			10.7 1998
LOWEST ANNUAL MEAN			0.94 2001
HIGHEST DAILY MEAN	35 Dec 29	35 Dec 29	410 Feb 3 1998
LOWEST DAILY MEAN	0.00 Aug 7	0.00 Oct 1	0.00 Oct 17 1999
ANNUAL SEVEN-DAY MINIMUM	0.00 Aug 7	0.00 Oct 1	0.00 Nov 20 1999
MAXIMUM PEAK FLOW		74 Dec 30	1940 Feb 3 1998
MAXIMUM PEAK STAGE		2.88 Dec 30	10.67 Feb 3 1998
ANNUAL RUNOFF (AC-FT)	890	965	3160
10 PERCENT EXCEEDS	2.6	3.2	8.8
50 PERCENT EXCEEDS	0.18	0.26	0.43
90 PERCENT EXCEEDS	0.00	0.00	0.00

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA

LOCATION.—Lat 37°41'43", long 122°02'38", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on right bank at Interstate Highway 580, 0.3 mi southeast of Independent School, and 2.2 mi east of Castro Valley.

DRAINAGE AREA.—18.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1980 to September 1994, October 1997 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 260 ft above sea level, from topographic map. October 1980 to September 1994 at site 250 ft downstream at same datum.

REMARKS.—Records fair. Some regulation of low flow by ponds upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,890 ft³/s, Feb. 3, 1998, gage height, 15.48 ft; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 275 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0730	422	5.70	Dec. 30	2045	471	5.93

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.31	3.4	30	3.6	4.1	4.4	1.6	2.4	0.64	0.27	0.15
2	0.19	0.30	43	78	3.5	3.8	4.2	1.6	2.5	0.58	0.31	0.15
3	0.19	0.29	3.1	35	3.2	3.5	4.1	1.6	2.6	0.58	0.40	0.14
4	0.20	0.27	1.2	19	3.2	3.5	3.8	1.6	2.3	0.62	0.24	0.15
5	0.19	0.28	3.3	15	3.2	3.5	3.8	1.5	1.9	0.55	0.26	0.16
6	0.20	0.29	2.3	12	3.1	12	3.7	1.5	2.5	0.55	0.23	0.16
7	0.22	0.29	1.1	9.1	9.7	12	3.5	1.5	1.9	0.55	0.22	0.20
8	0.21	0.29	0.94	8.3	6.5	5.2	3.4	1.5	2.8	0.57	0.21	0.17
9	0.21	0.28	1.1	7.2	3.4	4.2	3.3	1.4	1.9	0.51	0.20	0.16
10	0.19	0.74	0.87	5.7	2.9	10	3.2	1.5	1.2	0.42	0.20	0.15
11	0.20	0.90	0.85	5.3	2.6	5.5	3.1	1.6	1.5	0.40	0.22	0.13
12	0.20	26	0.79	5.1	2.6	4.7	3.0	1.6	1.9	0.35	0.20	0.14
13	0.19	0.74	2.3	5.0	2.4	4.3	2.8	1.6	1.2	0.33	0.24	0.15
14	0.20	0.44	18	4.9	2.2	4.9	2.8	1.6	0.93	0.39	0.24	0.15
15	0.19	0.35	1.6	4.2	2.0	6.2	2.7	1.6	0.84	0.36	0.26	0.16
16	0.20	0.44	1.9	3.7	5.4	6.6	3.2	1.6	0.85	0.36	0.24	0.16
17	0.22	0.46	11	3.4	9.5	15	4.0	1.5	0.79	0.35	0.26	0.16
18	0.21	0.47	4.6	3.2	3.6	8.2	2.4	1.5	0.75	0.39	0.24	0.15
19	0.23	0.50	3.8	3.2	11	8.2	2.2	4.4	0.79	0.38	0.26	0.12
20	0.23	0.51	34	3.1	12	8.5	2.1	9.5	0.75	0.33	0.31	0.11
21	0.23	1.1	17	3.3	6.9	7.9	2.0	8.2	0.79	0.30	0.26	0.11
22	0.27	1.9	19	3.1	6.2	9.3	2.0	1.5	0.85	0.34	0.28	0.11
23	0.28	0.49	10	3.0	5.9	35	1.8	1.3	0.81	0.41	0.26	0.11
24	0.26	9.7	6.9	2.9	5.2	11	1.8	2.1	0.80	0.35	0.33	0.09
25	0.24	0.84	9.5	3.2	4.7	10	1.8	1.9	0.72	0.31	0.30	0.09
26	0.28	0.50	5.0	7.5	4.4	6.2	1.9	1.4	0.73	0.33	0.27	0.09
27	0.32	0.45	6.7	4.9	4.5	6.7	1.9	2.4	0.74	0.32	0.26	0.11
28	0.29	2.5	52	6.0	4.6	5.3	1.7	2.3	0.88	0.25	0.19	0.13
29	0.30	6.5	172	4.8	---	5.1	1.8	1.9	0.98	0.23	0.19	0.14
30	3.3	1.0	137	4.2	---	4.2	1.6	2.4	0.85	0.26	0.19	0.11
31	0.41	---	79	3.9	---	4.2	---	2.2	---	0.26	0.18	---
TOTAL	10.23	59.13	653.25	307.2	138.0	238.8	84.0	69.4	40.45	12.57	7.72	4.11
MEAN	0.330	1.971	21.07	9.910	4.929	7.703	2.800	2.239	1.348	0.405	0.249	0.137
MAX	3.3	26	172	78	12	35	4.4	9.5	2.8	0.64	0.40	0.20
MIN	0.18	0.27	0.79	2.9	2.0	3.5	1.6	1.3	0.72	0.23	0.18	0.09
AC-FT	20	117	1300	609	274	474	167	138	80	25	15	8.2

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.862	2.986	6.568	15.91	33.71	17.04	6.957	2.878	1.411	0.560	0.273	0.220
MAX	2.20	16.6	30.1	79.3	194	90.7	42.3	13.0	4.44	2.05	0.78	0.53
(WY)	1992	1984	1984	1993	1998	1983	1982	1983	1998	1983	1998	1986
MIN	0.072	0.12	0.65	0.16	0.65	0.47	0.70	0.19	0.14	0.023	0.001	0.000
(WY)	1989	1993	1990	1991	1989	1990	1990	1991	1990	1989	1988	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1981 - 2002
ANNUAL TOTAL	1284.63	1624.86	
ANNUAL MEAN	3.520	4.452	7.297
HIGHEST ANNUAL MEAN			25.8 1998
LOWEST ANNUAL MEAN			0.70 1989
HIGHEST DAILY MEAN	172 Dec 29	172 Dec 29	1270 Feb 3 1998
LOWEST DAILY MEAN	0.17 Sep 15	0.09 Sep 24	0.00 Aug 28 1981
ANNUAL SEVEN-DAY MINIMUM	0.19 Sep 29	0.10 Sep 20	0.00 Sep 6 1981
MAXIMUM PEAK FLOW		471 Dec 30	3890 Feb 3 1998
MAXIMUM PEAK STAGE		5.93 Dec 30	15.48 Feb 3 1998
ANNUAL RUNOFF (AC-FT)	2550	3220	5290
10 PERCENT EXCEEDS	5.8	8.2	13
50 PERCENT EXCEEDS	1.0	1.5	0.86
90 PERCENT EXCEEDS	0.22	0.19	0.05

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—December 1980 to September 1994, October 1997 to current year (storm season only).

WATER TEMPERATURE: December 1980 to September 1994, October 1997 to current year.

SEDIMENT DATA: December 1980 to September 1994, October 1997 to current year.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: December 1980 to September 1994, October 1999 to May 2000.

SUSPENDED-SEDIMENT DISCHARGE: December 1980 to September 1994, October 1997 to current year.

REMARKS.—Sediment samples were collected on most days where water temperature is published. Zero bed-load discharge observed for flows less than 5.4 ft³/s.

EXTREMES FOR PERIOD OF RECORD.—

WATER TEMPERATURE (continuous-storm season only): Maximum recorded, 16.0°C, Oct. 28, 1999; minimum recorded, 4.0°C, Dec. 16, 1999.

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 15,300 mg/L, Feb. 3, 1998; minimum daily mean, 0 mg/L, Feb. 26, 1989.

SEDIMENT LOAD (storm season only): Maximum daily, 80,900 tons, Feb. 3, 1998; minimum daily, 0 ton, several days in most years.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 3,330 mg/L, Nov. 12; minimum daily mean, 4 mg/L, Nov. 27, Dec. 26.

SEDIMENT LOAD (storm season only): Maximum daily, 1,360 tons, Nov. 12; minimum daily, 0 ton, several days in October and November.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT								
02...	1215	.18	16.0	98	.05	32	--	--
NOV								
12...	1715	2.6	14.0	206	1.4	97	--	--
DEC								
06...	1315	1.7	12.0	12	.06	94	--	--
06...	1630	1.4	12.5	8	.03	84	--	--
14...	1445	2.4	9.5	638	4.1	100	--	--
20...	1600	47	9.5	794	101	96	--	--
28...	1600	66	11.0	244	43	96	--	--
JAN								
03...	1400	29	11.5	75	5.9	94	98	100
FEB								
19...	1245	5.1	11.5	18	.25	94	--	--
MAR								
17...	1630	16	9.0	1760	76	99	--	--
28...	1230	5.5	12.5	12	.18	65	--	--
APR								
29...	1515	1.8	12.0	14	.07	37	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00063)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)	BED MAT. SIEVE DIAM. % FINER THAN (80167)
OCT							
02...	1310	1	.19	16.0	8	16	24
02...	1315	1	.18	16.0	1	3	6
02...	1320	1	.19	16.0	2	6	13
02...	1325	1	.20	16.0	12	42	78
02...	1330	1	.21	16.0	24	63	83
02...	1335	1	.21	16.0	11	43	82
APR							
29...	1530	1	1.8	12.0	6	13	22
29...	1535	1	1.8	12.0	7	12	18
29...	1540	1	1.8	12.0	4	12	21
29...	1545	1	1.8	12.0	--	--	1
29...	1550	1	1.7	12.0	6	16	41
29...	1555	1	1.7	12.0	6	26	67
29...	1600	1	1.6	12.0	35	76	90
29...	1605	1	1.6	12.0	8	38	86
29...	1610	1	1.6	12.0	5	12	20

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
OCT							
02...	42	56	78	96	100	--	--
02...	11	14	19	26	47	100	--
02...	37	48	57	69	84	100	--
02...	92	96	98	100	--	--	--
02...	93	96	98	100	--	--	--
02...	98	99	100	--	--	--	--
APR							
29...	40	50	62	74	95	100	--
29...	32	43	58	69	73	73	100
29...	38	50	65	77	91	100	--
29...	14	23	35	45	60	92	100
29...	76	84	94	99	100	--	--
29...	91	95	98	100	--	--	--
29...	96	97	99	100	--	--	--
29...	99	100	--	--	--	--	--
29...	38	48	60	69	83	100	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS) (82074)	TIME ON BED FOR LOAD SAMPLE (SEC) (04120)	HORI-ZONTAL WIDTH OF TICAL (FEET) (04121)
JAN									
03...	1430	1000	1100	.25	0	1425	1435	30	.70
03...	1445	1000	1100	.25	0	1440	1450	30	.70
Date	COMPSTD IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER-TICALS COM-POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	DISCH, AV UNIT FOR COM SAMPLE T/D/FT (04122)	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/DAY) (80225)	
JAN									
03...	2	21	21	.60	30	11.5	.34	4.6	
03...	2	21	21	.60	32	11.5	.31	4.6	
Date	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM (80228)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM (80235)	
JAN									
03...	1	16	32	48	63	81	95	100	
03...	--	15	36	54	68	83	93	100	

SAN LORENZO CREEK BASIN

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN	MEAN	SEDIMENT DISCHARGE (TONS/DAY)	MEAN	MEAN	SEDIMENT DISCHARGE (TONS/DAY)	MEAN	MEAN	SEDIMENT DISCHARGE (TONS/DAY)
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)		DISCHARGE (CFS)	CONCEN- TRATION (MG/L)		DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	
	OCTOBER			NOVEMBER			DECEMBER		
1	0.18	89	0.05	0.31	20	0.02	3.4	47	0.55
2	0.19	98	0.05	0.30	18	0.01	43	1230	792
3	0.19	91	0.05	0.29	13	0.01	3.1	45	0.69
4	0.20	83	0.05	0.27	17	0.01	1.2	13	0.05
5	0.19	74	0.04	0.28	18	0.01	3.3	45	0.74
6	0.20	66	0.04	0.29	18	0.01	2.3	16	0.14
7	0.22	58	0.04	0.29	19	0.02	1.1	6.0	0.02
8	0.21	51	0.03	0.29	22	0.02	0.94	6.0	0.02
9	0.21	42	0.02	0.28	22	0.02	1.1	19	0.06
10	0.19	34	0.02	0.74	103	0.61	0.87	17	0.04
11	0.20	29	0.02	0.90	124	0.47	0.85	11	0.02
12	0.20	27	0.01	26	3330	1360	0.79	10	0.02
13	0.19	24	0.01	0.74	14	0.03	2.3	45	2.7
14	0.20	21	0.01	0.44	7.0	0.00	18	2360	361
15	0.19	18	0.00	0.35	8.0	0.00	1.6	207	1.1
16	0.20	16	0.00	0.44	11	0.01	1.9	29	0.16
17	0.22	15	0.00	0.46	10	0.01	11	265	25.7
18	0.21	14	0.00	0.47	9.0	0.01	4.6	36	0.45
19	0.23	14	0.00	0.50	8.0	0.01	3.8	20	0.23
20	0.23	14	0.00	0.51	7.0	0.00	34	390	58.8
21	0.23	14	0.00	1.1	18	0.27	17	232	14.6
22	0.27	14	0.01	1.9	35	0.45	19	255	27.1
23	0.28	14	0.01	0.49	8.0	0.01	10	14	0.40
24	0.26	14	0.01	9.7	554	58.3	6.9	5.0	0.11
25	0.24	14	0.00	0.84	10	0.03	9.5	7.0	0.20
26	0.28	14	0.01	0.50	5.0	0.00	5.0	4.0	0.05
27	0.32	21	0.02	0.45	4.0	0.00	6.7	7.0	0.16
28	0.29	21	0.02	2.5	22	0.52	52	166	37.7
29	0.30	21	0.02	6.5	61	2.1	172	572	332
30	3.3	602	16.7	1.0	10	0.03	137	468	354
31	0.41	36	0.04	---	---	---	79	278	74.3
TOTAL	10.23	---	17.28	59.13	---	1422.99	653.25	---	2085.11
	JANUARY			FEBRUARY			MARCH		
1	30	110	9.3	3.6	10	0.09	4.1	8.0	0.09
2	78	938	329	3.5	9.0	0.08	3.8	7.0	0.07
3	35	400	44.2	3.2	9.0	0.08	3.5	7.0	0.06
4	19	87	4.6	3.2	9.0	0.08	3.5	6.0	0.06
5	15	38	1.6	3.2	9.0	0.08	3.5	6.0	0.06
6	12	16	0.51	3.1	9.0	0.08	12	191	13.7
7	9.1	12	0.30	9.7	167	17.3	12	200	7.8
8	8.3	13	0.28	6.5	114	2.9	5.2	15	0.22
9	7.2	12	0.23	3.4	11	0.10	4.2	16	0.18
10	5.7	12	0.19	2.9	9.0	0.07	10	149	4.3
11	5.3	12	0.17	2.6	8.0	0.06	5.5	63	1.0
12	5.1	9.0	0.12	2.6	8.0	0.05	4.7	22	0.28
13	5.0	8.0	0.11	2.4	7.0	0.04	4.3	21	0.24
14	4.9	8.0	0.11	2.2	6.0	0.03	4.9	18	0.23
15	4.2	8.0	0.09	2.0	5.0	0.03	6.2	19	0.33
16	3.7	7.0	0.07	5.4	23	1.3	6.6	21	0.39
17	3.4	8.0	0.07	9.5	131	5.2	15	1030	91.8
18	3.2	8.0	0.07	3.6	7.0	0.07	8.2	21	0.49
19	3.2	8.0	0.07	11	98	5.8	8.2	27	0.68
20	3.1	8.0	0.07	12	70	2.9	8.5	22	0.51
21	3.3	9.0	0.08	6.9	22	0.42	7.9	19	0.41
22	3.1	8.0	0.07	6.2	21	0.35	9.3	26	0.69
23	3.0	17	0.14	5.9	19	0.31	35	165	27.2
24	2.9	19	0.15	5.2	16	0.22	11	36	1.1
25	3.2	24	0.22	4.7	15	0.19	10	34	1.0
26	7.5	76	2.3	4.4	14	0.17	6.2	19	0.33
27	4.9	17	0.22	4.5	14	0.17	6.7	22	0.39
28	6.0	26	0.59	4.6	11	0.14	5.3	16	0.22
29	4.8	16	0.21	---	---	---	5.1	20	0.27
30	4.2	12	0.13	---	---	---	4.2	14	0.16
31	3.9	11	0.11	---	---	---	4.2	19	0.22
TOTAL	307.2	---	395.38	138.0	---	38.31	238.8	---	154.48

11180825 SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	4.4	21	0.25
2	4.2	20	0.23
3	4.1	20	0.22
4	3.8	19	0.20
5	3.8	18	0.18
6	3.7	16	0.16
7	3.5	14	0.13
8	3.4	29	0.26
9	3.3	32	0.29
10	3.2	32	0.28
11	3.1	32	0.27
12	3.0	31	0.25
13	2.8	30	0.23
14	2.8	30	0.23
15	2.7	30	0.22
16	3.2	41	0.61
17	4.0	81	1.5
18	2.4	39	0.25
19	2.2	34	0.21
20	2.1	31	0.18
21	2.0	29	0.16
22	2.0	24	0.13
23	1.8	20	0.10
24	1.8	19	0.10
25	1.8	19	0.09
26	1.9	17	0.09
27	1.9	15	0.08
28	1.7	15	0.07
29	1.8	15	0.07
30	1.6	16	0.07
31	---	---	---
TOTAL	84.0	---	7.11
PERIOD	1490.61		4120.66

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	10.23	17.28	0	17
NOVEMBER	59.13	1422.99	40	1463
DECEMBER	653.25	2085.11	175	2260
JANUARY 2002	307.20	395.38	33	428
FEBRUARY	138.00	38.31	12	50
MARCH	238.80	154.48	13	167
APRIL	84.00	7.11	2	9
TOTAL	1490.61	4120.66	275	4394

11180900 CROW CREEK NEAR HAYWARD, CA

LOCATION.—Lat 37°42'18", long 122°02'34", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on right bank on the upstream side of Crow Canyon Road bridge, 0.4 mi east of Canyon High School, 0.8 mi upstream of confluence of Cull Creek, and 2.3 mi northeast of Castro Valley.

DRAINAGE AREA.—10.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,990 ft³/s, Feb. 3, 1998, gage height, 13.07 ft, from rating curve extended above 700 ft³/s; minimum daily, 0.04 ft³/s, Sept. 26–30, 2001.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 350 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 30	2115	280	6.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	e0.11	e2.9	21	3.9	5.6	3.9	1.6	0.91	0.39	0.17	0.17
2	0.07	e0.10	e4.3	59	3.8	5.5	3.8	1.6	0.95	0.33	0.17	0.16
3	0.08	e0.10	e4.3	26	3.8	5.4	3.7	1.6	0.93	0.29	0.19	0.14
4	e0.07	e0.09	e1.2	17	3.7	5.5	3.6	1.5	0.87	0.31	0.17	0.13
5	e0.08	e0.09	2.7	14	3.7	5.5	3.5	1.5	0.77	0.32	0.17	0.13
6	e0.07	e0.09	3.3	12	3.7	15	3.5	1.4	0.62	0.32	0.17	0.13
7	e0.06	e0.09	1.6	9.8	14	17	3.3	1.4	0.57	0.30	0.18	0.12
8	e0.06	e0.08	1.1	8.1	11	7.6	3.2	1.4	0.55	0.31	0.19	0.12
9	e0.07	e0.07	1.1	7.1	6.9	6.3	3.2	1.3	0.47	0.25	0.20	0.13
10	e0.08	e0.14	0.89	6.4	6.5	13	3.2	1.3	0.42	0.20	0.23	0.14
11	e0.06	e0.25	0.79	6.1	6.4	6.8	3.0	1.3	0.39	0.17	0.23	0.16
12	e0.06	e2.7	0.73	5.9	6.3	6.0	2.9	1.3	0.49	0.14	0.23	0.15
13	e0.06	e0.35	1.9	5.8	6.2	5.5	2.9	1.1	0.48	0.14	0.17	0.17
14	e0.07	e0.15	19	5.6	6.1	5.1	2.8	1.2	0.52	0.13	0.18	0.16
15	e0.06	e0.10	1.5	5.5	5.9	4.8	2.6	1.2	0.53	0.14	0.18	0.15
16	e0.07	e0.13	1.1	5.0	7.3	4.5	3.0	1.1	0.48	0.10	0.17	0.17
17	e0.08	e0.14	6.1	4.9	11	10	3.5	1.1	0.51	0.19	0.16	0.15
18	e0.07	e0.15	1.7	4.8	6.8	4.7	2.5	1.1	0.57	0.19	0.17	0.16
19	e0.08	e0.13	1.4	4.7	20	4.0	2.4	2.2	0.66	0.17	0.18	0.16
20	e0.08	e0.12	21	4.6	14	3.7	2.2	4.4	0.58	0.19	0.18	0.17
21	e0.09	e0.35	13	4.8	8.2	3.5	2.2	3.1	0.68	0.19	0.17	0.14
22	e0.09	e0.30	13	4.7	7.4	3.7	2.1	1.5	0.79	0.15	0.15	0.11
23	e0.10	e0.25	4.8	4.5	7.2	37	2.0	1.3	0.75	0.15	0.17	0.13
24	e0.09	e7.0	3.0	4.3	6.7	8.3	1.9	1.2	0.68	0.18	0.19	0.14
25	e0.08	e2.2	2.4	4.4	6.4	6.2	1.9	1.1	0.61	0.13	0.18	0.14
26	e0.10	e0.70	2.1	5.8	6.2	5.3	1.9	1.1	0.55	0.16	0.17	0.11
27	e0.11	e0.45	2.1	4.6	6.1	4.7	1.8	1.1	0.47	0.19	0.17	0.11
28	e0.11	e1.1	49	4.9	5.9	4.5	1.7	1.0	0.51	0.14	0.17	0.12
29	e0.10	e7.1	106	4.6	---	4.3	1.8	1.0	0.55	0.16	0.16	0.12
30	e0.35	e1.2	84	4.1	---	4.1	1.7	0.98	0.48	0.15	0.17	0.09
31	e0.18	---	57	3.9	---	4.0	---	0.93	---	0.15	0.18	---
TOTAL	2.79	25.83	415.01	283.9	205.1	227.1	81.7	44.91	18.34	6.33	5.57	4.18
MEAN	0.090	0.861	13.39	9.158	7.325	7.326	2.723	1.449	0.611	0.204	0.180	0.139
MAX	0.35	7.1	106	59	20	37	3.9	4.4	0.95	0.39	0.23	0.17
MIN	0.06	0.07	0.73	3.9	3.7	3.5	1.7	0.93	0.39	0.10	0.15	0.09
AC-FT	5.5	51	823	563	407	450	162	89	36	13	11	8.3

e Estimated.

11180900 CROW CREEK NEAR HAYWARD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.469	1.161	4.087	15.57	45.90	12.70	6.636	2.812	1.334	0.664	0.417	0.346
MAX	0.96	1.69	13.4	50.4	122	21.8	16.0	6.16	3.28	1.58	0.77	0.61
(WY)	2001	1999	2002	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	0.090	0.86	0.80	1.81	3.73	2.72	1.18	0.47	0.13	0.089	0.083	0.082
(WY)	2002	2002	2000	2001	2001	2001	2001	2001	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	750.23		1320.76			
ANNUAL MEAN	2.055		3.619		7.439	
HIGHEST ANNUAL MEAN					18.2	1998
LOWEST ANNUAL MEAN					1.11	2001
HIGHEST DAILY MEAN	106	Dec 29	106	Dec 29	465	Feb 3 1998
LOWEST DAILY MEAN	0.04	Sep 26	0.06	Oct 1	0.04	Sep 26 2001
ANNUAL SEVEN-DAY MINIMUM	0.05	Sep 25	0.06	Oct 7	0.05	Sep 25 2001
MAXIMUM PEAK FLOW			280	Dec 30	1990	Feb 3 1998
MAXIMUM PEAK STAGE			6.24	Dec 30	13.07	Feb 3 1998
ANNUAL RUNOFF (AC-FT)	1490		2620		5390	
10 PERCENT EXCEEDS	3.0		6.8		13	
50 PERCENT EXCEEDS	0.35		1.0		1.1	
90 PERCENT EXCEEDS	0.07		0.10		0.14	

11180900 CROW CREEK NEAR HAYWARD, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 1999 to current year (storm season only).

WATER TEMPERATURE: October 1999 to current year (storm season only).

SEDIMENT DATA: October 1999 to current year(storm season only).

PERIOD OF DAILY RECORD.—

SUSPENDED-SEDIMENT DISCHARGE: October 1999 to current year (storm season only).

REMARKS.—Sediment samples collected on most days when a water temperature is published. Zero bed-load discharge observed for flows less than 11.0 ft³/s.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 11,200 mg/L, Feb. 13, 2000; minimum daily mean, 4 mg/L, Feb. 15, 2002.

SEDIMENT LOAD (storm season only): Maximum daily, 21,400 tons, Feb. 13, 2000; minimum daily, 0.00 ton, many days in October and November 2002.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 2,750 mg/L, Mar. 23; minimum daily mean, 4 mg/L, Feb. 15.

SEDIMENT LOAD (storm season only): Maximum daily, 818 tons, Dec. 30; minimum daily, 0.00 ton , many days in October and November.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE D (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)
NOV						
24...	1530	2.9	12.5	164	1.3	99
DEC						
04...	1530	1.2	9.0	16	.05	62
17...	1345	12	10.5	1280	41.0	98
20...	1500	55	9.0	1850	275	97
JAN						
09...	1035	7.3	12.0	14	.28	87
FEB						
08...	1630	8.0	9.5	87	1.9	98
20...	1415	11	12.5	150	4.5	99
MAR						
10...	1600	11	11.5	338	10.0	98
27...	1030	4.6	10.0	45	.56	76
MAY						
01...	1445	1.6	12.0	28	.12	44

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	TEMPER- ATURE WATER (DEG C) (00010)	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)
OCT							
04...	0840	15.0	1	.07	4	24	73
04...	0845	15.0	1	.07	5	17	61
04...	0850	15.0	1	.07	1	2	12
04...	0855	15.0	1	.07	1	2	9
04...	0900	15.0	1	.07	11	36	79
MAY							
01...	1455	12.0	1	1.6	6	19	51
01...	1500	12.0	1	1.6	9	18	28
01...	1505	12.0	1	1.6	--	1	6
01...	1510	12.0	1	1.6	--	1	4
01...	1515	12.0	1	1.6	1	4	13
01...	1520	12.0	1	1.6	10	37	78

11180900 CROW CREEK NEAR HAYWARD, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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	0.06	17	0.00	e0.11	e30	e0.01	e2.9	e23	e0.13
2	0.07	17	0.00	e0.10	e19	e0.00	e4.3	e47	e0.46
3	0.08	17	0.00	e0.10	e17	e0.00	e4.3	e60	e0.69
4	e0.07	e17	e0.00	e0.09	e17	e0.00	e1.2	e46	e0.34
5	e0.08	e17	e0.00	e0.09	e16	e0.00	2.7	87	1.1
6	e0.07	e17	e0.00	e0.09	e16	e0.00	3.3	138	1.4
7	e0.06	e17	e0.00	e0.09	e16	e0.00	1.6	65	0.27
8	e0.06	e17	e0.00	e0.08	e16	e0.00	1.1	46	0.14
9	e0.07	e17	e0.00	e0.07	e18	e0.00	1.1	26	0.08
10	e0.08	e17	e0.00	e0.14	e27	e0.00	0.89	8.0	0.02
11	e0.06	e17	e0.00	e0.25	e58	e0.03	0.79	7.0	0.01
12	e0.06	e17	e0.00	e2.7	e180	e0.72	0.73	10	0.02
13	e0.06	e17	e0.00	e0.35	e175	e0.72	1.9	96	4.4
14	e0.07	e17	e0.00	e0.15	e56	e0.04	19	742	116
15	e0.06	e17	e0.00	e0.10	e38	e0.01	1.5	13	0.05
16	e0.07	e17	e0.00	e0.13	e37	e0.01	1.1	8.0	0.02
17	e0.08	e17	e0.00	e0.14	e41	e0.02	6.1	397	13.3
18	e0.07	e17	e0.00	e0.15	e44	e0.02	1.7	23	0.11
19	e0.08	e17	e0.00	e0.13	e41	e0.02	1.4	8.0	0.03
20	e0.08	e17	e0.00	e0.12	e35	e0.01	21	588	64.5
21	e0.09	e17	e0.00	e0.35	e47	e0.03	13	429	31.8
22	e0.09	e17	e0.00	e0.30	e46	e0.04	13	309	21.7
23	e0.10	e17	e0.00	e0.25	e21	e0.02	4.8	34	0.49
24	e0.09	e17	e0.00	e7.0	e131	e1.3	3.0	14	0.12
25	e0.08	e17	e0.00	e2.2	e167	e2.1	2.4	10	0.07
26	e0.10	e17	e0.00	e0.70	e51	e0.20	2.1	7.0	0.04
27	e0.11	e17	e0.00	e0.45	e15	e0.02	2.1	5.0	0.03
28	e0.11	e17	e0.00	e1.1	e22	e0.05	49	868	240
29	e0.10	e16	e0.00	e7.1	e180	e2.0	106	1840	619
30	e0.35	e50	e0.03	e1.2	e169	e1.9	84	1500	818
31	e0.18	e62	e0.04	---	---	---	57	837	175
TOTAL	2.79	---	0.07	25.83	---	9.27	415.01	---	2109.32
	JANUARY			FEBRUARY			MARCH		
1	21	176	10.2	3.9	23	0.24	5.6	32	0.48
2	59	883	169	3.8	22	0.23	5.5	32	0.48
3	26	246	18.9	3.8	23	0.23	5.4	33	0.49
4	17	133	6.3	3.7	24	0.24	5.5	33	0.50
5	14	92	3.4	3.7	26	0.25	5.5	34	0.51
6	12	75	2.4	3.7	24	0.24	15	245	28.5
7	9.8	37	0.99	14	348	55.8	17	572	38.7
8	8.1	20	0.45	11	154	6.9	7.6	101	2.1
9	7.1	16	0.30	6.9	32	0.61	6.3	110	1.9
10	6.4	22	0.38	6.5	16	0.28	13	492	26.2
11	6.1	29	0.47	6.4	14	0.23	6.8	126	2.3
12	5.9	31	0.49	6.3	11	0.19	6.0	116	1.9
13	5.8	32	0.50	6.2	9.0	0.15	5.5	77	1.2
14	5.6	33	0.50	6.1	7.0	0.11	5.1	42	0.58
15	5.5	34	0.51	5.9	4.0	0.07	4.8	33	0.43
16	5.0	32	0.44	7.3	51	1.8	4.5	29	0.35
17	4.9	31	0.41	11	166	6.2	10	756	36.8
18	4.8	29	0.38	6.8	20	0.37	4.7	338	4.4
19	4.7	27	0.35	20	332	45.2	4.0	245	2.7
20	4.6	28	0.36	14	270	13.1	3.7	218	2.2
21	4.8	30	0.39	8.2	88	2.0	3.5	210	2.0
22	4.7	31	0.40	7.4	75	1.5	3.7	219	2.2
23	4.5	29	0.35	7.2	56	1.1	37	2750	812
24	4.3	25	0.29	6.7	46	0.83	8.3	132	3.0
25	4.4	22	0.26	6.4	39	0.68	6.2	92	1.5
26	5.8	33	0.55	6.2	33	0.55	5.3	68	0.98
27	4.6	38	0.48	6.1	32	0.53	4.7	45	0.57
28	4.9	56	0.81	5.9	32	0.51	4.5	41	0.49
29	4.6	50	0.63	---	---	---	4.3	43	0.49
30	4.1	33	0.37	---	---	---	4.1	44	0.48
31	3.9	25	0.26	---	---	---	4.0	43	0.46
TOTAL	283.9	---	221.52	205.1	---	140.14	227.1	---	976.89

e Estimated.

11180900 CROW CREEK NEAR HAYWARD, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	3.9	42	0.44
2	3.8	40	0.41
3	3.7	40	0.40
4	3.6	40	0.38
5	3.5	41	0.39
6	3.5	43	0.40
7	3.3	44	0.39
8	3.2	44	0.38
9	3.2	43	0.37
10	3.2	43	0.37
11	3.0	43	0.35
12	2.9	43	0.34
13	2.9	43	0.33
14	2.8	42	0.31
15	2.6	33	0.22
16	3.0	55	1.20
17	3.5	58	0.64
18	2.5	26	0.18
19	2.4	24	0.16
20	2.2	33	0.20
21	2.2	31	0.18
22	2.1	31	0.17
23	2.0	30	0.16
24	1.9	30	0.15
25	1.9	30	0.15
26	1.9	30	0.15
27	1.8	30	0.15
28	1.7	30	0.13
29	1.8	35	0.16
30	1.7	35	0.16
31	---	---	---
TOTAL	81.7	---	9.42
PERIOD	1241.43		3466.63

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	2.79	0.07	0	0
NOVEMBER	25.83	9.27	0	9
DECEMBER	415.01	2109.32	435	2544
JANUARY 2002	283.90	221.52	101	323
FEBRUARY	205.10	140.14	34	174
MARCH	227.10	976.89	60	1037
APRIL	81.70	9.42	0	9
TOTAL	1241.43	3466.63	630	4096

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 mi².

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 sea level, from topographic map.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No storage or diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,690 ft³/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 200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 30	1930	2.87	197

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e0.00	e1.2	12	e1.5	2.1	2.4	0.84	0.28	0.08	0.03	0.00
2	0.00	e0.00	e19	28	e1.5	2.0	2.3	0.80	0.30	0.07	0.04	0.00
3	0.00	e0.00	e1.4	17	e1.5	1.9	2.1	0.80	0.28	0.06	0.04	0.00
4	0.00	e0.00	e0.22	14	e1.4	2.1	2.1	0.76	0.26	0.06	0.04	0.00
5	0.00	e0.01	e1.6	9.4	e1.3	2.1	2.1	0.71	0.23	0.06	0.03	0.00
6	0.00	e0.03	4.7	7.0	e1.3	6.4	2.1	0.68	0.20	0.06	0.03	0.00
7	0.00	e0.02	1.5	5.9	e5.2	13	1.9	0.66	0.19	0.06	0.03	0.00
8	0.00	e0.01	0.61	5.3	e4.0	6.0	1.7	0.63	0.19	0.05	0.02	0.00
9	0.00	e0.01	0.47	4.7	1.9	4.5	1.6	0.60	0.15	0.05	0.02	0.00
10	0.00	e0.05	0.35	4.2	1.8	9.7	1.7	0.59	0.13	0.05	0.02	0.00
11	0.00	e0.01	0.26	3.8	1.7	5.5	1.6	0.57	0.12	0.05	0.00	0.00
12	0.00	e1.1	0.19	3.6	1.7	4.8	1.5	0.52	0.12	0.05	0.00	0.00
13	0.00	e0.15	0.21	3.3	1.6	4.2	1.2	0.49	0.16	0.05	0.00	0.00
14	0.00	e0.03	11	3.1	1.6	3.9	1.2	0.51	0.18	0.05	0.01	0.00
15	0.00	e0.02	2.8	2.8	1.5	3.8	1.2	0.48	0.18	0.05	0.00	0.00
16	0.00	e0.02	1.9	2.6	1.8	3.4	1.2	0.46	0.16	0.05	0.00	0.00
17	0.00	e0.02	5.3	2.5	4.9	6.7	1.7	0.45	0.14	0.05	0.00	0.00
18	0.00	e0.02	3.2	2.4	2.3	4.3	1.2	0.44	0.14	0.05	0.00	0.00
19	0.00	e0.02	2.9	2.3	11	3.7	1.2	0.69	0.14	0.05	0.00	0.00
20	e0.00	e0.03	16	2.2	9.1	3.5	1.2	1.0	0.13	0.04	0.00	0.00
21	e0.00	e0.14	14	2.4	4.7	3.4	1.1	0.93	0.15	0.04	0.00	0.00
22	e0.00	e0.11	11	2.2	3.7	3.8	1.0	0.55	0.18	0.04	0.00	0.00
23	e0.00	e0.09	6.7	1.9	3.5	21	0.95	0.49	0.17	0.04	0.00	0.00
24	e0.00	e2.5	4.8	1.8	2.9	6.1	0.90	0.44	0.14	0.04	0.00	0.00
25	e0.00	e0.65	4.1	1.8	2.5	4.5	0.92	0.40	0.12	0.03	0.00	0.00
26	e0.00	e0.20	3.6	2.9	2.4	3.9	0.93	0.39	0.10	0.04	0.00	0.00
27	e0.00	e0.12	3.4	2.1	2.4	3.5	0.89	0.38	0.10	0.03	0.00	0.00
28	e0.00	e0.38	31	2.1	2.3	3.3	0.84	0.35	0.11	0.03	0.00	0.00
29	e0.00	e2.0	72	2.0	---	3.0	0.87	0.34	0.13	0.03	0.00	0.00
30	e0.15	e0.18	50	1.7	---	2.8	0.85	0.31	0.11	0.03	0.00	0.00
31	e0.01	---	26	1.5	---	2.7	---	0.28	---	0.03	0.00	---
TOTAL	0.16	7.92	301.41	158.5	83.0	151.6	42.45	17.54	4.99	1.47	0.31	0.00
MEAN	0.005	0.264	9.723	5.113	2.964	4.890	1.415	0.566	0.166	0.047	0.010	0.000
MAX	0.15	2.5	72	28	11	21	2.4	1.0	0.30	0.08	0.04	0.00
MIN	0.00	0.00	0.19	1.5	1.3	1.9	0.84	0.28	0.10	0.03	0.00	0.00
AC-FT	0.3	16	598	314	165	301	84	35	9.9	2.9	0.6	0.00

e Estimated.

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.040	0.711	2.799	9.470	13.57	8.879	2.868	0.841	0.282	0.080	0.018	0.007
MAX	0.45	6.00	14.0	43.7	58.9	54.3	16.8	3.56	1.27	0.50	0.13	0.079
(WY)	1983	1984	1984	1997	1998	1983	1982	1983	1998	1998	1998	1983
MIN	0.000	0.000	0.001	0.000	0.045	0.13	0.055	0.016	0.007	0.000	0.000	0.000
(WY)	1979	1987	1990	1991	1991	1988	1990	1988	1988	1981	1979	1979

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1979 - 2002	
ANNUAL TOTAL	533.66		769.35			
ANNUAL MEAN	1.462		2.108		3.245	
HIGHEST ANNUAL MEAN					10.3	1983
LOWEST ANNUAL MEAN					0.054	1990
HIGHEST DAILY MEAN	72	Dec 29	72	Dec 29	445	Feb 15 1982
LOWEST DAILY MEAN	0.00	Jun 18	0.00	Oct 1	0.00	Oct 1 1978
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 18	0.00	Oct 1	0.00	Oct 1 1978
MAXIMUM PEAK FLOW			197	Dec 30	1690	Jan 5 1982
MAXIMUM PEAK STAGE			2.87	Dec 30	8.71	Jan 5 1982
ANNUAL RUNOFF (AC-FT)	1060		1530		2350	
10 PERCENT EXCEEDS	2.8		4.6		6.0	
50 PERCENT EXCEEDS	0.05		0.30		0.12	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
12...	1445	e.12	14.0	112	e.04	94
DEC						
05...	1155	.17	8.5	6	<.01	94
06...	1500	4.3	11.5	36	.42	98
20...	1350	32	8.5	1300	112	94
28...	1350	41	10.5	1370	152	92
29...	1350	81	11.0	1590	348	88
JAN						
07...	1635	5.7	11.5	20	.31	76
FEB						
08...	1445	2.6	8.5	67	.47	98
08	1535	2.6	8.5	50	.35	99
17...	1415	4.7	9.5	234	3.0	99
MAR						
27...	1255	3.5	13.0	29	.27	72

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)
OCT								
01...	0910	1	.0	--	4	14	36	58
01...	0915	1	.0	--	3	18	62	92
01...	0920	1	.0	--	1	3	10	19
01...	0925	1	.0	--	--	1	4	14
01...	0930	1	.0	--	--	1	3	4
01...	0935	1	.0	--	10	24	41	51
MAY								
01...	1230	1	.91	10.5	4	19	66	96
01...	1235	1	.88	10.5	2	7	17	28
01...	1240	1	.86	10.5	--	1	4	11
01...	1245	1	.84	10.5	1	2	6	16
01...	1250	1	.84	10.5	3	8	20	32

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
OCT							
01...	69	79	90	96	100	--	--
01...	98	99	100	--	--	--	--
01...	34	56	81	97	100	--	--
01...	33	62	81	92	98	100	--
01...	5	6	7	12	20	58	100
01...	59	70	88	100	--	--	--
MAY							
01...	99	100	--	--	--	--	--
01...	32	39	53	73	92	100	--
01...	17	25	36	47	63	86	100
01...	32	49	69	85	95	100	--
01...	38	43	49	53	61	86	100

e Estimated.

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

SAN LORENZO CREEK BASIN

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	0.00	0.00	0.00	e0.00	---	e0.00	e1.2	---	e0.11
2	0.00	0.00	0.00	e0.00	---	e0.00	e19	---	e24.0
3	0.00	0.00	0.00	e0.00	---	e0.00	e1.4	---	e23.0
4	0.00	0.00	0.00	e0.00	---	e0.00	e0.22	---	e0.09
5	0.00	0.00	0.00	e0.01	---	e0.00	e1.6	---	e0.31
6	0.00	0.00	0.00	e0.03	---	e0.00	4.7	45	0.62
7	0.00	0.00	0.00	e0.02	---	e0.00	1.5	16	0.07
8	0.00	0.00	0.00	e0.01	---	e0.00	0.61	5.0	0.00
9	0.00	0.00	0.00	e0.01	---	e0.00	0.47	2.0	0.00
10	0.00	0.00	0.00	e0.05	---	e0.00	0.35	1.0	0.00
11	0.00	0.00	0.00	e0.01	---	e0.00	0.26	1.0	0.00
12	0.00	0.00	0.00	e1.1	---	e0.13	0.19	1.0	0.00
13	0.00	0.00	0.00	e0.15	---	e0.14	0.21	6.0	0.00
14	0.00	0.00	0.00	e0.03	---	e0.00	11	644	48.4
15	0.00	0.00	0.00	e0.02	---	e0.00	2.8	67	0.67
16	0.00	0.00	0.00	e0.02	---	e0.00	1.9	9.0	0.05
17	0.00	0.00	0.00	e0.02	---	e0.00	5.3	326	9.5
18	0.00	0.00	0.00	e0.02	---	e0.00	3.2	22	0.20
19	0.00	0.00	0.00	e0.02	---	e0.00	2.9	6.0	0.05
20	e0.00	---	e0.00	e0.03	---	e0.00	16	684	56.6
21	e0.00	---	e0.00	e0.14	---	e0.00	14	374	28.7
22	e0.00	---	e0.00	e0.11	---	e0.00	11	198	13.4
23	e0.00	---	e0.00	e0.09	---	e0.00	6.7	41	0.79
24	e0.00	---	e0.00	e2.5	---	e0.55	4.8	21	0.27
25	e0.00	---	e0.00	e0.65	---	e0.69	4.1	19	0.21
26	e0.00	---	e0.00	e0.20	---	e0.00	3.6	20	0.20
27	e0.00	---	e0.00	e0.12	---	e0.00	3.4	18	0.17
28	e0.00	---	e0.00	e0.38	---	e0.01	31	1250	224
29	e0.00	---	e0.00	e2.0	---	e0.75	72	2310	537
30	e0.15	---	e0.00	e0.18	---	e0.63	50	1200	315
31	e0.01	---	e0.00	---	---	---	26	583	63.9
TOTAL	0.16	---	0.00	7.92	---	2.90	301.41	---	1347.31
	JANUARY			FEBRUARY			MARCH		
1	12	160	6.5	e1.5	---	e0.03	2.1	19	0.11
2	28	700	61.6	e1.5	---	e0.03	2.0	21	0.12
3	17	333	16.8	e1.5	---	e0.03	1.9	23	0.13
4	14	138	5.8	e1.4	---	e0.03	2.1	26	0.15
5	9.4	47	1.3	e1.3	---	e0.04	2.1	27	0.16
6	7.0	35	0.98	e1.3	---	e0.05	6.4	227	17.0
7	5.9	18	0.30	e5.2	---	e0.61	13	430	20.5
8	5.3	14	0.20	e4.0	---	e0.28	6.0	94	1.7
9	4.7	13	0.16	1.9	9.0	0.05	4.5	25	0.33
10	4.2	12	0.14	1.8	6.0	0.03	9.7	298	11.6
11	3.8	12	0.12	1.7	5.0	0.03	5.5	64	1.0
12	3.6	12	0.12	1.7	5.0	0.03	4.8	32	0.44
13	3.3	12	0.10	1.6	5.0	0.02	4.2	25	0.30
14	3.1	12	0.10	1.6	5.0	0.02	3.9	21	0.23
15	2.8	12	0.09	1.5	4.0	0.02	3.8	18	0.19
16	2.6	12	0.08	1.8	25	0.23	3.4	15	0.14
17	2.5	11	0.08	4.9	262	5.3	6.7	248	7.4
18	2.4	11	0.07	2.3	20	0.14	4.3	106	1.3
19	2.3	10	0.06	11	841	69.8	3.7	86	0.86
20	2.2	9.0	0.05	9.1	261	9.7	3.5	71	0.68
21	2.4	10	0.07	4.7	26	0.36	3.4	61	0.57
22	2.2	10	0.06	3.7	15	0.16	3.8	96	1.0
23	1.9	10	0.05	3.5	13	0.13	21	415	44.7
24	1.8	10	0.05	2.9	13	0.11	6.1	80	1.4
25	1.8	10	0.05	2.5	14	0.10	4.5	47	0.58
26	2.9	60	0.66	2.4	15	0.11	3.9	35	0.37
27	2.1	18	0.11	2.4	17	0.12	3.5	25	0.24
28	2.1	19	0.11	2.3	18	0.12	3.3	24	0.22
29	2.0	22	0.12	---	---	---	3.0	23	0.19
30	1.7	13	0.06	---	---	---	2.8	20	0.15
31	1.5	9.0	0.04	---	---	---	2.7	19	0.14
TOTAL	158.5	---	96.03	83.0	---	87.68	151.6	---	113.90

e Estimated.

11180960 CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	2.4	17	0.11
2	2.3	18	0.11
3	2.1	21	0.12
4	2.1	22	0.12
5	2.1	22	0.13
6	2.1	22	0.13
7	1.9	20	0.10
8	1.7	12	0.05
9	1.6	10	0.04
10	1.7	11	0.05
11	1.6	12	0.05
12	1.5	11	0.04
13	1.2	11	0.04
14	1.2	11	0.04
15	1.2	11	0.04
16	1.2	12	0.04
17	1.7	18	0.10
18	1.2	11	0.03
19	1.2	10	0.03
20	1.2	9.0	0.03
21	1.1	8.0	0.02
22	1.0	8.0	0.02
23	0.95	7.0	0.02
24	0.90	8.0	0.02
25	0.92	8.0	0.02
26	0.93	23	0.06
27	0.89	19	0.05
28	0.84	14	0.03
29	0.87	14	0.03
30	0.85	14	0.03
31	---	---	---
TOTAL	42.45	---	1.70
PERIOD	745.04		1649.52

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	0.16	0.00	0	0
NOVEMBER	7.92	2.90	0	3
DECEMBER	301.41	1347.31	284	1631
JANUARY 2002	158.50	96.03	43	140
FEBRUARY	83.00	87.68	24	112
MARCH	151.60	113.90	40	154
APRIL	42.45	1.70	0	2
TOTAL	745.04	1649.52	391	2041

11181000 SAN LORENZO CREEK AT HAYWARD, CA

LOCATION.—Lat 37°41'08", long 122°03'48", in San Lorenzo Grant, Alameda County, Hydrologic Unit 18050004, on left bank, 300 ft downstream of Center Street Bridge, just outside city limits of Hayward, 0.6 mi downstream from Crow Creek, and 1.0 mi downstream from Don Castro Dam.

DRAINAGE AREA.—37.5 mi².

PERIOD OF RECORD.—October 1939 to September 1940, October 1946 to Apr. 28, 1983, October 1997 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.—WSP 1315-B: 1947(M), 1949(M). WSP 1345: 1940(M). WSP 1715: 1947.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 133.16 ft above sea level. January to September 1940, nonrecording gage on bridge 0.1 mi upstream at present datum.

REMARKS.—Records poor. Flow partly regulated since October 1962 by Cull Creek Reservoir, capacity, 310 acre-ft, and since January 1965 by Don Castro Reservoir, 1.0 mi upstream, capacity, 380 acre-ft. A few very small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,140 ft³/s, Feb. 3, 1998, gage height, 21.85 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 550 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 29	0630	309	6.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.95	e0.95	e6.2	39	8.7	10	11	5.6	2.5	0.93	0.49	0.41
2	e0.76	e0.93	e60	e147	8.6	9.7	11	5.4	2.5	0.82	0.55	0.37
3	e0.47	e0.96	e12	e29	8.3	9.6	10	5.3	2.5	0.88	0.61	0.33
4	0.65	e0.94	e5.7	e21	8.2	9.6	9.9	5.0	2.2	0.99	0.57	0.32
5	0.85	e0.93	e19	e16	8.0	9.8	9.7	4.7	2.9	0.88	0.53	0.32
6	0.90	e0.91	14	e16	7.8	30	9.4	4.5	2.0	0.86	0.48	0.31
7	0.75	e0.89	5.4	e15	e30	43	9.0	4.4	1.6	0.83	0.43	0.34
8	0.89	e0.90	4.2	e14	24	20	8.8	4.3	1.4	0.83	0.44	0.36
9	0.70	e0.93	3.7	e14	10	15	8.7	4.1	1.3	0.71	0.38	0.29
10	0.58	e3.9	2.9	e13	9.1	33	8.6	4.2	1.2	0.65	0.33	0.29
11	0.66	e9.0	3.0	e13	8.7	18	8.3	4.1	1.2	0.61	0.30	0.36
12	0.68	e54	3.5	e13	8.6	16	8.2	3.7	1.2	0.64	0.34	0.26
13	0.66	e3.7	4.9	e13	8.8	14	7.8	3.6	1.3	0.63	0.35	0.28
14	0.67	e2.1	46	e13	8.6	13	7.6	3.7	1.4	0.67	0.39	0.30
15	0.75	e1.9	7.4	e13	7.7	13	7.3	3.7	1.4	0.73	0.42	0.30
16	0.80	e1.9	5.1	e13	14	13	7.7	3.6	1.3	0.73	0.42	0.32
17	0.90	e1.9	24	e12	32	33	13	3.6	1.8	0.74	0.45	0.29
18	0.95	e1.9	9.3	e12	14	18	7.4	3.5	5.9	0.77	0.48	0.27
19	0.90	e1.9	6.3	11	38	14	7.1	12	2.6	0.76	0.47	0.25
20	0.78	e1.8	46	11	37	13	7.0	20	4.0	0.63	0.52	0.23
21	0.86	e1.9	37	12	22	13	6.7	16	1.2	0.63	0.50	0.22
22	0.95	e5.3	33	11	19	16	6.4	4.8	1.2	0.65	0.52	0.22
23	0.94	e2.1	e15	9.9	17	72	6.0	4.1	1.2	0.69	0.54	0.22
24	0.92	e18	e9.8	9.7	15	24	5.9	3.8	1.2	0.72	0.56	0.22
25	0.88	e4.1	e8.3	9.8	14	19	5.9	3.1	0.97	0.71	0.49	0.23
26	0.80	e1.9	e8.1	19	13	17	6.1	2.9	0.95	0.62	0.46	0.24
27	0.87	e1.9	e8.0	12	12	16	6.0	2.9	0.96	0.58	0.42	0.31
28	0.79	e2.4	88	14	12	14	5.6	2.7	0.96	0.55	0.38	0.34
29	0.84	e7.8	164	13	---	13	6.1	2.7	1.1	0.54	0.38	0.30
30	e12	e2.2	83	9.5	---	12	5.8	2.6	1.1	0.55	0.40	0.31
31	e1.5	---	59	8.9	---	11	---	2.5	---	0.48	0.41	---
TOTAL	36.60	139.94	801.8	576.8	424.1	581.7	238.0	157.1	53.04	22.01	14.01	8.81
MEAN	1.181	4.665	25.86	18.61	15.15	18.76	7.933	5.068	1.768	0.710	0.452	0.294
MAX	12	54	164	147	38	72	13	20	5.9	0.99	0.61	0.41
MIN	0.47	0.89	2.9	8.9	7.7	9.6	5.6	2.5	0.95	0.48	0.30	0.22
AC-FT	73	278	1590	1140	841	1150	472	312	105	44	28	17

e Estimated.

11181000 SAN LORENZO CREEK AT HAYWARD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.603	3.579	20.43	52.72	54.21	37.06	24.16	5.652	2.312	1.040	0.717	0.629
MAX	107	30.1	184	227	327	267	255	21.3	9.03	5.22	4.58	2.89
(WY)	1963	1951	1956	1952	1998	1983	1958	1967	1967	1982	1980	1968
MIN	0.000	0.000	0.13	0.39	0.73	0.84	0.29	0.12	0.043	0.000	0.000	0.000
(WY)	1947	1949	1949	1949	1948	1972	1977	1976	1977	1961	1947	1947

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1940 - 2002

ANNUAL TOTAL	2216.29	3053.91	
ANNUAL MEAN	6.072	8.367	16.00
HIGHEST ANNUAL MEAN			56.4
LOWEST ANNUAL MEAN			0.63
HIGHEST DAILY MEAN	164	Dec 29	164
LOWEST DAILY MEAN	0.32	Jul 8	0.22
ANNUAL SEVEN-DAY MINIMUM	0.36	Jul 5	0.23
MAXIMUM PEAK FLOW			309
MAXIMUM PEAK STAGE			6.24
ANNUAL RUNOFF (AC-FT)	4400	6060	11590
10 PERCENT EXCEEDS	15	17	31
50 PERCENT EXCEEDS	1.7	3.5	1.6
90 PERCENT EXCEEDS	0.42	0.39	0.00

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 mi².

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 sea level, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,550 ft³/s, Feb. 2, 1998, gage height, 9.12 ft, from rating curve extended above 61 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 12	0835	860	6.80	Mar. 6	2000	501	5.24
Dec. 2	0650	1,080	7.62	Mar. 23	0545	511	5.29

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	0.31	11	6.0	0.79	0.98	1.3	0.68	0.51	0.49	0.57	0.33
2	0.26	0.30	71	46	0.76	0.94	1.2	0.69	0.57	0.47	0.43	0.34
3	0.22	0.29	5.8	8.0	0.70	0.89	1.1	0.67	0.55	0.46	0.42	0.33
4	0.23	0.28	1.1	4.3	0.69	0.89	1.2	0.68	0.56	0.49	0.39	0.32
5	0.22	0.30	17	3.0	0.67	1.8	1.1	0.66	0.57	0.52	0.40	0.33
6	0.22	0.26	7.5	2.6	0.68	33	1.1	0.66	0.57	0.48	0.43	0.36
7	0.23	0.28	1.4	2.0	17	17	1.0	0.62	0.56	0.44	0.40	0.33
8	0.27	0.27	0.85	1.7	1.8	2.9	0.91	0.64	0.51	0.52	0.40	0.33
9	0.24	0.25	1.1	1.4	0.99	1.9	0.85	0.62	0.46	0.50	0.42	0.33
10	0.25	4.0	0.61	1.2	0.86	14	0.78	0.63	0.49	0.50	0.41	0.33
11	0.23	2.2	0.57	1.1	0.81	2.5	0.84	0.67	0.49	0.48	0.39	0.37
12	0.21	56	0.47	1.3	0.79	1.9	0.78	0.65	0.45	0.42	0.39	0.35
13	0.21	0.75	11	1.0	2.4	1.6	0.79	0.64	0.44	0.42	0.37	0.42
14	0.21	0.49	30	1.1	0.96	1.4	0.78	0.74	0.45	0.45	0.37	0.36
15	0.22	0.40	1.4	0.92	0.74	1.4	0.72	0.66	0.45	0.48	0.43	0.34
16	0.27	0.36	0.97	0.88	9.8	1.1	2.4	0.62	0.45	0.47	0.40	0.38
17	0.21	0.33	23	0.83	20	23	3.6	0.61	0.53	0.62	0.35	0.37
18	0.23	0.34	1.8	0.78	2.9	2.3	0.75	0.61	0.46	0.46	0.37	0.37
19	0.22	0.32	1.2	0.77	39	1.6	0.74	12	0.43	0.44	0.40	0.36
20	0.24	0.31	41	0.73	8.3	1.4	0.74	16	0.59	0.45	0.39	0.34
21	0.25	3.0	9.6	1.3	3.4	1.3	0.73	9.5	0.49	0.43	0.38	0.33
22	0.25	2.9	18	0.82	2.4	5.7	0.77	0.87	0.52	0.49	0.39	0.34
23	0.23	0.35	4.0	0.86	2.4	35	0.69	0.69	0.50	0.49	0.37	0.35
24	0.22	20	2.0	0.86	1.8	3.5	0.67	0.62	0.52	0.46	0.38	0.35
25	0.22	0.68	1.4	0.69	1.4	2.3	0.66	0.60	0.50	0.45	0.37	0.36
26	0.21	0.46	1.2	8.4	1.2	1.9	0.68	0.55	0.48	0.44	0.43	0.37
27	0.22	0.44	3.4	1.1	1.2	1.8	0.64	0.55	0.49	0.47	0.37	0.34
28	0.22	9.5	47	8.4	1.1	1.5	0.64	0.61	0.48	0.46	0.35	0.34
29	0.30	15	59	1.3	---	1.4	1.3	1.00	0.48	0.51	0.40	0.33
30	15	0.79	61	0.93	---	1.3	0.68	0.55	0.47	0.45	0.37	0.38
31	0.38	---	13	0.93	---	1.3	---	0.85	---	0.47	0.35	---
TOTAL	22.27	121.16	448.37	111.20	125.54	169.50	30.14	56.14	15.02	14.68	12.29	10.48
MEAN	0.718	4.039	14.46	3.587	4.484	5.468	1.005	1.811	0.501	0.474	0.396	0.349
MAX	15	56	71	46	39	35	3.6	16	0.59	0.62	0.57	0.42
MIN	0.21	0.25	0.47	0.69	0.67	0.89	0.64	0.55	0.43	0.42	0.35	0.32
AC-FT	44	240	889	221	249	336	60	111	30	29	24	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

MEAN	1.593	4.641	5.407	9.760	10.75	7.251	2.717	1.170	0.576	0.395	0.381	0.496
MAX	4.97	19.0	14.5	29.3	45.6	34.6	12.3	3.23	1.55	1.15	1.50	1.62
(WY)	1976	1974	2002	1998	1998	1983	1974	1990	1995	1974	1983	1983
MIN	0.15	0.24	0.24	0.39	1.06	0.60	0.20	0.30	0.28	0.17	0.14	0.12
(WY)	1978	1996	1990	1991	1977	1988	1977	1992	1980	1991	1980	1980

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1972 - 2002

ANNUAL TOTAL	1193.05	1136.79		
ANNUAL MEAN	3.269	3.114	3.924	
HIGHEST ANNUAL MEAN			9.14	1998
LOWEST ANNUAL MEAN			1.51	1972
HIGHEST DAILY MEAN	71	Dec 2	322	Jan 4 1982
LOWEST DAILY MEAN	0.20	Sep 26	0.00	Oct 11 1977
ANNUAL SEVEN-DAY MINIMUM	0.22	Oct 11	0.00	Oct 11 1977
MAXIMUM PEAK FLOW			1080	Dec 2 1998
MAXIMUM PEAK STAGE			7.62	Dec 2 1998
ANNUAL RUNOFF (AC-FT)	2370	2250	2840	
10 PERCENT EXCEEDS	8.0	6.6	6.9	
50 PERCENT EXCEEDS	0.49	0.62	0.50	
90 PERCENT EXCEEDS	0.28	0.31	0.19	

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 mi².

PERIOD OF RECORD.—October 1967 to September 1978, October 1987 to current year.

WATER TEMPERATURE: Water years 1989–93 (storm season only).

SEDIMENT DATA: Water years 1989–93 (storm season only).

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 6.13 ft above sea level (levels by Alameda County Flood Control and Water Conservation District).

REMARKS.—Records poor. Flow partly regulated since October 1962 by Cull Creek Reservoir, capacity, 310 acre-ft, and since January 1965 by Don Castro Reservoir, capacity, 380 acre-ft, 7 mi upstream. A few very small diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,300 ft³/s, Feb. 3, 1998, gage height, 14.27 ft, from rating curve extended above 1,200 ft³/s; minimum daily, 0.01 ft³/s, several days in June and July 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0715	1,200	5.75

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	e1.7	10	e52	18	18	e16	e7.6	7.2	e2.5	3.7	1.9
2	1.5	e1.5	146	e198	18	17	e15	e7.1	7.5	e2.2	2.6	2.0
3	e1.4	1.5	25	63	17	17	15	e6.7	7.8	2.4	2.0	2.1
4	e1.5	1.4	e11	50	16	17	14	e6.5	7.6	1.8	1.8	2.3
5	e1.5	1.4	29	39	16	16	14	e6.3	7.2	1.6	1.7	e2.3
6	e1.5	1.5	e20	34	16	76	e14	e6.0	8.7	1.4	1.6	e2.4
7	1.5	1.4	11	31	47	71	e14	e5.6	6.5	1.3	e1.6	2.2
8	1.6	1.6	e7.8	30	38	23	e13	5.3	6.1	1.4	e1.5	2.3
9	1.6	1.3	e6.7	27	21	18	e13	5.0	5.6	1.4	1.5	2.0
10	1.6	6.2	e5.3	26	19	53	e13	5.2	5.5	1.2	1.3	1.9
11	1.6	10	e5.6	25	19	21	e13	5.5	5.5	1.1	1.2	2.0
12	e1.2	126	e6.0	24	18	18	e13	5.6	5.3	1.0	1.3	2.2
13	e1.1	5.4	e7.5	24	20	18	e12	6.0	5.8	0.70	1.4	2.2
14	e1.1	e3.2	e80	24	20	17	e12	6.8	6.0	0.66	1.4	2.1
15	e1.1	e3.0	e13	23	18	16	e13	7.3	5.8	0.89	1.7	2.2
16	e1.2	e3.0	e9.2	22	33	15	e12	7.0	5.7	1.3	1.4	3.3
17	e1.3	e3.0	e60	22	70	76	e28	6.9	6.9	1.7	1.8	3.2
18	1.3	e3.0	e13	21	26	21	e18	7.3	7.8	1.7	1.4	2.6
19	1.2	e3.1	e10	21	110	16	e13	33	7.9	2.1	1.3	1.7
20	1.1	e3.1	e120	21	64	14	e11	58	6.5	2.2	1.7	1.6
21	1.5	e3.1	e51	22	29	13	e11	41	3.4	2.5	1.9	1.4
22	1.5	9.9	e40	21	25	e16	e10	17	3.4	3.2	1.6	1.3
23	1.4	e3.6	e22	20	25	e77	e9.8	11	3.2	3.8	1.5	1.3
24	1.5	48	e16	19	21	e24	e8.9	9.4	3.1	4.0	1.6	1.3
25	1.4	6.0	e14	19	20	e21	e9.0	8.1	e3.0	4.3	1.6	1.3
26	1.5	e2.8	e14	35	20	e20	e9.2	7.2	e2.9	4.1	1.6	1.3
27	1.4	e2.7	e13	22	19	e18	e9.5	7.2	e2.9	4.1	1.5	1.4
28	1.5	6.5	e120	29	18	e18	e9.0	6.9	e2.9	4.4	2.6	1.5
29	1.6	22	248	23	---	e17	e9.6	7.9	e2.7	4.4	1.6	1.6
30	16	4.1	185	19	---	e16	e9.2	7.1	e2.7	3.7	e1.8	1.9
31	3.0	---	116	18	---	e16	---	7.8	---	3.8	1.9	---
TOTAL	59.9	291.0	1435.1	1024	801	814	381.2	335.3	163.1	72.85	53.1	58.8
MEAN	1.932	9.700	46.29	33.03	28.61	26.26	12.71	10.82	5.437	2.350	1.713	1.960
MAX	16	126	248	198	110	77	28	58	8.7	4.4	3.7	3.3
MIN	1.1	1.3	5.3	18	16	13	8.9	5.0	2.7	0.66	1.2	1.3
AC-FT	119	577	2850	2030	1590	1610	756	665	324	144	105	117

e Estimated.

SAN LORENZO CREEK BASIN

11181040 SAN LORENZO CREEK AT SAN LORENZO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.595	9.761	24.32	70.13	70.42	43.60	22.11	9.339	4.209	1.971	1.599	1.806
MAX	30.2	38.1	106	259	390	154	108	31.9	17.0	5.99	3.25	4.58
(WY)	1992	1974	1971	1997	1998	1995	1974	1996	1993	1998	1969	1975
MIN	0.23	1.49	1.41	1.14	2.15	1.83	2.07	0.85	0.066	0.64	0.11	0.35
(WY)	1978	1991	1990	1991	1977	1972	1976	1972	1977	1990	1977	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1968 - 2002
ANNUAL TOTAL	6920.25	5489.35	
ANNUAL MEAN	18.96	15.04	21.85
HIGHEST ANNUAL MEAN			65.6 1998
LOWEST ANNUAL MEAN			2.38 1977
HIGHEST DAILY MEAN	309 Feb 12	248 Dec 29	2400 Jan 21 1970
LOWEST DAILY MEAN	0.97 Sep 10	0.66 Jul 14	0.00 Jun 12 1977
ANNUAL SEVEN-DAY MINIMUM	1.1 Sep 1	0.98 Jul 10	0.01 Jun 10 1977
MAXIMUM PEAK FLOW		1200 Dec 2	10300 Feb 3 1998
MAXIMUM PEAK STAGE		5.75 Dec 2	14.27 Feb 3 1998
ANNUAL RUNOFF (AC-FT)	13730	10890	15830
10 PERCENT EXCEEDS	55	29	45
50 PERCENT EXCEEDS	3.3	6.7	3.0
90 PERCENT EXCEEDS	1.3	1.4	0.64

380519122262901 SAN PABLO BAY AT PETALUMA RIVER CHANNEL MARKER 9, CA

LOCATION.—Lat 38°05'19", long 122°26'29", unsurveyed, sec.20 T.3 N., R.5 W., [Marin County](#), Hydrologic Unit 18050001, at Coast Guard channel marker 9.

PERIOD OF RECORD.—November 1998 to current year.

SPECIFIC CONDUCTANCE: November 1998 to current year.

WATER TEMPERATURE: November 1998 to current year.

PERIOD OF DAILY RECORD.—November 1998 to current year.

SPECIFIC CONDUCTANCE: November 1998 to current year.

WATER TEMPERATURE: November 1998 to current year.

INSTRUMENTATION.—Water-quality monitor since November 1998.

REMARKS.—Interruptions in record were due to malfunction of the sensing and (or) recording instrument and biological interference within the conductivity cell. The probe is set at 4 ft below the water surface at Mean Lower Low Water (MLLW). MLLW is about 6 ft. Daily maximums and minimums sometimes differ from tidal cycle (24.8 hours) maximums and minimums. The conductivity record is rated excellent except for the following periods of heavy fouling: April 16–23, rated fair; and June 7–18, rated poor. The temperature record is rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum recorded, 43,200 microsiemens, Aug. 31, 2001; minimum recorded, 667 microsiemens, Feb. 17, 1999.

WATER TEMPERATURE: Maximum recorded, 26.5°C, May 23, 2000, May 31, 2001; minimum recorded, 3.5°C, Dec. 23, 24, 1998.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum recorded, 34,000 microsiemens, Apr. 15; minimum recorded, 17,400 microsiemens, Feb. 26.

WATER TEMPERATURE: Maximum recorded, 25.0°C, May 30, 31; minimum recorded, 9.0°C, Mar. 18.

SPECIFIC CONDUCTANCE, US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	---	---	27600	20200
2	---	---	---	---	---	---	---	---	---	---	27800	21300
3	---	---	---	---	---	---	---	---	---	---	28000	21400
4	---	---	---	---	---	---	---	---	---	---	28600	21300
5	---	---	---	---	---	---	---	---	---	---	28900	22000
6	---	---	---	---	---	---	---	---	---	---	30300	23000
7	---	---	---	---	---	---	---	---	---	---	29200	22900
8	---	---	---	---	---	---	---	---	---	---	29800	19500
9	---	---	---	---	---	---	---	---	---	---	29300	21700
10	---	---	---	---	---	---	---	---	---	---	28700	20200
11	---	---	---	---	---	---	---	---	---	---	28400	20000
12	---	---	---	---	---	---	---	---	---	---	27700	20100
13	---	---	---	---	---	---	---	---	---	---	28300	19900
14	---	---	---	---	---	---	---	---	---	---	28100	21400
15	---	---	---	---	---	---	---	---	---	---	28000	23400
16	---	---	---	---	---	---	---	---	---	---	28700	23300
17	---	---	---	---	---	---	---	---	---	---	28500	24000
18	---	---	---	---	---	---	---	---	---	---	28800	22400
19	---	---	---	---	---	---	---	---	---	---	28800	22000
20	---	---	---	---	---	---	---	---	---	---	28600	22600
21	---	---	---	---	---	---	---	---	---	---	27700	23100
22	---	---	---	---	---	---	---	---	---	---	27500	24100
23	---	---	---	---	---	---	---	---	---	---	27400	23200
24	---	---	---	---	---	---	---	---	---	---	28700	23300
25	---	---	---	---	---	---	---	---	---	---	28100	22200
26	---	---	---	---	---	---	---	---	28700	17400	27900	22600
27	---	---	---	---	---	---	---	---	28300	18300	28100	22900
28	---	---	---	---	---	---	---	---	28200	19100	27900	23700
29	---	---	---	---	---	---	---	---	---	---	27800	23800
30	---	---	---	---	---	---	---	---	---	---	28000	23300
31	---	---	---	---	---	---	---	---	---	---	28200	23300
MONTH	---	---	---	---	---	---	---	---	---	---	30300	19500

380519122262901 SAN PABLO BAY AT PETALUMA RIVER CHANNEL MARKER 9, CA—Continued

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	16.5	15.0	---	---	---	---	---	---	14.0	12.5
2	---	---	16.5	14.5	---	---	---	---	---	---	14.0	12.0
3	---	---	16.0	14.5	---	---	---	---	---	---	14.5	12.0
4	---	---	16.0	14.0	---	---	---	---	---	---	14.5	13.0
5	---	---	16.0	14.0	---	---	---	---	---	---	15.0	13.0
6	---	---	---	---	---	---	---	---	---	---	15.0	13.0
7	---	---	---	---	---	---	---	---	---	---	15.0	12.5
8	---	---	---	---	---	---	---	---	---	---	14.0	11.5
9	---	---	---	---	---	---	---	---	---	---	13.0	11.5
10	---	---	---	---	---	---	---	---	---	---	13.0	12.0
11	18.5	16.5	---	---	---	---	---	---	---	---	13.5	12.5
12	18.5	16.5	---	---	---	---	---	---	---	---	13.5	13.0
13	19.0	16.5	---	---	---	---	---	---	---	---	13.0	11.5
14	19.5	17.0	---	---	---	---	---	---	---	---	12.5	10.5
15	19.0	17.0	---	---	---	---	---	---	---	---	12.5	10.0
16	19.0	17.0	---	---	---	---	---	---	---	---	12.0	10.0
17	18.5	16.5	---	---	---	---	---	---	---	---	12.0	10.0
18	18.5	16.0	---	---	---	---	---	---	---	---	11.5	9.0
19	18.0	16.0	---	---	---	---	---	---	---	---	12.5	10.5
20	18.0	15.0	---	---	---	---	---	---	---	---	13.5	11.5
21	17.5	15.0	---	---	---	---	---	---	---	---	15.5	12.5
22	17.0	15.0	---	---	---	---	---	---	---	---	15.0	13.0
23	17.5	15.0	---	---	---	---	---	---	---	---	15.5	12.0
24	17.0	15.0	---	---	---	---	---	---	---	---	16.0	12.0
25	17.0	15.0	---	---	---	---	---	---	---	---	15.0	12.5
26	17.0	15.0	---	---	---	---	---	---	15.0	13.5	15.0	12.5
27	16.5	15.0	---	---	---	---	---	---	15.0	13.5	15.5	13.5
28	16.5	15.0	---	---	---	---	---	---	15.0	13.5	15.5	14.0
29	17.0	15.5	---	---	---	---	---	---	---	---	17.0	14.5
30	16.5	16.0	---	---	---	---	---	---	---	---	17.0	15.0
31	17.0	15.5	---	---	---	---	---	---	---	---	17.0	15.0
MONTH	---	---	---	---	---	---	---	---	---	---	17.0	9.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.5	15.0	17.5	14.5	24.5	18.5	---	---	22.5	20.0	22.0	20.0
2	17.5	15.5	20.0	15.0	21.5	18.0	---	---	22.5	20.5	23.0	20.5
3	18.0	15.0	20.5	15.0	21.0	18.5	---	---	21.5	20.5	22.0	20.0
4	17.5	14.5	21.0	15.0	22.5	19.0	---	---	21.0	20.0	21.5	19.0
5	17.0	14.0	21.0	16.0	24.5	20.0	---	---	22.0	19.5	21.0	18.5
6	18.0	14.5	20.5	16.5	24.5	20.5	---	---	21.0	19.0	20.0	18.0
7	18.0	14.5	19.5	16.0	24.0	20.5	---	---	21.5	19.0	20.0	18.0
8	18.0	15.0	20.0	16.5	23.0	19.0	---	---	22.5	19.5	20.0	18.0
9	16.5	15.5	19.5	17.0	21.0	19.0	---	---	23.5	20.5	20.5	18.0
10	18.0	15.5	18.5	16.5	21.5	19.0	---	---	24.0	21.0	21.0	19.0
11	18.0	16.0	19.5	16.5	21.5	20.0	---	---	23.0	21.5	21.0	19.5
12	18.5	16.0	19.0	17.0	22.0	19.5	---	---	22.0	20.5	20.5	19.0
13	19.5	17.0	19.0	17.5	22.5	19.0	---	---	22.5	20.5	20.5	19.0
14	19.5	15.0	19.5	17.0	22.5	18.5	---	---	22.5	20.5	20.0	18.5
15	16.5	14.0	20.5	17.5	23.5	18.0	---	---	22.5	20.5	20.0	18.0
16	15.5	13.5	21.5	17.5	24.0	18.5	---	---	22.0	20.5	20.0	18.0
17	15.5	13.0	22.0	17.5	24.0	18.5	---	---	22.0	20.0	20.5	18.0
18	16.0	13.0	22.0	17.0	---	---	---	---	21.5	19.5	21.0	18.5
19	17.0	12.5	19.5	16.5	---	---	---	---	20.5	19.0	22.0	19.5
20	18.0	14.0	18.0	15.5	---	---	---	---	20.5	18.5	21.5	19.5
21	19.5	14.5	18.5	15.5	---	---	---	---	20.5	18.5	21.5	19.5
22	20.5	15.5	19.0	16.0	---	---	---	---	20.0	18.5	21.0	19.0
23	20.5	16.0	20.0	16.5	---	---	---	---	19.5	18.0	21.0	19.0
24	19.5	16.0	20.0	17.5	---	---	---	---	19.0	17.5	21.0	18.5
25	19.0	16.5	21.5	18.5	---	---	---	---	20.0	17.0	20.5	18.5
26	18.0	16.0	21.0	18.0	---	---	---	---	20.5	17.5	20.0	18.0
27	17.0	15.0	21.0	18.0	---	---	---	---	22.0	19.0	19.5	18.0
28	17.0	14.5	21.0	18.0	---	---	---	---	21.0	19.5	19.5	17.5
29	17.0	15.5	23.0	18.5	---	---	---	---	22.0	19.0	19.5	17.5
30	17.0	15.0	25.0	20.0	---	---	---	---	21.5	19.0	19.0	17.0
31	---	---	25.0	19.5	---	---	21.5	20.0	21.0	19.0	---	---
MONTH	20.5	12.5	25.0	14.5	---	---	---	---	24.0	17.0	23.0	17.0

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 Richmond Terminal No. 4 Pier on west side of Point San Pablo.

DRAINAGE AREA.—Indeterminate.

PERIOD OF RECORD.—October 1989 to current year.

SPECIFIC CONDUCTANCE: October 1989 to current year.

WATER TEMPERATURE: October 1989 to current year.

PERIOD OF DAILY RECORD.—October 1989 to current year.

SPECIFIC CONDUCTANCE: October 1989 to current year.

WATER TEMPERATURE: October 1989 to current year.

INSTRUMENTATION.—Water-quality monitor since October 1989.

REMARKS.—Other interruptions in record were due to malfunction of the sensing and (or) recording instruments. Upper probe is set about 4.0 ft below Mean Lower Low Water (MLLW). Lower probe is set about 20.0 ft below MLLW. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums. Upper specific conductance record is rated excellent except for the following periods of fouling: Apr. 16–23, July 9–17, which are rated good, May 11 to June 5, July 27 to Aug. 7, and Aug. 23 to Sept. 4, which are rated poor. Lower specific conductance record is rated excellent except for the following periods of fouling: Apr. 18–23, which are rated good, and May 11 to June 5, which are rated poor. Upper and lower temperature records are rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 50,900 microsiemens, Aug. 25, 28, 1992; minimum recorded, 155 microsiemens, Jan. 5, 1997.

(Lower probe) Maximum recorded, 50,100 microsiemens, July 23, 1990; minimum recorded, 147 microsiemens, Jan. 5, 1997.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 24.0°C, July 31, 1993; minimum recorded, 4.5°C, Dec. 23, 1990.

(Lower probe) Maximum recorded, 22.5°C, July 30, 1995, Aug. 26, 28, Sept. 4, 1997; minimum recorded, 5.0°C, Dec. 21, 23, 1990.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 48,200 microsiemens, June 22; minimum recorded, 13,500 microsiemens, Jan. 6.

(Lower probe) Maximum recorded, 48,300 microsiemens, July 23; minimum recorded, 13,900 microsiemens, Jan. 11.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 22.0°C, Aug. 9; minimum recorded, 8.5°C, Jan. 23, 30.

(Lower probe) Maximum recorded, 21.0°C, Aug. 8, 9; minimum recorded, 9.0°C, several days in January and February.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(UPPER PROBE)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	43000	24400	42100	29800	---	---
2	---	---	---	---	---	---	40400	23800	42300	30600	---	---
3	---	---	---	---	---	---	39300	19300	42400	30300	---	---
4	---	---	---	---	---	---	38900	15100	42800	29700	---	---
5	---	---	---	---	---	---	39200	13800	43000	30400	---	---
6	---	---	---	---	---	---	39100	13500	42600	30200	---	---
7	---	---	---	---	---	---	40000	15700	42800	30800	---	---
8	---	---	---	---	---	---	36500	15400	42900	30100	---	---
9	---	---	---	---	---	---	36700	18100	42900	30000	---	---
10	---	---	---	---	---	---	35300	16100	42800	30200	---	---
11	---	---	---	---	---	---	35400	13600	43100	30500	---	---
12	---	---	---	---	43200	29300	35400	14100	43200	31000	---	---
13	---	---	---	---	43700	29300	37500	14900	43000	31000	---	---
14	---	---	---	---	44100	28800	36400	15300	42800	30800	---	---
15	---	---	---	---	44100	29900	35600	18700	42200	30500	---	---
16	---	---	---	---	43900	27600	35700	17800	42600	29900	---	---
17	---	---	---	---	43300	28400	35700	18300	42800	30800	---	---
18	---	---	---	---	41900	28800	36100	17700	43000	30700	---	---
19	---	---	---	---	42000	27100	37300	17900	42500	31000	---	---
20	---	---	---	---	42400	26800	38600	15800	40500	26200	---	---
21	---	---	---	---	39800	26600	39000	19100	40500	29300	---	---
22	---	---	---	---	42100	23700	41400	21700	41500	29900	---	---
23	---	---	---	---	39400	24100	39100	23700	42600	32200	---	---
24	---	---	---	---	41100	24400	40500	25100	42900	31000	---	---
25	---	---	---	---	42200	25600	42100	28000	---	---	---	---
26	---	---	---	---	43000	24000	43800	29500	---	---	---	---
27	---	---	---	---	43000	25700	43500	27900	---	---	43500	30800
28	---	---	---	---	43600	26900	43600	29900	---	---	43800	30800
29	---	---	---	---	43300	26800	43100	29800	---	---	43900	31300
30	---	---	---	---	43800	24300	43300	29400	---	---	44200	31400
31	---	---	---	---	43000	25800	42500	28600	---	---	44400	30800
MONTH	---	---	---	---	---	---	43800	13500	---	---	---	---

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	45100	30800	45300	33200	44400	34900	45700	30400	47700	39300	46500	38800
2	44800	31600	44600	31600	45500	30800	46200	36000	47100	38000	46700	39100
3	44900	31900	44500	31100	44900	33900	46200	36200	47400	37600	46300	39800
4	43900	28400	45100	25800	45600	32700	46200	35600	47900	40400	---	---
5	43600	27100	45100	29000	---	---	46200	36300	47100	40000	47300	40300
6	43500	28200	45500	30600	46500	31100	46000	36400	47300	41700	47300	41000
7	43100	28300	45900	31400	46300	34000	46400	36700	47000	39500	47100	40000
8	43100	30000	45900	32200	46800	34800	46700	36500	47400	37800	46800	39500
9	43400	30800	44600	32100	46700	36700	46700	35900	47300	37900	46800	40000
10	43100	30800	44900	33700	46800	35200	46100	35600	47400	37900	47000	40100
11	42900	32600	44100	33700	47200	35700	46600	36600	46700	38900	47100	39400
12	43300	30400	44500	33100	48000	36400	46800	37200	46600	39400	47000	39400
13	43300	30700	44100	33100	48000	36300	46300	37200	46700	39600	47000	39800
14	43900	30600	43000	33400	47700	38600	46000	37000	47100	39500	46500	40000
15	43800	33800	43700	32100	47000	36600	45800	36900	47100	39900	46400	40100
16	43700	30100	43900	33200	46300	35700	46200	37800	47400	39600	46400	41200
17	43500	32000	44200	33300	45900	36000	46800	36400	47100	39900	---	---
18	43500	31000	44200	35100	46500	36300	47000	37800	47300	39700	46900	40500
19	43400	28700	45200	31000	47000	36000	47400	37600	47500	39700	46800	39500
20	43500	24600	45300	31900	47200	35900	47700	38100	47300	39400	46800	39800
21	44300	29300	44800	32800	47700	37000	47900	38900	47100	39700	46600	39600
22	43800	31100	45300	32100	48200	36700	48000	38700	47000	38900	46800	40100
23	44400	31700	45100	33300	48000	36300	48000	38800	47100	39200	46800	39500
24	44200	33300	45000	34200	47900	36200	47800	38900	46800	38600	46900	40000
25	44700	33500	45100	33900	47600	35200	47200	38700	47200	39200	46900	40300
26	45100	34100	45200	34300	47300	35700	47200	38100	47300	39400	46800	41400
27	45600	35200	45100	33800	---	---	46900	38400	46800	36700	47200	41500
28	46000	33700	44400	34000	46000	36200	46700	39400	46100	39000	47400	41500
29	45500	34000	44200	34100	45400	36000	47500	39200	45700	39600	---	---
30	46100	33600	44400	33600	44700	33600	47100	37700	44800	39200	---	---
31	---	---	43700	33400	---	---	47500	37500	46200	39400	---	---
MONTH	46100	24600	45900	25800	---	---	48000	30400	47900	36700	---	---

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	42800	24200	42100	29800	42000	31100
2	---	---	---	---	---	---	---	---	42200	30600	41900	30200
3	---	---	---	---	---	---	40800	19600	42300	31000	41900	30800
4	---	---	---	---	---	---	39800	15700	42700	30100	41700	31100
5	---	---	---	---	---	---	39700	15700	42800	30400	42000	30700
6	---	---	---	---	---	---	40100	16900	43100	30300	41900	30100
7	---	---	---	---	---	---	40700	17500	43200	30500	41200	28800
8	---	---	---	---	---	---	40900	16600	42900	30900	42100	28200
9	---	---	---	---	---	---	40000	18000	42900	30200	42100	26100
10	---	---	---	---	---	---	39200	16800	42800	30000	41100	27500
11	---	---	---	---	---	---	40300	13900	43200	30300	41900	27800
12	---	---	---	---	43300	29100	40500	15500	43200	30800	41700	26000
13	---	---	---	---	43700	29200	40700	17100	42800	31400	41300	28900
14	---	---	---	---	44200	31000	40000	15700	42800	31000	40900	26200
15	---	---	---	---	44200	29700	39800	19000	42500	30200	41300	27900
16	---	---	---	---	43900	27400	39700	18100	42400	31400	41700	28000
17	---	---	---	---	43400	28200	39400	19300	42600	30800	41800	28000
18	---	---	---	---	43300	29100	39500	19600	43000	32000	42600	27800
19	---	---	---	---	43400	28400	40600	19000	42700	32300	42200	27500
20	---	---	---	---	42600	26500	41600	21300	42100	30000	42900	26300
21	---	---	---	---	41800	28100	40000	27400	43300	29300	43400	29400
22	---	---	---	---	42700	24100	43200	25400	44100	30100	42500	29600
23	---	---	---	---	43700	26400	43100	26700	43100	32000	41700	29800
24	---	---	---	---	44200	26400	43200	26200	43100	30900	43000	29800
25	---	---	---	---	44400	25700	44100	28200	42800	29600	41900	30200
26	---	---	---	---	43900	26300	43900	29300	43500	29600	42600	29600
27	---	---	---	---	43300	27200	43500	29700	42900	29800	42700	30200
28	---	---	---	---	43600	28200	43600	29900	42300	30700	42900	31100
29	---	---	---	---	43300	27300	43200	29700	---	---	42900	30600
30	---	---	---	---	43800	26100	43300	29300	---	---	43100	31000
31	---	---	---	---	43000	25700	42700	28600	---	---	43400	30200
MONTH	---	---	---	---	---	---	---	---	44100	29300	43400	26000
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	43900	30100	44800	32700	44600	37300	46000	34600	47000	39100	---	---
2	43700	30800	44700	31100	44900	35700	46700	36500	47400	38000	---	---
3	43800	31100	44100	31400	44900	36000	46500	36900	47400	38600	---	---
4	43200	30400	43600	28900	44900	34900	46400	36900	47100	40100	---	---
5	42900	27000	43500	30000	---	---	46500	36700	47100	38300	---	---
6	43300	29200	43500	30900	45200	33600	46400	36900	47700	40700	---	---
7	42300	30500	43100	31900	45100	33200	46700	36900	47500	38400	---	---
8	42200	30700	43100	31600	45700	34200	47000	37100	47800	38300	---	---
9	42500	29900	43100	31500	45600	36100	47000	36300	47800	38200	---	---
10	42100	30300	42200	32400	45900	34800	47300	36600	47800	38500	---	---
11	42100	32600	42500	32400	46300	35000	47600	37600	47200	39200	---	---
12	42300	31000	42200	31600	46500	35300	47700	38100	47000	40100	---	---
13	42200	30200	42200	32100	46700	35500	47400	37700	47100	40200	---	---
14	42700	30400	42700	33100	46400	36500	46900	37500	---	---	---	---
15	42900	33800	43000	32200	45200	35900	46500	37000	---	---	---	---
16	43500	29600	43100	33200	45500	34900	46800	37600	---	---	---	---
17	44100	30700	43200	33500	44900	35200	47100	38800	---	---	---	---
18	44000	30000	43800	35100	45400	37400	47300	38200	---	---	---	---
19	44400	30400	43700	31200	45800	36900	47800	37900	---	---	---	---
20	43600	27000	43800	32700	46200	35900	48100	38300	---	---	---	---
21	43100	29000	43600	33300	46700	36400	48200	39200	---	---	---	---
22	43200	30900	44200	36000	46900	36000	48200	39000	---	---	---	---
23	43600	30900	43600	35400	46800	35500	48300	39100	---	---	---	---
24	43400	32500	44400	34700	46900	35600	48100	39400	---	---	---	---
25	43500	33700	44400	34800	47200	36200	47500	39400	---	---	---	---
26	44100	34400	44700	35300	47200	35900	47600	38600	---	---	---	---
27	44500	35000	44400	35400	---	---	47400	38900	---	---	---	---
28	44900	33900	44700	35500	46800	36700	47000	39200	---	---	---	---
29	44700	33200	44800	36400	46400	36400	46800	38800	---	---	---	---
30	45000	32900	45700	35900	45700	34000	46800	37800	---	---	---	---
31	---	---	45000	36400	---	---	47000	38000	---	---	---	---
MONTH	45000	27000	45700	28900	---	---	48300	34600	---	---	---	---

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	11.5	11.0	10.5	9.0	---	---
2	---	---	---	---	---	---	11.5	11.0	10.5	9.0	---	---
3	---	---	---	---	---	---	11.5	10.5	10.5	9.5	---	---
4	---	---	---	---	---	---	11.0	10.5	10.5	9.5	---	---
5	---	---	---	---	---	---	11.0	10.5	10.5	9.5	---	---
6	---	---	---	---	---	---	11.0	10.5	10.5	9.5	---	---
7	---	---	---	---	---	---	11.5	10.5	11.0	10.0	---	---
8	---	---	---	---	---	---	11.5	11.0	11.0	10.0	---	---
9	---	---	---	---	---	---	12.0	11.0	11.5	10.0	---	---
10	---	---	---	---	---	---	11.5	11.0	11.5	10.5	---	---
11	---	---	---	---	---	---	11.5	11.0	11.5	10.5	---	---
12	---	---	---	---	12.0	11.0	11.5	11.0	12.0	10.5	---	---
13	---	---	---	---	12.0	11.0	11.5	11.0	11.0	11.0	---	---
14	---	---	---	---	12.0	10.0	11.5	11.0	12.0	10.5	---	---
15	---	---	---	---	11.5	9.5	11.5	10.0	12.0	11.0	---	---
16	---	---	---	---	11.5	10.0	11.5	10.0	11.5	11.0	---	---
17	---	---	---	---	11.5	10.5	11.0	10.0	11.5	11.0	---	---
18	---	---	---	---	11.5	10.0	11.0	10.0	11.5	11.0	---	---
19	---	---	---	---	11.5	10.5	11.0	9.5	11.5	11.0	---	---
20	---	---	---	---	11.0	10.5	11.0	9.5	12.5	11.0	---	---
21	---	---	---	---	11.0	10.0	11.0	10.0	13.5	11.5	---	---
22	---	---	---	---	11.0	10.5	11.0	9.0	14.0	11.5	---	---
23	---	---	---	---	11.0	10.5	11.0	8.5	13.5	11.5	---	---
24	---	---	---	---	11.0	10.0	11.0	9.5	14.0	11.5	---	---
25	---	---	---	---	11.0	10.0	11.0	10.0	14.0	12.0	---	---
26	---	---	---	---	11.0	10.0	11.0	10.0	---	---	---	---
27	---	---	---	---	11.0	10.0	10.5	9.5	---	---	15.0	12.0
28	---	---	---	---	11.0	10.0	10.5	9.0	---	---	15.5	12.5
29	---	---	---	---	11.0	10.0	10.5	9.0	---	---	15.5	12.5
30	---	---	---	---	11.0	10.5	10.5	8.5	---	---	16.0	12.5
31	---	---	---	---	11.5	10.5	10.5	9.0	---	---	15.5	13.0
MONTH	---	---	---	---	---	---	12.0	8.5	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	13.0	15.5	13.0	18.5	15.5	20.5	16.0	19.5	17.0	20.0	17.0
2	15.0	13.0	15.5	13.5	19.0	15.0	19.0	15.5	19.5	17.0	20.0	17.0
3	15.0	13.0	16.0	13.5	18.5	15.5	19.5	15.5	19.5	17.0	20.5	17.0
4	14.5	13.0	16.5	13.5	19.5	15.0	19.0	15.5	19.0	17.5	---	---
5	14.5	13.0	17.5	13.5	---	---	18.5	15.5	20.5	17.5	20.0	17.0
6	16.0	13.0	17.0	13.5	---	---	18.5	16.0	20.0	17.5	20.0	16.5
7	16.0	13.5	17.0	13.5	---	---	19.5	16.0	21.0	17.5	20.0	17.0
8	15.0	13.5	17.0	13.5	---	---	20.5	15.5	21.5	17.5	20.5	17.0
9	14.5	13.5	17.0	14.0	---	---	21.0	15.5	22.0	17.5	20.5	17.0
10	16.5	13.5	17.0	13.5	---	---	21.0	16.0	21.0	17.0	20.5	17.0
11	17.0	14.0	17.5	13.5	---	---	20.5	15.5	21.0	17.5	19.5	17.0
12	18.0	14.0	17.5	13.5	---	---	20.0	15.5	21.0	17.5	19.0	17.0
13	17.5	14.0	17.0	13.5	---	---	20.5	15.5	20.0	17.5	19.0	16.5
14	17.5	14.5	16.5	14.0	---	---	20.0	16.0	20.5	17.5	19.0	17.0
15	16.0	13.5	16.5	13.5	---	---	19.5	16.5	20.0	17.5	19.5	17.0
16	15.0	14.0	16.5	14.0	---	---	18.5	16.0	20.0	17.0	19.0	17.0
17	15.0	13.0	16.5	14.0	---	---	19.5	16.0	20.0	17.5	---	---
18	15.0	13.5	17.0	14.0	---	---	19.0	16.0	20.0	17.0	20.0	17.0
19	15.5	13.0	16.5	14.0	---	---	18.5	15.5	19.5	17.0	20.5	17.0
20	16.0	13.0	16.5	14.0	---	---	19.0	15.5	20.0	17.0	20.5	17.0
21	16.0	13.0	17.0	14.0	---	---	18.5	15.5	20.0	17.0	20.5	17.0
22	18.0	13.5	18.0	14.0	---	---	19.5	15.5	19.0	17.0	20.5	17.0
23	18.0	13.0	18.0	14.0	---	---	19.5	15.5	19.0	16.5	20.5	17.0
24	17.0	13.5	18.5	14.0	---	---	20.5	16.0	19.0	17.0	20.0	17.0
25	17.0	13.5	18.0	14.0	---	---	20.0	16.5	19.0	17.0	19.5	17.0
26	17.5	13.5	17.5	14.0	---	---	20.0	16.5	19.5	16.5	19.0	17.0
27	16.5	13.5	17.5	14.0	---	---	19.0	16.5	20.0	16.5	19.0	17.0
28	16.0	13.5	18.0	14.5	18.0	15.0	19.5	17.0	19.0	16.5	19.0	17.0
29	16.0	13.5	18.5	14.5	18.5	15.5	19.5	17.0	19.5	16.5	---	---
30	15.0	13.0	19.5	14.5	20.0	16.0	19.5	17.0	19.5	17.0	---	---
31	---	---	18.5	15.5	---	---	20.0	17.0	19.5	17.0	---	---
MONTH	18.0	13.0	19.5	13.0	---	---	21.0	15.5	22.0	16.5	---	---

11181360 SAN PABLO STRAIT AT POINT SAN PABLO, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(LOWER PROBE)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	11.5	11.0	10.5	9.0	13.5	12.0
2	---	---	---	---	---	---	---	---	10.5	9.5	13.5	12.0
3	---	---	---	---	---	---	11.5	11.0	10.5	9.5	14.0	12.5
4	---	---	---	---	---	---	11.0	10.5	10.5	9.5	14.0	12.5
5	---	---	---	---	---	---	11.0	10.5	10.5	10.0	13.5	12.5
6	---	---	---	---	---	---	11.0	10.5	10.5	10.0	13.5	12.5
7	---	---	---	---	---	---	11.5	10.5	11.0	10.5	13.5	12.5
8	---	---	---	---	---	---	11.5	11.0	11.0	10.0	13.0	11.0
9	---	---	---	---	---	---	12.0	11.0	11.5	10.5	13.0	12.0
10	---	---	---	---	---	---	11.5	11.0	11.5	10.5	14.0	12.0
11	---	---	---	---	---	---	11.5	11.0	11.5	10.5	14.0	12.0
12	---	---	---	---	12.0	11.0	11.5	11.0	12.0	10.5	14.0	12.5
13	---	---	---	---	12.0	11.0	11.5	11.0	11.0	11.0	13.0	12.5
14	---	---	---	---	12.0	10.5	11.5	11.0	12.0	10.5	13.0	11.0
15	---	---	---	---	11.5	10.0	11.5	10.5	12.0	11.0	13.5	11.5
16	---	---	---	---	11.5	10.0	11.5	10.5	11.5	11.0	12.5	11.0
17	---	---	---	---	11.5	10.5	11.5	10.5	11.5	11.0	12.0	11.0
18	---	---	---	---	11.5	10.5	11.5	10.5	11.5	11.0	12.5	9.0
19	---	---	---	---	11.5	10.5	11.0	10.0	11.5	11.0	12.0	11.0
20	---	---	---	---	11.0	10.5	11.0	10.0	12.0	11.0	12.5	11.0
21	---	---	---	---	11.0	10.5	11.0	10.5	13.0	11.0	12.5	11.0
22	---	---	---	---	11.0	10.5	11.5	9.5	13.5	11.5	12.5	11.0
23	---	---	---	---	11.0	10.5	11.0	9.0	13.0	11.5	13.0	11.5
24	---	---	---	---	11.0	10.5	11.0	9.5	13.5	11.5	13.5	11.5
25	---	---	---	---	11.0	10.0	11.0	10.0	14.0	12.0	13.5	11.5
26	---	---	---	---	11.0	10.0	11.0	10.0	14.0	12.0	---	---
27	---	---	---	---	11.0	10.0	10.5	10.0	14.0	12.0	15.0	12.0
28	---	---	---	---	11.0	10.0	10.5	9.0	14.5	12.5	15.5	12.0
29	---	---	---	---	11.0	10.0	10.5	9.0	---	---	15.5	12.5
30	---	---	---	---	11.0	10.5	10.5	9.0	---	---	15.5	12.5
31	---	---	---	---	11.5	10.5	10.5	9.0	---	---	15.0	12.5
MONTH	---	---	---	---	---	---	---	---	14.5	9.0	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	12.5	15.0	13.0	18.0	15.5	20.5	16.0	19.5	17.0	---	---
2	15.0	12.5	15.5	13.0	18.0	15.0	19.0	15.5	19.5	17.0	---	---
3	15.0	13.0	16.0	13.0	17.5	15.0	19.0	15.5	19.0	17.0	---	---
4	14.0	13.0	16.0	13.0	18.5	14.5	18.5	15.5	19.0	17.0	---	---
5	14.5	13.0	16.5	13.5	---	---	18.0	15.5	19.5	17.5	---	---
6	16.0	13.0	16.5	13.5	---	---	18.0	16.0	19.0	17.0	---	---
7	16.0	13.0	16.5	13.5	---	---	18.5	16.0	19.5	17.5	---	---
8	15.0	13.5	17.0	13.5	---	---	19.0	15.5	21.0	17.0	---	---
9	14.5	13.5	16.5	13.5	---	---	20.0	15.5	21.0	17.0	---	---
10	16.0	13.5	16.0	13.5	---	---	20.5	15.5	20.5	17.0	---	---
11	16.0	13.5	16.0	13.5	---	---	20.0	15.5	20.5	17.5	---	---
12	17.0	14.0	16.5	13.5	---	---	20.0	15.5	20.5	17.5	---	---
13	17.0	14.0	16.5	13.5	---	---	20.0	15.5	20.0	17.5	---	---
14	16.5	14.5	16.0	13.5	---	---	19.5	16.0	---	---	---	---
15	16.0	13.5	16.5	13.5	---	---	19.5	16.5	---	---	---	---
16	15.0	13.5	16.5	13.5	---	---	18.5	16.0	---	---	---	---
17	15.0	13.0	16.5	13.5	---	---	19.0	16.0	---	---	---	---
18	14.5	13.0	16.5	13.5	---	---	18.5	16.0	---	---	---	---
19	14.5	12.5	16.5	13.5	---	---	18.5	15.5	---	---	---	---
20	15.5	13.0	16.5	14.0	---	---	18.5	15.5	---	---	---	---
21	16.0	13.0	17.0	14.0	---	---	18.5	15.5	---	---	---	---
22	17.0	13.0	17.0	13.5	---	---	19.0	15.5	---	---	---	---
23	17.5	13.0	17.0	14.0	---	---	19.0	15.5	---	---	---	---
24	17.0	13.0	17.5	14.0	---	---	19.5	15.5	---	---	---	---
25	16.5	13.5	17.5	14.0	---	---	19.5	16.5	---	---	---	---
26	16.5	13.5	17.5	14.0	---	---	19.0	16.5	---	---	---	---
27	16.0	13.5	17.0	14.0	---	---	19.0	16.5	---	---	---	---
28	16.0	13.5	17.5	14.0	18.0	15.0	19.5	17.0	---	---	---	---
29	15.5	13.0	18.5	14.5	18.5	15.0	19.0	17.0	---	---	---	---
30	15.0	13.0	18.5	14.5	20.0	15.5	19.5	17.0	---	---	---	---
31	---	---	18.0	15.5	---	---	19.5	17.0	---	---	---	---
MONTH	17.5	12.5	18.5	13.0	---	---	20.5	15.5	---	---	---	---

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 mi².

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 sea level, from topographic map.

REMARKS.—Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,600 ft³/s, Oct. 13, 1962, gage height, 16.98 ft, from rating curve extended above 200 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 30	2045	132	3.26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.01	1.4	10	1.6	2.1	2.9	1.5	0.79	0.26	0.05	0.02
2	0.00	0.01	20	25	1.6	2.0	2.8	1.5	0.81	0.23	0.05	0.02
3	0.00	0.00	1.6	13	1.6	2.0	2.7	1.5	0.83	0.22	0.07	0.02
4	0.00	0.01	0.58	8.7	1.5	2.0	2.6	1.4	0.80	0.23	0.07	0.03
5	0.00	0.02	1.2	7.0	1.4	2.0	2.5	1.3	0.73	0.24	0.07	0.03
6	0.00	0.03	2.2	6.0	1.4	9.8	2.5	1.2	0.69	0.23	0.07	0.03
7	0.00	0.02	0.70	5.2	5.3	16	2.3	1.2	0.65	0.23	0.06	0.03
8	0.00	0.01	0.47	4.7	4.1	5.7	2.1	1.1	0.64	0.25	0.05	0.02
9	0.00	0.01	0.42	4.3	2.2	4.1	2.0	1.1	0.63	0.22	0.03	0.02
10	0.00	0.06	0.37	3.7	1.9	9.6	2.0	1.1	0.60	0.15	0.02	0.02
11	0.00	0.01	0.32	3.2	1.7	5.0	1.8	0.97	0.59	0.09	0.02	0.02
12	0.00	1.2	0.28	3.1	1.7	4.4	1.8	0.94	1.1	0.07	0.03	0.03
13	0.00	0.17	0.47	2.9	1.6	3.8	1.7	0.87	0.55	0.06	0.03	0.03
14	0.00	0.04	7.2	2.7	1.6	3.5	1.7	0.86	0.55	0.06	0.04	0.03
15	0.00	0.03	0.98	2.5	1.5	3.3	1.6	0.84	0.55	0.11	0.03	0.02
16	0.00	0.03	0.68	2.3	2.0	3.0	1.8	0.80	0.52	0.15	0.03	0.03
17	0.00	0.03	3.3	2.2	5.3	6.2	2.5	0.80	0.49	0.16	0.03	0.03
18	0.00	0.03	1.2	2.1	2.5	3.8	1.8	0.78	0.47	0.16	0.03	0.04
19	0.00	0.03	0.87	2.0	5.0	3.1	1.7	1.3	0.43	0.14	0.03	0.04
20	0.00	0.04	9.2	2.0	6.1	2.9	1.6	2.2	0.42	0.11	0.04	0.03
21	0.00	0.15	7.2	2.3	3.4	2.9	1.6	2.2	0.45	0.09	0.03	0.03
22	0.00	0.12	7.0	2.2	2.9	3.3	1.5	1.1	0.47	0.09	0.03	0.03
23	0.00	0.10	3.7	1.9	2.7	20	1.4	0.95	0.44	0.10	0.03	0.03
24	0.00	2.7	2.3	1.8	2.6	5.6	1.4	0.87	0.39	0.08	0.03	0.03
25	0.00	0.71	1.9	1.7	2.4	4.6	1.5	0.81	0.34	0.08	0.03	0.03
26	0.00	0.21	1.6	2.9	2.3	4.1	1.6	0.77	0.32	0.09	0.04	0.03
27	0.00	0.13	1.5	2.3	2.3	3.7	1.5	0.80	0.32	0.07	0.03	0.04
28	0.00	0.41	19	2.1	2.2	3.3	1.5	0.76	0.33	0.05	0.03	0.04
29	0.00	2.2	37	2.1	---	3.1	1.5	0.80	0.33	0.07	0.03	0.03
30	0.17	0.46	35	1.8	---	3.1	1.5	0.83	0.30	0.08	0.03	0.03
31	0.01	---	23	1.7	---	2.9	---	0.77	---	0.06	0.03	---
TOTAL	0.18	8.98	192.64	135.4	72.4	150.9	57.4	33.92	16.53	4.23	1.19	0.86
MEAN	0.006	0.299	6.214	4.368	2.586	4.868	1.913	1.094	0.551	0.136	0.038	0.029
MAX	0.17	2.7	37	25	6.1	20	2.9	2.2	1.1	0.26	0.07	0.04
MIN	0.00	0.00	0.28	1.7	1.4	2.0	1.4	0.76	0.30	0.05	0.02	0.02
AC-FT	0.4	18	382	269	144	299	114	67	33	8.4	2.4	1.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

MEAN	0.466	0.615	3.297	9.101	10.67	7.750	4.672	1.386	0.548	0.214	0.089	0.058
MAX (WY)	17.0	5.49	27.2	42.3	67.2	60.6	44.9	4.92	1.99	0.83	0.42	0.33
MIN (WY)	0.000	0.000	0.001	0.002	0.039	0.17	0.016	0.000	0.000	0.000	0.000	0.000
	1963	1984	1956	1997	1998	1983	1958	1967	1967	1958	1998	1982
	1953	1956	1977	1991	1991	1977	1977	1977	1976	1955	1954	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1953 - 2002
ANNUAL TOTAL	403.58	674.63	
ANNUAL MEAN	1.106	1.848	3.202
HIGHEST ANNUAL MEAN			12.4
LOWEST ANNUAL MEAN			0.029
HIGHEST DAILY MEAN	37	Dec 29	411
LOWEST DAILY MEAN	0.00	Sep 14	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 14	0.00
MAXIMUM PEAK FLOW			132
MAXIMUM PEAK STAGE			3.26
ANNUAL RUNOFF (AC-FT)	801	1340	2320
10 PERCENT EXCEEDS	2.1	3.8	6.5
50 PERCENT EXCEEDS	0.18	0.71	0.30
90 PERCENT EXCEEDS	0.00	0.01	0.00

11455780 SUISUN BAY AT BENICIA BRIDGE, NEAR BENICIA, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	24600	6270	24700	7610	23800	6790	---	---	32000	18200	33800	18900
2	25600	7540	23000	7360	20100	5860	---	---	33300	17700	34300	19300
3	23600	6680	22500	6400	22500	6720	29500	14100	34000	18700	---	---
4	22300	5430	21800	5360	23200	6820	27300	12800	32900	18000	35900	20900
5	21100	5350	22700	6110	25800	8170	---	---	34000	16600	35500	20700
6	22500	6590	24700	8110	28700	10200	29300	14000	33600	17700	35100	20100
7	22000	6900	25100	8660	28800	11800	---	---	33200	17000	35100	20400
8	22100	7990	25200	9500	29000	12800	---	---	35000	17100	33700	19400
9	22800	7170	24600	10000	28800	12400	---	---	34500	17000	32000	19000
10	21600	7890	26500	10900	29300	12700	34100	16100	34300	17800	33200	19300
11	22400	8280	26800	9150	30800	14200	35200	17700	34000	18300	35100	19300
12	23400	7370	27400	9180	32500	15800	---	---	32500	18400	35400	20400
13	23400	7380	27100	9880	33000	15300	34200	17900	32800	18900	35700	21100
14	23300	7640	26700	10200	31600	14100	33100	17200	34000	19100	35100	21200
15	27200	9090	28100	10600	30000	13400	30200	16700	34600	19900	35900	20900
16	21200	6520	27800	10400	28700	13000	31400	16600	35100	19900	34400	20500
17	23100	7000	27400	10300	27300	12400	31600	16900	34500	19500	35000	19900
18	20800	5120	26700	10200	28700	13100	---	---	35000	18900	---	---
19	23200	4530	25000	8520	30800	13700	33300	17700	35200	19300	---	---
20	25300	5420	24400	9230	31400	14100	34300	18400	35200	18700	34700	20400
21	23700	5380	23200	8150	31000	14300	34200	19500	34600	17800	34300	21000
22	22000	5710	23500	8030	---	---	---	---	34300	18500	---	---
23	23100	6710	23700	8000	---	---	34800	18200	34100	17700	31700	19800
24	25400	8920	24900	7120	33000	14600	33400	17700	32300	17300	32700	20700
25	25100	9140	26200	8130	---	---	---	---	31800	17400	---	---
26	26800	8250	26000	7680	---	---	31800	17000	29900	17300	35200	21100
27	27400	8980	26100	7300	---	---	33600	17900	31600	17600	35300	22300
28	27000	7810	---	---	31100	13900	---	---	35100	18600	35000	20700
29	27100	8440	25900	6110	30000	13200	---	---	33600	22300	33000	19200
30	25700	8500	23200	6320	---	---	---	---	33800	20700	34000	20100
31	---	---	24700	7060	---	---	---	---	33800	19900	---	---
MONTH	27400	4530	---	---	---	---	---	---	35200	16600	---	---

11455780 SUISUN BAY AT BENICIA BRIDGE, NEAR BENICIA, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(LOWER SENSOR)

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
1	34700	23100	34600	20800	33700	17300	---	---	---	---	23000	8240
2	34900	25500	35300	20400	34100	16900	---	---	21800	7010	22700	8600
3	35500	26200	35900	21400	29400	13900	---	---	22700	7980	24100	7810
4	36300	25500	35700	21600	26000	11800	---	---	24600	8630	24400	7610
5	36500	24500	---	---	25200	9950	---	---	26700	9640	25900	9070
6	36100	23600	37200	21700	22500	8550	---	---	28000	9870	27800	9230
7	36800	24000	36000	21700	21000	6900	---	---	28900	10900	27200	9790
8	37100	22700	36000	20500	24000	5860	---	---	26700	9680	23500	7090
9	37600	22300	35300	20900	23900	8980	---	---	26700	9380	26700	6430
10	37400	21500	34900	21300	23400	8090	---	---	27100	8860	24800	5700
11	---	---	34500	24200	23400	6570	---	---	27200	9140	22300	4820
12	35800	21700	35600	23600	24700	6400	---	---	27900	10200	21800	4560
13	35900	21300	34200	21100	---	---	---	---	26800	10400	17800	3550
14	36000	22000	34600	20900	---	---	---	---	26500	12000	17100	2430
15	35400	23600	35500	21200	---	---	---	---	25700	11900	18100	4190
16	36100	24100	35700	21200	---	---	---	---	25500	12700	18700	4500
17	36700	23600	35200	20700	---	---	---	---	27300	14400	18700	2910
18	36600	22600	35700	20400	---	---	---	---	28000	16600	22000	3750
19	36900	22800	36400	20300	---	---	---	---	30500	14700	25500	4900
20	37300	22800	35800	20200	---	---	---	---	30000	12200	31200	7520
21	37500	23000	35500	20200	---	---	---	---	30200	11400	33200	10100
22	36900	22800	33200	20900	---	---	---	---	31200	11800	30900	11400
23	36100	21800	32200	21100	---	---	---	---	28800	10900	29300	10900
24	35100	20800	35600	23300	---	---	---	---	26600	9250	26000	9560
25	35200	20800	32600	23100	---	---	---	---	27100	8370	25500	8140
26	35300	22800	32300	20600	---	---	---	---	25900	7790	25200	6920
27	35000	24000	31600	19300	---	---	---	---	26200	7890	23700	6400
28	---	---	32400	19000	---	---	---	---	25600	7840	22800	7590
29	33300	23700	33900	19000	---	---	---	---	---	---	22500	7680
30	34800	23100	32300	17700	---	---	---	---	---	---	23000	6730
31	---	---	---	---	---	---	---	---	---	---	23800	6380
MONTH	---	---	---	---	---	---	---	---	---	---	33200	2430
1	25100	7010	27600	8240	28500	7580	---	---	34800	24200	---	---
2	26200	8050	28600	7460	25000	7800	31300	19300	34500	21500	---	---
3	25600	7760	27300	7280	27000	11600	31000	20100	34100	22700	---	---
4	25800	6650	26800	6460	27600	12400	31300	20000	---	---	35500	21900
5	26600	6270	28800	8590	31400	15300	31500	18400	34700	18600	35100	21300
6	28400	7800	27000	11500	31300	16500	31900	18300	---	---	34700	21100
7	26200	9280	26200	12700	31100	17100	32300	17000	---	---	34600	20500
8	25800	10200	26700	13200	29900	15400	32600	16200	35100	17900	33300	20000
9	24200	9730	28000	14300	29300	13900	33600	16400	34700	17900	32100	20400
10	22300	10000	26600	13600	31300	13900	34600	17100	34700	17900	33300	21200
11	23500	10500	26400	10200	33200	15200	34600	18000	---	---	34700	21200
12	23700	9820	28500	10600	32900	16700	34500	18800	---	---	35100	22000
13	24800	9700	29200	10200	32800	16300	33700	18500	---	---	35700	23100
14	25700	10300	28600	10300	32200	15200	33700	17700	33800	21800	36100	22700
15	27000	10300	30800	11200	32100	14000	32700	17500	34700	21900	35900	22300
16	24800	8070	30800	11400	30600	13300	31300	18400	35300	21300	35200	22000
17	26100	7770	30800	10100	30000	12900	31400	19400	36400	21600	35100	21300
18	24700	6800	30000	10500	28400	13700	32100	20700	---	---	35100	21800
19	27800	5720	28400	9470	30100	16200	33400	19400	---	---	34700	22000
20	31900	7080	29000	9380	31000	18300	34400	19000	---	---	34900	22300
21	28300	7400	24500	8850	31300	15800	34500	20200	36100	19700	34300	24000
22	27700	6850	24400	9230	31500	14500	34600	19800	35400	19400	33500	23400
23	27000	8690	24600	9030	31400	14700	35600	19900	35500	19100	32700	23400
24	25800	10900	25700	8170	32600	14700	35400	19300	35400	19000	33500	24100
25	25900	12100	26900	8350	32500	15500	34700	18400	---	---	34500	24800
26	27200	10900	27500	7900	32700	15900	34700	18600	---	---	35500	24900
27	27500	9670	27900	7640	32900	14700	35100	19200	---	---	---	---
28	27300	8920	---	---	33300	14400	34600	19800	---	---	36000	22900
29	27200	9030	28100	7310	32600	13900	33000	18400	---	---	---	---
30	27800	8650	28900	6800	30500	13100	33600	19000	---	---	---	---
31	---	---	28800	7140	---	---	33900	21100	---	---	---	---
MONTH	31900	5720	---	---	33300	7580	---	---	---	---	---	---

11455780 SUISUN BAY AT BENICIA BRIDGE, NEAR BENICIA, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	18.5	17.5	16.5	13.5	12.5	---	---	---	---	---	---
2	19.5	18.5	17.5	16.5	13.5	12.5	---	---	---	---	---	---
3	19.0	18.5	17.5	16.5	13.0	12.5	---	---	---	---	---	---
4	19.0	18.5	18.0	16.5	12.5	12.0	---	---	---	---	---	---
5	18.5	18.0	17.5	16.5	12.5	12.0	---	---	---	---	---	---
6	18.5	17.5	17.0	16.5	12.0	12.0	---	---	---	---	---	---
7	18.5	17.5	17.0	16.5	12.5	12.0	---	---	---	---	---	---
8	18.5	17.5	17.0	16.5	12.0	11.5	---	---	---	---	---	---
9	19.0	17.5	17.0	16.0	12.0	11.0	---	---	---	---	---	---
10	19.5	17.5	16.5	16.0	12.0	11.0	---	---	---	---	---	---
11	---	---	16.5	16.0	12.0	10.5	---	---	---	---	---	---
12	19.5	18.0	16.5	16.0	12.0	10.5	---	---	---	---	---	---
13	19.5	18.0	16.0	15.5	---	---	---	---	---	---	---	---
14	20.0	18.0	16.5	16.0	---	---	---	---	---	---	---	---
15	19.5	18.5	16.5	16.0	---	---	---	---	---	---	---	---
16	19.0	18.5	16.5	16.0	---	---	---	---	---	---	---	---
17	18.5	18.0	16.5	16.0	---	---	---	---	---	---	---	---
18	19.0	17.5	16.5	15.5	---	---	---	---	---	---	---	---
19	18.5	17.5	16.0	16.0	---	---	---	---	---	---	---	---
20	18.5	17.5	16.5	16.0	---	---	---	---	---	---	---	---
21	18.0	17.0	16.0	16.0	---	---	---	---	---	---	---	---
22	18.0	17.0	16.5	16.0	---	---	---	---	---	---	---	---
23	18.5	17.0	16.0	15.0	---	---	---	---	---	---	---	---
24	18.5	17.0	15.5	14.5	---	---	---	---	---	---	---	---
25	18.5	17.0	15.0	14.0	---	---	---	---	---	---	---	---
26	18.5	17.0	15.0	14.0	---	---	---	---	---	---	15.0	12.5
27	17.5	17.0	15.0	14.0	---	---	---	---	---	---	15.0	13.0
28	17.5	17.0	14.5	13.5	---	---	---	---	---	---	15.0	13.5
29	17.5	17.0	14.0	13.0	---	---	---	---	---	---	15.0	13.5
30	17.5	17.0	14.0	12.5	---	---	---	---	---	---	15.0	14.0
31	18.0	16.5	---	---	---	---	---	---	---	---	15.5	14.0
MONTH	---	---	18.0	12.5	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	14.5	16.0	15.0	20.5	18.5	---	---	21.0	19.5	21.0	19.5
2	16.0	14.5	16.0	14.5	20.0	18.5	---	---	21.0	20.0	21.5	20.0
3	15.5	15.0	16.0	15.0	20.0	18.5	21.5	19.5	20.0	19.5	---	---
4	15.0	14.5	16.5	15.0	21.0	18.5	21.5	19.5	21.0	19.0	20.5	19.5
5	15.5	14.5	17.5	15.5	22.0	19.0	21.5	19.5	20.0	19.0	20.5	19.5
6	16.0	14.5	17.5	15.5	21.5	19.0	21.0	19.5	20.5	19.0	20.0	19.0
7	17.0	14.5	18.0	15.5	21.0	19.0	20.5	19.5	20.5	19.0	20.0	19.0
8	16.5	15.0	18.5	16.0	21.0	19.0	21.5	19.5	21.0	19.5	20.0	19.0
9	16.0	15.0	17.5	16.0	20.5	19.0	---	---	21.5	20.0	20.0	19.0
10	16.5	15.0	17.5	16.0	21.0	19.0	22.0	20.0	21.5	20.0	20.5	19.0
11	16.5	15.5	18.0	16.0	21.0	19.0	22.0	20.0	21.5	20.5	21.0	19.5
12	16.5	15.5	17.5	16.0	20.5	19.0	22.0	20.5	21.0	20.0	20.5	19.5
13	18.0	15.5	17.5	16.0	20.0	18.5	22.0	20.0	21.0	20.0	20.0	19.5
14	17.5	16.0	17.5	16.0	20.0	18.5	22.0	20.0	21.0	20.0	20.0	19.0
15	17.0	15.5	18.0	16.5	20.0	18.0	21.5	20.0	21.0	20.0	20.0	19.0
16	16.5	15.0	18.5	16.5	19.5	18.5	21.5	20.0	21.0	20.0	20.5	19.0
17	16.0	15.0	18.0	16.5	19.5	18.5	21.5	20.0	21.0	19.5	20.0	19.0
18	16.0	14.5	18.0	17.0	20.0	18.5	21.5	20.0	20.5	19.5	20.5	19.0
19	16.0	14.5	17.5	16.0	21.0	19.0	22.0	20.0	20.0	19.0	21.0	19.5
20	16.5	15.0	17.5	16.5	21.0	19.0	21.5	19.5	19.5	18.5	21.0	19.5
21	17.0	15.0	18.0	16.5	20.5	19.0	20.5	19.5	20.0	18.5	20.5	19.5
22	18.0	15.5	19.0	16.5	20.0	19.0	---	---	20.0	18.5	21.0	20.0
23	19.0	15.5	19.0	16.0	---	---	20.5	19.0	19.5	18.5	20.5	20.0
24	17.5	16.0	19.0	16.5	20.0	18.5	20.5	19.0	19.5	18.0	20.5	20.0
25	17.0	16.0	18.5	17.0	---	---	20.5	19.0	19.5	18.0	20.5	20.0
26	16.5	16.0	18.5	17.0	---	---	20.5	19.0	19.5	18.5	20.5	19.5
27	16.5	15.5	18.5	17.0	---	---	20.5	19.0	20.0	18.5	20.0	19.0
28	16.0	14.5	---	---	20.5	18.5	20.0	19.0	20.0	19.0	19.5	19.0
29	16.0	15.0	20.0	17.5	20.5	18.5	20.5	19.0	20.0	19.0	20.0	18.5
30	15.5	14.5	20.5	18.5	---	---	---	---	20.0	19.0	20.0	18.5
31	---	---	21.0	18.5	---	---	---	---	20.5	19.5	---	---
MONTH	19.0	14.5	---	---	---	---	---	---	21.5	18.0	---	---

11455780 SUISUN BAY AT BENICIA BRIDGE, NEAR BENICIA, CA—Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(LOWER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	19.0	17.5	17.0	13.5	12.5	---	---	---	---	13.5	13.0
2	19.5	19.0	17.5	17.0	13.5	12.5	---	---	9.5	8.5	13.5	13.0
3	19.5	19.0	17.5	17.0	13.0	12.5	---	---	9.5	9.0	13.5	13.0
4	19.0	18.5	17.5	17.0	12.5	12.0	---	---	9.5	9.0	13.5	13.0
5	19.0	18.0	17.0	16.5	12.5	12.0	---	---	10.0	9.5	13.5	13.5
6	18.5	18.0	17.0	16.5	12.5	11.5	---	---	10.0	9.5	14.0	13.5
7	18.5	18.0	16.5	16.5	12.0	12.0	---	---	10.0	9.5	13.5	13.5
8	18.5	18.0	16.5	16.0	12.0	11.5	---	---	10.5	10.0	13.5	13.0
9	18.0	18.0	16.5	16.0	12.0	11.5	---	---	10.5	10.0	13.5	13.0
10	18.0	18.0	16.5	16.0	12.0	11.0	---	---	10.5	10.0	13.5	13.0
11	18.5	18.0	16.5	16.0	11.5	11.0	---	---	10.5	10.0	13.5	13.0
12	18.5	18.0	16.5	16.0	11.5	10.5	---	---	11.0	10.5	13.5	13.0
13	18.5	18.0	16.0	16.0	---	---	---	---	11.0	10.5	13.5	13.0
14	19.0	18.0	16.0	16.0	---	---	---	---	11.0	10.5	13.0	12.5
15	19.0	18.5	16.0	16.0	---	---	---	---	11.0	11.0	13.0	12.0
16	18.5	18.5	16.0	16.0	---	---	---	---	11.5	11.0	13.0	12.0
17	18.5	18.0	16.0	16.0	---	---	---	---	11.5	11.0	12.5	11.5
18	18.5	18.0	16.0	15.5	---	---	---	---	11.5	11.0	12.5	11.5
19	18.5	18.0	16.0	15.5	---	---	---	---	11.5	11.0	12.0	11.5
20	18.5	18.0	16.0	15.5	---	---	---	---	11.5	11.5	12.0	12.0
21	18.0	17.0	16.0	15.5	---	---	---	---	12.5	11.5	13.0	12.0
22	17.5	17.0	16.0	15.5	---	---	---	---	12.5	12.0	12.5	12.5
23	17.5	17.0	16.0	15.5	---	---	---	---	13.0	12.5	13.0	12.5
24	17.5	17.0	15.5	15.0	---	---	---	---	13.0	12.5	13.5	12.5
25	17.5	17.0	15.5	14.5	---	---	---	---	13.0	12.5	13.5	12.5
26	17.5	17.0	15.0	14.0	---	---	---	---	13.5	13.0	14.0	13.0
27	17.5	17.0	14.5	14.0	---	---	---	---	13.5	13.0	14.0	13.0
28	17.0	17.0	14.5	13.5	---	---	---	---	13.5	13.0	14.5	13.5
29	17.0	17.0	14.0	13.0	---	---	---	---	---	---	14.5	14.0
30	17.0	17.0	13.5	13.0	---	---	---	---	---	---	15.0	14.0
31	17.5	17.0	---	---	---	---	---	---	---	---	15.0	14.0
MONTH	19.5	17.0	17.5	13.0	---	---	---	---	---	---	15.0	11.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.5	15.5	15.0	20.0	19.0	21.5	20.0	20.0	19.5	---	---
2	15.5	15.0	16.0	15.0	19.5	19.0	21.0	20.0	20.0	19.5	---	---
3	15.0	15.0	16.0	15.0	19.0	18.5	20.5	20.0	20.0	19.5	---	---
4	15.0	14.5	16.5	15.5	19.5	18.5	20.5	20.0	19.5	19.0	20.5	20.0
5	15.0	14.5	17.0	15.5	19.5	18.0	20.5	19.5	19.5	19.5	20.0	19.5
6	15.5	14.5	16.5	15.5	19.5	18.5	20.5	19.5	20.0	19.0	20.0	19.0
7	16.0	14.5	17.0	16.0	20.0	18.5	20.5	20.0	20.0	19.0	19.5	19.0
8	16.0	15.0	17.0	16.0	20.0	19.0	20.5	20.0	20.0	19.5	20.0	19.0
9	15.5	15.0	17.0	16.0	19.5	19.0	21.0	20.0	20.5	20.0	20.0	19.0
10	16.0	15.0	16.5	16.0	20.0	19.0	21.5	20.5	21.0	20.0	20.0	19.5
11	16.0	15.5	17.0	16.0	20.0	19.0	21.5	20.5	21.0	20.5	20.0	20.0
12	16.5	15.5	17.0	16.5	19.5	19.0	21.5	20.5	21.0	20.0	20.0	19.5
13	16.5	15.5	17.0	16.5	19.5	18.5	21.5	20.5	21.0	20.0	20.0	19.5
14	17.0	16.0	17.0	16.5	19.5	18.5	21.5	21.0	21.0	20.5	19.5	19.0
15	16.5	15.5	17.5	16.5	19.5	18.5	21.5	21.0	21.0	20.5	19.5	19.0
16	16.5	15.5	17.5	17.0	19.5	18.5	21.0	20.5	20.5	20.0	19.5	19.0
17	16.0	15.0	18.0	17.0	19.5	19.0	21.0	20.0	20.5	19.5	19.5	19.0
18	16.0	15.0	17.5	17.0	20.0	19.0	21.0	20.0	20.0	19.5	20.0	19.5
19	16.0	15.0	17.5	17.0	20.5	19.5	21.0	20.0	20.0	19.0	20.0	19.5
20	16.0	14.5	17.0	17.0	20.0	19.5	21.0	20.0	19.5	18.5	20.5	20.0
21	16.5	15.0	17.5	17.0	20.0	19.0	20.5	19.5	19.5	19.0	20.5	20.0
22	17.0	15.0	18.0	16.5	19.5	19.0	20.0	19.5	19.5	18.5	20.5	20.0
23	17.5	15.5	18.0	17.0	19.5	19.0	20.0	19.5	19.5	18.5	20.5	20.0
24	17.0	16.0	18.0	17.0	19.5	19.0	20.0	19.5	19.0	18.5	20.5	20.0
25	17.0	16.0	18.0	17.0	19.5	19.0	20.0	19.5	---	---	20.5	20.0
26	16.5	16.0	18.0	17.5	20.0	19.0	20.0	19.5	---	---	20.5	19.5
27	16.0	15.5	18.0	17.5	19.5	19.0	20.5	19.5	---	---	20.0	19.5
28	16.0	15.0	---	---	20.0	19.0	20.0	19.5	---	---	19.5	19.0
29	16.0	15.0	19.0	18.0	20.0	19.0	20.0	19.5	---	---	19.5	19.0
30	15.5	15.0	20.0	18.0	21.0	19.5	20.0	19.5	---	---	19.0	19.0
31	---	---	20.5	18.5	---	---	20.0	19.5	---	---	---	---
MONTH	17.5	14.5	---	---	21.0	18.0	21.5	19.5	---	---	---	---

11455820 CARQUINEZ STRAIT AT CARQUINEZ BRIDGE, NEAR CROCKETT, CA

LOCATION.—Lat 38°03'68", long 122°13'53", unsurveyed, T.3 N., R.3 W., Solano County, Hydrologic Unit 18050001, at north side of center bridge pier, directly under Carquinez Bridge.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1998 to current year.

WATER TEMPERATURE: October 1998 to current year.

INSTRUMENTATION.—Water-quality monitor since October 1998.

REMARKS.—Interruptions in record were due to malfunction of sensing and (or) recording instruments. Upper probe is set about 30 ft below water surface relative to Mean Lower Low Water (MLLW). Lower probe is set about 72 ft below water surface relative to MLLW. MLLW is about 78 ft deep. The upper conductivity record is rated excellent except for the following periods of fouling and calibration drift: June 12–18 and July 30 to Aug. 13, which are rated good. The lower conductivity record is rated excellent except for the following periods of fouling and calibration drift: Jan. 1 to Feb. 26, May 20 to June 18, which are rated good, and July 30 to Sept. 4, which are rated poor. Upper and lower temperature records are rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 42,100 microsiemens, Sept. 9, 10, 1999, and Aug. 17, 2001; minimum recorded, 170 microsiemens, Mar. 11, 2000.

(Lower probe) Maximum recorded, 43,200 microsiemens, Sept. 11, 2001; minimum recorded, 166 microsiemens, Mar. 11, 2000.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 21.5°C, Aug. 22, 1999, Sept. 19, 2000, several days in June–August 2001, July 1, Aug. 10, 11, 12, 2002; minimum recorded, 7.5°C, several days in December 1998 and January 1999.

(Lower probe) Maximum recorded, 21.5°C, Aug. 10, 2002; minimum recorded, 9.0°C, Jan. 21, 25, 2001, several days in January and February 2002.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 41,800 microsiemens, Oct. 17, 18; minimum recorded, 375 microsiemens, Jan. 11.

(Lower probe) Maximum recorded, 42,900 microsiemens, Oct. 17; minimum recorded, 404 microsiemens, Jan. 11.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 21.5°C, July 1, Aug. 10–12; minimum recorded, 9.0°C, several days in January and February.

(Lower probe) Maximum recorded, 21.5°C, Aug. 10; minimum recorded, 9.0°C, several days in January and February.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(UPPER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	39600	27100	37900	23800	30400	8530	30800	14000	31200	15600
2	40100	31900	40100	28000	37400	23100	27800	6860	30800	16700	32400	15600
3	40400	32700	40300	27500	---	---	23300	3700	30900	14600	32700	15000
4	41000	31300	41300	28100	32500	15900	21200	3050	32200	15100	33000	15200
5	40900	32200	41200	27900	30500	14600	20700	1660	34200	16300	33900	16000
6	41100	30400	---	---	27700	12500	22400	1860	34200	16800	33700	16800
7	41400	30100	39900	28000	27700	11100	24500	2830	34700	17500	31800	17600
8	---	---	39300	26300	30800	11000	25500	3220	32700	16200	30100	12300
9	41500	29000	39700	26600	31200	14500	25400	1230	33300	16000	31700	13100
10	---	---	39500	27800	31500	14100	23600	419	33100	15800	30300	11600
11	41000	28200	40000	29600	30700	14100	21100	375	33300	16800	30900	11700
12	41100	28500	40600	31600	33000	12900	22300	510	34200	18200	30000	12200
13	41000	28800	40100	28800	33500	14000	24600	1160	33800	18100	27300	11000
14	41200	30100	40000	27900	32400	13600	25800	1460	33200	18100	27600	9550
15	40900	30500	---	---	31600	12800	24700	2230	32900	19200	27900	10900
16	41400	32200	---	---	33700	12500	24100	3140	32600	18900	26200	12000
17	41800	31300	39600	26600	32500	13100	24000	4080	33400	18900	26700	10000
18	41800	30000	40400	25800	31600	13100	25900	5310	33700	19200	27000	8720
19	41700	29300	---	---	32400	12700	27600	7150	31700	21000	31600	10200
20	41700	29400	---	---	33000	12200	27900	7860	31500	20800	33000	12900
21	40400	30000	38800	25500	29300	12300	29800	11800	33200	20800	35900	15700
22	41100	29500	37300	26100	31200	11400	28600	13400	35300	20700	34900	16300
23	39600	28300	36800	25000	30400	13500	33400	12900	33300	17300	33100	17200
24	39100	26200	---	---	33100	15600	34800	14100	33900	15100	32200	16000
25	---	---	---	---	33800	16700	34100	16300	---	---	33300	14600
26	---	---	37300	25400	34100	16900	34700	17500	---	---	33100	13700
27	39000	31500	37200	26000	34000	17100	34000	16600	33800	15400	---	---
28	---	---	38300	26700	34800	16100	33800	15400	33400	16300	---	---
29	38600	29300	---	---	34100	14800	33900	14900	---	---	---	---
30	---	---	---	---	33200	13100	32800	14300	---	---	---	---
31	39800	29000	---	---	30900	10200	32200	13500	---	---	---	---
MONTH	---	---	---	---	---	---	34800	375	---	---	---	---

11455820 CARQUINEZ STRAIT AT CARQUINEZ BRIDGE, NEAR CROCKETT, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(LOWER SENSOR)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	41400	28500	39200	25000	32500	9270	32600	16500	32000	17900
2	---	---	---	---	38100	23800	30100	7250	32300	16500	32400	17500
3	---	---	---	---	35800	18300	27500	3870	32700	15000	33100	17600
4	---	---	---	---	35000	16300	26600	3260	34200	15000	33800	17100
5	---	---	42400	30900	33700	15500	26300	2310	35600	19000	34200	18400
6	---	---	42600	30200	---	---	28200	5020	36000	19400	34100	19200
7	---	---	42100	29000	32200	12300	30200	6470	---	---	34400	20100
8	---	---	41900	28900	33200	13600	29200	4110	---	---	31400	14500
9	---	---	41900	28500	32900	19600	28300	1570	35000	17200	34200	15300
10	---	---	40800	30400	34200	18200	26900	458	33400	16600	32200	14300
11	---	---	41000	31700	31900	16100	26300	404	35300	18600	32100	13500
12	---	---	41400	32300	34500	14100	23000	611	35900	20700	31400	14300
13	---	---	41000	29700	34900	15400	27800	1500	35700	20500	29900	12700
14	42300	32300	40900	28900	33100	14800	28000	2170	35600	21300	29000	11300
15	41900	32000	41000	28700	33400	13700	---	---	34800	21500	30100	13900
16	42600	33200	41100	28500	35400	15200	29000	6230	35100	23800	27700	15300
17	42900	32000	41000	27500	34100	15600	29400	7740	35000	25400	30500	13600
18	42800	30800	41200	27500	34500	15400	31200	11100	35300	24200	32400	11700
19	---	---	---	---	35700	15400	---	---	36000	24300	33300	16100
20	42800	31900	41700	28400	35600	17900	---	---	35100	22400	35600	17600
21	---	---	---	---	34000	19900	---	---	37000	20100	36700	21300
22	42800	30600	39700	30100	35300	14300	---	---	37600	20300	36700	20000
23	41900	30600	40800	28200	35900	23400	---	---	35400	18500	34600	19900
24	42500	29000	40600	29000	37500	22200	---	---	35600	15700	33100	16200
25	42600	29500	37600	30500	37900	22500	36000	19100	---	---	34100	14800
26	41400	31300	---	---	34000	14700	35800	18800	---	---	34000	16400
27	---	---	37600	27700	36400	17800	35500	17800	33600	17500	32900	16000
28	40500	32000	39100	28700	35900	18100	35400	16200	33400	18200	31900	17500
29	40300	31900	39500	25800	35400	15400	35000	15800	---	---	31400	17400
30	41400	32200	38900	24400	32400	14000	30000	14400	---	---	32000	15500
31	40700	30700	---	---	31100	10800	33400	16800	---	---	32900	14600
MONTH	---	---	---	---	---	---	---	---	---	---	36700	11300
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	33500	16300	34200	15800	34300	18300	37900	23500	---	---	39600	29300
2	33800	17400	35300	16800	33800	17200	38200	28400	---	---	38700	28600
3	33800	16600	34900	16200	34800	21600	36700	27200	---	---	38300	28300
4	33600	15300	35300	17400	34800	24400	38100	26900	---	---	38300	28000
5	35200	15700	35700	17000	36800	25400	---	---	---	---	38500	28500
6	35600	16500	34900	23200	37000	25900	37600	25100	---	---	38000	28600
7	34400	17000	33800	21800	36400	25600	38000	22800	---	---	38000	28400
8	33900	20800	34300	24000	37500	23100	38400	22000	---	---	37900	28000
9	31900	19000	34100	24200	35300	22100	39100	22200	---	---	38600	29500
10	32500	19400	34600	22800	37700	21000	---	---	---	---	39200	30000
11	32000	20400	34500	21100	38700	22200	40100	25000	---	---	39800	30900
12	32400	20300	36000	20600	38700	24200	40200	25500	---	---	40400	30500
13	33000	19500	36400	20700	38400	23500	39500	25600	---	---	40500	31400
14	33800	19500	35300	18500	37100	22200	39000	25500	---	---	40700	31100
15	31300	20300	36900	20100	36800	21500	38200	26300	---	---	39000	30400
16	32300	17200	36800	19400	37500	22600	38500	27200	---	---	40200	31000
17	33700	15700	33700	19400	36600	22600	38900	27900	---	---	40100	31100
18	32300	13800	34800	19400	37000	23500	39600	28100	---	---	39200	30000
19	35600	13700	34800	18300	37900	26300	40100	27200	---	---	39600	30100
20	37400	17500	34600	19400	38300	26400	39800	27100	---	---	38900	30500
21	35400	16600	31000	17500	38300	25600	40000	28200	---	---	37400	29500
22	35200	16900	32400	18000	37900	23900	40100	26300	---	---	---	---
23	35700	19700	32400	15400	38700	23400	40800	26300	---	---	---	---
24	33800	21400	33300	17500	39400	23100	39900	25800	---	---	---	---
25	33400	21400	33900	15800	39200	22000	39300	25400	---	---	---	---
26	35300	21100	33300	17100	39300	23200	39800	25900	38500	30200	---	---
27	35200	19100	34300	16100	38500	22400	40000	26300	39000	29000	---	---
28	35300	17300	34100	14300	38400	23300	38200	27900	---	---	---	---
29	36100	16900	---	---	37800	23100	---	---	---	---	---	---
30	35800	17000	35600	15400	37000	22000	---	---	38900	32000	---	---
31	---	---	35000	17800	---	---	---	---	---	---	---	---
MONTH	37400	13700	---	---	39400	17200	---	---	---	---	---	---

11455820 CARQUINEZ STRAIT AT CARQUINEZ BRIDGE, NEAR CROCKETT, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(UPPER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.5	17.0	16.5	13.5	13.0	11.0	10.5	10.0	9.0	13.5	13.0
2	19.0	18.5	17.0	16.5	13.0	13.0	11.0	10.5	10.0	9.0	13.5	13.0
3	19.0	18.5	17.0	16.5	13.0	12.5	11.0	10.5	10.0	9.0	14.0	13.0
4	19.0	18.5	17.0	16.5	12.5	12.0	11.0	10.5	10.0	9.0	14.0	13.0
5	19.0	18.5	17.0	16.5	12.0	12.0	11.0	10.5	10.0	9.0	13.5	13.0
6	18.5	18.0	---	---	12.5	12.0	11.0	10.5	10.0	9.5	13.5	13.0
7	18.5	18.0	16.5	16.0	12.5	12.0	11.0	11.0	10.5	10.0	13.5	13.0
8	18.5	18.0	16.5	16.0	12.0	12.0	11.5	11.0	10.5	10.0	13.5	12.5
9	18.5	17.5	16.0	16.0	12.0	11.5	11.5	11.0	10.5	10.0	13.0	12.5
10	18.5	17.5	16.0	15.5	12.0	11.0	11.5	11.5	10.5	10.0	13.5	12.5
11	18.0	17.5	16.0	15.5	11.5	11.0	11.5	11.0	11.0	10.5	13.5	13.0
12	18.0	18.0	16.0	15.5	11.5	11.0	11.5	11.0	11.5	10.5	13.5	13.0
13	18.5	18.0	16.0	15.5	11.5	11.0	11.5	11.0	11.0	10.5	13.5	13.0
14	18.5	18.0	16.0	15.5	11.5	10.5	11.5	11.0	11.5	10.5	13.0	12.5
15	18.5	18.0	16.0	15.5	11.0	10.5	11.5	10.5	11.5	11.0	13.5	12.5
16	18.5	18.0	16.0	15.5	11.0	10.5	11.0	10.5	11.5	11.0	13.0	12.5
17	18.5	18.0	16.0	15.5	11.0	10.5	11.0	10.0	11.5	11.0	12.5	12.0
18	18.0	18.0	16.0	15.5	11.0	10.5	11.0	10.0	11.5	11.0	12.5	11.5
19	18.0	18.0	---	---	11.0	10.5	11.0	10.0	11.5	11.0	12.5	11.5
20	18.0	17.5	---	---	11.0	10.0	11.0	10.0	12.0	11.5	13.0	12.0
21	18.0	17.5	16.0	15.5	11.0	10.0	11.0	10.0	12.5	11.5	13.0	12.0
22	17.5	17.0	16.0	15.5	11.0	10.0	11.0	10.0	12.5	12.0	12.5	12.0
23	17.5	17.0	15.5	15.0	10.5	10.0	11.0	10.0	12.5	12.0	13.0	12.0
24	17.5	17.0	---	---	11.0	10.0	10.5	10.0	13.0	12.0	13.0	12.5
25	17.5	17.0	15.0	14.0	10.5	10.0	10.5	10.0	---	---	13.0	12.5
26	17.5	17.0	14.5	14.0	10.5	10.0	10.5	10.0	---	---	13.5	12.5
27	17.0	16.5	14.5	13.5	10.5	10.0	10.5	9.5	13.5	13.0	---	---
28	17.0	16.5	14.0	13.5	10.5	10.0	10.0	9.5	14.0	13.0	---	---
29	17.0	16.5	13.5	13.5	10.5	10.0	10.0	9.5	---	---	---	---
30	17.0	16.5	13.5	13.0	10.5	10.0	10.0	9.0	---	---	---	---
31	17.0	16.5	---	---	11.0	10.0	10.0	9.0	---	---	---	---
MONTH	19.0	16.5	---	---	13.5	10.0	11.5	9.0	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	19.5	18.0	21.5	19.5	20.5	19.5	---	---
2	---	---	---	---	19.5	18.0	21.0	19.5	20.5	20.0	---	---
3	---	---	---	---	19.5	18.0	20.5	19.0	20.0	19.5	---	---
4	---	---	---	---	19.5	17.5	20.5	19.0	20.0	19.5	---	---
5	---	---	---	---	20.0	17.5	20.5	19.0	20.5	19.5	---	---
6	---	---	---	---	20.5	18.0	20.5	19.0	20.0	19.5	---	---
7	---	---	---	---	19.5	18.5	20.0	19.0	20.5	19.5	---	---
8	---	---	---	---	20.0	18.0	20.5	19.0	21.0	19.5	---	---
9	---	---	---	---	19.5	18.5	21.0	19.5	21.0	20.0	---	---
10	---	---	---	---	20.0	18.0	---	---	21.5	20.0	---	---
11	---	---	---	---	20.0	18.0	21.0	19.5	21.5	20.5	---	---
12	---	---	---	---	19.5	18.0	21.0	19.5	21.5	20.5	---	---
13	---	---	---	---	19.5	18.0	21.0	19.5	21.0	20.5	---	---
14	---	---	---	---	19.5	18.0	21.0	19.5	---	---	---	---
15	---	---	---	---	19.5	18.0	21.0	19.5	---	---	---	---
16	---	---	---	---	20.0	18.0	21.0	19.0	---	---	---	---
17	---	---	---	---	20.0	18.5	20.5	19.0	---	---	---	---
18	---	---	---	---	20.0	18.5	20.5	18.5	---	---	---	---
19	---	---	---	---	20.0	18.5	20.5	18.5	---	---	---	---
20	---	---	---	---	20.0	18.5	20.5	18.5	---	---	---	---
21	---	---	---	---	19.5	18.5	20.0	19.0	---	---	---	---
22	---	---	---	---	19.5	18.5	20.0	19.0	---	---	---	---
23	---	---	---	---	19.5	18.0	20.0	19.0	---	---	---	---
24	---	---	---	---	19.5	18.0	20.5	19.0	---	---	---	---
25	---	---	---	---	19.5	18.0	20.5	19.5	---	---	---	---
26	---	---	---	---	19.5	18.0	20.5	19.0	---	---	---	---
27	---	---	---	---	19.5	18.0	20.5	19.0	---	---	---	---
28	---	---	---	---	19.5	18.0	20.0	19.5	---	---	---	---
29	---	---	---	---	20.5	18.5	20.0	19.5	---	---	---	---
30	---	---	19.5	18.0	20.5	19.5	20.5	19.0	---	---	---	---
31	---	---	19.5	18.5	---	---	20.5	19.5	---	---	---	---
MONTH	---	---	---	---	20.5	17.5	---	---	---	---	---	---

11455820 CARQUINEZ STRAIT AT CARQUINEZ BRIDGE, NEAR CROCKETT, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

(LOWER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	18.5	17.0	16.5	13.5	13.0	11.0	10.5	10.0	9.0	13.5	13.0
2	19.0	18.5	17.0	16.5	13.0	13.0	11.0	10.5	10.0	9.0	13.5	13.0
3	19.0	18.5	17.0	16.5	13.0	12.5	11.0	10.5	10.0	9.0	13.5	13.0
4	19.0	18.5	17.0	16.5	12.5	12.0	11.0	10.5	10.0	9.0	13.5	13.0
5	18.5	18.0	17.0	16.5	12.0	12.0	11.0	10.5	10.0	9.5	13.5	13.0
6	18.5	18.0	17.0	16.0	12.0	12.0	11.0	10.5	10.0	9.5	13.5	13.0
7	18.5	18.0	16.5	16.0	12.0	12.0	11.0	11.0	10.5	10.0	13.5	13.0
8	18.0	17.5	16.5	16.0	12.5	12.0	11.5	11.0	10.5	10.0	13.5	13.0
9	18.0	17.5	16.0	15.5	12.0	12.0	11.5	11.0	10.5	10.0	13.0	12.5
10	---	---	16.0	15.5	12.0	11.5	11.5	11.5	10.5	10.0	13.0	12.5
11	---	---	16.0	15.5	11.5	11.5	11.5	11.0	11.0	10.5	13.5	13.0
12	---	---	16.0	15.5	11.5	11.0	11.5	11.0	11.0	10.5	13.5	13.0
13	---	---	16.0	15.5	11.5	11.0	11.5	11.0	11.0	10.5	13.0	13.0
14	18.5	18.0	16.0	15.5	11.5	11.0	11.5	11.0	11.5	10.5	13.0	12.5
15	18.5	18.0	16.0	15.5	11.0	10.5	11.5	10.5	11.5	11.0	13.0	12.5
16	18.5	18.0	16.0	15.5	11.0	10.5	11.5	10.5	11.5	11.0	12.5	12.0
17	18.5	18.0	16.0	15.5	11.0	10.5	11.0	10.5	11.5	11.0	12.5	12.0
18	18.0	17.5	16.0	15.5	11.0	10.5	11.0	10.5	11.5	11.0	12.0	12.0
19	18.0	17.5	16.0	15.0	11.0	10.5	11.0	10.5	11.5	11.5	12.0	12.0
20	18.0	17.5	15.5	15.0	11.0	10.5	11.0	10.5	12.0	11.5	12.5	11.5
21	18.0	17.5	16.0	15.5	11.0	10.5	11.0	10.5	12.0	11.5	12.5	11.5
22	17.5	17.0	15.5	15.5	11.0	10.5	11.0	10.0	12.5	11.5	12.5	12.0
23	17.5	17.0	15.5	15.0	11.0	10.5	11.0	10.0	12.5	12.0	12.5	12.0
24	17.5	17.0	15.5	14.5	11.0	10.5	11.0	10.0	13.0	12.0	13.0	12.0
25	17.5	17.0	15.0	14.0	11.0	10.0	10.5	10.0	---	---	13.0	12.5
26	17.0	17.0	14.5	14.0	10.5	10.0	10.5	10.0	---	---	13.5	12.5
27	17.0	16.5	14.5	13.5	10.5	10.0	10.5	10.0	13.5	13.0	13.5	13.0
28	17.0	16.5	14.0	13.5	10.5	10.0	10.5	9.5	13.5	13.0	14.0	13.0
29	17.0	16.5	13.5	13.0	10.5	10.0	10.0	9.5	---	---	14.0	13.5
30	17.0	16.5	13.5	13.0	10.5	10.0	10.0	9.0	---	---	14.5	14.0
31	17.0	16.5	---	---	10.5	10.0	10.0	9.0	---	---	15.0	14.0
MONTH	---	---	17.0	13.0	13.5	10.0	11.5	9.0	---	---	15.0	11.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.0	15.5	15.0	19.0	17.5	20.5	18.5	20.5	19.5	19.5	19.0
2	15.0	14.0	16.0	14.5	19.0	17.5	21.0	18.5	20.5	19.5	20.0	19.0
3	15.0	14.5	16.0	15.0	19.0	17.5	20.5	19.0	20.0	19.5	20.0	19.5
4	15.0	14.0	16.0	14.5	18.5	17.5	20.0	18.5	20.0	19.5	20.0	19.5
5	15.0	14.0	16.0	14.5	19.0	17.0	20.0	18.5	20.0	19.5	20.0	19.5
6	15.0	14.0	16.0	15.0	20.0	17.0	20.0	18.5	20.0	19.5	20.0	19.5
7	15.5	14.0	16.0	15.0	19.0	18.0	20.0	18.5	20.5	19.5	20.0	19.0
8	15.0	14.0	16.0	15.0	19.5	17.5	20.5	18.5	20.5	19.5	20.0	19.0
9	15.0	14.5	16.5	15.5	19.5	18.5	20.5	19.0	21.0	19.5	20.0	19.0
10	15.5	14.5	16.5	15.5	19.5	17.5	---	---	21.5	20.0	20.0	19.5
11	15.5	14.5	17.0	15.5	19.5	17.5	21.0	19.5	21.0	20.5	20.0	19.5
12	16.0	15.0	17.0	15.5	19.5	18.0	21.0	19.5	21.0	20.5	20.0	19.0
13	16.5	15.5	17.0	16.0	19.5	18.0	21.0	19.5	21.0	20.5	20.0	19.0
14	17.0	15.5	17.5	16.0	19.5	18.0	21.0	19.5	21.0	20.0	19.5	19.0
15	17.0	15.5	17.5	16.0	19.5	18.0	21.0	19.5	21.0	20.0	19.5	19.0
16	16.5	15.5	17.5	16.0	19.5	18.0	20.5	19.0	20.5	20.0	19.5	19.0
17	16.0	15.0	17.5	16.0	19.5	18.0	20.5	18.5	20.5	20.0	19.5	19.0
18	15.5	15.0	17.5	16.0	20.0	18.0	20.5	18.5	20.0	20.0	19.5	19.5
19	15.5	14.0	17.5	16.0	19.5	18.0	20.0	18.5	20.0	19.5	20.0	19.5
20	15.5	14.0	17.0	16.0	19.5	18.0	20.0	18.5	19.5	19.0	20.0	19.5
21	15.5	14.0	17.0	16.0	19.5	18.0	20.0	18.5	20.0	19.0	20.0	19.5
22	16.0	14.5	17.0	16.0	19.0	18.0	20.0	18.5	19.5	19.0	20.5	20.0
23	16.5	14.5	17.0	15.5	19.5	18.0	20.0	18.5	19.0	19.0	20.5	20.0
24	16.5	15.0	17.0	16.0	19.5	17.5	20.5	19.0	19.0	18.5	20.5	20.0
25	16.0	15.5	17.5	16.5	19.5	17.5	20.5	19.5	19.0	18.5	20.5	19.5
26	16.0	15.5	17.5	16.5	19.5	17.5	20.5	19.0	19.5	18.5	20.0	19.5
27	16.0	15.5	18.0	16.5	19.5	18.0	20.0	19.0	20.0	19.0	20.0	19.0
28	16.0	15.0	18.0	17.0	19.5	18.0	20.0	19.5	20.0	19.0	19.5	19.0
29	16.0	15.0	---	---	20.0	18.0	20.5	19.5	19.5	19.0	19.5	19.0
30	15.5	15.0	19.0	17.5	20.0	18.5	20.5	19.5	19.5	19.0	19.0	18.5
31	---	---	19.0	17.5	---	---	20.5	19.5	19.5	18.5	---	---
MONTH	17.0	14.0	---	---	20.0	17.0	---	---	21.5	18.5	20.5	18.5

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 mi².

PERIOD OF RECORD.—October 1929 to September 1932, October 1939 to June 30, 1995, June 2000 to current year. Stage only July 1, 1995, to May 2000. Monthly discharge only for some periods, published in WSP 1315-B.

WATER TEMPERATURE.—Water years 1958–79.

SEDIMENT DATA.—Water years 1961–62.

REVISED RECORDS.—WSP 1929: Drainage area. WDR CA-78-2: 1977(M).

GAGE.—Water-stage recorder. Datum of gage is 170.12 ft above sea level. 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.—Records good except for estimated daily discharges, which are fair. 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 ft³/s, Feb. 17, 1986, gage height, 18.52 ft, from rating curve extended above 11,000 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1545	3,970	11.08

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.22	0.15	1320	734	57	62	50	20	5.8	1.9	0.37	0.20
2	0.19	0.15	1630	2580	56	57	49	20	5.9	1.8	0.37	0.21
3	0.20	0.14	607	965	53	53	47	19	6.5	1.6	0.30	0.23
4	0.22	0.13	284	586	51	51	46	18	6.7	1.4	0.39	0.26
5	0.22	0.15	430	748	49	50	44	18	6.2	1.4	0.49	0.25
6	0.21	0.15	664	945	47	108	42	17	5.8	1.3	0.40	0.25
7	0.22	0.15	335	608	66	195	41	16	4.6	1.1	0.29	0.26
8	0.20	0.12	202	452	93	135	40	15	4.0	1.1	0.28	0.28
9	0.21	0.12	149	352	68	101	38	13	3.6	0.98	0.29	0.28
10	0.21	0.18	112	273	61	327	36	13	4.3	0.74	0.29	0.28
11	0.21	0.26	91	218	56	204	36	15	4.2	0.70	0.39	0.28
12	0.16	52	77	179	55	151	34	14	4.2	0.68	0.38	0.29
13	0.16	17	e68	157	52	123	32	13	4.3	0.64	0.36	0.29
14	0.16	6.1	e470	138	50	104	31	13	4.4	0.56	0.38	0.29
15	0.16	4.3	e200	123	47	94	29	12	3.9	0.77	0.29	0.29
16	0.17	2.6	e180	109	50	87	28	12	3.7	0.70	0.30	0.29
17	0.18	2.6	e310	99	57	80	30	10	3.8	0.57	0.32	0.29
18	0.18	2.6	277	91	48	73	24	9.3	3.5	0.49	0.43	0.29
19	0.18	2.2	197	86	69	65	21	12	3.4	0.40	0.43	0.28
20	0.19	2.1	435	80	311	64	24	28	3.3	0.34	0.29	0.29
21	0.18	17	577	79	204	61	24	25	3.0	0.66	0.28	0.31
22	0.18	94	683	74	131	62	24	14	3.0	0.88	0.27	0.30
23	0.16	23	570	69	104	139	24	13	2.4	0.68	0.25	0.32
24	0.18	176	372	65	92	119	24	12	2.2	0.63	0.24	0.35
25	0.16	66	268	64	81	88	23	11	2.2	0.79	0.24	0.40
26	0.10	31	212	82	74	77	23	10	2.6	0.70	0.25	0.45
27	0.10	20	176	e87	70	71	22	9.9	2.2	0.64	0.25	0.38
28	0.09	51	763	e74	65	64	18	9.6	2.0	0.60	0.25	0.36
29	0.09	474	1080	e66	---	59	21	8.5	2.3	0.48	0.23	0.46
30	0.20	102	913	e63	---	55	21	7.1	1.6	0.41	0.21	0.58
31	0.16	---	1280	60	---	53	---	6.7	---	0.37	0.20	---
TOTAL	5.45	1147.20	14932	10306	2217	3032	946	434.1	115.6	26.01	9.71	9.29
MEAN	0.176	38.24	481.7	332.5	79.18	97.81	31.53	14.00	3.853	0.839	0.313	0.310
MAX	0.22	474	1630	2580	311	327	50	28	6.7	1.9	0.49	0.58
MIN	0.09	0.12	68	60	47	50	18	6.7	1.6	0.34	0.20	0.20
AC-FT	11	2280	29620	20440	4400	6010	1880	861	229	52	19	18

e Estimated.

11456000 NAPA RIVER NEAR ST. HELENA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.025	34.35	173.5	299.3	290.7	196.7	86.42	21.93	7.264	2.463	1.246	0.982
MAX	179	415	1088	1338	1798	1144	584	105	27.3	7.66	4.43	6.44
(WY)	1963	1974	1956	1970	1986	1983	1982	1995	1967	1941	1941	1982
MIN	0.000	0.10	0.24	2.17	4.34	4.16	1.81	0.89	0.081	0.000	0.000	0.000
(WY)	1978	1932	1940	1991	1977	1998	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002	
ANNUAL TOTAL	30092.59		33180.36			
ANNUAL MEAN	82.45		90.91		90.52	
HIGHEST ANNUAL MEAN					270 1983	
LOWEST ANNUAL MEAN					1.90 1977	
HIGHEST DAILY MEAN	1630	Dec 2	2580	Jan 2	13700	Feb 17 1986
LOWEST DAILY MEAN	0.07	Sep 15	0.09	Oct 28	0.00	Sep 23 1947
ANNUAL SEVEN-DAY MINIMUM	0.12	Sep 14	0.13	Oct 23	0.00	Sep 23 1947
MAXIMUM PEAK FLOW			3970	Dec 1	16900	Feb 17 1986
MAXIMUM PEAK STAGE			11.08	Dec 1	18.52	Feb 17 1986
ANNUAL RUNOFF (AC-FT)	59690		65810		65580	
10 PERCENT EXCEEDS	255		204		176	
50 PERCENT EXCEEDS	5.4		12		7.0	
90 PERCENT EXCEEDS	0.18		0.21		0.40	

11458000 NAPA RIVER NEAR NAPA, CA

LOCATION.—Lat 38°22'06", long 122°18'08", in Yajome Grant, Napa County, Hydrologic Unit 18050002, on left bank, 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 mi².

PERIOD OF RECORD.—October 1929 to September 1932, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

CHEMICAL DATA: Water years 1973–93.

BIOLOGICAL DATA: Water years 1978–81.

SPECIFIC CONDUCTANCE: Water years 1978–93.

WATER TEMPERATURE: Water years 1977–93.

SEDIMENT DATA: Water years 1971, 1977–93.

REVISED RECORDS.—WSP 1315-B: 1930(M). WDR CA-87-2: 1963(M), 1965(M), 1967(M), 1982–85. WRD CA-01-2, 2000(M).

GAGE.—Water-stage recorder. Datum of gage is 24.74 ft above sea level.

REMARKS.—Records good except for estimated daily discharges, which are fair. 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 ft³/s, Feb. 18, 1986, gage height, 30.20 ft, from floodmarks, maximum gage height, 30.50 ft, Mar. 9, 1995; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	2310	1370	147	127	118	34	16	e3.1	0.01	0.00
2	0.00	0.00	4280	6690	138	116	107	34	15	e2.9	0.00	0.00
3	0.00	0.00	1370	2850	127	111	104	34	15	e3.1	0.00	0.00
4	0.00	0.00	625	1310	119	109	101	33	15	e3.6	0.00	0.00
5	0.00	0.00	584	1270	114	91	98	32	15	e3.9	0.00	0.00
6	0.00	0.00	1050	2060	108	128	97	32	14	3.6	0.00	0.00
7	0.00	0.00	613	1370	110	365	93	32	14	3.4	0.00	0.00
8	0.00	0.00	420	1030	208	299	89	31	13	2.9	0.00	0.00
9	0.00	0.00	338	829	152	221	86	27	12	e4.2	0.00	0.00
10	0.00	0.00	275	680	133	499	84	24	11	e4.2	0.00	0.00
11	0.00	0.00	226	573	123	440	82	25	11	e3.1	0.00	0.00
12	0.00	26	186	499	118	364	80	26	11	e1.7	0.00	0.00
13	0.00	45	161	454	114	337	75	25	10	1.6	0.00	0.00
14	0.00	10	690	415	108	270	70	24	10	2.0	0.00	0.00
15	0.00	5.3	425	371	95	244	64	29	11	1.3	0.00	0.00
16	0.00	4.0	314	329	92	232	54	23	11	0.71	0.00	0.00
17	0.00	3.1	536	299	122	213	54	22	10	0.54	0.00	0.00
18	0.00	2.3	503	275	103	196	49	21	9.1	1.1	0.00	0.00
19	0.00	2.0	388	257	113	170	39	20	8.5	1.1	0.00	0.00
20	0.00	2.0	793	236	409	162	39	31	e6.3	1.0	0.00	0.00
21	0.00	2.3	1500	226	391	159	39	50	e5.9	0.97	0.00	0.00
22	0.00	97	1150	218	282	154	39	31	e5.6	0.93	0.00	0.00
23	0.00	49	1080	200	231	218	39	23	e5.3	0.93	0.00	0.00
24	0.00	226	704	184	201	261	38	22	e4.4	0.89	0.00	0.00
25	0.00	198	536	178	177	206	38	21	e4.1	0.65	0.00	0.00
26	0.00	58	454	197	154	180	38	21	e3.9	0.40	0.00	0.00
27	0.00	33	392	199	140	162	37	21	e4.1	0.30	0.00	0.00
28	0.00	34	1090	182	128	149	35	20	e3.9	0.23	0.00	0.00
29	0.00	891	2470	180	---	137	34	20	e3.3	0.07	0.00	0.00
30	0.00	280	1470	168	---	129	34	19	e3.6	0.01	0.00	0.00
31	0.00	---	2950	156	---	124	---	17	---	0.02	0.00	---
TOTAL	0.00	1968.00	29883	25255	4457	6573	1954	824	282.0	54.45	0.01	0.00
MEAN	0.000	65.60	964.0	814.7	159.2	212.0	65.13	26.58	9.400	1.756	0.000	0.000
MAX	0.00	891	4280	6690	409	499	118	50	16	4.2	0.01	0.00
MIN	0.00	0.00	161	156	92	91	34	17	3.3	0.01	0.00	0.00
AC-FT	0.00	3900	59270	50090	8840	13040	3880	1630	559	108	0.02	0.00

e Estimated.

11458000 NAPA RIVER NEAR NAPA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.35	76.30	277.0	703.2	722.6	480.7	179.2	49.72	17.08	5.478	2.586	2.131
MAX	338	616	1474	3083	4089	2598	1341	226	100	23.9	9.43	10.7
(WY)	1963	1974	1984	1995	1986	1983	1982	1983	1998	1998	1983	1982
MIN	0.000	1.10	0.73	2.17	0.42	2.60	0.20	0.000	0.000	0.000	0.000	0.000
(WY)	1961	1991	1977	1991	1977	1977	1977	1977	1977	1961	1960	1960

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1960 - 2002
ANNUAL TOTAL	57808.41	71250.46	
ANNUAL MEAN	158.4	195.2	208.3
HIGHEST ANNUAL MEAN			585 1983
LOWEST ANNUAL MEAN			0.72 1977
HIGHEST DAILY MEAN	4280 Dec 2	6690 Jan 2	26200 Feb 17 1986
LOWEST DAILY MEAN	0.00 Aug 17	0.00 Oct 1	0.00 Jul 14 1960
ANNUAL SEVEN-DAY MINIMUM	0.00 Aug 17	0.00 Oct 1	0.00 Jul 14 1960
MAXIMUM PEAK FLOW		9810 Jan 2	37100 Feb 18 1986
MAXIMUM PEAK STAGE		21.72 Jan 2	30.50 Mar 9 1995
ANNUAL RUNOFF (AC-FT)	114700	141300	150900
10 PERCENT EXCEEDS	437	446	431
50 PERCENT EXCEEDS	10	22	14
90 PERCENT EXCEEDS	0.00	0.00	0.40

11458370 NAPA RIVER AT MARE ISLAND CAUSEWAY, NEAR VALLEJO, CA

LOCATION.—Lat 38°06'40", long 122°16'25", in T.3 N., R.4 W., Solano County, Hydrologic Unit 18050002, at east side of Napa River main channel, and underneath Mare Island Causeway Bridge.

PERIOD OF DAILY RECORD.—October 1998 to current year.

SPECIFIC CONDUCTANCE: October 1998 to current year.

WATER TEMPERATURE: October 1998 to current year.

INSTRUMENTATION.—Water-quality monitor since October 1998.

REMARKS.—Upper probes are set about 5 ft below water surface at Mean Lower Low Water (MLLW). Lower probes are set about 27 ft below water surface at MLLW. MLLW is about 30 ft. Daily maximums and minimums sometimes differ from tidal-cycle (24.8 hours) maximums and minimums. The upper conductivity record is rated excellent Oct. 1 to Dec. 2 and Aug. 6 to Sept. 30; Dec. 3–28, Jan. 26 to Mar. 7 and Mar. 26 to Aug. 5 rated good; Dec. 29 to Jan. 1, Jan. 16–25, and Mar. 8–17, rated fair. The lower conductivity record is rated excellent Oct. 1 to Dec. 2 and Aug. 28 to Sept.30; Dec. 3 to Dec. 28, Jan. 26 to Mar. 7, and Mar. 26 to Aug. 27, rated good; Dec. 29 to Jan. 1, Jan. 16–25, and Mar. 8–17, rated fair. The upper and lower temperature records are rated excellent.

EXTREMES FOR PERIOD OF RECORD.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 39,000 microsiemens, Jan. 8, 2001; minimum recorded, 72 microsiemens, Mar. 4, 5, 1999.

(Lower probe) Maximum recorded, 44,600 microsiemens, Jan. 11, 1999; minimum recorded, 81 microsiemens, Mar. 4, 1999.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.0°C, July 3, 4, 2001, July 9, 10, 2002; minimum recorded, 6.5°C, Jan. 11, 1999.

(Lower probe) Maximum recorded, 23.0°C, July 4, 2001; minimum recorded, 6.5°C, Dec. 24, 1998.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: (Upper probe) Maximum recorded, 37,800 microsiemens, Sep. 2; minimum recorded, 4,290 microsiemens, Jan. 16.

(Lower probe) Maximum recorded, 38,400 microsiemens, Oct. 9, Sep. 1, 2; minimum recorded, 4,510 microsiemens, Jan. 16.

WATER TEMPERATURE: (Upper probe) Maximum recorded, 23.0°C, July 9, 10; minimum recorded, 8.5°C, Jan. 30–Feb. 3.

(Lower probe) Maximum recorded, 22.0°C, July 10, 11, Aug. 9–11; minimum recorded, 8.5°C, Jan. 30–Feb. 3.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER SENSOR)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	33700	31100	33500	29800	33500	21200	26400	5330	20400	15300	21400	16400
2	34200	32400	34200	29200	32400	7410	---	---	19800	15400	20500	16700
3	34200	32900	34400	29100	28600	9640	---	---	21300	15600	21600	16800
4	35300	33100	35200	28800	27700	10700	---	---	23600	15600	24300	16700
5	35700	33400	35200	29400	24900	11600	---	---	25000	15700	24700	16700
6	35000	33400	35500	29000	20000	9390	---	---	27400	16000	26400	17000
7	35400	31800	34400	29100	19400	9370	---	---	28500	16800	25300	16600
8	36100	31500	34100	27800	22700	10200	---	---	24900	16400	21800	14700
9	36300	30500	33600	28600	22400	10600	---	---	25900	16600	24900	15300
10	36100	30100	34300	29400	22900	12900	---	---	25800	16400	22000	14400
11	36000	30100	33700	30200	21200	13600	---	---	25400	16400	19800	13900
12	34300	29500	34600	30300	22600	14400	---	---	26100	16800	19500	13600
13	34400	29800	33400	30000	26700	14400	---	---	24500	17200	16800	13000
14	33900	30900	33700	29300	26300	14000	---	---	---	---	15600	12200
15	33500	31500	34600	28700	24600	13900	---	---	23600	17600	16500	12100
16	34600	32400	35200	28700	28500	13700	17600	4290	24000	18200	17800	12800
17	35800	32700	34200	28300	28700	13300	15800	5100	25700	19200	17600	12800
18	35500	32400	33100	27600	25900	12400	16500	5890	26800	19500	---	---
19	35600	30600	34300	27100	25700	13000	16800	7450	27900	19700	---	---
20	35800	30200	33400	27500	26500	13500	18500	9150	27200	19200	---	---
21	35700	30600	32700	27600	21500	9500	22100	10000	28000	16100	---	---
22	35600	30400	31900	28300	22300	9560	23800	10900	30900	16400	---	---
23	35000	30400	30400	27200	22700	9210	23600	12400	28400	16900	---	---
24	33400	28500	33200	26800	25100	9800	30500	14200	26000	16200	---	---
25	34800	28000	30800	28700	29000	11700	31000	15800	26300	16000	---	---
26	33900	29600	30500	28200	32400	13600	31000	16700	25500	16100	24400	16300
27	34800	31200	30700	27100	27800	15500	28600	17000	24300	16300	23800	16400
28	33500	31000	31100	27300	30100	14600	27000	16300	24100	16600	21400	16500
29	32800	30800	33000	26600	31400	8910	26100	16100	---	---	21400	16700
30	33200	31200	31600	25000	30000	8550	24200	15800	---	---	21200	16600
31	33000	30200	---	---	26900	4780	23000	15600	---	---	23100	15900
MONTH	36300	28000	35500	25000	33500	4780	---	---	---	---	---	---

11458370 NAPA RIVER AT MARE ISLAND CAUSEWAY, NEAR VALLEJO, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER SENSOR)

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER					
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	25800	16100	26600	16400	25700	17500	28100	21300	34000	28500	37100	29000				
2	26200	16500	25700	17000	23000	15400	30100	23300	33300	29700	37800	28200				
3	25600	16300	25400	16300	24800	17000	29600	24900	34500	30000	35200	28400				
4	24800	15500	24200	16400	26200	19000	31000	25400	34200	29900	35700	29200				
5	23900	15400	24800	17100	29100	19800	31100	25500	---	---	35300	29400				
6	25800	16400	24800	19000	30800	20400	31000	25700	34400	26800	34900	29800				
7	24900	17400	24900	19800	29400	21400	32700	25900	33600	25800	35200	29900				
8	23900	17700	26300	20100	29500	21900	34700	25100	35200	25700	33500	29300				
9	23200	17900	25500	20300	31600	22400	34500	23700	33700	25900	32000	28800				
10	22000	17800	24900	20300	33700	21900	36100	24100	34400	27000	32200	29600				
11	22700	17900	26400	20200	35300	22800	33900	25600	33300	28100	34000	29800				
12	22800	18200	26500	20300	32400	23200	33400	25700	32300	28400	34700	30600				
13	23800	18200	27500	20200	32800	23900	33000	25900	31400	29000	35400	31000				
14	23700	18200	27500	20000	32600	23200	32100	26100	32200	29400	35700	30500				
15	25500	18200	30400	19900	31000	22300	31500	25500	33000	29700	36300	29500				
16	23600	17100	29500	19300	30000	22500	30300	26700	34300	29900	34900	29600				
17	25500	16600	28400	19500	28600	22300	29900	26900	34800	30100	35000	29100				
18	24400	14300	28700	20100	27400	23200	30500	27600	34800	29100	34200	29600				
19	22200	14500	28300	18500	29200	24200	32900	28000	34600	29000	34300	29300				
20	26700	15400	27300	18500	29300	24300	34000	28000	34000	28700	34900	29900				
21	26900	16700	23800	17800	30300	24400	35000	28600	34700	27100	33900	31100				
22	26500	17600	24500	18800	31200	24700	34500	28000	33900	27700	32800	31700				
23	24900	18300	24700	19500	32200	24200	33700	27700	32900	27600	32500	30800				
24	25700	18900	26700	18600	32500	24200	34600	26900	31600	27000	32600	30700				
25	25900	19800	25900	18200	32300	23300	33700	26500	31100	26900	33900	30900				
26	26200	20300	26000	18400	31400	24300	33200	27100	30900	27800	35100	31500				
27	26800	20600	26800	17400	32700	23700	33700	27300	31600	29000	35300	32300				
28	26600	18700	29900	16700	31800	23100	32900	28100	33300	29800	36800	30800				
29	26700	18500	28300	15900	30300	23000	31700	26400	34000	30600	35400	29600				
30	28400	17500	28100	15700	29000	21900	30700	26400	34300	31000	35200	29500				
31	---	---	27500	17300	---	---	33400	28300	36300	31300	---	---				
MONTH	28400	14300	30400	15700	35300	15400	36100	21300	---	---	37800	28200				

NAPA RIVER BASIN

11458370 NAPA RIVER AT MARE ISLAND CAUSEWAY, NEAR VALLEJO, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(LOWER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	33400	31300	33400	30500	35400	22800	28900	6800	25300	16600	24500	17500
2	33800	32200	35100	30100	34100	13800	---	---	22300	16700	22900	17900
3	33800	32500	36100	29800	31100	14100	---	---	23900	16900	25500	17800
4	34800	32500	37000	29900	29900	13200	---	---	26600	16800	26400	17900
5	35400	33000	37100	30000	29500	12400	---	---	29400	17100	28300	17700
6	35100	33100	36500	30100	24500	11600	---	---	31200	18100	30900	18000
7	36000	32100	35100	30200	20800	11500	---	---	31300	18100	30500	18000
8	36600	32200	36400	29400	26100	11200	---	---	29000	18200	24600	16900
9	38400	31800	34000	29800	25700	13800	---	---	29700	17900	31500	16800
10	37100	31600	34000	29800	25000	14400	---	---	30500	17700	28700	16300
11	35800	30900	33600	30300	24200	14500	---	---	30400	17600	25300	15300
12	34600	30200	34500	30100	26500	14600	---	---	30300	18100	24300	14700
13	35100	30200	33500	29900	28700	14800	---	---	28500	18700	19500	14400
14	34200	31200	34300	29600	29100	14600	---	---	---	---	20700	14000
15	34200	31600	35400	29200	27500	14200	---	---	25700	19100	21600	13500
16	34800	32200	35900	28900	32100	14000	26300	4510	25300	19600	21800	13700
17	35600	32600	36000	28800	32000	13900	24400	5860	29500	21600	21400	13900
18	36000	32000	35800	28000	31000	14400	22500	8800	30300	21800	---	---
19	36400	31200	37100	27800	32100	15800	23900	11800	33600	22200	---	---
20	36900	30600	35500	28500	32600	15700	26600	14000	32100	20500	---	---
21	36100	31400	34800	29100	25500	16300	31000	18500	32500	21100	---	---
22	35800	31300	33700	28900	26900	16100	27200	18600	34000	20600	---	---
23	36200	31100	31400	29100	28800	16300	31800	16400	31300	18500	---	---
24	34300	30700	36000	28600	32600	18900	35300	18300	29500	17600	---	---
25	35100	30800	32400	28900	35700	18800	32900	18200	30100	17300	---	---
26	34100	31000	32600	28800	34900	18900	32200	17300	29400	17300	27900	17200
27	34500	31000	31800	27000	32200	17000	30800	17700	28700	17500	25700	17100
28	34200	31500	33000	28200	32000	16200	30900	17500	27100	17600	23800	17100
29	32500	31100	34700	27000	31600	12600	30300	17400	---	---	23100	17100
30	33800	31300	33400	25300	30800	10400	28600	17000	---	---	22700	17200
31	33300	31000	---	---	29000	6310	26900	16800	---	---	25300	17200
MONTH	38400	30200	37100	25300	35700	6310	---	---	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	28000	17100	30700	18400	28800	19600	31000	24600	36600	29000	38400	30900
2	29200	17100	32000	19600	25900	19100	33300	24700	35400	29000	38400	29900
3	28400	17400	28000	19700	28300	19100	32500	25600	33800	29200	36700	29400
4	29400	17800	27700	19600	30500	19800	33800	25900	34700	29400	37000	29300
5	31300	17400	28200	19800	35400	20300	33200	25900	---	---	36400	29600
6	32400	18400	27800	20000	34300	21400	33400	26100	36800	27800	35800	30000
7	26900	18600	27800	20300	31400	22300	34400	26300	---	---	35400	29900
8	25800	18200	29600	20900	31400	22600	35800	25900	37300	26500	34400	29400
9	24400	18400	29600	21300	33400	22800	37000	25100	36800	26900	32700	29000
10	23900	18400	27700	21300	35700	23200	37200	25300	36300	28000	32500	29800
11	24600	18400	29800	21500	36000	23600	36600	26700	35000	28900	35200	30300
12	24400	18400	29900	21400	34300	23800	35900	26700	33500	29300	36100	30800
13	25400	18200	30700	21400	34500	24400	35400	27100	32500	29800	36800	30800
14	25800	18100	30300	21300	34000	24400	34200	26900	33300	29900	36900	31200
15	25700	18200	33700	21300	33500	23600	32000	26900	35000	30000	36600	30500
16	25000	19100	33700	21300	32700	24400	31100	27200	35900	30400	35600	30100
17	30200	19100	33000	21300	29700	24200	31700	27700	37000	30600	36000	29500
18	27100	18400	31700	21800	28800	24300	32500	27800	37300	30100	35100	29800
19	30900	18400	30900	21600	30900	24500	34300	28000	36700	29900	35100	29600
20	35200	18800	30100	21300	31700	24700	35300	28100	35900	29600	35400	30500
21	31200	19000	25500	20100	32500	24800	35400	28300	36500	28300	34500	31200
22	32000	19000	27000	20400	33100	25100	37000	28400	35600	28700	32700	31600
23	29600	19000	27700	20400	34400	24900	37000	28000	34300	28800	32200	30900
24	27000	19300	29000	20100	34900	24800	36600	27100	32800	28200	32900	31000
25	26900	20300	29100	19700	35100	24400	35500	27100	31900	28300	33600	31400
26	27200	20800	29700	19300	34900	25400	35700	27500	30900	28500	34800	31500
27	27700	20800	30300	18400	34700	24700	35500	28100	33000	29400	35100	31900
28	28200	19400	31900	18100	34800	24600	33500	28600	34100	29700	38100	31800
29	29500	19700	31500	18000	33200	25100	32000	28100	34100	30400	36400	31800
30	30400	18900	33000	18400	30100	24700	34100	28300	35500	30800	36300	31200
31	---	---	32700	19400	---	---	35400	28800	37900	31100	---	---
MONTH	35200	17100	33700	18000	36000	19100	37200	24600	---	---	38400	29000

11458370 NAPA RIVER AT MARE ISLAND CAUSEWAY, NEAR VALLEJO, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(UPPER SENSOR)

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

11458370 NAPA RIVER AT MARE ISLAND CAUSEWAY, NEAR VALLEJO, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
(LOWER SENSOR)

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.5	18.5	17.5	16.5	13.0	11.5	11.5	10.0	9.5	8.5	13.5	12.5
2	20.5	18.5	17.0	16.5	13.0	11.5	---	---	9.5	8.5	13.5	12.5
3	20.5	18.5	17.5	16.5	13.0	11.5	---	---	9.5	8.5	13.5	12.5
4	19.5	18.5	17.0	16.5	12.5	11.5	---	---	9.5	9.0	13.5	13.0
5	19.0	18.0	17.0	16.5	12.0	11.5	---	---	10.0	9.0	13.5	13.0
6	18.5	18.0	17.0	16.0	12.0	11.5	---	---	10.0	9.5	13.5	13.0
7	18.5	18.0	16.5	16.0	12.0	11.5	---	---	10.0	9.5	13.5	13.0
8	18.0	17.5	16.0	16.0	12.0	11.5	---	---	10.5	10.0	13.5	13.0
9	18.5	17.5	16.0	16.0	12.0	11.5	---	---	10.5	10.0	13.0	12.5
10	18.5	17.5	16.0	16.0	12.0	11.0	---	---	11.5	10.0	13.5	12.5
11	18.5	17.5	16.0	16.0	11.5	11.0	---	---	11.5	10.0	14.0	13.0
12	18.5	17.5	16.0	15.5	11.5	11.0	---	---	11.5	10.5	14.0	13.0
13	19.0	18.0	15.5	15.5	11.5	11.0	---	---	11.5	10.5	13.5	12.5
14	19.5	18.0	16.0	15.5	11.0	10.5	---	---	---	---	13.5	12.0
15	19.5	18.0	16.0	15.5	11.0	10.5	---	---	12.0	11.0	13.0	12.5
16	19.0	18.0	16.0	15.5	11.0	10.0	11.0	10.0	11.5	11.0	12.5	11.5
17	18.5	18.0	16.0	15.5	11.0	10.5	11.0	10.0	11.5	11.0	12.5	11.5
18	18.5	17.5	16.0	15.5	11.0	10.5	11.0	10.0	11.5	11.0	---	---
19	18.5	18.0	15.5	15.5	11.0	10.5	10.5	10.0	11.5	11.0	---	---
20	18.5	17.5	15.5	15.5	11.0	10.0	11.0	10.0	12.0	11.5	---	---
21	18.0	17.0	15.5	15.5	10.5	10.0	11.0	10.0	12.5	11.5	---	---
22	17.5	16.5	15.5	15.5	10.5	10.0	10.5	10.0	13.0	11.5	---	---
23	17.5	17.0	15.5	15.0	10.5	10.0	10.5	9.5	13.0	12.0	---	---
24	17.5	17.0	15.0	14.5	10.5	10.5	10.5	9.5	14.0	12.0	---	---
25	17.5	17.0	14.5	14.0	10.5	10.0	10.5	10.0	14.0	12.5	---	---
26	17.5	17.0	14.5	13.5	10.5	10.0	10.5	10.0	14.5	12.5	14.5	12.5
27	17.5	17.0	14.0	13.0	10.5	10.0	10.0	9.5	14.5	12.5	15.0	13.0
28	17.0	16.5	14.0	12.5	10.5	10.0	10.0	9.5	15.0	13.0	15.5	13.0
29	17.0	16.5	13.5	12.0	10.5	10.0	10.0	9.0	---	---	16.0	13.5
30	17.0	16.5	13.5	12.0	11.0	10.0	9.5	8.5	---	---	16.0	14.0
31	17.5	16.5	---	---	11.5	10.0	9.5	8.5	---	---	16.0	14.0
MONTH	20.5	16.5	17.5	12.0	13.0	10.0	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.5	14.5	15.5	14.5	19.0	18.5	21.0	19.0	20.0	19.0	20.0	18.5
2	15.5	14.5	15.5	15.0	19.0	18.0	21.0	19.0	20.0	19.5	21.0	19.0
3	15.0	14.5	15.5	15.0	19.0	18.0	20.5	19.5	20.0	19.5	21.5	19.5
4	15.0	14.5	16.0	15.0	19.0	17.5	20.0	19.0	19.5	19.0	21.0	19.5
5	14.5	14.0	16.0	15.0	19.5	17.0	20.0	19.0	---	---	20.5	19.5
6	15.0	14.0	16.5	15.0	20.0	17.5	20.0	19.0	20.0	19.0	20.0	19.0
7	15.5	14.5	16.5	15.5	20.0	18.0	20.5	19.0	20.5	19.0	19.5	19.0
8	15.5	14.5	16.5	15.5	20.0	18.5	20.5	19.0	21.0	19.5	20.0	19.0
9	15.5	14.5	17.0	15.5	19.5	18.5	21.0	19.0	22.0	20.0	20.5	19.0
10	16.5	15.0	16.5	15.5	20.0	18.0	22.0	19.5	22.0	20.0	20.5	19.5
11	16.5	15.0	17.5	16.0	20.5	17.5	22.0	20.0	22.0	20.5	20.5	19.5
12	17.0	15.0	17.5	16.0	19.5	18.5	21.5	20.0	21.5	20.5	20.5	19.5
13	17.0	15.5	17.5	16.0	19.0	18.5	21.5	20.0	21.5	20.5	20.0	19.0
14	18.0	15.5	17.5	16.5	19.0	18.0	21.0	20.5	21.0	20.0	19.5	19.0
15	16.5	15.5	17.5	16.0	19.0	18.0	20.5	19.5	21.0	20.0	19.5	19.0
16	16.0	15.0	17.5	16.0	19.0	18.5	20.5	19.0	20.5	20.0	19.5	19.0
17	15.5	14.0	17.5	16.5	19.0	18.5	20.0	19.0	20.0	19.5	19.5	19.0
18	15.5	14.0	17.5	16.5	19.5	19.0	20.0	19.0	20.0	19.5	20.5	19.0
19	15.0	14.0	17.0	16.0	20.0	19.0	20.0	19.0	19.5	19.0	21.0	19.5
20	15.5	14.0	17.0	16.0	20.0	19.0	20.0	19.0	19.5	18.5	21.5	19.5
21	16.0	14.5	17.0	16.0	20.0	18.5	20.0	19.0	20.0	19.0	21.5	19.5
22	16.5	14.5	17.0	16.0	19.5	18.5	20.0	19.0	19.5	19.0	21.5	19.5
23	17.5	15.0	18.0	16.0	19.5	18.5	20.5	19.0	19.0	18.5	21.5	20.0
24	17.5	15.5	18.5	16.5	20.0	18.5	20.5	19.0	19.0	18.0	21.5	20.0
25	17.5	15.5	18.5	16.5	19.5	18.5	20.5	19.5	19.0	18.5	21.5	20.0
26	17.0	15.5	18.5	17.0	19.5	18.5	20.5	19.5	19.5	18.5	21.0	19.5
27	16.5	15.5	18.5	17.0	19.5	18.5	20.0	19.5	20.5	18.5	20.0	19.0
28	16.5	14.5	19.0	17.0	19.5	18.5	20.0	19.5	20.5	19.0	19.5	19.0
29	16.0	15.0	19.0	17.0	20.0	18.5	20.0	19.5	20.0	19.0	19.0	18.5
30	15.5	15.0	19.5	17.5	20.5	19.0	20.0	19.5	20.0	19.0	19.0	18.5
31	---	---	19.5	17.5	---	---	20.0	19.0	20.0	19.0	---	---
MONTH	18.0	14.0	19.5	14.5	20.5	17.0	22.0	19.0	---	---	21.5	18.5

11458500 SONOMA CREEK AT AGUA CALIENTE, CA

LOCATION.—Lat 38°19'24", long 122°29'36", in Agua Caliente Grant, [Sonoma County](#), Hydrologic Unit 18050002, on right bank 5 ft upstream from bridge, and 0.4 mi west of Agua Caliente.

DRAINAGE AREA.—58.4 mi².

PERIOD OF RECORD.—Water years 1955 to 1981, October 2001 to September 2002. Prior to October 1966, published as "at Boyes Hot Springs."

GAGE.—Water-stage recorder. Datum of gage is 94.28 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1967, at site 0.8 mi downstream at different datum. July 24, 1967, to Oct. 9, 1968, at site 130 ft upstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation; some diversion above station for irrigation of about 2,000 acres.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,880 ft³/s, Dec. 22, 1955, gage height, 17.10 ft, site and datum then in use, from rating curve extended above 4,100 ft³/s, on basis of slope-area measurement of maximum flow; no flow at times.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,300 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1615	4,810	22.12	Jan. 2	0330	4,000	20.29

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	1.4	1540	562	e30	44	27	13	6.2	2.2	1.3	0.88
2	0.27	0.99	1470	2700	e29	40	26	13	5.9	2.1	1.2	0.69
3	0.20	0.85	390	798	e29	37	26	12	5.8	2.2	1.2	0.60
4	0.18	0.77	195	451	e28	35	25	12	5.1	2.3	1.3	0.43
5	0.19	0.77	197	706	e28	34	25	12	4.8	2.1	1.3	0.41
6	0.20	0.77	339	651	25	161	24	10	4.4	1.9	1.2	0.40
7	0.24	0.77	211	405	51	220	23	10	4.2	1.7	1.0	0.55
8	0.31	0.79	133	308	66	119	22	9.8	4.0	1.6	0.93	0.52
9	0.40	0.79	107	240	38	101	22	9.5	3.8	1.6	0.91	0.55
10	0.36	1.0	83	189	33	373	22	9.3	3.6	1.3	0.89	0.54
11	0.29	7.9	65	153	30	177	20	9.3	3.8	1.2	0.70	0.50
12	0.19	49	52	125	29	133	19	8.7	3.7	1.2	0.84	0.32
13	0.11	13	52	109	28	106	18	8.4	3.9	0.96	0.92	0.26
14	0.07	6.6	374	94	27	89	17	8.4	3.8	1.0	0.86	0.18
15	0.08	4.3	133	81	25	78	17	8.1	3.8	1.2	0.74	0.38
16	0.10	2.9	93	71	30	68	17	7.8	3.5	1.3	0.73	0.31
17	0.10	2.9	264	63	49	64	20	7.4	3.4	1.1	0.77	0.26
18	0.29	2.5	165	56	32	56	17	7.2	3.1	1.0	0.78	0.16
19	0.31	2.0	131	51	145	49	16	10	2.8	1.0	0.79	0.11
20	0.28	2.0	607	47	385	46	16	22	2.7	0.97	0.88	0.08
21	0.29	9.8	401	46	193	43	16	17	2.9	0.96	1.1	0.08
22	0.42	87	439	42	128	45	16	11	2.9	1.1	1.1	0.06
23	0.49	15	386	e40	103	70	15	9.8	2.8	1.2	0.95	0.05
24	0.26	145	187	e38	85	53	14	9.3	2.9	1.1	0.87	0.05
25	0.32	40	155	e36	70	44	14	8.2	2.6	1.1	0.83	0.06
26	0.31	17	150	e35	60	40	14	8.1	2.5	1.1	0.75	0.08
27	0.32	11	124	e34	54	36	13	8.0	2.6	1.1	0.89	0.13
28	0.41	76	607	e33	49	34	13	7.8	2.4	1.00	0.78	0.21
29	0.52	804	514	e32	---	32	14	7.7	2.6	1.2	0.68	0.26
30	3.8	94	778	e31	---	30	13	6.9	2.2	1.7	0.72	0.29
31	2.0	---	862	e30	---	29	---	6.3	---	1.3	0.86	---
TOTAL	13.58	1400.80	11204	8257	1879	2486	561	308.0	108.7	42.79	28.77	9.40
MEAN	0.438	46.69	361.4	266.4	67.11	80.19	18.70	9.935	3.623	1.380	0.928	0.313
MAX	3.8	804	1540	2700	385	373	27	22	6.2	2.3	1.3	0.88
MIN	0.07	0.77	52	30	25	29	13	6.3	2.2	0.96	0.68	0.05
AC-FT	27	2780	22220	16380	3730	4930	1110	611	216	85	57	19

e Estimated.

SONOMA CREEK BASIN

11458500 SONOMA CREEK AT AGUA CALIENTE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.102	27.93	125.7	257.3	221.3	117.4	64.05	12.46	4.367	1.679	0.919	0.776
MAX	130	233	737	791	766	388	418	39.9	19.2	6.29	3.15	4.04
(WY)	1963	1974	1956	1970	1958	1975	1958	1957	1967	1967	1967	1959
MIN	0.000	0.22	0.96	2.46	2.21	5.17	0.76	0.84	0.071	0.000	0.000	0.000
(WY)	1962	1960	1960	1977	1977	1977	1977	1977	1977	1959	1955	1961

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1955 - 2002

ANNUAL TOTAL	26299.04		
ANNUAL MEAN	72.05	69.87	
HIGHEST ANNUAL MEAN		157	1956
LOWEST ANNUAL MEAN		1.38	1977
HIGHEST DAILY MEAN	2700	Jan 2	6190
LOWEST DAILY MEAN	0.05	Sep 23	0.00
ANNUAL SEVEN-DAY MINIMUM	0.07	Sep 20	0.00
MAXIMUM PEAK FLOW	4810	Dec 1	8880
MAXIMUM PEAK STAGE	22.12	Dec 1	17.10
ANNUAL RUNOFF (AC-FT)	52160		50620
10 PERCENT EXCEEDS	157		139
50 PERCENT EXCEEDS	8.4		4.5
90 PERCENT EXCEEDS	0.31		0.30

11459150 PETALUMA RIVER AT COPLAND PUMPING STATION, AT PETALUMA, CA

LOCATION.—Lat 38°14'18", long 122°38'12", in sec.33, T.5 N., R.7 W., Sonoma County, Hydrologic Unit 18050002, on left bank, 0.1 mi upstream from Washington Street Bridge, at Copland Pumping Station, in Petaluma.

DRAINAGE AREA.—45.4 mi².

PERIOD OF RECORD.—October 1998 to current year (high-flow above 50 ft³/s only).

GAGE.—Water-stage recorder and dopler-velocity system. Datum of gage is sea level.

REMARKS.—Records poor. Flows affected by tide. No regulation or diversion above gage.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,890 ft³/s, Feb. 13, 2000, gage height, 6.04 ft, Feb. 7, 1999.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1500 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0700	1,760	(a)	Jan. 2	1200	2,740	(a)
Dec. 2	1430	(a)	5.40	Jan. 2	1545	(a)	5.18

(a) Affected by tide

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	383	295	---	---	---	---	---	---	---	---
2	---	---	832	2020	---	---	---	---	---	---	---	---
3	---	---	223	164	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	650	---	---	---	---	---	---	---	---
6	---	---	113	327	---	---	---	---	---	---	---	---
7	---	---	56	---	---	61	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	90	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	53	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	385	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	88	---	---	---	---	---	---	---
17	---	---	e290	---	---	---	---	---	---	---	---	---
18	---	---	e70	---	---	---	---	---	---	---	---	---
19	---	---	---	---	276	---	---	---	---	---	---	---
20	---	---	351	---	273	---	---	---	---	---	---	---
21	---	---	325	---	---	---	---	---	---	---	---	---
22	---	---	559	---	---	---	---	---	---	---	---	---
23	---	---	96	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	51	---	---	---	---	---	---	---	---	---
27	---	---	55	---	---	---	---	---	---	---	---	---
28	---	70	752	---	---	---	---	---	---	---	---	---
29	---	289	327	---	---	---	---	---	---	---	---	---
30	---	---	523	---	---	---	---	---	---	---	---	---
31	---	---	544	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
AC-FT	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated

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 mi².

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 sea level. Prior to Aug. 23, 1967, at site 0.6 mi upstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Flow regulated by Stafford Lake beginning Dec. 1, 1951, capacity, 4,500 acre-ft, since Oct. 18, 1954. Diversion from Stafford Lake for municipal water supply began Apr. 25, 1952.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,000 ft³/s, Jan. 4, 1982, gage height, 14.52 ft, from contracted opening and slope-area measurements of 3,800 ft³/s, at gage site, and slope-conveyance computations of 1,200 ft³/s, of overflow about 1 mi upstream, which entered the adjoining Warner Creek Basin; no flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.17	0.25	58	119	8.6	9.5	1.5	0.79	0.48	0.50	e0.30	0.15
2	0.20	0.26	121	284	7.8	7.3	1.5	1.2	0.50	0.50	e0.29	0.14
3	0.19	0.23	13	174	7.4	5.8	1.5	0.68	0.51	0.52	e0.27	0.14
4	0.21	0.18	e8.0	124	7.2	4.9	2.0	0.68	0.79	0.49	e0.26	0.13
5	0.21	0.17	e8.0	184	8.6	4.2	1.4	0.65	0.85	0.54	e0.25	0.26
6	0.22	e0.17	11	152	7.4	15	1.3	0.60	0.84	0.51	0.25	0.20
7	0.22	e0.16	12	112	11	17	1.3	0.61	0.84	0.48	0.45	0.15
8	0.24	e0.15	10	89	12	11	1.3	0.58	0.78	0.51	0.24	0.15
9	0.21	e0.15	9.1	69	10	8.8	1.2	1.4	0.73	0.51	0.18	0.14
10	0.20	e0.40	7.8	54	5.3	15	1.2	0.56	0.74	0.49	0.17	0.13
11	0.22	0.99	7.1	44	8.6	10	1.2	0.51	0.74	0.50	0.17	0.11
12	0.20	22	6.4	37	8.2	8.1	1.2	0.49	0.95	0.49	0.18	0.11
13	0.18	e2.5	11	32	5.3	6.0	1.1	0.49	0.74	0.47	0.18	0.13
14	0.19	e1.5	27	29	2.8	4.3	1.2	0.51	0.68	0.50	0.17	0.13
15	0.19	e1.2	8.8	26	3.0	3.8	1.2	0.50	0.66	0.54	0.26	0.13
16	0.21	e1.0	7.2	24	11	3.3	1.9	0.46	0.63	0.56	0.18	0.13
17	0.23	e0.70	17	21	20	5.8	1.8	0.47	0.64	0.57	0.17	0.13
18	0.22	e0.58	12	18	11	3.4	0.89	0.47	0.67	0.90	0.18	0.12
19	0.34	e0.45	16	15	21	2.7	0.85	2.7	2.6	0.54	0.19	0.10
20	0.21	e0.45	63	13	30	2.4	0.85	4.5	0.78	0.43	0.19	0.09
21	0.21	e1.0	52	13	28	2.4	0.85	3.3	0.56	0.42	0.17	0.08
22	0.23	e6.5	62	12	27	4.1	0.84	0.83	0.59	0.44	0.18	0.09
23	0.22	e3.0	32	11	25	7.9	0.79	0.67	0.71	e0.44	0.18	0.10
24	0.21	e6.0	21	9.2	23	4.0	0.72	0.60	0.71	e0.42	0.21	0.09
25	0.21	e12	17	8.5	21	2.7	1.2	0.56	0.57	e0.41	0.19	0.10
26	0.21	e6.2	15	17	17	2.2	0.82	0.57	0.55	e0.39	0.19	0.09
27	0.28	e4.0	15	14	13	2.0	0.70	0.61	0.55	e0.38	0.17	0.13
28	0.31	17	151	17	11	2.0	0.63	0.56	0.89	e0.36	0.15	0.12
29	0.37	e60	99	13	---	1.8	2.6	0.82	0.57	e0.35	0.15	0.11
30	3.9	e28	132	11	---	1.8	0.80	0.61	0.49	e0.33	0.16	0.11
31	0.41	---	130	9.6	---	1.8	---	0.47	---	e0.32	0.16	---
TOTAL	10.82	177.19	1159.4	1755.3	371.2	181.0	36.34	28.45	22.34	14.81	6.44	3.79
MEAN	0.349	5.906	37.40	56.62	13.26	5.839	1.211	0.918	0.745	0.478	0.208	0.126
MAX	3.9	60	151	284	30	17	2.6	4.5	2.6	0.90	0.45	0.26
MIN	0.17	0.15	6.4	8.5	2.8	1.8	0.63	0.46	0.48	0.32	0.15	0.08
AC-FT	21	351	2300	3480	736	359	72	56	44	29	13	7.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)

MEAN	0.712	3.183	15.29	47.53	47.60	25.96	9.014	1.466	0.756	0.644	0.398	0.295
MAX	9.07	17.2	117	210	386	207	81.3	12.9	7.73	8.61	8.53	5.40
(WY)	1963	1974	1956	1995	1998	1983	1958	1983	1980	1980	1980	1967
MIN	0.000	0.000	0.000	0.26	0.35	0.84	0.17	0.016	0.000	0.000	0.000	0.000
(WY)	1947	1948	1950	1948	1948	1976	1977	1961	1951	1947	1947	1947

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1947 - 2002
ANNUAL TOTAL	2732.05	3767.08	
ANNUAL MEAN	7.485	10.32	12.58
HIGHEST ANNUAL MEAN			47.9
LOWEST ANNUAL MEAN			0.40
HIGHEST DAILY MEAN	160	Mar 4	2850
LOWEST DAILY MEAN	0.15	Nov 8	0.08
ANNUAL SEVEN-DAY MINIMUM	0.17	Nov 3	0.09
MAXIMUM PEAK FLOW			401
MAXIMUM PEAK STAGE			5.64
INSTANTANEOUS LOW FLOW			14.52
ANNUAL RUNOFF (AC-FT)	5420	7470	9110
10 PERCENT EXCEEDS	17	21	22
50 PERCENT EXCEEDS	0.69	0.78	0.61
90 PERCENT EXCEEDS	0.20	0.17	0.00

e Estimated.

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 Deadman's 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 mi².

PERIOD OF RECORD.—December 1982 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 102.89 ft above sea level.

REMARKS.—Records good except for estimated daily discharges, which are fair. 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, 5,830 ft³/s, Feb. 3, 1998, gage height, 10.00 ft; minimum daily, 3.8 ft³/s, Oct. 16–18, 1986.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	9.4	708	159	32	44	18	13	12	8.0	8.8	e8.9
2	8.9	9.3	739	929	30	35	19	12	12	8.0	8.9	e8.7
3	8.7	9.2	142	243	28	30	20	12	12	8.0	9.0	e8.5
4	8.5	9.3	69	120	29	28	e20	12	12	8.0	8.9	e8.7
5	8.5	9.3	69	95	30	31	e20	12	12	7.9	8.8	e8.6
6	8.5	9.6	86	87	29	70	e19	12	12	7.9	8.9	e8.4
7	8.6	9.2	61	68	53	127	e19	12	12	8.0	8.9	8.5
8	8.6	9.1	45	68	72	135	e18	12	12	7.9	8.7	8.5
9	8.6	9.2	35	96	71	120	e18	12	11	7.8	8.6	8.5
10	8.6	10	28	91	70	344	e18	12	12	7.7	8.6	8.5
11	8.5	18	28	84	63	321	e18	12	12	7.7	8.6	e8.6
12	8.5	99	27	75	55	222	17	12	12	8.0	8.6	e8.5
13	8.4	28	27	68	48	161	17	12	12	8.8	8.6	8.6
14	8.4	31	114	60	42	120	17	12	12	8.7	8.6	8.5
15	8.4	38	51	53	38	93	17	11	11	8.8	8.8	8.5
16	8.4	28	39	47	46	74	17	11	10	8.9	8.8	e8.6
17	8.5	20	125	41	79	71	17	11	9.1	8.8	8.7	e8.8
18	8.6	20	78	37	69	60	16	11	8.4	8.8	8.6	8.8
19	8.6	20	58	33	140	50	16	13	8.3	8.7	8.7	8.8
20	8.6	20	164	30	405	44	16	13	8.3	8.8	8.8	8.9
21	8.6	22	236	28	342	38	16	13	8.3	8.7	8.7	8.8
22	8.6	30	220	29	226	46	16	12	8.4	8.9	8.7	8.8
23	8.6	25	136	27	152	52	16	12	8.3	8.9	8.8	8.9
24	8.6	100	82	27	120	45	16	12	8.2	8.9	8.8	8.9
25	8.5	53	56	27	97	39	16	11	8.2	8.9	8.7	8.9
26	8.5	34	47	44	78	36	16	11	8.2	8.8	8.7	8.9
27	8.5	29	45	44	65	32	16	11	8.1	8.9	8.6	8.9
28	8.6	194	360	45	53	27	16	12	8.1	9.0	8.7	9.0
29	8.5	329	300	43	---	25	16	12	8.1	8.9	8.8	9.0
30	11	59	365	39	---	21	15	12	8.1	8.8	e9.0	9.0
31	9.6	---	355	35	---	17	---	12	---	8.8	e9.0	---
TOTAL	268.8	1290.6	4895	2872	2562	2558	516	369	304.1	262.7	271.4	261.5
MEAN	8.671	43.02	157.9	92.65	91.50	82.52	17.20	11.90	10.14	8.474	8.755	8.717
MAX	11	329	739	929	405	344	20	13	12	9.0	9.0	9.0
MIN	8.4	9.1	27	27	28	17	15	11	8.1	7.7	8.6	8.4
AC-FT	533	2560	9710	5700	5080	5070	1020	732	603	521	538	519

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2002, BY WATER YEAR (WY)

	8.369	24.72	56.16	122.9	171.3	108.6	28.77	18.11	9.757	7.086	6.535	6.451
MEAN	8.369	24.72	56.16	122.9	171.3	108.6	28.77	18.11	9.757	7.086	6.535	6.451
MAX	13.4	66.3	201	568	796	503	96.6	66.9	26.6	8.69	8.75	8.90
(WY)	1990	1985	1997	1995	1998	1983	1999	1995	1998	1995	2002	1996
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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1983 - 2002	
ANNUAL TOTAL	12841.0		16431.1			
ANNUAL MEAN	35.18		45.02		43.73	
HIGHEST ANNUAL MEAN					112	1998
LOWEST ANNUAL MEAN					14.7	1987
HIGHEST DAILY MEAN	739	Dec 2	929	Jan 2	2870	Feb 3 1998
LOWEST DAILY MEAN	6.3	Jun 23	7.7	Jul 10	3.8	Oct 16 1986
ANNUAL SEVEN-DAY MINIMUM	6.4	Jul 2	7.8	Jul 5	4.0	Oct 16 1986
MAXIMUM PEAK FLOW			2400		Dec 1	5830
MAXIMUM PEAK STAGE			7.48		Dec 1	10.00
ANNUAL RUNOFF (AC-FT)	25470		32590		31680	
10 PERCENT EXCEEDS	75		96		73	
50 PERCENT EXCEEDS	14		12		12	
90 PERCENT EXCEEDS	8.4		8.5		5.3	

e Estimated.

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 mi².

PERIOD OF RECORD.—October 1974 to current year.

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 sea level, from topographic map.

REMARKS.—Records good except for estimated discharges, which are fair. 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 ft³/s, Jan. 4, 1982, gage height, 26.96 ft, from rating curve extended above 7,500 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.01 ft³/s, Sept. 26, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	9.9	1040	e400	62	89	34	17	13	8.9	9.4	8.5
2	8.7	9.7	1300	e1500	58	72	33	14	13	8.9	9.5	8.4
3	8.8	9.6	290	e550	54	60	33	14	13	9.0	9.6	8.5
4	9.0	9.5	129	e385	53	55	32	15	13	8.8	9.5	8.5
5	9.2	9.6	120	e250	53	55	32	15	13	8.7	9.3	8.5
6	9.1	9.5	164	e200	52	125	33	15	13	8.7	9.1	8.6
7	9.1	9.9	115	e155	72	230	33	14	13	8.7	9.0	8.6
8	9.2	9.5	85	e140	157	201	31	14	13	8.7	8.9	8.5
9	9.0	9.6	67	e185	124	168	29	14	13	8.5	8.8	8.5
10	9.0	11	53	e170	113	439	29	14	13	8.4	8.7	8.5
11	9.0	23	45	e150	101	442	27	13	13	8.3	8.7	8.5
12	9.0	126	43	e145	90	331	27	13	13	8.3	8.7	8.6
13	9.0	50	40	e137	81	232	25	13	13	9.4	8.6	8.7
14	8.9	33	283	e122	73	174	25	13	13	9.5	8.6	8.5
15	9.0	44	187	e112	66	138	22	13	13	9.6	8.7	8.4
16	9.0	36	136	e100	74	113	22	13	12	9.8	8.6	8.4
17	9.2	22	351	e93	176	114	24	13	11	9.8	8.7	8.4
18	9.1	22	277	e85	142	105	22	13	9.6	9.8	8.7	8.4
19	9.2	22	194	e78	235	88	22	15	9.4	9.7	8.8	8.2
20	9.3	22	500	e70	604	78	20	17	9.4	9.7	9.0	8.2
21	9.6	23	939	e62	527	68	20	16	9.4	9.7	8.7	8.2
22	9.6	34	832	e60	392	78	20	15	9.5	9.8	8.8	8.3
23	9.7	29	604	54	273	102	20	14	9.4	9.6	8.9	8.2
24	9.5	109	381	51	209	87	19	13	9.3	9.5	8.9	8.3
25	9.4	83	246	51	167	75	19	13	9.3	9.5	8.8	8.3
26	9.4	48	193	84	138	66	19	13	9.2	9.5	8.7	8.4
27	9.6	37	e170	87	116	60	19	13	9.2	9.4	8.6	8.5
28	9.7	66	e840	94	99	51	19	13	9.2	9.5	8.5	8.4
29	9.6	705	e690	88	---	46	20	13	9.2	9.5	8.8	8.6
30	13	109	e850	76	---	41	19	13	9.2	9.4	8.9	8.7
31	11	---	e775	67	---	35	---	13	---	9.3	8.7	---
TOTAL	290.5	1740.8	11939	5801	4361	4018	749	431	339.3	285.9	275.2	253.3
MEAN	9.371	58.03	385.1	187.1	155.8	129.6	24.97	13.90	11.31	9.223	8.877	8.443
MAX	13	705	1300	1500	604	442	34	17	13	9.8	9.6	8.7
MIN	8.6	9.5	40	51	52	35	19	13	9.2	8.3	8.5	8.2
AC-FT	576	3450	23680	11510	8650	7970	1490	855	673	567	546	502

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

	7.661	36.64	106.3	287.0	360.4	218.2	63.10	19.96	8.836	6.270	5.504	5.244
MEAN	7.661	36.64	106.3	287.0	360.4	218.2	63.10	19.96	8.836	6.270	5.504	5.244
MAX	19.2	177	542	1427	1916	1109	531	91.4	32.4	10.3	9.36	9.25
(WY)	1984	1983	1984	1995	1998	1983	1982	1995	1998	1998	1999	1999
MIN	0.19	1.35	1.51	2.37	3.52	7.40	1.59	0.67	0.45	1.77	1.47	1.12
(WY)	1977	1977	1977	1976	1977	1977	1977	1977	1977	1976	1976	1977

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1975 - 2002	
ANNUAL TOTAL	26004.5		30484.0			
ANNUAL MEAN	71.25		83.52		92.46	
HIGHEST ANNUAL MEAN					269	1983
LOWEST ANNUAL MEAN					2.54	1977
HIGHEST DAILY MEAN	1300	Dec 2	1500	Jan 2	10700	Jan 4 1982
LOWEST DAILY MEAN	6.7	Jun 23	8.2	Sep 19	0.01	Sep 26 1977
ANNUAL SEVEN-DAY MINIMUM	6.8	Jul 2	8.2	Sep 19	0.02	Oct 14 1977
MAXIMUM PEAK FLOW			3160	Dec 1	22100	Jan 4 1982
MAXIMUM PEAK STAGE			12.36	Dec 1	26.96	Jan 4 1982
ANNUAL RUNOFF (AC-FT)	51580		60470		66980	
10 PERCENT EXCEEDS	166		193		156	
50 PERCENT EXCEEDS	14		14		11	
90 PERCENT EXCEEDS	8.0		8.6		2.7	

e Estimated.

11460750 WALKER CREEK NEAR MARSHALL, CA

LOCATION.—Lat 38°10'33", long 122°49'02", in Soulalule (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 mi².

PERIOD OF RECORD.—October 1983 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 140 ft above sea level, from topographic map.

REMARKS.—Records good. Flow affected by regulation and diversions and by Soulalule Reservoir on Arroyo Sausal; reservoir capacity, 10,570 acre-ft.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,500 ft³/s, Feb. 2, 1998, gage height, 14.21 ft, from rating curve extended above 1,100 ft³/s, on basis of comparison with discontinued downstream station "Walker Creek near Tomales"; minimum daily, 0.73 ft³/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 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	5.5	297	265	20	31	12	6.8	5.6	5.6	5.2	4.7
2	5.2	5.5	403	945	18	27	11	6.9	5.6	5.6	5.2	4.7
3	5.1	5.5	145	423	17	24	11	7.2	5.6	5.6	5.3	4.7
4	5.1	5.5	67	202	15	21	10	7.0	5.5	5.6	5.2	4.7
5	5.1	5.5	87	428	14	19	10	6.9	5.5	5.7	5.0	4.7
6	5.2	5.5	142	396	13	43	9.9	6.8	5.6	5.6	4.9	4.8
7	5.2	5.5	78	210	26	64	9.8	6.6	5.6	5.6	5.1	4.8
8	5.1	5.5	54	145	47	43	9.4	6.5	5.5	5.6	5.0	4.8
9	5.1	5.5	44	108	35	35	9.2	6.2	5.5	5.5	5.1	4.7
10	5.0	6.4	35	81	29	59	9.0	6.3	5.4	5.3	5.0	4.7
11	5.1	7.8	29	62	25	49	8.7	5.9	5.4	5.3	5.1	4.8
12	5.1	21	24	51	24	42	8.6	5.9	5.5	5.4	4.9	4.9
13	5.1	8.1	27	45	22	37	8.3	5.8	5.6	5.4	4.9	4.9
14	5.0	7.8	109	39	21	33	8.2	6.2	5.5	5.5	4.9	4.8
15	5.0	7.0	48	34	20	31	7.8	6.2	5.5	5.5	4.9	4.6
16	5.1	6.7	40	30	25	28	8.1	6.3	5.5	5.5	4.9	4.6
17	5.2	6.5	103	27	45	31	8.5	6.4	5.5	5.5	5.0	4.7
18	5.2	6.4	102	23	36	29	7.8	6.3	5.5	5.2	4.9	4.7
19	5.2	6.4	92	21	130	25	7.6	6.9	5.4	5.1	5.0	4.6
20	5.2	6.4	174	18	271	23	7.5	6.9	5.5	5.0	4.9	4.6
21	5.3	7.6	272	18	181	21	7.3	7.3	5.5	5.1	4.9	4.6
22	5.2	8.5	249	17	131	27	7.2	6.6	5.6	5.1	4.9	4.7
23	5.2	7.3	193	14	97	36	7.1	6.1	5.5	5.1	4.9	4.6
24	5.1	27	137	12	73	30	6.9	6.0	5.6	4.9	4.9	4.7
25	5.0	14	100	12	58	25	6.8	5.9	5.5	5.1	4.8	4.7
26	5.2	9.7	82	25	50	22	6.8	5.9	5.6	5.2	4.8	4.7
27	5.3	8.3	73	25	44	19	6.9	6.0	5.7	5.1	4.7	4.7
28	5.2	61	469	33	37	16	6.7	6.0	5.8	5.2	4.7	4.5
29	5.2	120	523	32	---	14	7.0	5.9	5.8	5.2	4.8	4.5
30	6.1	36	478	26	---	13	7.0	5.7	5.7	5.2	4.8	4.5
31	5.6	---	468	22	---	12	---	5.6	---	5.1	4.7	---
TOTAL	160.8	439.4	5144	3789	1524	929	252.1	197.0	166.6	165.4	153.3	140.7
MEAN	5.187	14.65	165.9	122.2	54.43	29.97	8.403	6.355	5.553	5.335	4.945	4.690
MAX	6.1	120	523	945	271	64	12	7.3	5.8	5.7	5.3	4.9
MIN	5.0	5.5	24	12	13	12	6.7	5.6	5.4	4.9	4.7	4.5
AC-FT	319	872	10200	7520	3020	1840	500	391	330	328	304	279

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	4.869	10.58	44.37	112.6	145.2	62.25	14.76	7.266	5.366	4.849	4.680	4.733
MEAN	4.869	10.58	44.37	112.6	145.2	62.25	14.76	7.266	5.366	4.849	4.680	4.733
MAX	6.27	46.3	247	572	775	374	45.6	18.6	8.13	5.93	5.84	5.80
(WY)	1990	1984	1984	1995	1998	1995	1999	1995	1998	1998	1998	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1984 - 2002	
ANNUAL TOTAL	9559.8		13061.3			
ANNUAL MEAN	26.19		35.78		34.59	
HIGHEST ANNUAL MEAN					98.3	
LOWEST ANNUAL MEAN					7.41	
HIGHEST DAILY MEAN	523	Dec 29	945	Jan 2	4940	Feb 17 1986
LOWEST DAILY MEAN	4.8	Aug 26	4.5	Sep 28	0.73	Nov 26 1991
ANNUAL SEVEN-DAY MINIMUM	4.9	Aug 23	4.6	Sep 24	0.78	Nov 23 1991
MAXIMUM PEAK FLOW			1230	Jan 2	10500	Feb 2 1998
MAXIMUM PEAK STAGE			5.39	Jan 2	14.21	Feb 2 1998
ANNUAL RUNOFF (AC-FT)	18960		25910		25060	
10 PERCENT EXCEEDS	57		79		46	
50 PERCENT EXCEEDS	5.5		6.4		5.8	
90 PERCENT EXCEEDS	5.0		4.9		4.2	

RUSSIAN RIVER BASIN

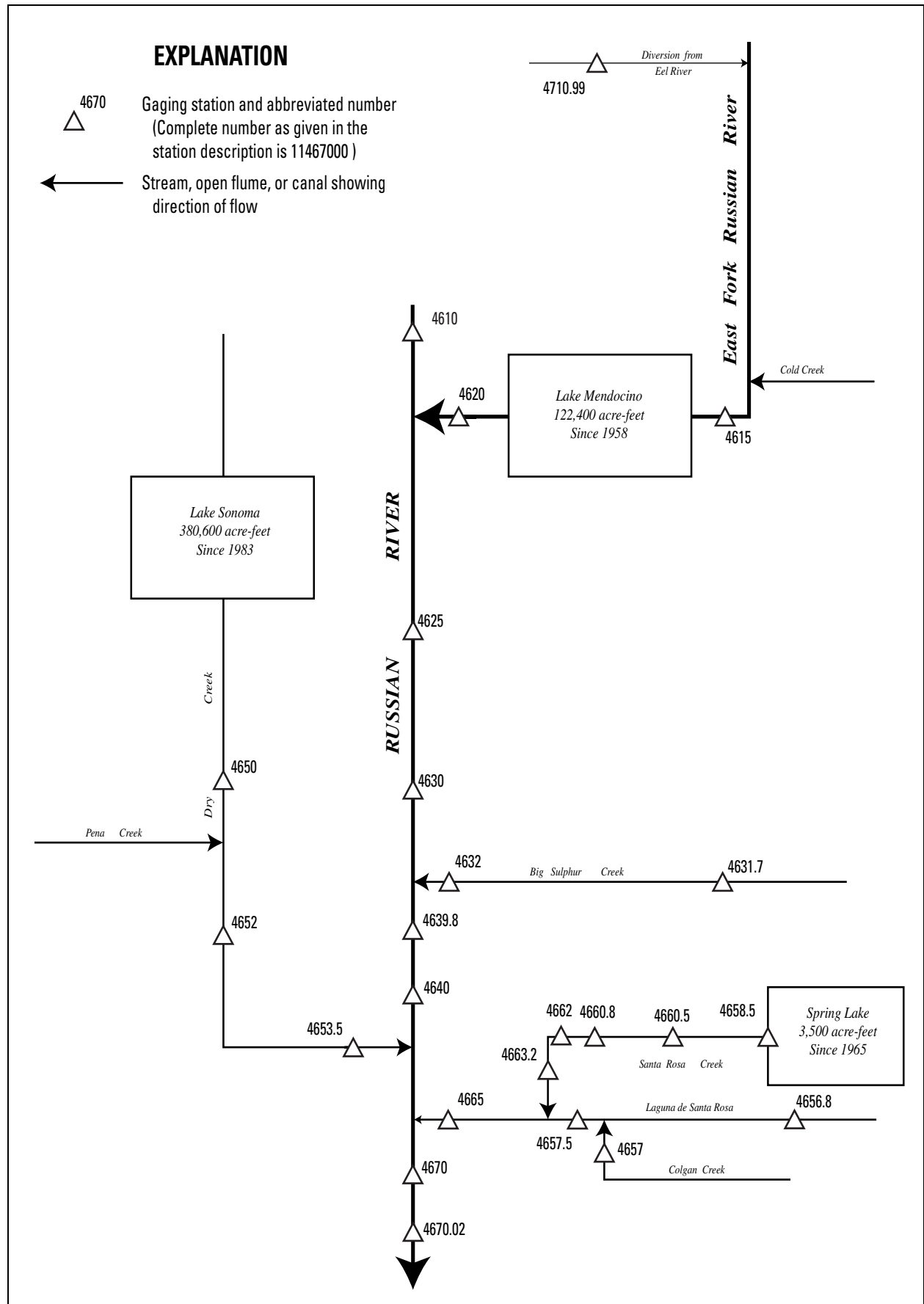


Figure 22. Diversions and storage in Russian River Basin.

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 upstream 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 mi².

PERIOD OF RECORD.—August 1911 to September 1913, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

CHEMICAL DATA: Water years 1977–79.

BIOLOGICAL DATA: Water years 1977–79.

WATER TEMPERATURE: Water years 1965–68.

SEDIMENT DATA: Water years 1964–68, 1991–92, 1994–97.

REVISED RECORDS.—WSP 1929: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 599.22 ft above sea level. 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.—Records good except for estimated discharges, which are fair. No regulation. Diversions upstream from station for irrigation of about 1,000 acres. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 18,900 ft³/s, Dec. 21, 1955, gage height, 19.0 ft, site and datum then in use, maximum gage height, 20.87 ft, Jan. 20, 1993; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 4,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1230	5,560	12.81	Feb. 19	2015	4,060	11.32
Jan. 2	0100	4,580	11.86				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.59	1.4	1870	1770	43	134	e82	26	12	2.1	0.35	0.00
2	0.00	1.1	985	3150	40	119	e74	24	11	1.5	0.31	0.04
3	0.69	1.1	956	1090	33	109	66	22	11	1.3	0.06	0.00
4	1.5	1.1	461	648	30	101	64	21	9.8	1.1	0.15	0.00
5	1.5	1.2	1740	698	27	100	63	20	8.2	1.1	0.06	0.00
6	1.6	1.4	1550	1400	26	193	59	19	7.6	1.7	0.02	0.00
7	1.4	1.3	613	815	90	333	53	19	8.6	1.7	0.00	0.00
8	1.5	1.5	360	606	175	210	50	15	8.2	1.9	0.00	0.00
9	1.0	2.0	284	463	81	174	48	14	8.6	1.8	0.00	0.00
10	1.0	2.1	195	352	59	431	49	16	8.4	0.84	0.00	0.00
11	0.29	3.7	146	273	49	261	46	17	5.5	0.42	0.00	0.00
12	0.65	18	113	219	43	209	44	15	5.0	0.72	0.00	0.00
13	0.04	18	230	182	38	194	41	15	4.8	0.48	0.00	0.00
14	0.12	38	1350	147	34	184	38	15	3.7	0.90	0.00	0.00
15	0.02	19	465	120	30	157	36	15	3.9	0.47	0.00	0.00
16	0.42	16	383	99	29	141	36	14	4.6	0.11	0.00	0.00
17	0.82	24	e1320	83	41	132	50	11	4.7	0.51	0.00	0.00
18	0.42	14	e740	70	30	120	36	12	5.1	0.28	0.00	0.32
19	0.79	8.2	e570	60	1290	108	32	13	4.0	0.10	0.00	0.11
20	0.85	9.9	e750	52	1550	100	32	24	5.2	0.08	0.00	0.09
21	0.91	505	e680	65	730	93	33	32	5.1	0.31	0.00	0.00
22	1.0	680	1030	61	459	109	32	21	4.2	0.68	0.00	0.00
23	1.0	158	815	48	377	342	30	17	3.3	0.63	0.00	0.00
24	0.99	1060	536	41	303	287	29	15	3.1	0.63	0.00	0.00
25	1.0	591	410	38	240	188	27	14	4.1	0.70	0.00	0.00
26	0.34	198	323	113	199	156	25	13	3.2	0.11	0.00	0.39
27	0.94	108	292	86	173	134	25	13	3.0	0.13	0.00	0.02
28	1.2	320	335	62	151	e124	23	12	2.5	0.39	0.00	0.00
29	1.8	1080	511	50	---	e115	25	14	2.8	0.37	0.00	0.00
30	4.5	356	723	43	---	e100	27	12	2.3	0.27	0.00	0.10
31	2.1	---	999	39	---	e90	---	13	---	0.09	0.00	---
TOTAL	30.98	5239.0	21735	12943	6370	5248	1275	523	173.5	23.42	0.95	1.07
MEAN	0.999	174.6	701.1	417.5	227.5	169.3	42.50	16.87	5.783	0.755	0.031	0.036
MAX	4.5	1080	1870	3150	1550	431	82	32	12	2.1	0.35	0.39
MIN	0.00	1.1	113	38	26	90	23	11	2.3	0.08	0.00	0.00
AC-FT	61	10390	43110	25670	12630	10410	2530	1040	344	46	1.9	2.1

e Estimated.

RUSSIAN RIVER BASIN

11461000 RUSSIAN RIVER NEAR UKIAH, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.201	112.3	340.2	560.9	506.5	353.9	150.8	42.10	11.35	2.321	0.615	0.607
MAX	147	682	1663	1986	1975	1436	770	201	57.4	10.8	3.75	2.70
(WY)	1963	1974	1965	1995	1958	1983	1963	1995	1993	1983	1998	1983
MIN	0.000	0.15	1.77	3.82	14.3	20.0	4.33	3.15	0.22	0.000	0.000	0.000
(WY)	1953	1953	1960	1991	1977	1988	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1912 - 2002	
ANNUAL TOTAL	49857.04		53562.92			
ANNUAL MEAN	136.6		146.7		172.8	
HIGHEST ANNUAL MEAN					420	
LOWEST ANNUAL MEAN					5.76	
HIGHEST DAILY MEAN	2170	Mar 4	3150	Jan 2	13300	Dec 22 1964
LOWEST DAILY MEAN	0.00	Jul 24	0.00	Oct 2	0.00	Oct 1 1911
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 28	0.00	Aug 7	0.00	Oct 1 1911
MAXIMUM PEAK FLOW			5560	Dec 1	18900	Dec 21 1955
MAXIMUM PEAK STAGE			12.81	Dec 1	20.87	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	98890		106200		125200	
10 PERCENT EXCEEDS	463		462		416	
50 PERCENT EXCEEDS	8.8		15		13	
90 PERCENT EXCEEDS	0.00		0.00		0.12	

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 mi².

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 sea level. 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.—Records good except for estimated daily discharges, which are fair. Flow greatly affected by diversion from Eel River through Potter Valley Powerplant Intake and Tailrace (stations 11471000 and 11471099, respectively). Diversion for irrigation of about 8,000 acres upstream from station. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 18,700 ft³/s, Dec. 22, 1964, gage height, 20.21 ft, site then in use, maximum gage height, 22.89 ft, Jan. 20, 1993; minimum daily, 1.7 ft³/s, July 23, 1990.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 3,300 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 24	1015	3,550	14.00	Dec. 17	0530	3,430	13.80
Dec. 1	1245	5,550	17.01	Jan. 2	0115	5,170	16.47
Dec. 14	0130	4,310	15.18				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	160	e3010	1740	377	394	288	110	84	59	43	51
2	74	147	e1740	2870	353	387	203	107	92	48	50	43
3	69	157	1030	885	341	380	158	95	80	45	58	48
4	71	158	575	778	331	377	159	86	69	47	55	61
5	68	158	1610	887	338	379	154	85	64	48	49	60
6	56	161	1260	1630	343	403	151	82	66	50	54	68
7	63	160	644	911	404	505	146	73	63	51	65	68
8	64	155	517	744	429	430	148	60	59	49	55	67
9	65	159	475	639	385	425	151	56	54	62	52	67
10	71	161	423	563	373	577	157	53	61	49	59	60
11	91	168	395	517	370	458	144	47	53	44	55	66
12	85	188	380	485	370	425	132	59	50	42	48	71
13	93	150	637	466	370	423	145	62	50	42	50	61
14	103	199	1600	451	366	398	142	75	52	56	60	52
15	104	186	583	434	361	397	131	117	61	54	61	55
16	80	274	547	420	355	391	117	112	65	54	53	70
17	86	274	1540	409	372	393	144	111	58	54	58	65
18	82	251	682	398	348	365	98	108	62	50	60	62
19	89	250	878	391	1140	365	87	113	65	46	54	56
20	104	255	1490	385	1280	366	121	142	76	48	56	65
21	104	824	778	404	716	373	139	144	50	51	64	64
22	103	600	1330	391	573	398	131	85	52	49	58	68
23	97	257	965	379	532	530	124	92	52	48	56	69
24	99	1290	675	372	483	399	122	98	48	81	56	67
25	100	443	586	358	457	386	117	98	51	67	59	57
26	91	250	519	493	436	344	99	89	50	41	59	58
27	102	313	520	417	421	333	101	89	46	45	55	51
28	106	675	614	263	413	334	85	77	46	46	46	59
29	135	1230	859	226	---	322	111	73	49	59	57	62
30	150	499	1240	161	---	314	111	76	59	49	61	68
31	140	---	1160	329	---	307	---	75	---	47	57	---
TOTAL	2830	10152	29262	19796	13037	12278	4116	2749	1787	1581	1723	1839
MEAN	91.29	338.4	943.9	638.6	465.6	396.1	137.2	88.68	59.57	51.00	55.58	61.30
MAX	150	1290	3010	2870	1280	577	288	144	92	81	65	71
MIN	56	147	380	161	331	307	85	47	46	41	43	43
AC-FT	5610	20140	58040	39270	25860	24350	8160	5450	3540	3140	3420	3650

e Estimated.

RUSSIAN RIVER BASIN

11461500 EAST FORK RUSSIAN RIVER NEAR CALPELLA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	224.4	286.7	470.3	630.3	623.6	517.1	340.6	227.7	158.9	134.2	135.2	183.9
MAX	352	738	1476	1720	1815	1611	847	422	363	275	276	298
(WY)	1963	1982	1965	1970	1998	1983	1982	1983	1998	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1942 - 2002	
ANNUAL TOTAL	83860		101150			
ANNUAL MEAN	229.8		277.1		326.4	
HIGHEST ANNUAL MEAN					586 1983	
LOWEST ANNUAL MEAN					76.8 1977	
HIGHEST DAILY MEAN	3010	Dec 1	3010	Dec 1	12500	Dec 22 1964
LOWEST DAILY MEAN	36	Jul 28	41	Jul 26	1.7	Jul 23 1990
ANNUAL SEVEN-DAY MINIMUM	43	Jul 27	47	Jul 26	3.2	Jul 11 1977
MAXIMUM PEAK FLOW			5550	Dec 1	18700	Dec 22 1964
MAXIMUM PEAK STAGE			17.01	Dec 1	22.89	Jan 20 1993
ANNUAL RUNOFF (AC-FT)	166300		200600		236500	
10 PERCENT EXCEEDS	570		606		552	
50 PERCENT EXCEEDS	104		111		247	
90 PERCENT EXCEEDS	48		50		76	

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 mi².

PERIOD OF RECORD.—August 1911 to September 1913, October 1951 to June 1956, October 1957 to current year.

CHEMICAL DATA: Water years 1953–55, 1973–82.

BIOLOGICAL DATA: Water years 1977–78.

WATER TEMPERATURE: Water years 1953–55, 1965–68, 1973–1994.

SEDIMENT DATA: Water years 1953–55, 1964–68.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 614.41 ft above sea level. 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.—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 and about 10 ft³/s at times, through a fish taking station which bypasses the gage. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Prior to regulation by Lake Mendocino, maximum discharge, 13,300 ft³/s, Dec. 21, 1955, gage height, 16.86 ft, site and datum then in use, from rating curve extended above 6,300 ft³/s, on basis of maximum flow at station upstream which was defined to 8,600 ft³/s; no flow Aug. 13–15, 1913.

Maximum discharge since regulation (1959), 7,350 ft³/s, Jan. 24, 1970, gage height, 10.84 ft; minimum daily, 0.02 ft³/s, Apr. 17, 1973.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	107	23	119	199	322	230	180	200	271	233	259
2	242	106	23	28	199	326	311	180	202	271	230	254
3	285	105	368	779	199	326	288	180	183	276	230	246
4	285	105	916	1270	222	275	289	178	156	276	230	245
5	285	105	939	1250	293	214	289	177	154	276	230	242
6	282	105	1040	1270	316	153	289	177	163	276	230	252
7	280	105	961	1070	316	88	289	177	179	276	230	262
8	240	105	896	1030	316	88	289	177	180	276	256	263
9	168	105	446	1030	316	88	212	177	180	276	276	261
10	166	105	112	1040	318	88	150	177	194	276	277	257
11	166	92	112	857	320	76	152	177	206	276	277	254
12	166	83	113	706	321	50	153	177	208	278	279	254
13	166	83	113	705	321	40	153	177	210	280	280	246
14	166	81	113	612	321	40	153	176	214	277	279	235
15	166	80	113	476	321	38	153	176	218	276	277	236
16	166	82	114	474	321	38	153	177	214	276	276	235
17	166	83	400	422	321	38	153	177	230	276	276	234
18	166	83	747	372	321	56	153	177	243	276	276	234
19	166	83	404	321	317	75	167	177	245	276	264	239
20	166	83	146	265	823	75	177	178	245	275	252	246
21	164	83	594	246	1460	75	177	177	246	276	252	243
22	163	83	1040	248	971	75	177	177	246	266	252	242
23	163	84	1170	250	321	75	177	177	245	250	237	242
24	163	85	1310	250	321	75	177	177	243	250	226	242
25	162	85	1310	523	321	75	177	175	244	250	226	241
26	160	57	901	693	321	75	179	184	255	250	241	201
27	160	31	484	694	321	64	179	199	268	250	254	252
28	160	26	564	567	321	75	177	199	271	250	253	238
29	160	23	610	301	---	75	180	199	271	250	254	238
30	129	22	612	199	---	75	180	199	273	250	257	238
31	107	---	598	199	---	75	---	199	---	241	259	---
TOTAL	5798	2465	17292	18266	10758	3308	5983	5611	6586	8299	7869	7331
MEAN	187.0	82.17	557.8	589.2	384.2	106.7	199.4	181.0	219.5	267.7	253.8	244.4
MAX	285	107	1310	1270	1460	326	311	199	273	280	280	263
MIN	107	22	23	28	199	38	150	175	154	241	226	201
AC-FT	11500	4890	34300	36230	21340	6560	11870	11130	13060	16460	15610	14540

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 mi².

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 sea level. Prior to Sept. 9, 1943, nonrecording gage at same site and datum.

REMARKS.—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, 122,400 acre-ft, 15.2 mi upstream. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 45,000 ft³/s, Dec. 22, 1955, gage height, 27.00 ft; minimum daily, 9.1 ft³/s, Apr. 20, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of December 1937 reached a stage of 30.0 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	173	99	3690	3520	393	661	349	250	208	212	161	176
2	170	94	2350	8480	386	632	476	248	210	208	160	177
3	219	95	2400	4430	366	609	438	246	207	199	158	180
4	227	96	2100	3980	359	574	434	243	172	198	163	178
5	243	95	3800	3750	409	502	431	240	158	209	165	169
6	238	94	5730	5220	436	525	425	236	146	200	163	175
7	231	95	2750	3800	472	644	417	233	158	197	164	186
8	231	96	1880	3090	706	542	412	224	158	196	168	189
9	141	97	1350	2740	542	473	374	224	162	194	183	192
10	137	101	588	2470	503	686	298	223	165	204	179	190
11	131	112	471	2000	481	568	287	222	175	202	193	192
12	127	133	407	1420	471	486	279	222	173	192	195	189
13	129	114	407	1310	462	459	273	221	166	188	191	185
14	130	113	3260	1180	452	428	268	220	167	196	188	177
15	131	109	1070	944	442	374	261	217	168	198	184	179
16	128	111	752	877	442	346	262	217	174	192	183	177
17	130	113	3020	807	484	328	280	211	181	181	191	176
18	129	106	2170	713	449	281	249	211	196	192	205	177
19	128	101	2010	635	1670	296	245	213	195	192	197	169
20	126	99	2700	557	4460	295	258	224	192	191	182	176
21	130	207	2670	518	3550	288	259	242	192	194	178	174
22	134	1560	4070	516	2470	303	259	225	186	199	177	180
23	133	318	3840	482	1120	567	258	218	185	179	166	182
24	136	1770	3470	462	975	615	253	212	193	176	151	179
25	136	1230	3140	612	857	464	250	210	189	177	155	182
26	134	402	2400	987	783	407	246	209	193	173	160	158
27	137	231	1290	984	735	372	246	223	207	171	178	205
28	140	293	1380	863	695	346	234	222	199	173	174	194
29	143	2240	1720	586	---	324	244	217	197	174	176	198
30	146	660	1880	422	---	306	252	221	204	174	172	202
31	105	---	3390	398	---	292	---	211	---	175	175	---
TOTAL	4773	10984	72155	58753	25570	13993	9217	6955	5476	5906	5435	5463
MEAN	154.0	366.1	2328	1895	913.2	451.4	307.2	224.4	182.5	190.5	175.3	182.1
MAX	243	2240	5730	8480	4460	686	476	250	210	212	205	205
MIN	105	94	407	398	359	281	234	209	146	171	151	158
AC-FT	9470	21790	143100	116500	50720	27760	18280	13800	10860	11710	10780	10840

RUSSIAN RIVER BASIN

11462500 RUSSIAN RIVER NEAR HOPLAND, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	229.2	419.7	1136	1819	1802	1256	692.1	323.4	215.4	198.1	206.4	208.4
MAX	555	1656	4849	5856	6799	5361	2572	820	490	326	369	383
(WY)	1958	1984	1965	1970	1958	1983	1982	1983	1998	1961	1961	1974
MIN	35.1	96.5	87.6	37.2	28.8	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	176399		224680			
ANNUAL MEAN	483.3		615.6		704.2	
HIGHEST ANNUAL MEAN					1587 1983	
LOWEST ANNUAL MEAN					94.0 1977	
HIGHEST DAILY MEAN	5730	Dec 6	8480	Jan 2	33800	Dec 22 1955
LOWEST DAILY MEAN	90	Jul 2	94	Nov 2	9.1	Apr 20 1977
ANNUAL SEVEN-DAY MINIMUM	95	Nov 2	95	Nov 2	13	Apr 15 1977
MAXIMUM PEAK FLOW			10800	Jan 2	45000	Dec 22 1955
MAXIMUM PEAK STAGE			13.25	Jan 2	27.00	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	349900		445700		510100	
10 PERCENT EXCEEDS	1360		1810		1550	
50 PERCENT EXCEEDS	153		221		252	
90 PERCENT EXCEEDS	112		136		138	

11462500 RUSSIAN RIVER NEAR HOPLAND, CA

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1951 to March 1979, October 1989 to April 1996, January 2002 to September 2002.

CHEMICAL DATA: Water years 1951–66.

TURBIDITY: January 2002 to September 2002.

DISSOLVED OXYGEN: January 2002 to September 2002.

pH: January 2002 to September 2002.

SPECIFIC CONDUCTANCE: January 2002 to September 2002.

SEDIMENT DATA: Water year 1996.

WATER TEMPERATURE: Water years 1965–79, January 2002 to September 2002.

PERIOD OF DAILY RECORD.—

TURBIDITY: January 2002 to September 2002.

DISSOLVED OXYGEN: January 2002 to September 2002.

pH: January 2002 to September 2002.

SPECIFIC CONDUCTANCE: January 2002 to September 2002.

WATER TEMPERATURE: September 1965 to March 1979, January 2002 to September 2002.

INSTRUMENTATION.—Water-quality monitor since January 2002. Electronic data logger with 15 minute interval.

REMARKS.—Turbidity record is rated good. Dissolved oxygen records rated poor. pH record is rated excellent. Specific conductance record is rated good from January 25 to September 23 and poor from September 24–30. Water temperature record is rated excellent. Interruption in record due to data exceeded maximum allowable limits.

EXTREMES FOR PERIOD OF DAILY RECORD.—

TURBIDITY: Maximum recorded, 1300 NTU, Feb.19, 2002; minimum recorded 0.7 NTU, Sept. 29, 2002.

DISSOLVED OXYGEN: Maximum recorded, 16.3 mg/L, May 18, 2002; minimum recorded, 7.5 mg/L, Sept. 10, 11, 2002.

pH: Maximum recorded, 8.7 standard units, May 18, 2002; minimum recorded, 7.1 standard units, July 9, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 218 microsiemens, Mar. 18, Apr. 1, 2002; minimum recorded, 84 microsiemens, Feb. 20, 2002.

WATER TEMPERATURE: Maximum recorded, 27.0°C, Sept. 5, 6, 1977; minimum recorded, 5.0°C, Feb. 2, Dec. 16, 1972, Jan. 31 to Feb. 2, 1975, Dec. 30, 31, 1978.

EXTREME FOR CURRENT YEAR.—

TURBIDITY: Maximum recorded, 1300 NTU, Feb.19; minimum recorded 0.7 NTU, Sept. 29.

DISSOLVED OXYGEN: Maximum recorded, 16.3 mg/L, May 18; minimum recorded, 7.5 mg/L, Sept. 10.

pH: Maximum recorded, 8.7 standard units, May 18; minimum recorded, 7.1 standard units, July 9.

SPECIFIC CONDUCTANCE: Maximum recorded, 218 microsiemens, March 18, April 1; minimum recorded, 84 microsiemens, Feb. 20.

WATER TEMPERATURE: Maximum recorded, 22.5°C, Sept. 11, 12, 18; minimum recorded, 7.5°C, Jan. 29, 30, 31.

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- (FEET) (81903)	TUR- BID- ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
JUL 2002								
15...*	1452	.90	3.0	11.6	7.9	180	17.0	58.0
15...*	1456	1.10	3.1	11.7	7.9	116	16.5	54.0
15...*	1459	1.40	3.3	11.8	7.9	115	16.5	50.0
15...*	1502	1.60	3.6	11.8	7.9	113	16.5	46.0
15...*	1504	1.80	3.4	11.8	7.9	162	16.5	42.0
15...*	1507	2.10	3.2	11.7	7.9	179	16.5	38.0
15...*	1512	1.60	3.3	11.7	7.9	180	16.5	36.0
15...*	1515	2.00	3.3	11.7	7.9	180	16.5	30.0
15...*	1518	2.70	3.3	11.7	7.9	180	16.5	26.0
15...*	1520	2.70	4.2	11.7	7.9	180	17.0	22.0
15...*	1522	2.60	3.5	11.8	7.9	180	17.0	18.0
15...*	1527	2.60	3.3	11.8	7.9	180	17.0	14.0
15...*	1530	2.40	3.3	11.7	7.9	180	17.0	10.0
15...*	1533	1.80	3.0	11.7	7.9	180	17.0	6.00
15...*	1535	.70	4.2	11.6	7.9	180	17.0	2.00
SEP								
23...*	1446	2.80	3.4	9.8	8.0	199	22.0	5.00
23...*	1448	3.23	4.1	9.9	8.0	198	22.0	10.0
23...*	1450	3.50	3.3	9.9	8.0	199	22.0	15.0
23...*	1452	3.55	3.6	9.9	8.0	198	22.0	20.0
23...*	1454	3.15	3.6	9.9	8.0	198	22.0	25.0
23...*	1456	2.53	3.7	9.9	8.0	198	22.0	30.0
23...*	1458	2.13	3.5	9.9	8.0	198	22.0	35.0
23...*	1500	1.74	4.0	9.9	8.0	198	22.0	40.0
23...*	1502	1.43	3.7	9.8	8.0	198	22.0	45.0
23...*	1504	1.12	3.8	9.8	8.0	198	22.0	50.0

* Instantaneous discharge at the time of the cross-sectional measurements: July 15, 194 ft³/s, Sept. 23, 178 ft³/s.

11462500 RUSSIAN RIVER NEAR HOPLAND, CA—Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	13	9.0	20	7.6
2	---	---	---	---	---	---	---	---	14	8.3	16	7.7
3	---	---	---	---	---	---	---	---	11	7.8	22	6.9
4	---	---	---	---	---	---	---	---	13	7.5	17	7.1
5	---	---	---	---	---	---	---	---	14	8.9	19	6.0
6	---	---	---	---	---	---	---	---	16	9.5	24	6.1
7	---	---	---	---	---	---	---	---	56	8.6	130	22
8	---	---	---	---	---	---	---	---	440	19	54	9.7
9	---	---	---	---	---	---	---	---	23	11	18	6.2
10	---	---	---	---	---	---	---	---	15	9.2	120	6.8
11	---	---	---	---	---	---	---	---	13	9.0	44	10
12	---	---	---	---	---	---	---	---	13	8.8	24	7.8
13	---	---	---	---	---	---	---	---	16	9.6	17	6.2
14	---	---	---	---	---	---	---	---	16	8.3	15	7.8
15	---	---	---	---	---	---	---	---	15	8.3	11	5.7
16	---	---	---	---	---	---	---	---	15	8.3	6.5	3.8
17	---	---	---	---	---	---	---	---	20	7.9	40	3.5
18	---	---	---	---	---	---	---	---	12	7.4	9.8	3.4
19	---	---	---	---	---	---	---	---	1300	8.4	9.8	2.7
20	---	---	---	---	---	---	---	---	1200	110	4.9	2.5
21	---	---	---	---	---	---	---	---	150	48	5.9	2.3
22	---	---	---	---	---	---	---	---	57	39	9.1	2.3
23	---	---	---	---	---	---	---	---	49	23	77	9.0
24	---	---	---	---	---	---	---	---	39	16	87	14
25	---	---	---	---	---	---	41	11	20	14	17	7.3
26	---	---	---	---	---	---	37	22	20	10	11	4.5
27	---	---	---	---	---	---	34	18	63	8.9	10	3.8
28	---	---	---	---	---	---	24	15	20	8.5	7.1	3.0
29	---	---	---	---	---	---	19	12	---	---	6.6	2.6
30	---	---	---	---	---	---	15	8.6	---	---	6.2	2.4
31	---	---	---	---	---	---	13	8.6	---	---	12	2.1
MONTH	---	---	---	---	---	---	---	---	1300	7.4	130	2.1
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14	2.2	8.9	2.9	11	3.5	9.2	3.3	8.3	2.0	12	2.6
2	16	5.1	6.4	1.7	9.8	4.1	11	3.3	5.4	1.6	9.9	2.5
3	11	4.1	11	1.7	10	6.1	7.8	2.9	9.4	2.0	10	2.6
4	10	4.2	5.4	1.8	9.9	2.0	9.0	3.1	6.3	2.2	8.7	2.1
5	8.7	4.4	6.0	1.8	8.7	1.9	11	3.4	5.4	1.8	8.3	2.1
6	8.5	4.3	4.1	2.0	9.1	2.2	12	3.4	9.5	1.6	7.7	2.2
7	9.5	4.0	5.9	1.9	7.1	2.4	6.9	3.2	4.9	1.7	10	2.1
8	7.9	3.4	6.4	1.7	6.3	2.4	10	3.2	4.9	1.6	11	2.4
9	7.2	3.0	3.0	1.8	9.3	2.5	9.9	2.0	6.5	2.3	10	2.4
10	4.9	2.4	3.8	1.7	6.1	2.7	7.4	1.9	6.6	2.4	10	2.9
11	5.4	2.3	3.8	2.0	9.2	2.8	6.3	2.0	7.2	2.2	12	2.8
12	4.0	2.2	5.0	1.9	9.3	3.1	9.3	1.9	9.6	2.3	13	3.5
13	4.0	2.1	4.9	2.0	10	3.1	6.5	1.8	11	3.0	10	3.0
14	3.7	2.2	7.7	2.1	9.8	3.5	7.1	1.7	9.1	2.7	12	2.6
15	3.9	2.1	13	2.2	7.7	3.8	7.6	2.1	8.8	2.3	8.9	2.7
16	5.1	2.1	4.7	1.2	8.2	4.0	7.0	2.0	8.4	2.2	8.9	2.2
17	6.6	2.1	7.9	1.3	9.8	2.8	6.6	2.0	8.8	2.3	8.6	2.4
18	8.2	2.2	14	1.5	9.5	3.1	9.7	1.8	7.3	2.2	10	2.8
19	10	1.9	11	1.4	9.5	2.9	12	1.9	6.7	1.9	12	2.8
20	5.3	1.9	13	1.6	14	3.1	7.5	2.2	6.2	2.1	10	3.2
21	4.9	2.1	11	2.5	7.2	2.7	7.0	2.2	7.2	2.1	9.9	3.0
22	4.5	2.2	13	2.6	7.0	3.3	10	2.2	9.3	1.9	9.1	2.8
23	5.7	2.3	5.3	2.2	13	3.4	8.6	2.2	5.7	1.9	9.9	1.6
24	4.5	2.3	9.7	1.9	11	3.6	7.0	2.2	9.2	1.9	8.2	1.6
25	6.3	2.5	10	2.1	10	2.6	12	2.1	11	2.1	15	1.5
26	7.2	2.6	12	2.2	6.9	3.0	8.5	2.2	5.8	1.9	16	1.4
27	7.2	2.6	12	2.8	8.2	3.2	6.6	2.1	9.1	2.6	16	1.6
28	5.1	2.7	7.7	2.7	6.6	2.9	6.5	2.2	7.2	2.3	9.5	1.1
29	6.6	2.9	8.3	3.0	6.6	2.9	8.0	2.3	9.8	2.2	6.5	0.7
30	6.6	3.0	13	3.8	15	2.9	7.8	2.4	8.8	2.1	8.4	1.0
31	---	---	10	4.1	---	---	11	2.1	8.7	2.7	---	---
MONTH	16	1.9	14	1.2	15	1.9	12	1.7	11	1.6	16	0.7

11462500 RUSSIAN RIVER NEAR HOPLAND, CA—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	12.2	11.9	12.1	11.2
2	---	---	---	---	---	---	---	---	12.3	11.9	12.2	11.4
3	---	---	---	---	---	---	---	---	12.2	11.7	12.4	11.5
4	---	---	---	---	---	---	---	---	12.4	11.7	12.5	11.2
5	---	---	---	---	---	---	---	---	12.8	11.8	12.2	11.1
6	---	---	---	---	---	---	---	---	12.4	11.6	12.1	11.0
7	---	---	---	---	---	---	---	---	11.9	11.6	12.1	11.0
8	---	---	---	---	---	---	---	---	12.5	11.7	13.2	11.5
9	---	---	---	---	---	---	---	---	12.6	11.8	13.2	11.6
10	---	---	---	---	---	---	---	---	12.6	11.8	12.9	11.6
11	---	---	---	---	---	---	---	---	12.5	11.6	14.0	11.7
12	---	---	---	---	---	---	---	---	12.4	11.2	13.1	11.1
13	---	---	---	---	---	---	---	---	12.2	11.2	13.3	11.3
14	---	---	---	---	---	---	---	---	12.3	10.9	13.9	11.4
15	---	---	---	---	---	---	---	---	12.0	10.9	13.8	11.3
16	---	---	---	---	---	---	---	---	12.1	11.2	15.0	11.2
17	---	---	---	---	---	---	---	---	12.4	11.3	14.2	11.3
18	---	---	---	---	---	---	---	---	12.8	11.5	15.0	11.5
19	---	---	---	---	---	---	---	---	12.6	11.7	15.0	11.0
20	---	---	---	---	---	---	---	---	12.6	12.2	14.3	10.4
21	---	---	---	---	---	---	---	---	12.9	12.6	14.2	10.0
22	---	---	---	---	---	---	---	---	13.0	11.5	12.9	9.9
23	---	---	---	---	---	---	---	---	12.0	11.5	11.8	10.2
24	---	---	---	---	---	---	---	---	12.4	11.8	12.0	10.5
25	---	---	---	---	---	---	12.4	11.8	12.4	11.8	12.2	10.5
26	---	---	---	---	---	---	12.4	12.2	12.4	11.5	12.1	10.2
27	---	---	---	---	---	---	12.7	12.4	12.1	11.2	11.9	9.9
28	---	---	---	---	---	---	12.6	12.2	12.0	11.1	11.7	9.6
29	---	---	---	---	---	---	12.6	11.8	---	---	11.6	9.4
30	---	---	---	---	---	---	12.5	11.9	---	---	11.7	9.2
31	---	---	---	---	---	---	12.6	12.1	---	---	11.8	9.1
MONTH	---	---	---	---	---	---	---	---	13.0	10.9	15.0	9.1
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.9	8.9	12.2	9.9	---	---	11.8	8.8	---	---	10.9	7.7
2	12.1	9.8	12.4	9.4	---	---	11.8	8.6	---	---	10.8	7.8
3	12.2	9.8	12.7	9.5	---	---	11.7	8.8	---	---	10.8	7.7
4	12.2	10.1	12.9	9.8	---	---	11.8	8.7	---	---	10.2	7.6
5	12.6	10.7	13.2	9.8	12.2	8.3	11.8	8.7	---	---	10.4	7.8
6	12.8	10.4	13.6	10.1	12.4	8.5	11.8	8.7	13.1	8.8	10.4	7.8
7	13.0	10.4	14.1	10.3	12.9	8.9	11.7	8.6	13.2	8.8	10.3	7.8
8	13.3	10.3	14.4	10.6	13.2	9.4	11.6	8.7	13.3	8.7	10.2	7.7
9	13.2	10.3	14.8	10.8	13.5	9.8	11.4	8.5	13.0	8.6	10.1	7.7
10	13.7	10.2	15.1	11.0	12.4	9.7	11.4	8.7	13.0	8.4	10.0	7.5
11	13.9	9.7	15.3	11.1	12.5	9.2	11.4	8.6	12.9	8.4	9.9	7.5
12	14.4	9.9	15.4	11.2	12.6	9.2	11.4	8.5	12.7	8.4	9.9	7.6
13	14.5	9.6	15.5	11.3	12.6	9.3	11.4	8.8	12.7	8.3	9.9	7.6
14	14.6	9.2	15.5	11.2	12.8	9.3	11.4	8.6	12.8	8.3	10.1	7.7
15	14.9	9.6	15.4	11.3	13.0	9.4	11.7	8.8	12.9	8.4	10.0	7.7
16	14.2	9.9	15.2	11.1	13.0	9.4	11.9	8.9	12.9	8.3	10.1	8.0
17	14.7	10.6	15.6	9.6	12.6	9.3	12.0	8.9	12.8	8.4	10.1	7.8
18	14.6	10.6	16.3	9.8	12.6	9.3	12.1	8.9	12.8	8.3	10.3	7.8
19	13.4	10.4	15.6	10.0	12.5	9.5	12.1	8.9	12.9	8.4	10.5	7.7
20	12.9	9.3	15.3	10.7	12.5	9.5	12.3	8.9	---	---	10.4	7.8
21	12.5	9.3	15.7	10.8	12.4	9.7	12.5	8.8	12.2	7.8	10.5	7.8
22	12.2	9.2	16.1	10.8	12.2	9.6	12.2	9.1	12.3	7.9	10.6	7.8
23	11.9	9.1	15.7	10.0	11.8	9.4	12.1	9.0	12.4	7.9	11.6	7.8
24	11.8	9.0	15.2	9.7	11.2	9.1	11.7	8.8	12.5	7.9	11.7	8.4
25	11.7	9.1	---	---	11.8	8.6	11.2	8.4	12.3	8.0	12.2	8.2
26	11.8	9.1	---	---	11.8	8.7	---	---	12.0	7.9	12.9	8.2
27	11.9	9.2	---	---	11.9	8.8	---	---	11.7	7.8	11.5	8.2
28	12.3	9.6	---	---	11.8	8.8	---	---	11.3	7.7	11.7	8.2
29	11.9	9.7	---	---	11.8	8.9	---	---	11.3	7.8	11.7	8.1
30	12.0	9.9	---	---	11.8	8.7	---	---	11.1	7.8	11.8	8.1
31	---	---	---	---	---	---	---	---	10.9	7.7	---	---
MONTH	14.9	8.9	---	---	---	---	---	---	---	---	12.9	7.5

11462500 RUSSIAN RIVER NEAR HOPLAND, CA—Continued

PH, WH, FIELD (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	7.5	7.4	7.6	7.6
2	---	---	---	---	---	---	---	---	7.5	7.5	7.6	7.6
3	---	---	---	---	---	---	---	---	7.5	7.5	7.6	7.6
4	---	---	---	---	---	---	---	---	7.5	7.5	7.7	7.6
5	---	---	---	---	---	---	---	---	7.6	7.5	7.6	7.6
6	---	---	---	---	---	---	---	---	7.7	7.6	7.7	7.6
7	---	---	---	---	---	---	---	---	7.7	7.6	7.7	7.6
8	---	---	---	---	---	---	---	---	7.8	7.7	7.7	7.6
9	---	---	---	---	---	---	---	---	7.7	7.6	7.7	7.6
10	---	---	---	---	---	---	---	---	7.7	7.6	7.8	7.6
11	---	---	---	---	---	---	---	---	7.7	7.6	7.7	7.6
12	---	---	---	---	---	---	---	---	7.7	7.6	7.7	7.6
13	---	---	---	---	---	---	---	---	7.8	7.6	7.7	7.6
14	---	---	---	---	---	---	---	---	7.8	7.6	7.8	7.6
15	---	---	---	---	---	---	---	---	7.7	7.6	7.8	7.6
16	---	---	---	---	---	---	---	---	7.7	7.6	7.8	7.6
17	---	---	---	---	---	---	---	---	7.7	7.6	7.8	7.6
18	---	---	---	---	---	---	---	---	7.7	7.6	7.9	7.6
19	---	---	---	---	---	---	---	---	7.8	7.6	8.0	7.6
20	---	---	---	---	---	---	---	---	7.8	7.7	8.1	7.5
21	---	---	---	---	---	---	---	---	7.9	7.8	8.1	7.5
22	---	---	---	---	---	---	---	---	7.9	7.7	7.8	7.5
23	---	---	---	---	---	---	---	---	7.7	7.6	7.8	7.6
24	---	---	---	---	---	---	---	---	7.7	7.6	7.8	7.6
25	---	---	---	---	---	---	7.7	7.5	7.6	7.6	7.7	7.6
26	---	---	---	---	---	---	7.7	7.6	7.6	7.6	7.7	7.6
27	---	---	---	---	---	---	7.7	7.6	7.6	7.6	7.7	7.6
28	---	---	---	---	---	---	7.6	7.5	7.6	7.6	7.7	7.5
29	---	---	---	---	---	---	7.5	7.4	---	---	7.8	7.5
30	---	---	---	---	---	---	7.4	7.4	---	---	7.8	7.5
31	---	---	---	---	---	---	7.5	7.4	---	---	7.8	7.5
MONTH	---	---	---	---	---	---	---	---	7.9	7.4	8.1	7.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.8	7.5	7.8	7.5	8.3	7.6	7.8	7.4	8.6	7.7	8.2	7.7
2	7.9	7.6	7.9	7.4	8.3	7.7	7.9	7.4	8.6	7.7	8.1	7.7
3	7.9	7.6	7.9	7.5	8.2	7.7	7.8	7.4	8.6	7.7	8.2	7.7
4	7.8	7.6	7.9	7.5	8.0	7.6	7.8	7.4	8.6	7.7	8.0	7.7
5	7.8	7.6	7.9	7.5	8.0	7.5	7.8	7.4	8.4	7.7	8.1	7.6
6	7.9	7.6	7.9	7.5	8.0	7.5	7.7	7.4	8.5	7.6	8.1	7.6
7	7.9	7.6	7.9	7.5	8.1	7.6	7.6	7.3	8.5	7.6	8.0	7.6
8	8.0	7.6	8.0	7.4	8.0	7.6	7.5	7.2	8.5	7.5	8.0	7.6
9	7.8	7.5	8.1	7.5	8.0	7.6	8.1	7.1	8.4	7.5	8.0	7.6
10	8.0	7.5	8.2	7.5	8.0	7.6	8.0	7.6	8.3	7.5	8.0	7.6
11	8.0	7.5	8.2	7.5	8.0	7.5	8.0	7.6	8.2	7.5	8.0	7.6
12	8.2	7.5	8.3	7.4	8.0	7.5	8.0	7.6	8.1	7.4	8.0	7.6
13	8.2	7.5	8.3	7.5	8.0	7.5	8.0	7.6	8.0	7.4	8.0	7.6
14	8.3	7.5	8.4	7.5	8.0	7.4	8.0	7.6	8.1	7.4	8.0	7.6
15	8.2	7.5	8.4	7.4	7.9	7.4	8.1	7.6	8.0	7.4	8.0	7.7
16	7.9	7.5	8.5	7.4	7.8	7.4	8.1	7.6	8.1	7.4	8.0	7.7
17	8.1	7.5	8.6	7.5	8.0	7.4	8.1	7.6	8.4	7.5	8.0	7.7
18	8.0	7.5	8.7	7.5	8.0	7.5	8.1	7.6	8.4	7.6	8.0	7.6
19	8.1	7.4	8.3	7.5	8.0	7.5	8.2	7.6	8.4	7.5	7.9	7.5
20	8.0	7.5	8.2	7.5	8.0	7.5	8.2	7.6	8.5	7.6	7.9	7.5
21	8.0	7.5	8.3	7.5	7.9	7.5	8.3	7.6	8.6	7.6	7.9	7.5
22	7.9	7.5	8.5	7.6	7.9	7.5	8.2	7.6	8.6	7.6	7.9	7.5
23	7.8	7.5	8.4	7.5	8.0	7.4	8.2	7.6	8.6	7.6	7.9	7.5
24	7.8	7.5	8.6	7.5	8.0	7.5	8.3	7.6	8.6	7.6	7.9	7.5
25	7.8	7.5	8.6	7.5	8.0	7.4	8.3	7.6	8.5	7.6	7.9	7.5
26	7.8	7.5	8.6	7.6	8.0	7.5	8.3	7.6	8.4	7.6	7.9	7.5
27	7.8	7.5	8.5	7.6	8.0	7.5	8.4	7.6	8.4	7.6	8.0	7.5
28	7.7	7.5	8.5	7.6	8.0	7.5	8.4	7.6	8.3	7.6	8.0	7.5
29	7.7	7.5	8.4	7.6	7.9	7.4	8.5	7.6	8.2	7.6	8.0	7.5
30	7.7	7.4	8.3	7.6	7.9	7.4	8.4	7.7	8.2	7.6	8.0	7.5
31	---	---	8.3	7.6	---	---	8.5	7.7	8.2	7.7	---	---
MONTH	8.3	7.4	8.7	7.4	8.3	7.4	8.5	7.1	8.6	7.4	8.2	7.5

11462500 RUSSIAN RIVER NEAR HOPLAND, CA—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	199	196	180	179
2	---	---	---	---	---	---	---	---	198	196	181	179
3	---	---	---	---	---	---	---	---	199	197	181	180
4	---	---	---	---	---	---	---	---	204	198	192	181
5	---	---	---	---	---	---	---	---	203	184	195	191
6	---	---	---	---	---	---	---	---	185	184	193	187
7	---	---	---	---	---	---	---	---	185	165	193	164
8	---	---	---	---	---	---	---	---	169	154	183	164
9	---	---	---	---	---	---	---	---	179	169	191	183
10	---	---	---	---	---	---	---	---	182	179	191	146
11	---	---	---	---	---	---	---	---	184	181	180	155
12	---	---	---	---	---	---	---	---	185	183	188	178
13	---	---	---	---	---	---	---	---	186	185	193	186
14	---	---	---	---	---	---	---	---	186	180	193	189
15	---	---	---	---	---	---	---	---	182	181	200	192
16	---	---	---	---	---	---	---	---	183	180	203	197
17	---	---	---	---	---	---	---	---	183	176	205	202
18	---	---	---	---	---	---	---	---	188	182	218	204
19	---	---	---	---	---	---	---	---	183	85	205	200
20	---	---	---	---	---	---	---	---	127	84	208	204
21	---	---	---	---	---	---	---	---	143	127	210	207
22	---	---	---	---	---	---	---	---	153	143	211	203
23	---	---	---	---	---	---	---	---	158	153	203	161
24	---	---	---	---	---	---	---	---	166	158	175	155
25	---	---	---	---	---	---	196	165	174	166	192	175
26	---	---	---	---	---	---	168	165	174	171	196	190
27	---	---	---	---	---	---	166	164	177	174	202	196
28	---	---	---	---	---	---	178	165	179	177	206	202
29	---	---	---	---	---	---	199	178	---	---	210	206
30	---	---	---	---	---	---	201	199	---	---	214	210
31	---	---	---	---	---	---	200	199	---	---	216	214
MONTH	---	---	---	---	---	---	---	---	204	84	218	146
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	218	183	197	194	191	188	177	175	186	182	198	195
2	184	176	196	189	190	187	177	176	186	183	198	197
3	184	182	191	190	190	187	178	175	187	183	199	197
4	184	183	191	190	200	189	178	175	183	180	201	198
5	185	184	191	190	195	191	177	175	183	180	202	200
6	185	184	191	190	194	192	178	175	185	183	202	201
7	186	185	192	190	192	184	179	176	187	184	202	200
8	191	185	193	191	186	185	178	176	187	185	203	202
9	202	187	193	189	185	184	180	176	187	183	206	202
10	206	202	192	189	193	185	182	179	188	184	206	203
11	205	203	192	188	190	188	183	180	188	185	207	204
12	205	202	192	189	189	188	183	181	190	186	208	205
13	204	202	191	188	191	189	185	183	192	188	207	205
14	205	202	191	187	189	187	187	185	192	188	208	205
15	205	203	191	187	189	187	187	180	192	188	207	203
16	205	201	191	177	189	188	181	179	192	188	205	204
17	204	198	189	181	189	177	181	179	191	188	206	204
18	205	202	188	182	180	178	179	176	192	188	206	203
19	203	195	189	184	182	180	177	174	194	190	206	204
20	195	193	189	187	183	181	174	172	195	188	206	204
21	196	194	195	188	183	182	174	169	192	189	207	205
22	196	194	196	193	184	182	171	168	194	190	207	204
23	197	194	196	192	188	183	177	170	196	191	206	204
24	197	196	195	192	189	186	179	177	197	194	204	199
25	197	195	195	192	188	171	181	178	197	194	200	194
26	197	196	195	192	176	173	183	180	198	195	194	186
27	197	195	194	188	176	173	183	181	197	193	199	180
28	197	195	190	188	176	174	183	180	197	194	181	176
29	197	194	191	188	177	175	184	180	198	195	177	171
30	196	194	191	188	178	175	183	181	198	194	171	166
31	---	---	190	188	---	---	184	180	197	195	---	---
MONTH	218	176	197	177	200	171	187	168	198	180	208	166

11462500 RUSSIAN RIVER NEAR HOPLAND, CA—Continued

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

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 mi².

PERIOD OF RECORD.—July 1951 to current year.

WATER TEMPERATURE: Water years 1964–68, 1994–96.

SEDIMENT DATA: Water years 1964–68, 1994–96.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 350 ft above sea level, from topographic map. Prior to July 30, 1970, at site 0.2 mi upstream at different datum.

REMARKS.—Records good except for estimated daily discharges, which are 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. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 55,200 ft³/s, Dec. 22, 1964, gage height, 31.60 ft, site and datum then in use; minimum daily, 12 ft³/s, Apr. 22, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	104	5150	4550	557	769	402	285	212	223	169	186
2	154	97	4000	11900	547	721	583	277	213	209	165	190
3	181	94	3250	5830	518	682	542	274	215	208	164	191
4	206	94	2500	4450	499	648	535	269	181	200	173	176
5	238	93	3240	4270	534	550	528	265	167	224	174	173
6	247	90	6120	5950	575	578	521	261	159	213	164	175
7	244	89	3250	4680	606	770	510	257	168	210	170	180
8	250	87	2140	3740	909	687	502	245	170	209	165	197
9	192	90	1720	3260	747	552	485	237	176	200	184	198
10	148	92	935	2880	688	955	384	238	178	208	176	199
11	130	118	737	2460	657	780	360	238	192	208	190	199
12	130	290	619	1820	642	628	340	239	193	201	193	203
13	123	186	611	1650	627	567	330	237	183	193	186	201
14	120	142	3710	1520	613	516	321	232	182	198	188	191
15	129	130	1580	1250	598	468	308	228	177	204	185	190
16	129	128	1120	1140	604	439	303	227	178	199	183	194
17	129	138	3280	1060	716	408	332	219	195	181	186	190
18	128	e130	2650	948	637	355	293	215	213	190	206	186
19	130	e125	2360	866	962	366	278	218	214	193	213	179
20	123	e120	3630	781	4360	380	301	242	207	185	195	184
21	127	e340	3580	720	3680	370	302	262	210	183	196	188
22	133	e1900	4670	720	2900	396	300	248	196	199	190	185
23	131	e920	4430	670	1470	884	298	237	183	198	183	193
24	133	e2210	3860	639	1250	931	295	229	195	182	161	192
25	133	1720	3480	680	1080	690	288	223	194	181	159	187
26	134	692	3020	1110	961	598	281	218	196	179	164	187
27	134	393	1820	1170	888	539	284	232	212	174	181	167
28	141	781	2060	1080	823	500	261	232	212	168	183	191
29	143	2810	2520	829	---	464	278	225	208	179	186	193
30	156	1130	2720	618	---	431	288	229	216	178	184	200
31	125	---	4590	568	---	408	---	217	---	187	182	---
TOTAL	4786	15333	89352	73809	29648	18030	11033	7455	5795	6064	5598	5665
MEAN	154.4	511.1	2882	2381	1059	581.6	367.8	240.5	193.2	195.6	180.6	188.8
MAX	250	2810	6120	11900	4360	955	583	285	216	224	213	203
MIN	120	87	611	568	499	355	261	215	159	168	159	167
AC-FT	9490	30410	177200	146400	58810	35760	21880	14790	11490	12030	11100	11240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
MEAN	244.3	566.0	1551	2681	2588	1786	887.1	386.2	242.2	212.2	219.1	215.2
MAX	659	2636	6398	8324	9790	7015	3708	1156	840	336	359	385
(WY)	1963	1984	1965	1995	1998	1983	1982	1983	1998	1998	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 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1951 - 2002
ANNUAL TOTAL	238856	272568	
ANNUAL MEAN	654.4	746.8	958.3
HIGHEST ANNUAL MEAN			2144
LOWEST ANNUAL MEAN			99.2
HIGHEST DAILY MEAN	7650	Feb 20	42800
LOWEST DAILY MEAN	79	Jul 3	12
ANNUAL SEVEN-DAY MINIMUM	91	Nov 4	16
MAXIMUM PEAK FLOW		14700	55200
MAXIMUM PEAK STAGE		14.46	31.60
ANNUAL RUNOFF (AC-FT)	473800	540600	694300
10 PERCENT EXCEEDS	2030	2270	2270
50 PERCENT EXCEEDS	163	237	266
90 PERCENT EXCEEDS	108	142	156

e Estimated.

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 mi².

PERIOD OF RECORD.—October 1980 to current year.

REVISED RECORDS.—WDR CA-98-2: 1995-96(P).

GAGE.—Water-stage recorder. Elevation of gage is 1,430 ft above sea level, from topographic map.

REMARKS.—Records good except for estimated daily discharges, which are fair. Diversion for industrial use 150 ft upstream from station when flows are above 10 ft³/s. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 8,010 ft³/s, Jan. 1, 1997, gage height, 9.78 ft, from rating curve extended above 1,200 ft³/s, on basis of culvert computation of peak flow; minimum daily, 0.08 ft³/s, Aug. 31, 1983.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1115	1,840	6.91	Jan. 2	1100	2,020	7.02

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.65	1.2	603	270	13	15	e12	e9.3	e4.4	e1.7	1.1	0.62
2	0.68	0.91	539	1320	13	15	e11	e9.1	e4.0	e1.6	0.97	0.62
3	0.69	0.86	250	379	13	15	e10	e8.8	e3.8	e1.5	0.79	0.66
4	0.66	0.86	123	201	13	14	e10	e8.6	e3.7	e1.5	0.86	0.62
5	0.67	0.86	191	185	13	14	e10	e8.4	e3.6	e1.4	0.83	0.54
6	0.69	0.86	183	241	13	20	e11	e8.2	e3.6	e1.4	0.82	0.54
7	0.67	0.86	90	160	21	22	e11	e8.0	e3.5	e1.4	0.94	0.60
8	0.68	0.86	56	112	17	15	e12	e7.8	e3.4	e1.3	0.93	0.59
9	0.71	0.86	39	83	16	18	e12	e7.6	e3.2	e1.2	0.92	0.61
10	0.71	1.1	28	65	16	72	e13	e7.4	e3.1	1.2	0.91	0.61
11	0.74	21	16	57	15	28	e13	e7.6	e3.0	1.2	0.84	0.60
12	0.75	168	12	46	15	17	e12	e7.0	e2.9	0.99	0.71	0.59
13	0.76	25	22	39	15	14	e12	e7.0	e2.8	0.89	0.77	0.65
14	0.77	20	136	27	15	14	e11	e6.9	e2.8	0.89	0.83	0.66
15	0.79	11	40	16	15	14	e11	e7.0	e2.7	0.88	0.85	0.73
16	0.79	12	35	12	15	14	e10	e6.9	e2.7	0.89	0.89	0.81
17	0.79	14	173	12	15	14	e12	e6.8	e2.7	0.84	0.93	0.79
18	0.82	8.4	78	13	15	17	e11	e6.8	e2.8	0.84	0.85	0.74
19	0.73	7.2	64	12	23	17	e10	e8.5	e2.7	0.85	0.78	0.66
20	0.43	13	191	12	32	17	e10	e10	e2.6	0.85	0.78	0.73
21	0.43	107	177	12	18	18	e9.9	e17	e2.6	0.89	0.76	0.81
22	0.46	78	193	13	15	51	e9.8	e14	e2.5	0.93	0.79	0.79
23	0.50	19	136	14	15	96	e9.6	e10	e2.4	0.93	0.78	1.0
24	0.49	217	90	13	14	49	e9.5	e8.2	e2.3	0.88	0.76	1.3
25	0.53	57	67	13	15	34	e9.3	e7.8	e2.1	0.86	0.79	0.82
26	0.55	27	52	16	15	27	e9.2	e6.8	e2.0	0.88	0.66	0.82
27	0.57	16	42	13	15	20	e9.2	e6.0	e2.0	0.91	0.60	0.85
28	0.63	48	120	13	15	16	e8.6	e5.5	e1.9	0.96	0.59	0.88
29	0.65	114	139	13	---	15	e9.3	e5.2	e2.0	1.0	0.59	0.89
30	8.8	38	222	13	---	e15	e9.0	e5.0	e1.8	1.0	0.60	0.87
31	1.9	---	244	13	---	e14	---	e4.7	---	1.3	0.58	---
TOTAL	29.69	1029.83	4351	3408	445	741	317.4	247.9	85.6	33.86	24.80	22.00
MEAN	0.958	34.33	140.4	109.9	15.89	23.90	10.58	7.997	2.853	1.092	0.800	0.733
MAX	8.8	217	603	1320	32	96	13	17	4.4	1.7	1.1	1.3
MIN	0.43	0.86	12	12	13	14	8.6	4.7	1.8	0.84	0.58	0.54
AC-FT	59	2040	8630	6760	883	1470	630	492	170	67	49	44

e Estimated.

11463170 BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.081	25.37	75.64	114.2	127.7	96.41	30.07	18.30	6.085	2.772	1.429	1.271
MAX	20.9	146	341	639	571	358	162	81.6	18.0	7.34	2.99	2.90
(WY)	1990	1984	1997	1995	1986	1995	1982	1990	1998	1998	1998	1985
MIN	0.74	1.22	1.81	2.52	7.34	8.57	8.44	4.79	2.54	0.86	0.70	0.65
(WY)	1989	1981	1991	1991	1989	1988	1990	1986	2001	1984	1988	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1981 - 2002
ANNUAL TOTAL	11830.29	10736.08	
ANNUAL MEAN	32.41	29.41	41.50
HIGHEST ANNUAL MEAN			101 1995
LOWEST ANNUAL MEAN			15.5 1994
HIGHEST DAILY MEAN	603 Dec 1	1320 Jan 2	3920 Feb 17 1986
LOWEST DAILY MEAN	0.43 Oct 20	0.43 Oct 20	0.08 Aug 31 1983
ANNUAL SEVEN-DAY MINIMUM	0.48 Oct 20	0.48 Oct 20	0.24 Oct 13 1983
MAXIMUM PEAK FLOW		2020 Jan 2	8010 Jan 1 1997
MAXIMUM PEAK STAGE		7.02 Jan 2	9.78 Jan 1 1997
ANNUAL RUNOFF (AC-FT)	23470	21300	30070
10 PERCENT EXCEEDS	90	66	88
50 PERCENT EXCEEDS	4.7	8.2	6.1
90 PERCENT EXCEEDS	0.73	0.68	1.0

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 mi².

PERIOD OF RECORD.—July 1957 to September 1972, October 1989 to current year (since October 1989, low-flow records only).

REVISED RECORDS.—WSP 1929: 1958–60.

GAGE.—Water-stage recorder. Elevation of gage is 350 ft above sea level, from topographic map. Prior to September 1972, at site 0.8 mi upstream at different datum.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No records computed above 200 ft³/s. Diversions for irrigation and geothermal recharge upstream from station. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge (water years 1958–72), 15,700 ft³/s, Dec. 22, 1964, gage height, 15.08 ft, site and datum then in use, from rating curve extended above 5,700 ft³/s, on basis of slope-area measurement at gage height, 16.8 ft; minimum daily, 0.90 ft³/s, Aug. 17, 1994.

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 ft³/s, by slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	15	---	---	85	82	e45	e35	e16	e6.1	e3.8	1.8
2	1.7	11	---	---	85	78	e42	e34	e15	e5.8	e3.3	1.6
3	1.6	9.1	---	---	82	75	e38	e33	e14	e5.4	e2.7	1.6
4	1.5	8.1	---	---	78	72	e38	e32	e14	e5.4	e2.9	1.5
5	1.5	7.8	---	---	76	71	e38	e32	e13	e5.0	e2.8	1.5
6	1.7	7.5	---	---	74	88	e42	e31	e13	e5.0	e2.8	1.7
7	2.0	7.5	---	---	100	134	e42	e30	e13	e5.0	e3.0	1.9
8	2.1	7.7	---	---	190	104	e45	e29	e13	e4.6	e2.9	1.9
9	2.2	7.5	154	---	100	90	e45	e29	e12	e4.2	e2.8	1.7
10	2.1	9.1	99	---	91	---	e49	e28	e12	e4.3	e2.6	1.7
11	1.9	28	65	---	87	146	e49	e29	e11	e4.1	e2.4	1.7
12	1.8	---	45	---	83	115	e45	e26	e11	e3.4	e2.4	1.7
13	1.6	138	52	---	80	99	e45	e26	e10	e3.0	e2.3	1.7
14	1.5	93	---	198	77	92	e42	e26	e10	e3.1	e2.2	1.7
15	1.5	53	168	171	74	87	e42	e26	e9.9	e3.0	e2.1	1.7
16	1.5	41	113	152	82	83	e38	e26	e9.9	e3.1	e2.0	1.7
17	1.5	56	---	141	116	80	e45	e26	e9.9	e2.9	e1.8	1.7
18	1.6	35	---	133	86	77	e42	e26	e10	e2.9	e1.8	1.8
19	1.9	24	---	126	112	73	e38	e32	e9.9	e2.9	e1.7	1.7
20	2.1	34	---	119	---	71	e38	e38	e9.6	e2.9	1.7	1.7
21	2.0	75	---	117	157	69	e37	e64	e9.6	e3.0	1.7	1.6
22	2.0	---	---	112	126	e195	e37	e53	e9.2	e3.2	1.7	1.7
23	2.0	80	---	106	117	---	e36	e38	e8.8	e3.2	1.7	1.8
24	2.1	96	---	102	110	e188	e36	e31	e8.4	e3.0	1.8	1.9
25	2.1	---	---	98	103	e130	e35	e29	e7.7	e2.9	1.8	1.9
26	2.1	111	---	126	97	e102	e35	e26	e7.3	e3.0	1.8	2.0
27	2.0	73	176	110	92	e76	e35	e22	e7.3	e3.1	1.7	2.0
28	2.3	86	---	101	88	e61	e32	e21	e6.9	e3.3	1.7	1.9
29	3.0	---	---	97	---	e56	e35	e20	e7.3	e3.6	1.7	2.0
30	23	---	---	94	---	e57	e34	e19	e6.5	e3.5	1.8	2.6
31	28	---	---	e90	---	e53	---	e18	---	e4.6	1.9	---
TOTAL	105.8	---	---	---	---	---	1200	935	315.2	118.5	69.3	53.4
MEAN	3.413	---	---	---	---	---	40.00	30.16	10.51	3.823	2.235	1.780
MAX	28	---	---	---	---	---	49	64	16	6.1	3.8	2.6
MIN	1.5	---	---	---	---	---	32	18	6.5	2.9	1.7	1.5
AC-FT	210	---	---	---	---	---	2380	1850	625	235	137	106

e Estimated.

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1988 to current year (low-flow records 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 sea level, from topographic map.

REMARKS.—Records fair. No records computed above 400 ft³/s. See schematic diagram of [Russian River Basin](#).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	e155	---	---	---	---	597	365	251	206	e156	153
2	133	e127	---	---	---	---	---	358	246	205	e148	155
3	129	e120	---	---	---	---	---	352	244	198	e145	155
4	146	e117	---	---	---	---	---	347	239	194	e150	156
5	163	e112	---	---	---	---	---	341	213	196	e151	146
6	185	e110	---	---	---	---	---	333	194	206	143	140
7	198	e108	---	---	---	---	---	326	187	199	136	143
8	203	e105	---	---	---	---	---	321	189	198	141	148
9	206	e102	---	---	---	---	---	308	184	188	138	160
10	173	e105	---	---	---	---	---	300	192	174	145	163
11	147	e138	---	---	---	---	---	297	192	172	144	163
12	e125	---	---	---	---	---	---	292	201	176	161	168
13	e120	---	---	---	---	---	---	290	203	176	164	173
14	e115	---	---	---	---	---	---	287	195	176	160	171
15	e112	---	---	---	---	---	---	282	192	181	159	163
16	e110	e320	---	---	---	---	---	274	187	185	156	164
17	e115	e340	---	---	---	---	---	270	189	179	157	162
18	e110	e300	---	---	---	---	---	262	199	167	165	159
19	e110	e250	---	---	---	---	---	265	210	175	182	152
20	e109	e240	---	---	---	---	---	293	213	177	186	140
21	e110	e385	---	---	---	---	---	338	210	175	173	142
22	e115	---	---	---	---	---	---	331	207	180	173	150
23	e114	---	---	---	---	---	397	305	193	190	168	153
24	e110	---	---	---	---	---	389	289	185	179	160	156
25	e112	---	---	---	---	---	383	278	190	169	144	155
26	e114	---	---	---	---	---	374	273	188	170	140	154
27	e117	---	---	---	---	---	368	269	192	160	136	150
28	e120	---	---	---	---	---	358	278	203	157	146	144
29	e126	---	---	---	---	---	349	272	201	157	151	156
30	e180	---	---	---	---	---	362	262	201	159	157	164
31	e188	---	---	---	---	---	---	260	---	e160	156	---
TOTAL	4245	---	---	---	---	---	---	9318	6090	5584	4791	4658
MEAN	136.9	---	---	---	---	---	---	300.6	203.0	180.1	154.5	155.3
MAX	206	---	---	---	---	---	---	365	251	206	186	173
MIN	109	---	---	---	---	---	---	260	184	157	136	140
AC-FT	8420	---	---	---	---	---	---	18480	12080	11080	9500	9240

e Estimated.

11463980 RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—June 2002 to September 2002.

TURBIDITY: June 2002 to September 2002.

DISSOLVED OXYGEN: June 2002 to September 2002.

pH: June 2002 to September 2002.

SPECIFIC CONDUCTANCE: June 2002 to September 2002.

WATER TEMPERATURE: June 2002 to September 2002.

PERIOD OF DAILY RECORD.—

TURBIDITY: June 2002 to September 2002.

DISSOLVED OXYGEN: June 2002 to September 2002.

pH: June 2002 to September 2002.

SPECIFIC CONDUCTANCE: June 2002 to September 2002.

WATER TEMPERATURE: June 2002 to September 2002.

INSTRUMENTATION.—Water-quality monitor since June 2002. Electronic data logger with 15 minute interval.

REMARKS.—Turbidity record is rated poor. Dissolved oxygen and specific conductance records rated good. pH and water temperature records rated excellent. Interruption in record due to data exceeded maximum allowable limits.

EXTREME FOR PERIOD OF RECORD.—

TURBIDITY: Maximum recorded, 49 NTU, July 3, 2002; minimum recorded 0.2 NTU, July 8, 2002.

DISSOLVED OXYGEN: Maximum recorded, 16.8 mg/L, Aug. 7, 2002; minimum recorded, 6.0 mg/L, Aug. 16, 2002.

pH: Maximum recorded, 9.1 standard units, Aug. 6, 7, 2002; minimum recorded, 7.4 standard units, July 29, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 274 microsiemens, June 29, 2002; minimum recorded, 222 microsiemens, Sept. 3, 4, 2001.

WATER TEMPERATURE: Maximum recorded, 28.0°C, July 10, 2002; minimum recorded, 17.0°C, Sept. 28, 2001.

EXTREME FOR CURRENT YEAR.—

TURBIDITY: Maximum recorded, 49 NTU, July 3; minimum recorded 0.2 NTU, July 8.

DISSOLVED OXYGEN: Maximum recorded, 16.8 mg/L, Aug. 7; minimum recorded, 6.0 mg/L, Aug. 16.

pH: Maximum recorded, 9.1 standard units, Aug. 6, 7; minimum recorded, 7.4 standard units, July 29.

SPECIFIC CONDUCTANCE: Maximum recorded, 274 microsiemens, June 29; minimum recorded, 222 microsiemens, Sept. 3, 4.

WATER TEMPERATURE: Maximum recorded, 28.0°C, July 10; minimum recorded, 17.0°C, Sept. 28.

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- ATION, (FEET) (81903)	TUR- BID- ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
JUL 2002								
19...	1117	1.79	1.8	10.2	8.2	255	23.0	18.0
19...	1118	1.70	1.0	10.3	8.2	255	23.0	23.0
19...	1120	2.30	1.1	10.4	8.3	254	23.0	28.0
19...	1122	2.50	.9	10.5	8.3	254	23.0	33.0
19...	1125	2.80	.9	10.6	8.3	254	23.0	38.0
19...	1130	2.80	.9	10.6	8.3	254	23.5	43.0
19...	1132	2.80	.8	10.6	8.3	254	23.5	48.0
19...	1135	2.80	.9	10.6	8.3	254	23.5	53.0
19...	1139	2.80	.8	10.6	8.3	254	23.5	58.0
19...	1142	2.80	.7	10.6	8.3	254	23.5	63.0
19...	1145	2.70	.9	10.6	8.3	254	23.5	68.0
19...	1148	2.90	.8	10.6	8.3	254	23.5	73.0
19...	1150	3.10	.8	10.4	8.3	254	23.5	78.0
19...	1153	3.00	.8	10.4	8.3	254	23.5	83.0
19...	1155	1.00	.9	10.4	8.3	254	23.5	88.0
SEP								
20...	1300	2.78	.5	9.8	8.2	250	22.5	10.0
20...	1301	2.98	1.2	9.8	8.2	250	22.5	20.0
20...	1303	2.50	.7	9.8	8.2	250	22.5	30.0
20...	1305	2.65	.9	9.8	8.2	249	22.5	40.0
20...	1307	2.72	.6	9.8	8.2	250	22.5	50.0
20...	1309	2.43	1.0	9.8	8.2	250	22.5	60.0
20...	1310	2.00	.5	9.8	8.2	249	22.5	70.0
20...	1312	1.92	.8	9.8	8.2	250	22.5	80.0
20...	1313	1.61	.7	9.8	8.2	250	22.5	90.0
20...	1315	1.58	.7	9.7	8.2	250	22.5	100

* Instantaneous discharge at the time of cross-sectional measurements: 178 ft³/s, July 19; 139 ft³/s, Sept 20.

RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG, CA—Continued

TURBIDITY, NTU, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.0	1.4	9.2	2.1	11	2.3
2	---	---	---	---	---	---	8.3	1.3	16	1.9	7.9	0.6
3	---	---	---	---	---	---	49	1.0	15	2.4	---	---
4	---	---	---	---	---	---	9.7	1.4	17	2.0	---	---
5	---	---	---	---	---	---	5.8	1.1	15	0.5	10	0.7
6	---	---	---	---	---	---	9.4	1.0	11	0.5	11	0.8
7	---	---	---	---	---	---	6.7	1.2	11	0.6	9.1	0.9
8	---	---	---	---	---	---	6.5	0.2	8.8	0.5	9.3	0.7
9	---	---	---	---	---	---	4.6	0.6	7.9	0.9	8.1	0.7
10	---	---	---	---	---	---	6.1	0.5	9.2	0.6	9.4	0.7
11	---	---	---	---	---	---	29	0.8	8.2	0.6	6.2	0.8
12	---	---	---	---	---	---	7.0	0.7	9.5	0.7	10	0.8
13	---	---	---	---	---	---	7.6	0.7	9.8	0.7	7.7	0.8
14	---	---	---	---	---	---	6.5	0.7	7.5	0.8	9.6	0.8
15	---	---	---	---	---	---	6.3	0.7	8.2	1.0	9.9	0.7
16	---	---	---	---	---	---	46	1.1	8.8	1.0	9.3	0.7
17	---	---	---	---	---	---	22	0.8	9.5	1.0	9.9	1.2
18	---	---	---	---	---	---	5.2	0.7	9.7	1.0	9.6	1.9
19	---	---	---	---	---	---	7.0	0.6	9.7	0.6	9.3	1.6
20	---	---	---	---	---	---	6.7	0.8	11	1.1	9.5	1.2
21	---	---	---	---	---	---	4.9	0.7	10	1.2	8.5	1.1
22	---	---	---	---	---	---	6.2	0.6	8.7	1.8	9.0	1.4
23	---	---	---	---	---	---	6.1	0.8	13	1.1	9.2	1.0
24	---	---	---	---	---	---	13	1.6	13	2.0	12	1.2
25	---	---	---	---	---	---	15	1.5	13	2.3	16	2.2
26	---	---	---	---	---	---	14	0.9	12	2.9	38	2.2
27	---	---	---	---	---	---	20	1.2	9.1	2.6	7.8	0.7
28	---	---	---	---	---	---	17	1.6	7.4	1.6	11	0.9
29	---	---	---	---	5.0	1.3	12	1.9	7.7	1.8	8.7	0.6
30	---	---	---	---	4.3	1.3	16	1.6	11	1.7	10	1.5
31	---	---	---	---	---	---	13	2.0	9.3	1.6	---	---
MONTH	---	---	---	---	---	---	49	0.2	17	0.5	---	---

OXYGEN DISSOLVED, MG/L, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	10.9	8.1	14.2	8.1	10.2	7.4
2	---	---	---	---	---	---	10.9	8.1	14.5	8.2	10.2	7.2
3	---	---	---	---	---	---	11.0	8.3	13.0	8.3	10.2	7.3
4	---	---	---	---	---	---	10.9	8.2	14.4	9.1	10.4	7.5
5	---	---	---	---	---	---	10.7	8.1	15.2	8.8	10.6	8.1
6	---	---	---	---	---	---	10.6	7.9	15.8	8.4	10.7	8.3
7	---	---	---	---	---	---	10.3	7.7	16.8	7.7	10.8	8.2
8	---	---	---	---	---	---	10.2	7.5	15.9	6.9	10.8	8.5
9	---	---	---	---	---	---	10.0	7.2	15.0	6.3	11.3	8.4
10	---	---	---	---	---	---	9.8	7.1	15.2	6.1	11.5	7.1
11	---	---	---	---	---	---	9.8	7.0	14.9	6.4	10.9	8.2
12	---	---	---	---	---	---	10.0	7.1	14.8	7.0	11.7	8.0
13	---	---	---	---	---	---	10.2	6.9	14.5	7.8	11.1	8.2
14	---	---	---	---	---	---	10.4	7.6	14.4	7.7	11.4	7.7
15	---	---	---	---	---	---	10.8	7.6	13.3	6.7	10.6	7.4
16	---	---	---	---	---	---	11.0	8.0	12.4	6.0	12.0	7.8
17	---	---	---	---	---	---	11.4	8.4	12.5	6.4	10.3	7.8
18	---	---	---	---	---	---	11.6	8.3	11.8	7.8	10.3	7.7
19	---	---	---	---	---	---	11.0	7.6	11.5	6.2	10.1	7.6
20	---	---	---	---	---	---	11.3	7.1	10.9	7.4	10.0	7.6
21	---	---	---	---	---	---	11.7	7.2	10.8	7.8	9.9	7.7
22	---	---	---	---	---	---	12.0	7.9	10.8	7.8	9.9	7.6
23	---	---	---	---	---	---	12.5	8.0	10.9	8.1	9.8	7.6
24	---	---	---	---	---	---	12.9	7.6	10.7	7.9	9.6	7.5
25	---	---	---	---	---	---	13.2	7.6	10.7	8.0	9.6	7.6
26	---	---	---	---	---	---	13.6	7.7	10.6	7.8	9.6	7.6
27	---	---	---	---	---	---	14.0	7.3	10.4	7.5	9.6	7.6
28	---	---	---	---	---	---	13.7	7.4	10.2	7.3	10.0	8.2
29	---	---	---	---	11.1	8.4	14.2	7.8	10.3	7.4	9.9	8.0
30	---	---	---	---	10.9	8.3	14.4	7.8	10.3	7.6	9.9	8.0
31	---	---	---	---	---	---	14.3	7.9	10.4	7.6	---	---
MONTH	---	---	---	---	---	---	14.4	6.9	16.8	6.0	12.0	7.1

11463980 RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG, CA—Continued

PH, WH, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.5	8.0	9.0	7.9	8.7	8.1
2	---	---	---	---	---	---	8.5	8.0	9.0	7.8	8.8	8.0
3	---	---	---	---	---	---	8.6	8.0	8.7	7.8	8.8	8.0
4	---	---	---	---	---	---	8.6	8.1	9.0	7.9	8.7	8.1
5	---	---	---	---	---	---	8.6	8.1	9.0	7.9	8.7	8.1
6	---	---	---	---	---	---	8.6	8.1	9.1	8.0	8.7	8.1
7	---	---	---	---	---	---	8.6	8.1	9.1	8.0	8.6	8.1
8	---	---	---	---	---	---	8.6	8.1	9.0	7.9	8.6	8.1
9	---	---	---	---	---	---	8.6	8.0	9.0	7.9	8.7	8.1
10	---	---	---	---	---	---	8.5	7.9	9.0	7.9	8.7	8.0
11	---	---	---	---	---	---	8.5	7.9	8.9	7.8	8.7	8.0
12	---	---	---	---	---	---	8.5	7.9	8.9	7.9	8.7	8.0
13	---	---	---	---	---	---	8.5	7.9	8.9	8.0	8.6	8.0
14	---	---	---	---	---	---	8.5	7.9	8.9	8.0	8.7	8.0
15	---	---	---	---	---	---	8.6	7.9	8.8	7.9	8.6	8.0
16	---	---	---	---	---	---	8.5	7.9	8.8	8.0	8.5	8.0
17	---	---	---	---	---	---	8.7	7.9	8.8	8.0	8.6	8.1
18	---	---	---	---	---	---	8.7	7.9	8.8	8.0	8.7	7.8
19	---	---	---	---	---	---	8.8	7.9	8.8	7.9	8.7	7.6
20	---	---	---	---	---	---	8.8	7.9	8.8	8.0	8.7	7.9
21	---	---	---	---	---	---	8.8	7.9	8.8	8.1	8.4	7.7
22	---	---	---	---	---	---	8.8	7.9	8.7	8.0	8.4	7.7
23	---	---	---	---	---	---	8.8	7.9	8.7	8.0	8.3	7.7
24	---	---	---	---	---	---	8.9	7.9	8.7	8.0	8.3	7.9
25	---	---	---	---	---	---	8.9	7.8	8.7	8.0	8.3	7.8
26	---	---	---	---	---	---	8.9	7.8	8.7	8.0	8.2	7.9
27	---	---	---	---	---	---	8.9	7.7	8.7	8.1	8.2	7.8
28	---	---	---	---	---	---	8.9	7.8	8.7	8.0	8.3	7.6
29	---	---	---	---	8.4	8.0	9.0	7.4	8.6	8.0	8.4	7.9
30	---	---	---	---	8.5	8.0	9.0	7.7	8.7	8.0	8.4	7.9
31	---	---	---	---	---	---	9.0	7.7	8.7	8.0	---	---
MONTH	---	---	---	---	---	---	9.0	7.4	9.1	7.8	8.8	7.6

SPECIFIC CONDUCTANCE, US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	273	268	253	243	230	226
2	---	---	---	---	---	---	268	266	252	244	228	226
3	---	---	---	---	---	---	269	265	254	248	226	222
4	---	---	---	---	---	---	267	264	254	245	227	222
5	---	---	---	---	---	---	266	263	258	245	242	227
6	---	---	---	---	---	---	270	258	255	248	247	241
7	---	---	---	---	---	---	259	258	256	250	249	246
8	---	---	---	---	---	---	259	256	257	250	248	245
9	---	---	---	---	---	---	258	256	257	251	245	243
10	---	---	---	---	---	---	260	258	257	248	244	241
11	---	---	---	---	---	---	260	256	256	249	242	240
12	---	---	---	---	---	---	259	255	253	246	243	239
13	---	---	---	---	---	---	258	256	250	245	241	238
14	---	---	---	---	---	---	260	257	250	246	240	238
15	---	---	---	---	---	---	260	257	250	241	240	237
16	---	---	---	---	---	---	260	256	250	246	243	239
17	---	---	---	---	---	---	261	254	250	246	253	243
18	---	---	---	---	---	---	262	257	250	245	259	253
19	---	---	---	---	---	---	262	255	252	241	261	257
20	---	---	---	---	---	---	259	251	245	235	262	258
21	---	---	---	---	---	---	255	247	240	237	264	260
22	---	---	---	---	---	---	252	243	240	236	261	257
23	---	---	---	---	---	---	248	240	239	236	258	256
24	---	---	---	---	---	---	249	243	239	237	257	255
25	---	---	---	---	---	---	253	246	241	239	255	252
26	---	---	---	---	---	---	253	247	243	239	255	252
27	---	---	---	---	---	---	253	245	242	239	252	249
28	---	---	---	---	---	---	260	245	241	234	256	250
29	---	---	---	---	274	272	255	247	236	231	253	251
30	---	---	---	---	273	271	255	245	233	229	251	247
31	---	---	---	---	---	---	254	244	231	228	---	---
MONTH	---	---	---	---	---	---	273	240	258	228	264	222

RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG, CA—Continued

WATER TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	27.0	22.5	25.5	21.5	26.0	21.0
2	---	---	---	---	---	---	26.0	22.5	25.5	21.5	26.0	21.5
3	---	---	---	---	---	---	25.5	21.5	23.0	20.0	25.0	21.0
4	---	---	---	---	---	---	26.0	21.5	23.0	19.0	24.0	20.5
5	---	---	---	---	---	---	26.0	21.5	23.5	19.5	23.0	19.0
6	---	---	---	---	---	---	26.0	21.5	24.0	19.0	22.5	18.5
7	---	---	---	---	---	---	25.5	21.5	24.5	19.5	22.5	18.5
8	---	---	---	---	---	---	26.0	21.5	25.5	20.0	23.0	18.5
9	---	---	---	---	---	---	27.0	22.0	26.0	21.0	23.5	18.5
10	---	---	---	---	---	---	28.0	22.5	26.5	21.5	24.0	19.5
11	---	---	---	---	---	---	27.5	23.0	26.0	21.5	24.0	19.5
12	---	---	---	---	---	---	26.5	23.0	26.0	21.0	23.5	19.5
13	---	---	---	---	---	---	26.5	22.5	25.5	21.5	23.0	19.5
14	---	---	---	---	---	---	26.5	22.0	25.5	21.5	23.0	19.5
15	---	---	---	---	---	---	25.5	21.5	25.0	21.5	22.5	19.5
16	---	---	---	---	---	---	24.5	21.0	25.0	21.0	23.0	19.0
17	---	---	---	---	---	---	25.5	21.0	24.5	21.0	23.0	19.5
18	---	---	---	---	---	---	26.0	21.0	24.5	20.5	24.0	19.5
19	---	---	---	---	---	---	26.5	21.5	23.5	20.5	24.5	20.0
20	---	---	---	---	---	---	27.0	22.5	24.0	20.0	24.0	19.5
21	---	---	---	---	---	---	24.0	22.0	24.0	20.0	24.0	19.5
22	---	---	---	---	---	---	24.5	20.5	23.0	20.0	24.0	20.0
23	---	---	---	---	---	---	25.0	21.0	23.0	19.5	24.0	19.5
24	---	---	---	---	---	---	25.0	20.5	23.5	19.5	23.5	19.5
25	---	---	---	---	---	---	25.5	21.0	24.5	19.5	23.0	19.0
26	---	---	---	---	---	---	26.0	21.0	25.0	20.0	21.5	19.5
27	---	---	---	---	---	---	26.0	21.5	26.0	21.0	20.0	18.5
28	---	---	---	---	---	---	24.5	22.0	25.0	21.5	21.0	17.0
29	---	---	---	---	26.5	21.5	25.5	21.0	23.5	21.0	21.0	17.5
30	---	---	---	---	27.0	22.5	25.5	21.5	24.0	20.5	21.0	17.5
31	---	---	---	---	---	---	25.0	21.5	25.0	20.0	---	---
MONTH	---	---	---	---	---	---	28.0	20.5	26.5	19.0	26.0	17.0

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 mi².

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 sea level.

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. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 73,000 ft³/s, Jan. 9, 1995, gage height, 26.23 ft, maximum gage height, 30.0 ft, Feb. 28, 1940; minimum daily discharge, 12 ft³/s, June 14, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of December 1937 reached a stage of 30.8 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	160	8670	7140	820	1070	625	369	240	197	161	154
2	125	130	12100	26800	804	1000	688	360	231	199	151	155
3	123	119	7490	14400	774	949	765	353	228	190	148	156
4	137	114	4770	8950	746	912	708	347	224	187	151	157
5	157	110	4530	8070	732	861	636	334	203	186	154	148
6	184	108	9190	10600	750	849	628	330	184	202	149	142
7	201	107	5990	8840	778	1060	631	319	172	194	140	145
8	212	103	3890	6560	1130	1110	636	308	172	191	139	149
9	217	100	3110	5580	1040	912	643	301	169	181	133	160
10	181	103	2240	4780	916	1400	631	288	171	166	140	162
11	144	136	1660	4200	865	1410	582	280	172	166	139	164
12	123	1090	1390	3260	835	1100	568	277	179	170	154	168
13	116	1230	1210	2770	815	960	552	271	181	168	159	172
14	112	570	5170	2490	795	890	540	267	173	168	154	170
15	109	412	3270	2130	777	829	528	263	172	174	157	164
16	109	325	2180	1840	767	780	511	253	169	179	155	164
17	111	348	4300	1670	907	738	505	250	172	176	156	163
18	107	306	4520	1500	857	710	512	243	181	162	162	161
19	107	255	3440	1370	882	703	491	236	189	166	178	155
20	107	243	5250	1240	3860	724	462	253	192	166	183	145
21	108	391	6780	1140	4550	732	396	296	189	163	171	146
22	112	2480	6850	1100	3770	735	394	311	188	167	169	154
23	111	1520	7410	1030	2490	1330	389	293	178	175	166	155
24	108	3240	5810	968	1790	1510	381	280	168	172	163	158
25	110	3890	5060	924	1540	1100	385	268	172	159	148	158
26	113	1820	4620	1180	1360	898	380	261	170	160	142	158
27	115	1070	3340	1470	1240	794	369	254	173	157	138	159
28	120	1220	3880	1390	1150	724	366	254	187	152	147	149
29	125	6800	4930	1220	---	669	348	257	191	151	151	162
30	186	3070	4670	991	---	645	360	248	191	155	158	168
31	194	---	9060	864	---	614	---	247	---	156	157	---
TOTAL	4200	31570	156780	136467	37740	28718	15610	8871	5581	5355	4773	4721
MEAN	135.5	1052	5057	4402	1348	926.4	520.3	286.2	186.0	172.7	154.0	157.4
MAX	217	6800	12100	26800	4550	1510	765	369	240	202	183	172
MIN	107	100	1210	864	732	614	348	236	168	151	133	142
AC-FT	8330	62620	311000	270700	74860	56960	30960	17600	11070	10620	9470	9360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	269.7	771.2	2427	4076	4089	2786	1424	553.7	267.1	185.1	184.7	190.5
MAX	1605	5293	8945	14490	16450	11810	6592	1638	972	300	331	360
(WY)	1958	1974	1956	1995	1998	1983	1982	1983	1998	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 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1940 - 2002

ANNUAL TOTAL	397523	440386		
ANNUAL MEAN	1089	1207	1424	
HIGHEST ANNUAL MEAN			3277	1983
LOWEST ANNUAL MEAN			101	1977
HIGHEST DAILY MEAN	15800	Mar 5	26800	Jan 2
LOWEST DAILY MEAN	54	Jun 22	100	Nov 9
ANNUAL SEVEN-DAY MINIMUM	73	Jul 4	106	Nov 4
MAXIMUM PEAK FLOW			32700	Jan 2
MAXIMUM PEAK STAGE			16.32	Jan 2
ANNUAL RUNOFF (AC-FT)	788500	873500	1032000	
10 PERCENT EXCEEDS	3690	3870	3380	
50 PERCENT EXCEEDS	222	280	310	
90 PERCENT EXCEEDS	98	140	140	

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1951 to current year (discontinued).

CHEMICAL DATA: Water years 1951–66, 1980.

WATER TEMPERATURE: Water years 1966 to current year (discontinued).

PERIOD OF DAILY RECORD.—October 1965 to current year (discontinued).

WATER TEMPERATURE: October 1965 to current year (discontinued).

INSTRUMENTATION.—Temperature recorder since October 1965 provides hourly recordings.

REMARKS.—Records excellent. Interruptions in record were due to malfunction of the sensing and (or) recording instruments. Temperature during summer months affected by recreation dams above and below gage.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: Maximum recorded, 32.0°C, July 18, Aug. 3, 1998; minimum recorded, 3.0°C, Dec. 23, 1990.

EXTREMES FOR CURRENT YEAR.—

WATER TEMPERATURE: Maximum recorded, 28.5°C, July 10; minimum recorded, 7.0°C, Jan. 30.

WATER TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.5	19.5	17.5	15.5	11.0	11.0	12.5	12.0	10.0	8.5	13.5	11.0
2	23.0	19.5	17.0	15.0	12.0	11.0	12.5	12.5	10.0	9.0	13.0	11.0
3	22.5	19.0	17.0	15.0	11.5	10.5	12.5	11.5	10.5	9.0	13.0	10.5
4	20.5	19.0	17.5	15.0	11.0	9.5	11.5	10.5	11.0	9.0	13.0	10.5
5	21.5	18.5	17.0	14.5	11.5	10.5	11.0	11.0	10.5	9.5	12.5	11.5
6	20.5	18.0	16.0	14.5	12.5	11.0	12.0	11.0	10.5	9.5	13.0	11.5
7	20.0	17.5	15.5	13.0	12.0	11.5	12.5	12.0	11.0	10.5	13.0	11.5
8	20.5	17.5	15.0	12.5	11.5	10.5	12.5	12.0	10.5	9.0	12.0	9.5
9	20.5	17.0	15.5	13.0	11.5	10.5	12.5	11.5	10.5	8.5	11.5	10.0
10	20.0	16.5	15.0	13.5	11.0	10.0	11.5	10.5	10.5	9.0	12.5	10.5
11	19.5	17.5	16.0	15.0	11.0	10.0	11.5	10.5	11.0	9.5	13.0	10.5
12	20.0	17.0	16.0	14.5	11.5	10.5	12.0	11.0	11.5	10.0	13.5	12.0
13	20.5	17.0	14.5	14.0	11.5	10.5	12.0	11.0	11.5	11.0	13.0	11.0
14	20.5	17.5	15.5	14.5	11.5	9.0	11.5	10.5	12.0	10.5	13.0	10.0
15	20.0	17.5	16.5	15.5	9.5	8.0	10.5	9.0	12.5	11.5	12.5	10.5
16	19.0	17.5	16.0	15.5	10.5	9.5	10.0	9.0	11.5	11.0	12.5	10.0
17	19.0	17.0	16.0	14.5	11.5	10.5	10.0	8.5	11.5	10.0	12.5	10.5
18	19.5	16.0	15.5	14.0	10.5	10.0	10.0	8.5	11.0	10.0	12.5	9.5
19	18.5	16.0	15.5	14.0	11.0	10.0	10.0	8.5	11.5	10.5	13.5	11.0
20	18.0	15.5	16.5	15.5	10.5	9.5	10.0	8.5	12.0	10.5	14.5	12.0
21	17.5	16.0	16.0	15.5	10.0	9.0	10.0	9.5	12.5	11.0	14.5	12.5
22	18.5	15.5	15.5	14.0	10.5	9.5	10.0	8.5	12.5	10.5	14.0	12.5
23	18.5	16.5	14.0	13.0	11.0	10.0	9.5	8.0	12.0	10.5	13.0	12.0
24	18.0	15.0	13.5	12.0	10.5	9.5	9.5	8.0	12.5	10.5	14.0	11.0
25	17.5	15.0	12.0	10.5	10.5	10.0	10.0	8.5	13.0	10.5	13.5	11.5
26	17.0	14.5	11.0	10.0	11.0	10.5	10.5	9.5	13.5	11.0	14.5	11.0
27	16.5	15.5	11.0	10.0	11.5	11.0	9.5	8.5	14.0	11.5	15.5	12.0
28	17.0	15.5	11.5	10.5	11.5	11.0	9.0	8.0	14.0	11.5	16.5	13.5
29	16.5	16.0	11.0	10.0	12.0	11.0	8.5	7.5	---	---	17.5	14.5
30	17.0	16.0	11.0	9.5	12.0	11.5	8.5	7.0	---	---	18.0	15.0
31	18.0	16.0	---	---	12.0	12.0	9.0	7.5	---	---	18.5	14.5
MONTH	23.5	14.5	17.5	9.5	12.5	8.0	12.5	7.0	14.0	8.5	18.5	9.5

RUSSIAN RIVER BASIN

11464000 RUSSIAN RIVER NEAR HEALDSBURG, CA—Continued

WATER TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.5	15.5	17.5	14.0	25.0	20.5	28.0	23.0	25.5	21.0	26.0	21.0
2	17.5	16.0	19.5	15.0	24.5	19.5	26.5	22.0	25.5	21.0	26.5	21.5
3	16.5	15.0	19.5	16.5	24.5	19.0	26.5	21.5	23.0	20.5	25.0	21.0
4	15.0	12.5	20.5	16.5	25.5	19.5	26.5	21.5	23.5	19.0	24.0	20.0
5	14.5	12.5	21.5	17.0	27.0	21.0	26.5	21.0	24.5	19.5	23.5	19.0
6	17.0	13.5	21.0	17.0	26.5	21.0	27.0	21.5	24.5	19.0	23.0	18.5
7	17.5	14.5	20.5	16.5	25.5	17.0	26.5	21.5	25.0	19.5	23.0	18.5
8	16.5	15.0	21.0	16.5	24.0	18.5	27.5	21.5	26.0	20.0	23.0	18.5
9	15.0	14.5	21.0	16.5	23.0	17.5	28.0	22.0	26.5	21.0	24.0	18.5
10	18.0	14.0	20.0	16.0	25.0	19.0	28.5	23.0	27.0	22.0	24.0	19.5
11	18.0	16.0	21.5	16.5	25.5	20.5	28.0	23.0	26.5	21.0	24.0	18.0
12	19.0	15.5	22.0	17.0	24.0	20.0	27.0	23.0	26.0	21.0	23.5	17.0
13	20.5	16.5	22.0	17.5	23.5	19.0	27.0	22.5	26.0	21.0	23.0	19.5
14	21.0	18.0	22.0	17.0	25.0	19.0	27.0	22.0	25.5	21.5	23.0	19.0
15	18.0	15.0	22.5	18.0	25.0	19.5	26.0	21.5	25.5	21.5	22.5	19.5
16	15.5	14.0	22.5	18.0	25.5	19.5	25.0	21.0	25.0	21.0	23.0	19.0
17	16.5	13.0	23.0	18.0	25.5	20.0	26.0	21.0	24.5	20.5	23.5	19.5
18	16.0	13.5	22.0	18.0	26.5	21.0	26.0	21.0	24.5	20.5	24.0	19.5
19	17.0	13.5	19.5	17.0	27.0	21.0	27.0	21.5	23.5	20.0	24.5	20.0
20	18.5	14.5	17.0	16.0	26.0	21.0	27.5	22.5	24.5	20.0	24.0	19.5
21	19.5	15.5	18.5	15.0	25.0	20.5	24.5	22.0	24.5	20.0	24.0	19.5
22	20.0	16.0	20.0	15.5	25.0	19.0	25.0	20.5	23.0	19.5	24.0	19.5
23	21.0	16.5	22.0	16.5	26.0	20.0	25.5	20.5	23.5	19.5	24.0	19.5
24	20.0	17.5	23.0	18.0	26.5	20.5	25.0	20.5	23.5	19.5	23.5	19.5
25	20.5	16.5	23.0	18.5	25.5	20.0	25.5	20.5	24.5	19.5	23.0	18.5
26	20.5	17.0	23.5	19.0	25.5	21.0	25.5	21.0	25.5	20.0	21.5	19.0
27	18.0	16.0	22.0	18.5	26.5	19.5	26.0	20.5	26.0	21.0	20.0	18.5
28	17.0	14.5	23.5	19.0	26.5	21.5	25.0	21.5	25.0	21.5	20.5	17.0
29	16.5	15.0	25.5	20.0	27.0	21.0	25.0	21.0	24.0	21.0	20.5	17.0
30	15.5	14.5	26.5	21.5	28.0	22.0	25.5	21.0	24.0	20.0	20.5	17.0
31	---	---	26.0	21.5	---	---	25.5	20.5	25.0	20.0	---	---
MONTH	21.0	12.5	26.5	14.0	28.0	17.0	28.5	20.5	27.0	19.0	26.5	17.0

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 mi².

PERIOD OF RECORD.—October 1939 to September 1942 (published as "Dry Creek near Healdsburg"), October 1981 to current year.

WATER TEMPERATURE: Water years 1981–94.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 188.21 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1942, nonrecording gage at site 500 ft downstream at different datum.

REMARKS.—Records good. Flow affected by storage in Lake Sonoma, capacity, 380,600 acre-ft, beginning October 1983. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 22,500 ft³/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, 5,590 ft³/s, Feb. 11, 1998, gage height, 10.38 ft; minimum daily, 6.1 ft³/s, Oct. 21, 22, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of December 1937 reached a stage of 21.8 ft from floodmarks, discharge about 25,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	82	90	181	185	123	161	112	95	107	116	141
2	124	82	88	180	185	124	161	112	95	108	116	141
3	125	82	86	177	185	124	161	112	95	107	116	141
4	127	82	86	1010	185	124	140	112	96	107	116	140
5	126	82	86	2020	185	124	113	112	95	107	116	140
6	126	82	130	1980	184	125	112	112	100	107	115	140
7	127	82	176	1800	184	111	112	111	106	107	115	140
8	108	82	176	1870	202	101	108	110	105	107	115	140
9	82	82	176	1850	145	101	106	111	106	107	126	140
10	82	82	176	1850	122	102	106	110	106	110	143	141
11	82	82	176	1810	117	105	106	111	106	115	146	141
12	82	88	175	1180	112	108	105	111	106	119	153	141
13	82	83	176	796	118	329	105	103	106	119	158	141
14	82	83	183	522	122	200	105	96	106	119	157	141
15	81	82	182	372	122	99	106	96	106	119	157	141
16	81	82	182	338	122	99	105	96	106	120	157	130
17	81	86	179	239	122	102	105	96	106	121	157	122
18	81	82	176	185	122	101	105	97	109	121	157	122
19	81	82	176	185	122	101	106	97	107	121	157	122
20	81	82	179	185	122	101	106	97	107	121	156	122
21	81	83	176	185	122	101	106	96	107	121	156	122
22	81	82	178	185	122	101	106	96	107	121	156	122
23	80	82	177	185	123	101	105	96	107	121	147	121
24	80	85	175	185	123	101	107	95	106	121	141	123
25	80	82	179	185	123	117	106	96	106	121	141	104
26	81	82	177	185	123	148	106	96	107	121	140	110
27	81	81	177	185	123	161	106	95	106	121	140	114
28	81	86	178	185	123	161	106	95	106	120	140	112
29	81	85	178	185	---	160	105	95	105	111	140	108
30	82	84	180	185	---	159	107	95	106	104	141	105
31	82	---	179	185	---	160	---	95	---	110	141	---
TOTAL	2856	2484	5008	20765	3945	3974	3394	3164	3127	3561	4332	3868
MEAN	92.13	82.80	161.5	669.8	140.9	128.2	113.1	102.1	104.2	114.9	139.7	128.9
MAX	127	88	183	2020	202	329	161	112	109	121	158	141
MIN	80	81	86	177	112	99	105	95	95	104	115	104
AC-FT	5660	4930	9930	41190	7820	7880	6730	6280	6200	7060	8590	7670

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

MEAN	83.64	146.4	183.7	413.9	538.9	429.6	173.5	95.05	113.1	116.6	113.5	95.67
MAX	120	524	1501	1986	2583	1494	948	265	276	274	169	129
(WY)	1997	1984	1984	1997	1998	1995	1995	1995	1998	1987	1987	2002
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 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1984 - 2002
ANNUAL TOTAL	52085	60478	
ANNUAL MEAN	142.7	165.7	207.0
HIGHEST ANNUAL MEAN			512
LOWEST ANNUAL MEAN			46.0
HIGHEST DAILY MEAN	1360	Mar 7	5300
LOWEST DAILY MEAN	40	Sep 15	6.1
ANNUAL SEVEN-DAY MINIMUM	41	Sep 12	6.3
MAXIMUM PEAK FLOW		2120	5590
MAXIMUM PEAK STAGE		8.03	10.38
ANNUAL RUNOFF (AC-FT)	103300	120000	150000
10 PERCENT EXCEEDS	178	184	226
50 PERCENT EXCEEDS	90	115	102
90 PERCENT EXCEEDS	82	82	45

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 mi².

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 sea level. 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 good except for estimated daily discharges, which are 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. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 32,400 ft³/s, Jan. 31, 1963, gage height, 20.50 ft, present datum; no flow at times. Maximum discharge since regulation by Lake Sonoma, 7,600 ft³/s, Jan. 8, 1995, gage height, 15.48 ft; minimum daily, 19 ft³/s, Oct. 18–25, 1984.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	90	849	778	219	151	208	116	88	92	121	155
2	148	91	796	2350	218	149	206	116	88	90	122	153
3	148	91	445	923	216	148	205	115	88	89	122	153
4	148	91	260	1610	215	147	188	114	88	90	122	153
5	147	90	247	3450	212	146	162	115	87	90	120	153
6	145	92	311	3540	211	151	161	115	93	90	121	152
7	144	91	307	3280	221	137	159	114	104	91	121	145
8	127	88	277	3300	270	114	139	114	104	90	120	146
9	88	88	253	3220	185	113	120	115	106	86	127	145
10	87	91	235	3160	153	145	117	114	107	90	140	144
11	87	99	222	2890	144	135	115	114	105	102	142	144
12	87	e340	212	2070	132	134	114	115	107	110	147	144
13	87	e250	217	1270	139	361	114	106	109	111	153	144
14	87	e170	368	847	147	293	109	93	110	112	153	142
15	87	e150	281	535	145	162	112	92	110	112	153	144
16	87	e140	268	511	148	158	112	92	109	114	154	138
17	87	e135	353	360	158	158	113	91	107	121	154	131
18	86	e125	304	252	150	154	111	92	109	125	154	132
19	85	e115	289	244	163	153	110	93	107	119	155	131
20	85	e125	515	240	178	152	109	94	108	116	155	130
21	86	131	534	237	172	151	109	93	109	119	155	130
22	86	196	594	233	168	165	108	92	109	116	155	130
23	87	129	476	229	166	202	107	90	114	113	150	129
24	87	362	375	228	162	183	108	90	110	120	144	130
25	87	156	328	227	159	185	107	89	109	125	144	108
26	87	119	300	230	156	207	107	89	111	125	143	113
27	87	107	289	226	154	218	107	89	108	125	144	123
28	87	247	409	225	152	215	107	89	92	125	148	124
29	88	416	568	222	---	212	108	89	89	115	146	124
30	95	172	636	221	---	211	110	88	92	107	149	124
31	91	---	755	219	---	210	---	88	---	114	151	---
TOTAL	3162	4587	12273	37327	4913	5420	3862	3116	3077	3344	4385	4114
MEAN	102.0	152.9	395.9	1204	175.5	174.8	128.7	100.5	102.6	107.9	141.5	137.1
MAX	148	416	849	3540	270	361	208	116	114	125	155	155
MIN	85	88	212	219	132	113	107	88	87	86	120	108
AC-FT	6270	9100	24340	74040	9740	10750	7660	6180	6100	6630	8700	8160

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
MAXIMUM PEAK FLOW	32400	Jan 31 1963
MAXIMUM 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 - 2002, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	92.16	142.2	183.1	655.4	885.5	650.9	217.6	113.0	131.3	127.6	122.1	102.6					
MAX	116	459	539	2634	3890	2110	1115	341	379	296	180	137					
(WY)	1997	1987	1997	1997	1998	1995	1995	1995	1998	1987	1987	2002					
MIN	42.2	60.4	88.2	83.0	85.4	86.0	38.5	36.6	91.8	85.6	96.1	44.1					
(WY)	1991	1986	1991	1991	1991	1988	1990	1991	1996	1999	1990	1991					

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1986 - 2002

ANNUAL TOTAL	75089	89580	
ANNUAL MEAN	205.7	245.4	274.4
HIGHEST ANNUAL MEAN			676 1995
LOWEST ANNUAL MEAN			90.5 1990
HIGHEST DAILY MEAN	1770 Mar 6	3540 Jan 6	6260 Feb 16 1998
LOWEST DAILY MEAN	41 Sep 14	85 Oct 19	27 May 20 1992
ANNUAL SEVEN-DAY MINIMUM	43 Sep 11	86 Oct 16	29 Oct 7 1997
MAXIMUM PEAK FLOW		3940 Jan 2	7600 Jan 8 1995
MAXIMUM PEAK STAGE		11.23 Jan 2	15.48 Jan 8 1995
ANNUAL RUNOFF (AC-FT)	148900	177700	198800
10 PERCENT EXCEEDS	396	318	417
50 PERCENT EXCEEDS	135	134	112
90 PERCENT EXCEEDS	87	89	82

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, 13.5 mi downstream from Warm Springs Dam, and 1.7 mi south of Healdsburg.

DRAINAGE AREA.—217 mi².

PERIOD OF RECORD.—November 1980 to current year (low-flow records only).

GAGE.—Water-stage recorder. Elevation of gage is 50 ft above sea level, from topographic map.

REMARKS.—Records good except for estimated discharges, which are fair. No records computed above 200 ft³/s. Some diversions for irrigation upstream from station. Flow regulated by Lake Sonoma, 13.5 mi upstream, beginning October 1983. See schematic diagram of [Russian River Basin](#).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	75	---	---	---	186	---	121	72	78	100	129
2	114	75	---	---	---	179	---	121	73	75	102	129
3	114	75	---	---	---	174	---	119	72	76	105	129
4	115	75	---	---	---	173	---	118	69	77	107	128
5	113	75	---	---	---	172	179	116	66	78	104	128
6	113	75	---	---	---	193	172	115	67	76	102	129
7	115	75	---	---	---	---	169	113	78	77	102	130
8	114	75	---	---	---	153	162	111	82	76	99	131
9	85	75	---	---	---	153	142	110	87	68	97	129
10	79	85	---	---	---	---	136	107	87	63	116	126
11	77	113	---	---	198	---	131	106	84	76	125	124
12	75	---	---	---	175	200	128	107	86	96	130	126
13	73	---	---	---	173	---	124	104	86	100	137	126
14	73	123	---	---	179	---	123	86	88	103	140	128
15	73	104	---	---	175	---	120	81	88	104	142	130
16	73	99	---	---	195	188	121	78	91	107	143	126
17	74	99	---	---	---	179	122	77	88	108	144	112
18	74	93	---	---	189	169	118	78	87	108	146	110
19	72	91	---	---	---	164	116	82	85	106	146	109
20	73	92	---	---	---	166	119	104	83	105	144	109
21	74	152	---	---	---	165	118	92	84	108	142	109
22	73	---	---	---	---	---	115	86	86	109	143	111
23	70	---	---	---	---	---	112	83	87	107	142	109
24	71	---	---	---	---	---	113	81	86	e107	134	109
25	70	---	---	---	---	---	112	81	82	e115	133	97
26	71	---	---	---	---	---	110	81	82	e118	131	94
27	73	163	---	---	197	---	108	80	82	e110	125	109
28	74	---	---	---	192	---	107	79	81	106	124	115
29	74	---	---	---	---	---	112	77	80	e100	128	117
30	150	---	---	---	---	---	118	73	78	e96	129	116
31	78	---	---	---	---	---	---	72	---	e98	129	---
TOTAL	2692	---	---	---	---	---	---	2939	2447	2931	3891	3574
MEAN	86.84	---	---	---	---	---	---	94.81	81.57	94.55	125.5	119.1
MAX	150	---	---	---	---	---	---	121	91	118	146	131
MIN	70	---	---	---	---	---	---	72	66	63	97	94
AC-FT	5340	---	---	---	---	---	---	5830	4850	5810	7720	7090

e Estimated.

11465680 LAGUNA DE SANTA ROSA AT STONY POINT ROAD, NEAR COTATI, CA

LOCATION.—Lat 38°21'08", long 122°44'35", in Llano de Santa Rosa Grant, [Sonoma County](#), Hydrologic Unit 18010110, on right bank, upstream side of Stony Point Road bridge, 300 ft downstream of unnamed tributary, and 1.5 mi west of Rohnert Park.

DRAINAGE AREA.—40.8 mi².

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level.

REMARKS.—Records fair. No regulation or diversion upstream from station. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,850 ft³/s, Feb. 13, 2000, gage height, 87.29 ft; no flow Sept. 27, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0700	2,460	86.80	Jan. 5	1830	1,520	85.29
Jan. 2	0430	2,570	86.94				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	3.6	611	209	12	11	7.2	11	2.6	1.5	0.61	0.07
2	0.07	2.4	1070	1610	11	9.7	7.1	7.0	2.5	1.3	0.62	0.05
3	0.10	1.8	376	242	11	9.2	7.0	6.2	2.4	1.2	0.61	0.04
4	0.13	1.4	116	123	10	8.9	6.9	5.5	2.3	1.0	0.60	0.03
5	0.16	1.2	119	528	10	9.0	6.9	5.4	2.1	0.96	0.58	0.02
6	0.19	1.1	206	378	9.9	6.0	6.8	4.9	2.1	0.89	0.53	0.01
7	0.22	0.99	105	135	17	121	6.6	4.6	2.0	0.81	0.49	0.01
8	0.25	0.97	65	100	48	47	6.4	3.9	1.8	0.77	0.42	0.02
9	0.29	0.98	47	79	14	17	6.5	3.5	1.7	0.71	0.34	0.03
10	0.36	1.00	27	64	11	157	7.2	3.4	1.7	0.67	0.29	0.02
11	0.46	56	17	52	10	60	6.7	3.2	1.5	0.67	0.26	0.02
12	0.55	214	14	39	9.9	24	6.2	3.1	1.5	0.69	0.24	0.02
13	0.54	96	15	31	9.6	19	6.0	3.0	1.4	0.70	0.23	0.03
14	0.53	18	326	27	9.5	17	5.8	3.0	1.5	0.67	0.22	0.03
15	0.52	8.2	90	23	9.2	12	5.6	2.9	1.5	0.65	0.22	0.04
16	0.52	5.3	45	17	20	11	5.6	2.9	1.5	0.67	0.21	0.06
17	0.53	5.5	243	15	68	14	9.9	2.8	1.4	0.68	0.20	0.07
18	0.53	5.0	109	14	17	14	7.5	2.8	1.3	0.68	0.20	0.07
19	0.53	4.3	64	13	86	10	6.3	3.8	1.3	0.69	0.19	0.07
20	0.55	8.1	295	12	200	9.0	5.7	8.3	1.2	0.68	0.19	0.06
21	0.58	53	331	13	91	8.6	5.5	9.5	1.1	0.67	0.18	0.03
22	0.62	136	417	13	50	14	5.4	6.4	1.1	0.72	0.17	0.04
23	0.65	29	243	12	30	56	5.2	4.6	1.1	0.78	0.17	0.04
24	0.68	71	112	11	23	24	5.0	3.7	1.0	0.74	0.17	0.03
25	0.71	61	74	11	15	11	4.9	3.3	1.0	0.70	0.16	0.03
26	0.73	13	63	41	13	9.3	4.8	3.0	1.1	0.66	0.15	0.01
27	0.76	7.8	62	29	12	8.4	4.6	2.9	1.6	0.63	0.13	0.00
28	0.77	34	552	40	12	8.0	4.4	2.8	2.3	0.59	0.12	0.01
29	0.77	502	353	35	---	7.6	6.4	2.8	2.3	0.58	0.10	0.01
30	2.9	98	516	15	---	7.4	7.6	3.0	1.9	0.57	0.09	0.01
31	5.9	---	522	12	---	7.3	---	2.8	---	0.58	0.08	---
TOTAL	22.15	1440.64	7205	3943	839.1	801.4	187.7	136.0	49.8	23.81	8.77	0.98
MEAN	0.715	48.02	232.4	127.2	29.97	25.85	6.257	4.387	1.660	0.768	0.283	0.033
MAX	5.9	502	1070	1610	200	157	9.9	11	2.6	1.5	0.62	0.07
MIN	0.05	0.97	14	11	9.2	7.3	4.4	2.8	1.0	0.57	0.08	0.00
AC-FT	44	2860	14290	7820	1660	1590	372	270	99	47	17	1.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	4.478	20.81	63.75	59.76	145.4	53.50	15.12	3.937	1.222	0.734	0.495	0.367
MAX	9.46	48.0	232	127	253	75.8	33.2	6.64	1.66	0.77	0.91	0.92
(WY)	2001	2002	2002	2002	2000	2000	1999	2000	2002	1999	1999	1999
MIN	0.71	3.45	2.28	33.3	30.0	25.9	5.29	0.85	0.76	0.66	0.28	0.033
(WY)	2002	2001	2000	2001	2002	2002	2001	2001	2001	2000	2002	2002

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1999 - 2002

ANNUAL TOTAL	13501.64	14658.35		
ANNUAL MEAN	36.99	40.16	29.34	
HIGHEST ANNUAL MEAN			40.2	2002
LOWEST ANNUAL MEAN			14.7	2001
HIGHEST DAILY MEAN	1070	Dec 2	1610	Jan 2
LOWEST DAILY MEAN	0.04	Sep 30	0.00	Sep 27
ANNUAL SEVEN-DAY MINIMUM	0.06	Sep 25	0.01	Sep 24
MAXIMUM PEAK FLOW			2570	Jan 2
MAXIMUM PEAK STAGE			86.94	Jan 2
ANNUAL RUNOFF (AC-FT)	26780	29070	21260	
10 PERCENT EXCEEDS	107	90	64	
50 PERCENT EXCEEDS	1.1	4.3	1.4	
90 PERCENT EXCEEDS	0.22	0.11	0.28	

11465700 COLGAN CREEK NEAR SEBASTOPOL, CA

LOCATION.—Lat 38°22'25", long 122°46'02", in Llano de Santa Rosa Grant, [Sonoma County](#), Hydrologic Unit 18010110, on left bank, downstream side of Llano Road bridge, 0.5 mile upstream of Laguna de Santa Rosa, and 3.5 mi southeast of Sebastopol.

DRAINAGE AREA.—6.78 mi².

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder and dopler-velocity system. Datum of gage is sea level.

REMARKS.—Records poor. No regulation or diversion upstream of station. High flow periods are effected by backwater from Laguna de Santa Rosa. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 865 ft³/s, Jan. 2, 2002, gage height, 77.24 ft; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 290 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	0645	559	76.24	Dec. 22	1715	(a)	74.66
Dec. 14	0615	415	74.18	Jan. 2	0315	865	(a)
Dec. 17	1200	328	73.63	Jan. 2	0400	(a)	77.24
Dec. 22	1115	370	(a)	Jan. 5	1800	459	75.51

(a) Backwater from Laguna de Santa Rosa.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.20	210	99	2.4	5.7	1.5	2.8	0.45	0.03	0.05	0.01
2	0.00	0.06	288	647	2.3	5.9	1.5	0.96	0.43	0.00	0.06	0.00
3	0.00	0.00	117	156	2.1	6.4	1.5	0.73	0.41	0.00	0.06	0.00
4	0.00	0.00	22	23	2.0	5.7	1.4	0.69	0.38	0.00	0.05	0.01
5	0.00	0.00	19	179	2.0	4.9	1.4	0.66	0.35	0.00	0.04	0.00
6	0.00	0.00	41	262	1.9	38	1.4	0.62	0.32	0.00	0.00	0.00
7	0.00	0.00	7.9	45	7.5	54	1.3	0.60	0.29	0.00	0.00	0.00
8	0.00	0.00	6.5	8.8	8.2	8.4	1.2	0.59	0.28	0.00	0.00	0.01
9	0.00	0.00	4.2	6.8	2.6	2.8	1.4	0.56	0.24	0.00	0.00	0.02
10	0.00	0.01	2.9	5.5	2.1	8.3	1.6	0.56	0.21	0.00	0.00	0.00
11	0.00	22	1.8	4.5	1.9	4.6	1.1	0.54	0.19	0.00	0.00	0.00
12	0.00	125	1.6	3.9	1.9	3.6	1.0	0.52	0.21	0.00	0.00	0.00
13	0.00	6.4	5.3	3.3	1.9	4.0	1.0	0.55	0.25	0.00	0.04	0.00
14	0.00	2.4	243	3.4	1.9	3.8	0.98	0.51	0.25	0.00	0.04	0.00
15	0.00	1.1	8.5	3.1	1.7	2.8	0.99	0.50	0.26	0.00	0.02	0.00
16	0.00	0.81	5.8	3.0	13	2.6	1.0	0.49	0.24	0.00	0.04	0.00
17	0.00	2.0	171	2.7	16	3.5	2.6	0.49	0.19	0.00	0.04	0.00
18	0.00	0.66	29	2.5	3.2	2.6	1.1	0.45	0.16	0.00	0.03	0.00
19	0.00	0.46	15	2.4	18	1.9	0.88	2.1	0.12	0.00	0.03	0.00
20	0.00	4.6	117	2.3	42	1.9	0.85	5.5	0.08	0.00	0.03	0.00
21	0.00	43	179	3.1	7.9	1.9	0.84	8.5	0.03	0.00	0.00	0.00
22	0.00	26	153	2.7	4.1	3.7	0.78	1.1	0.00	0.00	0.02	0.00
23	0.00	2.0	117	2.3	3.4	13	0.76	0.72	0.00	0.00	0.00	0.00
24	0.00	41	23	2.0	3.3	4.5	0.74	0.63	0.00	0.00	0.00	0.00
25	0.00	13	11	1.9	2.9	2.7	0.69	0.59	0.00	0.03	0.00	0.00
26	0.00	2.7	12	12	2.2	2.3	0.69	0.57	0.00	0.05	0.02	0.00
27	0.00	0.86	13	4.6	3.5	1.7	0.68	0.55	0.00	0.04	0.03	0.00
28	0.00	66	207	9.2	5.6	1.7	0.67	0.53	0.00	0.05	0.05	0.00
29	0.00	311	214	5.7	---	1.6	e1.2	0.53	0.02	0.05	0.05	0.00
30	4.0	19	159	3.4	---	1.6	1.5	0.50	0.07	0.05	0.05	0.00
31	2.1	---	287	2.6	---	1.5	---	0.48	---	0.05	0.00	---
TOTAL	6.10	690.26	2691.5	1512.7	167.5	207.6	34.25	35.12	5.43	0.35	0.75	0.05
MEAN	0.197	23.01	86.82	48.80	5.982	6.697	1.142	1.133	0.181	0.011	0.024	0.002
MAX	4.0	311	288	647	42	54	2.6	8.5	0.45	0.05	0.06	0.02
MIN	0.00	0.00	1.6	1.9	1.7	1.5	0.67	0.45	0.00	0.00	0.00	0.00
AC-FT	12	1370	5340	3000	332	412	68	70	11	0.7	1.5	0.1

e Estimated.

11465700 COLGAN CREEK NEAR SEBASTOPOL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	0.757	8.997	22.83	18.97	36.13	13.55	3.364	0.982	0.217	0.044	0.018	0.002
MAX	1.46	23.0	86.8	48.8	62.7	21.3	6.77	1.85	0.35	0.13	0.044	0.005
(WY)	2001	2002	2002	2002	2000	2000	1999	2000	2000	2000	2000	1999
MIN	0.20	0.81	0.30	7.06	5.98	6.70	1.14	0.25	0.091	0.005	0.000	0.000
(WY)	2002	2001	2000	2001	2002	2002	2002	2001	2001	2001	2001	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	4605.92		5351.61			
ANNUAL MEAN	12.62		14.66		8.895	
HIGHEST ANNUAL MEAN					14.7	2002
LOWEST ANNUAL MEAN					3.56	2001
HIGHEST DAILY MEAN	311	Nov 29	647	Jan 2	647	Jan 2 2002
LOWEST DAILY MEAN	0.00	Jun 12	0.00	Oct 1	0.00	Jul 16 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Jun 16	0.00	Oct 1	0.00	Aug 12 1999
MAXIMUM PEAK FLOW			865	Jan 2	865	Jan 2 2002
MAXIMUM PEAK STAGE			77.24	Jan 2	77.24	Jan 2 4003
ANNUAL RUNOFF (AC-FT)	9140		10610		6440	
10 PERCENT EXCEEDS	23		18		13	
50 PERCENT EXCEEDS	0.23		0.63		0.22	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

11465750 LAGUNA DE SANTA ROSA NEAR SEBASTOPOL, CA

LOCATION.—Lat 38°25'32", long 122°49'41", in SE 1/4 NW 1/4 sec.26, T.7 N., R.9 W., [Sonoma County](#), Hydrologic Unit 18010110, on right bank, upstream side of Occidental Road bridge, and 1.6 mi north of Sebastopol.

DRAINAGE AREA.—79.6 mi².

PERIOD OF RECORD.—November 1998 to current year.

GAGE.—Water-stage recorder and dopler-velocity system. Datum of gage is sea level.

REMARKS.—Records poor. No regulation or diversion upstream of station. High-flow periods are affected by backwater. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,140 ft³/s, Feb. 13, 2000, maximum gage height, 66.85 ft, Feb. 14, 2000; minimum daily, 0.01 ft³/s, Sept. 20, 21, 2000, Sept. 30, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1530	2,710	64.41	Jan. 2	1845	2,750	66.53

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.40	766	417	29	76	35	14	6.0	0.90	0.50	0.50
2	0.07	0.59	2310	2030	29	75	34	16	5.7	0.82	0.52	0.47
3	0.07	1.0	1690	1590	29	75	33	16	5.3	0.76	0.55	0.42
4	0.07	1.6	738	411	28	73	31	14	5.0	0.74	0.57	0.43
5	0.07	2.0	383	189	28	70	30	12	4.7	0.72	0.57	0.42
6	0.07	2.0	401	522	28	80	31	11	4.4	0.69	0.56	0.40
7	0.07	1.9	320	251	32	152	30	10	4.1	0.67	0.55	0.36
8	0.08	1.7	202	106	57	171	27	9.4	3.8	0.63	0.54	0.32
9	0.08	1.5	146	59	62	127	25	9.0	3.4	0.60	0.46	0.28
10	0.07	1.4	112	42	56	167	25	8.4	3.0	0.55	0.39	0.24
11	0.08	3.4	90	33	53	188	26	7.9	2.7	0.50	0.35	0.21
12	0.07	38	74	26	50	144	27	7.5	2.5	0.45	0.32	0.18
13	0.07	133	66	23	50	112	25	7.2	2.3	0.42	0.30	0.15
14	0.07	116	213	21	51	94	22	7.0	2.1	0.39	0.28	0.13
15	0.07	89	243	19	52	82	20	6.5	1.9	0.38	0.28	0.11
16	0.07	69	153	18	54	71	19	6.1	1.7	0.36	0.28	0.10
17	0.08	55	184	16	82	64	20	5.7	1.6	0.36	0.28	0.09
18	0.08	45	236	16	88	63	e21	5.3	1.6	0.36	0.29	0.08
19	0.08	37	160	16	87	56	23	5.2	1.5	0.38	0.30	0.08
20	0.08	33	179	16	185	50	20	6.4	1.5	0.39	0.31	0.07
21	0.09	43	419	17	242	47	17	14	1.4	0.39	0.31	0.06
22	0.09	124	398	19	171	48	15	24	1.3	0.41	0.33	0.05
23	0.08	131	501	19	122	68	14	25	1.3	0.44	0.34	0.05
24	0.08	147	303	20	96	86	13	17	1.3	0.43	0.35	0.04
25	0.08	180	180	19	82	76	13	13	1.2	0.46	0.38	0.03
26	0.08	139	129	21	72	65	12	11	1.2	0.48	0.39	e0.04
27	0.08	97	107	29	63	55	12	9.3	1.1	0.48	0.39	e0.03
28	0.08	88	173	29	72	47	12	8.3	1.1	0.48	0.40	e0.03
29	0.08	747	524	33	---	43	12	7.7	0.99	0.48	0.43	e0.02
30	0.14	584	374	32	---	41	12	7.2	0.95	0.48	0.49	e0.01
31	0.33	---	767	30	---	38	---	6.6	---	0.48	0.51	---
TOTAL	2.68	2912.49	12541	6089	2050	2604	656	327.7	76.64	16.08	12.52	5.40
MEAN	0.086	97.08	404.5	196.4	73.21	84.00	21.87	10.57	2.555	0.519	0.404	0.180
MAX	0.33	747	2310	2030	242	188	35	25	6.0	0.90	0.57	0.50
MIN	0.07	0.40	66	16	28	38	12	5.2	0.95	0.36	0.28	0.01
AC-FT	5.3	5780	24880	12080	4070	5170	1300	650	152	32	25	11

e Estimated.

11465750 LAGUNA DE SANTA ROSA NEAR SEBASTOPOL, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.911	46.19	143.9	137.1	378.7	134.6	38.50	9.472	3.054	1.151	0.526	0.384
MAX	5.56	97.1	405	196	630	210	77.5	13.0	5.38	2.30	1.32	0.98
(WY)	2001	2002	2002	2002	2000	2000	1999	2000	1999	1999	1999	1999
MIN	0.086	14.1	24.7	93.3	73.2	83.3	9.75	2.85	0.86	0.52	0.18	0.082
(WY)	2002	2001	2001	2000	2002	2001	2001	2001	2001	2002	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	28126.24		27293.51			
ANNUAL MEAN	77.06		74.78		66.37	
HIGHEST ANNUAL MEAN					85.8	
LOWEST ANNUAL MEAN					38.4	
HIGHEST DAILY MEAN	2310	Dec 2	2310	Dec 2	3710	Feb 14 2000
LOWEST DAILY MEAN	0.07	Oct 1	0.01	Sep 30	0.01	Sep 20 2000
ANNUAL SEVEN-DAY MINIMUM	0.07	Oct 1	0.03	Sep 24	0.02	Sep 19 2000
MAXIMUM PEAK FLOW			2750	Jan 2	5140	Feb 13 2000
MAXIMUM PEAK STAGE			66.53	Jan 2	66.85	Feb 14 2000
ANNUAL RUNOFF (AC-FT)	55790		54140		48080	
10 PERCENT EXCEEDS	236		171		151	
50 PERCENT EXCEEDS	2.6		10		8.4	
90 PERCENT EXCEEDS	0.08		0.08		0.10	

11465850 SPRING LAKE AT SANTA ROSA, CA

LOCATION.—Lat 38°27'26", long 122°38'59", [Sonoma County](#), Hydrologic Unit 18010110, 100 ft northwest of spillway, in Santa Rosa.

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder. Datum of gage is sea level.

REMARKS.—Reservoir is formed by earth-fill dam, capacity, 3,500 acre-ft. Spring Lake is a flood-control reservoir. Water is diverted from Santa Rosa Creek into Spring Lake during flood events beginning in 1965. Gage is for local flood warning and is operated seasonally from Oct. 1 to Apr. 30. Spillway elevation is 307.07 ft. Figures given represent only those days when the elevation was above 291.50 ft. See schematic diagram of [Russian River Basin](#).

NOTE: There were no days during the 2002 water year when the elevation was above 291.50 ft.

11466200 SANTA ROSA CREEK AT SANTA ROSA, CA

LOCATION.—Lat 38°26'12", long 122°43'25", in Cabeza de Santa Rosa Grant, [Sonoma County](#), Hydrologic Unit 18010110, on left bank downstream side of Pierson Street Bridge in Santa Rosa.

DRAINAGE AREA.—53 mi².

PERIOD OF RECORD.—December 1939 to September 1941 and Oct. 1, 2001, to Apr. 30, 2002 (seasonal).

GAGE.—Water-stage recorder and crest-stage gage, Datum of gage is 100.00 ft above sea level.

REMARKS.—Records poor. Water is diverted from Santa Rosa Creek into Spring Lake, 5.9 mi upstream, during flood events beginning in 1965. Diversions upstream from station for irrigation of about 5,000 acres. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,080 ft³/s, Feb. 27, 1940, gage height, 19.2 ft from floodmarks, from rating curve extended above 5,000 ft³/s, site and datum then in use; minimum daily, no flow Dec. 1–7, 1939.

EXTREMES FOR CURRENT SEASON.—Peak discharges greater than base discharge of 2,200 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1345	3,970	33.95	Jan. 2	0300	3,680	33.39
Dec. 30	2045	3,010	31.96				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.6	e6.8	1560	619	e19	e16	20	---	---	---	---	---
2	e2.5	e4.7	1690	2370	e17	e14	20	---	---	---	---	---
3	e2.4	e3.5	584	750	e15	e12	20	---	---	---	---	---
4	e2.3	e3.2	242	357	e14	e10	22	---	---	---	---	---
5	e2.9	e3.2	477	822	e13	e12	21	---	---	---	---	---
6	e2.5	e3.3	680	550	e12	e170	18	---	---	---	---	---
7	e2.4	e2.9	276	306	e50	e220	17	---	---	---	---	---
8	e2.3	e2.7	178	212	63	96	16	---	---	---	---	---
9	e2.1	e2.8	139	194	e27	83	17	---	---	---	---	---
10	e1.9	e42	86	116	e18	426	16	---	---	---	---	---
11	e1.8	e150	62	85	e15	e140	14	---	---	---	---	---
12	e1.9	e480	52	70	e13	e98	13	---	---	---	---	---
13	e2.0	e140	111	61	e12	e70	12	---	---	---	---	---
14	e2.0	e76	678	55	e11	e44	12	---	---	---	---	---
15	e2.2	e22	152	48	e10	34	11	---	---	---	---	---
16	e2.4	e41	99	42	70	69	13	---	---	---	---	---
17	e2.7	e37	509	36	78	62	13	---	---	---	---	---
18	e2.6	e7.0	183	32	e30	52	11	---	---	---	---	---
19	e2.3	e12	153	29	e120	33	11	---	---	---	---	---
20	e2.0	e64	681	26	e250	40	10	---	---	---	---	---
21	e2.2	e320	462	29	e110	23	9.8	---	---	---	---	---
22	e2.2	e295	675	25	e90	26	9.8	---	---	---	---	---
23	e2.1	e83	456	22	e60	102	9.7	---	---	---	---	---
24	e2.0	e490	235	20	e43	49	9.5	---	---	---	---	---
25	e1.8	e160	153	20	e32	40	9.3	---	---	---	---	---
26	e1.8	e84	123	64	e24	e34	9.4	---	---	---	---	---
27	e1.8	e49	107	36	e19	e31	9.1	---	---	---	---	---
28	e2.4	e600	839	43	e17	e29	8.9	---	---	---	---	---
29	e3.4	e1190	583	36	---	e26	11	---	---	---	---	---
30	e160	e110	916	28	---	e24	11	---	---	---	---	---
31	e28	---	797	24	---	24	---	---	---	---	---	---
TOTAL	253.5	4485.1	13938	7127	1252	2109	404.5	---	---	---	---	---
MEAN	8.177	149.5	449.6	229.9	44.71	68.03	13.48	---	---	---	---	---
MAX	160	1190	1690	2370	250	426	22	---	---	---	---	---
MIN	1.8	2.7	52	20	10	10	8.9	---	---	---	---	---
AC-FT	503	8900	27650	14140	2480	4180	802	---	---	---	---	---

e Estimated

11466320 SANTA ROSA CREEK AT WILLOWSIDE ROAD, NEAR SANTA ROSA, CA

LOCATION.—Lat 38°26'43", long 122°48'22", in NW 1/4 sec.13, T.7 N., R.9 W., Sonoma County, Hydrologic Unit 18010110, on right bank, upstream side of Willowside Road bridge, 1.6 mi upstream of the confluence of Laguna de Santa Rosa, and 5.4 mi west of Santa Rosa.

DRAINAGE AREA.—77.6 mi².

PERIOD OF RECORD.—December 1998 to current year.

REVISED RECORDS.—WRD CA-01-2: 1999–2000 (P).

GAGE.—Water-stage and recorder. Datum of gage is sea level.

REMARKS.—Records poor. Backwater conditions from Laguna de Santa Rosa can occur during periods of heavy rainfall. Diversions upstream from station for irrigation of about 5,000 acres. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,200 ft³/s, Nov. 28, 2001, gage height, 70.06 ft; minimum daily, 2.3 ft³/s, June 20, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 28	2315	5,200	70.06	Jan. 2	0415	5,150	70.00
Dec. 14	0300	2,750	66.44	Jan. 5	1745	3,240	67.39

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	8.0	2180	947	29	38	e29	15	7.8	3.4	4.4	3.7
2	2.8	5.2	2410	3720	24	30	e26	12	7.4	3.4	4.4	3.6
3	2.8	4.3	960	1250	21	25	e26	12	7.9	3.4	4.5	3.6
4	3.1	4.0	266	358	20	21	e26	11	9.1	3.5	4.5	3.6
5	3.2	4.0	604	1170	20	28	e24	9.4	9.9	3.7	4.3	3.6
6	3.2	4.2	770	879	18	207	21	7.9	9.5	3.6	4.2	3.6
7	3.2	3.8	266	390	72	297	21	7.5	9.2	3.6	4.0	3.7
8	3.3	3.6	158	263	95	130	24	8.0	11	3.3	3.9	4.1
9	3.2	3.7	132	210	41	131	23	6.7	12	3.4	3.8	4.1
10	3.0	58	98	181	28	435	22	6.3	9.8	3.3	3.7	3.7
11	2.9	298	72	167	23	155	22	6.7	11	3.4	3.8	3.6
12	2.7	823	44	144	21	123	15	7.6	12	3.4	3.8	3.6
13	2.8	134	82	134	21	105	10	7.0	11	3.4	3.8	3.6
14	2.9	100	957	123	18	92	10	5.7	9.7	3.5	4.0	3.7
15	3.2	30	161	107	16	e56	10	5.7	6.3	3.6	4.1	3.8
16	3.8	52	109	90	80	e110	13	6.0	6.1	3.7	4.1	3.6
17	3.7	50	e730	75	101	e90	18	6.0	4.9	3.9	4.1	3.4
18	3.4	15	e200	64	45	e70	13	6.1	4.9	3.8	4.2	3.5
19	3.3	21	e180	57	145	e55	14	19	3.4	3.7	4.1	3.6
20	2.9	80	e950	50	396	e60	11	47	2.3	3.7	4.0	3.2
21	3.2	379	624	55	168	e44	11	32	3.2	3.8	3.9	3.2
22	3.2	359	957	43	127	e47	12	11	3.1	3.9	3.7	3.2
23	3.1	90	633	35	108	e165	15	9.1	3.3	4.1	3.9	3.2
24	3.1	580	247	30	92	e70	11	8.3	3.4	4.0	4.2	3.2
25	2.9	184	159	27	75	e56	13	8.7	3.4	4.0	4.1	3.2
26	2.9	90	138	119	60	e47	13	8.5	3.3	4.0	4.0	3.3
27	3.1	58	129	62	55	e40	13	8.5	3.4	4.0	3.8	3.6
28	3.3	730	1230	96	47	e38	13	8.4	3.4	4.2	3.6	3.8
29	4.1	1380	899	71	---	e34	15	8.2	3.6	4.3	3.9	3.7
30	228	150	1290	46	---	e33	19	8.3	3.5	4.3	4.1	3.6
31	37	---	1370	35	---	e32	---	8.1	---	4.2	3.9	---
TOTAL	356.3	5701.8	19005	10998	1966	2864	513	331.7	198.8	115.5	124.8	106.9
MEAN	11.49	190.1	613.1	354.8	70.21	92.39	17.10	10.70	6.627	3.726	4.026	3.563
MAX	228	1380	2410	3720	396	435	29	47	12	4.3	4.5	4.1
MIN	2.7	3.6	44	27	16	21	10	5.7	2.3	3.3	3.6	3.2
AC-FT	707	11310	37700	21810	3900	5680	1020	658	394	229	248	212

e Estimated.

11466320 SANTA ROSA CREEK AT WILLOWSIDE ROAD, NEAR SANTA ROSA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.66	78.16	213.6	179.1	357.4	141.3	47.15	16.78	8.945	4.646	4.209	4.530
MAX	30.3	190	613	355	587	194	108	24.5	9.95	5.54	4.50	6.37
(WY)	2001	2002	2002	2002	1999	2000	1999	2000	1999	2000	1999	2000
MIN	11.5	15.8	13.3	102	70.2	92.4	17.1	8.72	6.63	3.73	4.03	3.56
(WY)	2002	2001	2000	2001	2002	2002	2002	2001	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	38963.6		42281.8			
ANNUAL MEAN	106.7		115.8		79.91	
HIGHEST ANNUAL MEAN					116 2002	
LOWEST ANNUAL MEAN					43.2 2001	
HIGHEST DAILY MEAN	2410	Dec 2	3720	Jan 2	3720	Jan 2 2002
LOWEST DAILY MEAN	2.7	Oct 12	2.3	Jun 20	2.3	Jun 20 2002
ANNUAL SEVEN-DAY MINIMUM	3.0	Oct 9	3.0	Oct 9	3.0	Oct 9 2001
MAXIMUM PEAK FLOW			5200	Nov 28	5200	Nov 28 2001
MAXIMUM PEAK STAGE			70.06	Nov 28	70.06	Nov 28 2001
ANNUAL RUNOFF (AC-FT)	77280		83870		57890	
10 PERCENT EXCEEDS	294		236		166	
50 PERCENT EXCEEDS	9.3		11		9.0	
90 PERCENT EXCEEDS	3.3		3.3		3.6	

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 mi².

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 sea level. 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.—Records fair, including period of estimated discharges. 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. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 102,000 ft³/s, Feb. 18, 1986, gage height, 48.56 ft, from rating curve extended above 57,000 ft³/s, maximum gage height, 49.7 ft, Dec. 23, 1955, site and datum then in use, from floodmarks; minimum daily discharge, 0.75 ft³/s, May 6, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	234	9980	11800	1340	1480	958	489	310	164	137	158
2	141	194	22500	33400	1270	1390	944	487	309	157	139	158
3	145	175	e16000	34600	1220	1310	1020	486	256	137	134	152
4	147	151	e8500	15800	1160	1240	988	482	248	140	154	153
5	167	139	6920	13200	1110	1180	951	468	203	140	131	150
6	180	119	10400	18900	1110	1230	929	440	186	148	129	146
7	196	119	8720	15900	1180	1740	903	404	172	149	133	147
8	206	118	5790	11900	1720	2000	876	418	181	149	131	150
9	194	110	4370	10100	1660	1640	846	400	187	147	123	204
10	168	99	3310	8760	1410	2410	820	394	216	132	118	182
11	132	245	2450	7920	1280	2610	738	390	192	125	136	165
12	117	1420	2010	6610	1190	2070	700	380	200	132	135	161
13	103	1920	1700	5110	1140	1770	667	450	160	140	152	168
14	100	974	5970	4440	1110	1710	644	359	178	142	161	170
15	97	706	5770	3570	1070	1370	531	334	180	149	163	169
16	99	546	3610	3090	1070	1210	540	330	182	154	161	167
17	97	511	5070	2740	1430	1110	580	323	174	158	163	157
18	96	450	6690	2390	1360	1030	563	315	178	148	169	150
19	94	387	4950	2180	1460	943	527	305	184	142	181	142
20	98	370	6050	2010	3550	919	507	404	181	144	192	135
21	93	478	9580	1860	5350	895	511	370	180	146	183	130
22	105	2430	9420	1780	4660	992	487	453	184	150	176	135
23	105	2230	11000	1690	3500	1890	500	410	179	152	177	138
24	108	3650	8460	1580	2480	2340	483	397	168	152	169	140
25	95	5000	6900	1510	2130	1840	475	376	174	142	163	140
26	97	2640	5910	1690	1900	1540	471	368	153	141	152	124
27	108	1560	4750	2080	1730	1390	466	364	148	138	141	142
28	106	1520	5620	2020	1590	1260	457	330	145	141	137	141
29	126	10600	9610	1910	---	1150	449	292	169	159	145	153
30	256	6390	8200	1650	---	1070	472	276	165	126	155	159
31	264	---	15200	1450	---	1010	---	303	---	126	160	---
TOTAL	4176	45485	235410	233640	51180	45739	20003	11997	5742	4470	4700	4586
MEAN	134.7	1516	7594	7537	1828	1475	666.8	387.0	191.4	144.2	151.6	152.9
MAX	264	10600	22500	34600	5350	2610	1020	489	310	164	192	204
MIN	93	99	1700	1450	1070	895	449	276	145	125	118	124
AC-FT	8280	90220	466900	463400	101500	90720	39680	23800	11390	8870	9320	9100

e Estimated.

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA—Continued
(National Stream-Quality Accounting Network Station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	304.0	1166	3979	6873	6916	4565	2232	723.4	306.5	178.7	167.9	183.1
MAX	2515	9425	17410	25220	26940	23290	11700	2798	1418	350	308	344
(WY)	1963	1974	1956	1995	1998	1983	1982	1983	1998	1998	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 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1940 - 2002
ANNUAL TOTAL	577820	667128	
ANNUAL MEAN	1583	1828	2279
HIGHEST ANNUAL MEAN			5898 1983
LOWEST ANNUAL MEAN			88.7 1977
HIGHEST DAILY MEAN	22500	Dec 2	34600 Jan 3
LOWEST DAILY MEAN	72	Jul 5	93 Oct 21
ANNUAL SEVEN-DAY MINIMUM	80	Jul 3	96 Oct 15
MAXIMUM PEAK FLOW			44000 Jan 3
MAXIMUM PEAK STAGE			33.43 Jan 3
ANNUAL RUNOFF (AC-FT)	1146000	1323000	1651000
10 PERCENT EXCEEDS	5400	5460	5510
50 PERCENT EXCEEDS	263	394	358
90 PERCENT EXCEEDS	99	133	140

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA—Continued
(National Stream-Quality Accounting Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1951 to September 1995, January 2002 to September 2002.

CHEMICAL DATA: Water years 1951 to September 1995. Published as "at Guerneville" in 1961–65.

BIOLOGICAL DATA: Water years 1975–81.

TURBIDITY: Water years 1967-95, January 2002 to September 2002.

DISSOLVED OXYGEN: January 2002 to September 2002.

pH: January 2002 to September 2002.

SPECIFIC CONDUCTANCE: Water years 1973-81, January 2002 to September 2002.

WATER TEMPERATURES: Water years 1964–81, January 2002 to September 2002.

SEDIMENT DATA: Water years 1966–95.

PERIOD OF DAILY RECORD.—

TURBIDITY: January 2002 to September 2002.

DISSOLVED OXYGEN: January 2002 to September 2002.

pH: January 2002 to September 2002.

SPECIFIC CONDUCTANCE: October 1973 to September 1981, January 2002 to September 2002.

WATER TEMPERATURES: January 1964 to September 1981, January 2002 to September 2002.

SEDIMENT RECORDS: April 1967 to September 1967, October 1969 to September 1986.

INSTRUMENTATION.—Water-quality monitor since January 2002. Specific conductance recorder from October 1973 to September 1981, at site 0.7 mi downstream. Temperature recorder from January 1964 to September 1981. Electronic datalogger with 15 minute interval.

REMARKS.—Turbidity record is good. Dissolved oxygen record is fair. pH record is good from Jan. 24 to Mar. 12, and excellent from Mar. 13 to Sept. 30. Specific conductance record is good from Jan. 24 to June 14, and excellent from June 15 to Sept. 30. Temperature record is excellent. Interruption in record is due to malfunction of recording and (or) sensing equipment or data exceeded maximum allowable limits.

EXTREMES FOR PERIOD OF DAILY RECORD.—

TURBIDITY: Maximum recorded, 100 NTU, Feb. 21, Mar. 23, 2002; minimum recorded, 0.3 NTU, May 15, 2002.

DISSOLVED OXYGEN: Maximum recorded, 14.2 mg/L, Sept. 25, 2002; minimum recorded, 7.0 mg/L, Apr. 7, 2002.

pH: Maximum recorded, 8.8 standard units, Aug. 28, 2002; minimum recorded, 7.2 standard units, Feb. 22, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 605 microsiemens, Feb. 19, 20, 1977; minimum recorded, 57 microsiemens, Nov. 4, 1973.

WATER TEMPERATURES: Maximum recorded, 29.5°C, June 26, 1973; minimum recorded, 4.5°C, Dec. 15, 1967, Jan. 12, 1968.

SEDIMENT CONCENTRATIONS (water years 1970-82): Maximum daily mean, 2,350 mg/L, Jan. 16, 1974; minimum daily mean, 2 mg/L, Dec. 12, 27, 1978; Nov. 15, 16, 25, 26, 1980.

SEDIMENT DISCHARGE (water years 1970-81): Maximum daily, 316,000 tons, Jan. 16, 1974; minimum daily, 0.03 ton, May 6, 1977.

EXTREMES FOR CURRENT YEAR.—

TURBIDITY: Maximum recorded, 100 NTU, Feb. 21, Mar. 23; minimum recorded, 0.3 NTU, May 15.

DISSOLVED OXYGEN: Maximum recorded, 14.2 mg/L, Sept. 25; minimum recorded, 7.0 mg/L, Apr. 7.

pH: Maximum recorded, 8.8 standard units, Aug. 28; minimum recorded, 7.2 standard units, Feb. 22.

SPECIFIC CONDUCTANCE: Maximum recorded, 304 microsiemens, Apr. 16; Minimum recorded, 172 microsiemens, Feb. 22.

WATER TEMPERATURES: Maximum recorded, 27.5°C, July 1; minimum recorded, 8.0°C, Jan. 29–31.

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- ATION, (FEET) (81903)	TUR- BID- ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
JUL 2002								
19...	1410	--	6.5	10.4	8.2	236	23.5	12.0
19...	1415	--	5.9	10.2	8.3	236	24.0	24.0
19...	1420	--	6.0	10.1	8.3	236	23.5	36.0
19...	1422	--	6.0	10.0	8.3	236	23.5	48.0
19...	1424	--	5.8	10.0	8.3	236	23.0	60.0
19...	1426	--	6.1	9.9	8.3	236	23.0	72.0
19...	1427	--	6.1	9.9	8.3	236	23.5	84.0
19...	1428	--	6.0	9.9	8.3	235	23.5	96.0
19...	1429	--	5.7	9.9	8.3	235	23.5	108
19...	1430	--	5.5	9.8	8.3	235	23.5	120
19...	1431	--	6.0	9.8	8.3	236	23.5	132
19...	1433	--	5.9	9.8	8.3	236	23.5	144
19...	1434	--	5.3	9.8	8.3	236	23.5	156
19...	1436	--	5.6	9.8	8.3	236	23.5	168
SEP								
20...	1432	2.96	2.6	11.5	8.0	225	20.5	7.00
20...	1434	3.22	3.3	10.9	8.0	224	20.5	14.0
20...	1436	2.60	3.1	10.7	8.0	225	20.5	21.0
20...	1438	2.04	2.9	10.6	8.0	224	20.5	28.0
20...	1440	1.70	2.7	10.6	8.0	224	20.5	35.0
20...	1442	1.63	2.1	10.5	8.0	224	20.5	42.0
20...	1444	1.88	2.1	10.5	8.0	224	21.0	49.0
20...	1446	1.54	2.1	10.5	8.0	224	21.0	56.0
20...	1448	.70	1.9	10.5	8.1	223	21.0	63.0
20...	1450	.50	1.8	10.2	8.0	--	22.0	70.0

* Instantaneous discharge at time of cross-sectional measurement: July 19, 143 ft³/s, Sept. 20, 135 ft³/s.

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA—Continued
 (National Stream-Quality Accounting Network Station)

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	12.8	12.1	11.1	10.5
2	---	---	---	---	---	---	---	---	12.6	12.1	11.4	10.7
3	---	---	---	---	---	---	---	---	12.7	12.2	11.7	11.0
4	---	---	---	---	---	---	---	---	12.7	12.2	11.8	11.0
5	---	---	---	---	---	---	---	---	12.8	12.1	11.6	10.9
6	---	---	---	---	---	---	---	---	12.9	12.2	11.4	10.7
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	11.6	10.6
14	---	---	---	---	---	---	---	---	---	---	12.0	11.3
15	---	---	---	---	---	---	---	---	---	---	11.8	10.9
16	---	---	---	---	---	---	---	---	---	---	11.9	11.0
17	---	---	---	---	---	---	---	---	---	---	11.8	11.1
18	---	---	---	---	---	---	---	---	---	---	12.2	11.0
19	---	---	---	---	---	---	---	---	---	---	12.0	11.0
20	---	---	---	---	---	---	---	---	---	---	11.9	10.7
21	---	---	---	---	---	---	---	---	---	---	11.8	10.5
22	---	---	---	---	---	---	---	---	---	---	11.0	10.2
23	---	---	---	---	---	---	---	---	10.9	10.6	10.8	10.0
24	---	---	---	---	---	---	---	---	11.2	10.7	11.0	10.2
25	---	---	---	---	---	---	11.8	11.6	11.1	10.8	11.3	10.3
26	---	---	---	---	---	---	11.7	11.4	11.0	10.7	11.6	10.5
27	---	---	---	---	---	---	12.2	11.4	10.9	10.5	11.3	10.4
28	---	---	---	---	---	---	12.4	12.0	10.9	10.5	11.1	9.9
29	---	---	---	---	---	---	12.8	12.2	---	---	10.4	9.2
30	---	---	---	---	---	---	12.8	12.4	---	---	10.0	8.9
31	---	---	---	---	---	---	12.9	12.3	---	---	9.7	8.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.3	11.6	10.1	9.3	7.9	9.3	8.0	10.4	8.6	11.8	8.8
2	9.2	7.9	11.6	9.7	9.3	8.1	9.5	8.0	10.6	8.4	11.6	8.2
3	8.6	8.0	11.2	9.2	9.4	8.2	9.8	8.1	10.1	8.5	11.9	7.7
4	8.7	7.8	11.3	9.3	9.6	8.2	10.1	8.1	12.3	8.7	13.2	8.1
5	8.5	7.9	11.1	9.3	8.8	7.8	10.6	8.2	12.2	8.0	11.0	8.6
6	8.3	7.7	11.1	9.0	9.1	7.3	11.2	8.0	12.4	9.8	10.9	8.8
7	7.9	7.0	11.0	8.9	9.6	7.2	11.2	7.5	12.3	9.8	11.2	8.8
8	7.5	6.5	10.8	9.0	9.8	7.5	12.2	7.6	12.4	9.7	11.8	8.9
9	---	---	10.9	8.9	9.8	8.0	10.6	8.3	12.5	9.5	11.7	8.8
10	---	---	10.7	9.0	---	---	10.5	8.2	12.0	9.2	11.2	8.7
11	---	---	10.9	9.0	---	---	10.5	8.2	12.0	8.7	11.7	8.3
12	---	---	10.9	9.0	---	---	10.3	8.2	12.8	8.6	12.4	8.1
13	10.2	8.6	10.9	8.9	---	---	10.4	8.3	12.3	8.4	12.9	8.1
14	9.9	8.5	9.9	8.1	---	---	10.5	8.3	12.4	8.2	11.6	8.1
15	10.4	8.0	10.0	7.8	---	---	10.8	8.3	12.0	8.0	11.4	8.1
16	9.6	8.9	9.9	7.8	---	---	10.8	8.4	12.4	7.9	11.8	7.8
17	11.4	8.9	9.8	8.2	---	---	11.4	8.3	11.5	7.9	11.4	9.0
18	11.3	10.2	9.9	8.2	---	---	11.2	8.7	11.2	7.8	11.7	8.8
19	11.5	9.9	9.3	7.9	---	---	12.3	8.4	11.6	7.6	11.8	8.7
20	11.2	9.8	10.0	8.7	---	---	11.6	8.7	11.7	7.5	11.4	8.8
21	11.2	9.5	10.3	8.7	---	---	11.1	8.5	10.8	9.0	11.9	8.8
22	11.4	9.6	10.5	8.9	---	---	12.3	8.9	10.7	8.9	13.3	8.8
23	11.3	9.5	10.2	7.9	---	---	12.2	9.1	11.0	8.9	13.3	8.9
24	10.4	9.2	10.1	7.5	---	---	10.4	8.8	12.3	9.2	13.6	8.8
25	11.1	9.2	10.0	7.6	---	---	10.3	8.8	12.3	9.1	14.2	8.8
26	10.9	9.0	10.0	7.4	---	---	10.4	8.8	12.1	9.0	13.8	8.8
27	10.9	9.2	9.8	7.8	---	---	10.4	8.7	11.5	8.8	12.0	8.8
28	10.9	9.7	9.8	8.2	10.2	8.2	10.2	8.6	10.9	8.3	13.2	9.1
29	12.0	10.2	9.4	8.3	10.0	8.4	10.9	8.7	11.0	8.3	13.2	9.5
30	11.1	9.9	9.2	7.7	9.7	8.1	10.6	8.8	11.7	8.5	13.4	9.8
31	---	---	9.2	7.5	---	---	10.5	8.7	11.9	8.8	---	---
MONTH	---	---	11.6	7.4	---	---	12.3	7.5	12.8	7.5	14.2	7.7

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA—Continued
(National Stream-Quality Accounting Network Station)

PH, WH, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	8.0	7.9	7.9	7.9
2	---	---	---	---	---	---	---	---	8.0	8.0	7.9	7.9
3	---	---	---	---	---	---	---	---	8.0	7.8	8.0	7.8
4	---	---	---	---	---	---	---	---	8.0	7.9	8.0	7.9
5	---	---	---	---	---	---	---	---	8.2	7.9	8.0	7.9
6	---	---	---	---	---	---	---	---	8.2	8.0	8.0	7.9
7	---	---	---	---	---	---	---	---	8.2	8.0	8.0	7.7
8	---	---	---	---	---	---	---	---	8.2	8.1	7.8	7.6
9	---	---	---	---	---	---	---	---	8.3	8.1	7.9	7.6
10	---	---	---	---	---	---	---	---	8.3	8.2	7.8	7.6
11	---	---	---	---	---	---	---	---	8.3	8.2	7.8	7.6
12	---	---	---	---	---	---	---	---	8.5	8.3	7.8	7.6
13	---	---	---	---	---	---	---	---	8.5	8.4	7.9	7.7
14	---	---	---	---	---	---	---	---	8.5	8.5	7.9	7.8
15	---	---	---	---	---	---	---	---	8.5	8.5	7.8	7.7
16	---	---	---	---	---	---	---	---	8.6	8.5	7.9	7.8
17	---	---	---	---	---	---	---	---	8.6	8.6	7.9	7.8
18	---	---	---	---	---	---	---	---	8.6	8.6	7.9	7.8
19	---	---	---	---	---	---	---	---	---	---	7.9	7.8
20	---	---	---	---	---	---	---	---	---	---	8.0	7.8
21	---	---	---	---	---	---	---	---	---	---	8.0	7.8
22	---	---	---	---	---	---	---	---	7.7	7.2	7.9	7.8
23	---	---	---	---	---	---	---	---	7.8	7.7	7.8	7.8
24	---	---	---	---	---	---	---	---	7.8	7.7	7.9	7.8
25	---	---	---	---	---	---	7.7	7.7	7.8	7.8	8.0	7.8
26	---	---	---	---	---	---	7.9	7.7	7.8	7.8	8.0	7.9
27	---	---	---	---	---	---	7.9	7.9	7.9	7.8	8.0	7.8
28	---	---	---	---	---	---	7.9	7.9	7.9	7.8	8.0	7.8
29	---	---	---	---	---	---	7.9	7.9	---	---	8.0	7.6
30	---	---	---	---	---	---	7.9	7.8	---	---	8.0	7.7
31	---	---	---	---	---	---	8.0	7.8	---	---	8.0	7.8
MONTH	---	---	---	---	---	---	---	---	---	---	8.0	7.6
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.8	8.0	7.8	7.9	7.8	8.2	7.9	8.6	8.0	8.6	8.0
2	8.0	7.8	8.0	7.8	7.8	7.8	8.4	7.9	8.6	8.0	8.6	8.0
3	7.9	7.8	8.0	7.8	7.9	7.7	8.4	8.0	8.5	7.9	8.6	7.9
4	8.0	7.8	8.0	7.8	7.9	7.7	8.4	8.0	8.5	7.9	8.6	8.0
5	8.0	7.8	8.0	7.8	7.9	7.7	8.5	7.9	8.5	7.9	8.5	7.9
6	8.0	7.8	8.0	7.8	7.9	7.7	8.5	7.9	8.6	8.0	8.5	7.9
7	8.0	7.8	8.0	7.8	8.0	7.6	8.6	7.9	8.6	8.0	8.5	7.9
8	8.0	7.8	8.0	7.8	8.0	7.7	8.6	7.9	8.6	8.0	8.5	7.9
9	---	---	8.0	7.8	8.0	7.8	8.6	8.0	8.6	8.0	8.5	7.9
10	---	---	8.0	7.7	---	---	8.6	8.0	8.6	8.0	8.4	8.0
11	7.9	7.7	8.0	7.8	---	---	8.7	8.0	8.7	8.0	8.4	7.9
12	7.9	7.7	8.0	7.8	---	---	8.7	8.1	8.6	8.0	8.4	7.9
13	7.9	7.7	8.0	7.8	---	---	8.6	8.0	8.7	7.9	8.4	7.9
14	7.9	7.7	7.9	7.6	---	---	8.6	8.0	8.7	8.0	8.5	7.9
15	7.9	7.7	7.9	7.7	---	---	8.6	8.0	8.6	7.9	8.5	7.8
16	7.8	7.7	7.9	7.8	---	---	8.6	7.9	8.6	7.9	8.4	7.8
17	7.9	7.7	7.9	7.8	---	---	8.6	8.0	8.6	7.9	8.5	7.8
18	7.9	7.8	7.9	7.8	---	---	8.6	8.0	8.7	8.0	8.4	7.8
19	7.9	7.8	7.9	7.7	---	---	8.6	7.9	8.7	8.0	8.4	7.7
20	7.9	7.8	7.8	7.7	---	---	8.6	8.0	8.7	8.0	8.3	7.7
21	8.0	7.8	7.8	7.7	---	---	8.6	7.9	8.7	8.0	8.3	7.7
22	8.0	7.8	7.9	7.7	---	---	8.6	7.9	8.7	8.0	8.4	7.7
23	8.0	7.8	7.9	7.7	---	---	8.6	7.9	8.6	8.0	8.4	7.7
24	8.0	7.8	7.9	7.7	---	---	8.6	8.0	8.6	7.9	8.4	7.7
25	8.1	7.9	7.9	7.7	---	---	8.6	8.0	8.7	7.9	8.4	7.7
26	8.1	7.9	7.9	7.7	---	---	8.6	7.9	8.7	7.9	8.4	7.7
27	8.1	8.0	7.9	7.7	---	---	8.6	8.0	8.7	7.9	8.3	7.7
28	8.1	8.0	7.9	7.7	8.1	7.7	8.6	8.0	8.8	7.9	8.4	7.8
29	8.2	8.0	7.9	7.7	8.2	7.8	8.6	8.0	8.7	7.9	8.5	7.8
30	8.1	7.8	7.9	7.7	8.2	7.9	8.6	7.9	8.6	7.9	8.5	7.8
31	---	---	7.9	7.6	---	---	8.6	8.0	8.6	8.0	---	---
MONTH	---	---	8.0	7.6	---	---	8.7	7.9	8.8	7.9	8.6	7.7

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA—Continued
 (National Stream-Quality Accounting Network Station)

SPECIFIC CONDUCTANCE, US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	263	247	241	236
2	---	---	---	---	---	---	---	---	263	261	246	240
3	---	---	---	---	---	---	---	---	262	260	250	246
4	---	---	---	---	---	---	---	---	261	260	254	249
5	---	---	---	---	---	---	---	---	262	260	258	254
6	---	---	---	---	---	---	---	---	261	257	265	258
7	---	---	---	---	---	---	---	---	258	252	264	232
8	---	---	---	---	---	---	---	---	255	229	258	226
9	---	---	---	---	---	---	---	---	231	225	277	258
10	---	---	---	---	---	---	---	---	242	226	273	195
11	---	---	---	---	---	---	---	---	250	240	213	192
12	---	---	---	---	---	---	---	---	256	248	---	---
13	---	---	---	---	---	---	---	---	256	253	251	242
14	---	---	---	---	---	---	---	---	256	253	245	238
15	---	---	---	---	---	---	---	---	256	254	252	245
16	---	---	---	---	---	---	---	---	257	254	252	250
17	---	---	---	---	---	---	---	---	259	238	254	250
18	---	---	---	---	---	---	---	---	249	237	259	253
19	---	---	---	---	---	---	---	---	---	---	266	259
20	---	---	---	---	---	---	---	---	---	---	268	265
21	---	---	---	---	---	---	---	---	---	---	268	266
22	---	---	---	---	---	---	---	---	185	172	268	261
23	---	---	---	---	---	---	---	---	199	181	262	226
24	---	---	---	---	---	---	---	---	209	197	226	217
25	---	---	---	---	---	---	257	252	216	208	236	221
26	---	---	---	---	---	---	258	252	223	216	251	235
27	---	---	---	---	---	---	255	224	229	223	258	251
28	---	---	---	---	---	---	228	224	236	229	264	258
29	---	---	---	---	---	---	232	227	---	---	267	263
30	---	---	---	---	---	---	246	231	---	---	269	267
31	---	---	---	---	---	---	258	238	---	---	272	269
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	274	271	294	289	280	276	254	250	243	236	218	215
2	275	274	291	276	279	275	252	248	240	234	218	214
3	275	264	282	277	---	---	252	248	239	233	217	214
4	265	257	283	280	295	278	251	248	234	233	224	216
5	262	258	283	280	---	---	251	245	237	231	222	216
6	263	261	283	279	---	---	246	241	236	231	218	212
7	263	262	283	280	289	280	248	243	237	231	215	211
8	264	263	282	275	290	280	247	241	234	224	215	211
9	---	---	278	274	287	279	247	238	230	222	214	210
10	---	---	275	273	---	---	246	238	232	222	227	211
11	270	265	274	272	---	---	255	245	225	218	224	219
12	280	269	272	269	---	---	251	241	223	217	219	213
13	289	279	272	266	---	---	243	236	219	216	215	209
14	289	286	293	262	---	---	239	235	223	216	214	209
15	300	285	278	266	---	---	239	235	218	213	212	209
16	304	284	278	270	---	---	238	235	217	214	218	206
17	285	275	274	269	---	---	241	236	218	212	213	207
18	282	274	272	267	---	---	241	237	219	211	220	210
19	277	275	271	267	---	---	241	233	216	211	217	210
20	280	275	282	271	---	---	237	233	220	212	215	210
21	278	277	280	265	---	---	242	235	220	214	216	211
22	277	273	266	246	---	---	240	235	217	211	214	211
23	275	268	259	249	---	---	240	228	214	212	215	211
24	---	---	269	258	---	---	239	228	215	212	228	212
25	---	---	280	268	---	---	237	232	217	214	223	217
26	---	---	283	280	---	---	235	229	219	215	221	218
27	---	---	285	281	---	---	235	230	219	215	224	219
28	---	---	293	283	266	253	237	231	224	216	221	217
29	---	---	292	284	255	250	235	230	219	215	218	214
30	---	---	293	281	257	253	237	231	219	215	218	215
31	---	---	289	279	---	---	246	234	218	215	---	---
MONTH	---	---	294	246	---	---	255	228	243	211	228	206

RUSSIAN RIVER BASIN

11467000 RUSSIAN RIVER NEAR GUERNEVILLE, CA—Continued
(National Stream-Quality Accounting Network Station)

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	10.0	8.5	13.5	12.5
2	---	---	---	---	---	---	---	---	10.0	9.5	13.0	11.5
3	---	---	---	---	---	---	---	---	10.5	9.5	13.0	11.5
4	---	---	---	---	---	---	---	---	10.5	9.5	13.0	11.5
5	---	---	---	---	---	---	---	---	10.5	10.0	12.5	12.0
6	---	---	---	---	---	---	---	---	10.5	9.5	13.0	12.0
7	---	---	---	---	---	---	---	---	11.0	10.5	13.0	12.5
8	---	---	---	---	---	---	---	---	11.0	10.0	12.5	10.5
9	---	---	---	---	---	---	---	---	10.5	9.5	11.5	10.5
10	---	---	---	---	---	---	---	---	10.5	9.5	12.0	11.0
11	---	---	---	---	---	---	---	---	11.5	10.0	13.5	11.5
12	---	---	---	---	---	---	---	---	11.5	10.5	13.5	13.0
13	---	---	---	---	---	---	---	---	12.0	11.5	13.0	12.0
14	---	---	---	---	---	---	---	---	12.0	11.0	12.0	11.0
15	---	---	---	---	---	---	---	---	12.5	12.0	12.0	11.0
16	---	---	---	---	---	---	---	---	12.0	11.5	12.0	10.5
17	---	---	---	---	---	---	---	---	11.5	10.5	12.0	11.0
18	---	---	---	---	---	---	---	---	11.5	10.5	12.0	10.0
19	---	---	---	---	---	---	---	---	---	---	13.0	11.0
20	---	---	---	---	---	---	---	---	---	---	14.0	12.0
21	---	---	---	---	---	---	---	---	---	---	14.0	12.5
22	---	---	---	---	---	---	---	---	12.5	11.5	14.0	13.0
23	---	---	---	---	---	---	---	---	12.5	11.5	13.0	12.0
24	---	---	---	---	---	---	---	---	12.5	11.0	13.5	12.0
25	---	---	---	---	---	---	9.5	9.0	13.0	12.0	13.5	12.5
26	---	---	---	---	---	---	10.5	9.5	13.0	12.5	13.5	12.0
27	---	---	---	---	---	---	10.0	9.0	13.5	12.5	15.0	13.0
28	---	---	---	---	---	---	9.0	8.5	13.5	12.5	16.0	13.5
29	---	---	---	---	---	---	8.5	8.0	---	---	16.5	14.5
30	---	---	---	---	---	---	8.5	8.0	---	---	17.0	15.0
31	---	---	---	---	---	---	9.0	8.0	---	---	17.5	15.5
MONTH	---	---	---	---	---	---	---	---	---	---	17.5	10.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17.5	15.5	16.0	14.0	24.0	21.0	27.5	23.0	23.5	20.5	23.0	19.0
2	17.0	15.5	17.0	15.5	23.0	20.5	26.5	23.0	24.0	21.0	23.5	19.5
3	16.5	14.5	17.5	16.5	22.5	20.0	25.5	22.0	23.0	20.5	23.0	19.5
4	14.5	14.0	18.5	16.5	24.5	20.5	25.5	21.5	22.0	19.0	22.5	19.5
5	14.5	13.5	19.5	17.0	26.0	21.5	25.5	21.0	22.5	19.0	21.5	18.5
6	16.5	13.5	19.5	18.0	26.5	22.0	26.0	21.5	23.0	18.5	21.0	17.5
7	17.0	15.0	19.5	18.0	26.0	22.0	26.0	21.5	23.0	19.0	20.5	17.5
8	16.5	15.5	19.5	17.5	24.5	21.0	26.0	21.5	23.5	19.5	20.5	17.0
9	---	---	19.5	17.0	22.5	19.0	26.5	22.0	24.0	20.0	21.0	17.0
10	---	---	19.5	17.0	---	---	27.0	22.5	24.5	21.0	22.0	18.0
11	16.5	14.0	19.5	16.5	---	---	27.0	23.0	24.5	20.5	21.5	18.0
12	17.5	15.5	20.0	17.5	---	---	26.5	23.0	24.0	20.5	21.0	18.0
13	19.5	16.5	20.5	17.5	---	---	26.0	22.0	24.0	20.0	21.0	18.0
14	20.5	18.0	20.5	17.5	---	---	25.5	21.5	23.5	20.5	20.5	18.0
15	19.5	16.0	21.0	18.5	---	---	25.0	21.0	23.5	20.5	20.5	18.0
16	16.5	14.0	21.5	19.0	---	---	24.0	21.0	23.0	20.0	20.5	17.5
17	14.5	13.5	21.5	19.0	---	---	24.0	20.5	22.5	19.5	21.0	18.0
18	15.0	13.5	21.0	19.0	---	---	24.5	20.5	22.5	19.5	22.0	18.5
19	15.5	14.0	19.0	17.5	---	---	25.0	20.5	22.0	19.0	22.0	18.5
20	16.5	15.0	17.5	16.0	---	---	25.5	21.0	22.5	19.0	21.5	19.0
21	17.5	16.0	17.5	15.0	---	---	24.0	21.5	22.5	19.0	21.5	18.5
22	18.5	16.5	18.0	16.0	---	---	23.0	20.0	22.0	19.5	21.0	18.5
23	19.0	17.5	19.5	17.0	---	---	23.5	20.0	21.5	18.5	21.5	18.0
24	18.5	17.5	21.0	18.0	---	---	24.0	19.5	21.5	18.5	21.0	18.0
25	18.5	17.0	21.5	19.5	---	---	24.0	20.0	22.0	18.5	20.5	18.0
26	19.0	17.5	21.0	19.5	---	---	24.5	20.5	23.0	18.5	19.5	18.0
27	18.0	16.5	21.0	19.5	---	---	24.0	20.5	23.5	19.5	19.0	17.5
28	16.5	15.0	21.5	19.0	25.0	21.0	23.5	21.0	23.0	20.0	18.5	16.5
29	17.0	15.0	24.0	20.0	26.0	21.5	23.0	20.0	22.5	20.0	18.0	15.5
30	16.5	14.5	25.5	21.5	27.0	22.5	23.5	20.5	21.5	19.0	18.5	16.0
31	---	---	25.0	21.5	---	---	23.5	20.5	22.5	19.0	---	---
MONTH	---	---	25.5	14.0	---	---	27.5	19.5	24.5	18.5	23.5	15.5

11467002 RUSSIAN RIVER AT JOHNSONS BEACH, AT GUERNEVILLE, CA

LOCATION.—Lat 38°30'03", long 122°59'36", in NE 1/4 NW 1/4 sec.32, T.8 N., R.10 W., [Sonoma County](#), Hydrologic Unit 18010110, on downstream side of old Highway 116 bridge, 0.1 mi upstream from Pocket Creek, in Guerneville.

DRAINAGE AREA.—1,353 mi².

PERIOD OF RECORD.—December 1939 to September 1954, published as "at Guerneville" (station 11467000). Oct. 13, 1995, to current year, stage only above 5.96 ft.

GAGE.—Water-stage recorder. Datum of gage is 8.67 ft above sea level.

REMARKS.—Interruptions in record when above 5.70 ft were due to malfunction of the sensing and (or) recording instruments. Stage data for the period June 1 to Sept. 30 are affected by summer recreation dam. Flow regulated by Lake Mendocino, 82 mi upstream, and by Lake Sonoma, 31 mi upstream. 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 [11461500](#) and [11462000](#)) and by diversion for municipal use. See schematic diagram of [Russian River Basin](#).

EXTREMES FOR PERIOD OUTSIDE OF RECORD.—Maximum elevation, 48.8 ft, Feb. 18, 1986.

EXTREMES FOR PERIOD OF RECORD.—Maximum elevation, 46.87 ft, Feb. 28, 1940.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	20.52	10.10	17.52	15.25	6.89	6.77	7.16	6.98
2	---	---	---	---	22.88	20.46	31.01	17.04	6.77	6.71	6.98	6.88
3	---	---	---	---	20.46	15.15	31.08	22.63	6.71	6.62	6.88	6.76
4	---	---	---	---	15.15	11.97	22.63	16.24	6.62	6.53	6.78	6.67
5	---	---	---	---	12.69	11.47	18.55	15.93	6.53	6.47	6.68	6.58
6	---	---	---	---	15.53	12.69	20.55	18.55	6.51	6.47	6.84	6.58
7	---	---	---	---	15.25	11.94	19.95	16.91	6.88	6.50	7.71	6.84
8	---	---	---	---	11.94	10.42	16.93	15.02	7.58	6.88	7.79	7.60
9	---	---	---	---	10.42	9.67	15.02	13.81	7.56	7.14	7.60	7.16
10	---	---	---	---	9.68	8.71	13.81	12.94	7.14	6.87	8.67	7.18
11	---	---	---	---	8.71	8.06	12.94	12.25	6.87	6.72	8.70	8.16
12	---	---	---	---	8.06	7.59	12.25	10.96	6.72	6.61	8.16	7.65
13	---	---	8.08	6.21	7.59	7.31	10.96	10.18	6.61	6.54	7.65	7.37
14	---	---	6.21	5.67	12.79	7.53	10.19	9.54	6.55	6.50	7.52	7.14
15	---	---	---	---	12.79	10.02	9.54	9.04	6.50	6.44	7.14	6.83
16	---	---	---	---	10.02	9.10	9.05	8.73	6.60	6.41	6.83	6.62
17	---	---	---	---	12.17	9.10	8.73	8.37	7.08	6.60	6.62	6.46
18	---	---	---	---	12.51	10.97	8.37	8.05	7.07	6.82	6.46	6.33
19	---	---	---	---	10.97	10.15	8.05	7.83	7.41	6.80	6.33	6.20
20	---	---	---	---	12.97	10.21	7.83	7.62	10.94	7.40	6.21	6.15
21	---	---	---	---	14.29	12.97	7.63	7.48	10.84	10.42	6.16	6.09
22	---	---	8.29	5.74	15.48	12.49	7.48	7.39	10.43	9.83	6.66	6.08
23	---	---	8.39	6.77	15.58	14.04	7.39	7.22	9.83	8.62	8.39	6.64
24	---	---	10.73	6.64	14.04	12.43	7.23	7.10	8.62	8.13	8.42	7.95
25	---	---	10.82	9.19	12.43	11.42	7.11	7.02	8.14	7.78	7.95	7.36
26	---	---	9.19	7.71	11.42	10.80	7.65	7.02	7.79	7.54	7.36	7.10
27	---	---	7.71	6.76	10.80	9.81	7.87	7.65	7.54	7.33	7.10	6.90
28	---	---	10.51	6.40	13.34	9.91	7.81	7.73	7.33	7.15	6.90	6.72
29	---	---	---	---	14.42	13.34	7.74	7.44	---	---	6.73	6.54
30	---	---	---	---	14.64	12.40	7.44	7.09	---	---	6.54	6.41
31	---	---	---	---	19.06	14.64	7.09	6.88	---	---	6.41	6.31
MONTH	---	---	---	---	22.88	7.31	31.08	6.88	10.94	6.41	8.70	6.08

11467002 RUSSIAN RIVER AT JOHNSONS BEACH, AT GUERNEVILLE, CA—Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.31	6.21	---	---	---	---	8.45	8.42	8.41	8.37	8.46	8.44
2	6.33	6.16	---	---	---	---	8.44	8.41	8.43	8.39	8.46	8.42
3	6.41	6.33	---	---	---	---	8.41	8.37	8.42	8.38	8.45	8.43
4	6.34	6.31	---	---	---	---	8.39	8.37	8.47	8.40	8.45	8.43
5	6.31	6.24	---	---	---	---	8.40	8.37	8.41	8.37	8.45	8.42
6	6.24	6.19	---	---	---	---	8.42	8.39	8.40	8.37	8.44	8.41
7	6.19	6.15	---	---	---	---	8.42	8.38	8.39	8.35	8.43	8.39
8	6.15	6.09	---	---	---	---	8.42	8.39	8.35	8.32	8.44	8.41
9	6.09	6.04	---	---	---	---	8.42	8.37	8.34	8.31	8.70	8.43
10	6.05	5.92	---	---	---	---	8.41	8.36	8.33	8.27	8.68	8.49
11	5.92	5.77	---	---	---	---	8.38	8.31	8.37	8.33	8.51	8.47
12	5.77	5.70	---	---	---	---	8.39	8.35	8.37	8.35	8.48	8.46
13	---	---	---	---	---	---	8.41	8.38	8.42	8.35	8.49	8.47
14	---	---	---	---	---	---	8.41	8.39	8.43	8.41	8.50	8.49
15	---	---	---	---	---	---	8.43	8.40	8.44	8.42	8.51	8.47
16	---	---	---	---	8.34	7.89	8.44	8.41	8.46	8.43	8.49	8.47
17	---	---	---	---	8.36	8.33	8.45	8.43	8.47	8.44	8.49	8.45
18	---	---	---	---	8.41	8.34	8.44	8.41	8.48	8.46	8.46	8.44
19	---	---	---	---	8.44	8.40	8.41	8.40	8.51	8.48	8.45	8.41
20	---	---	---	---	8.43	8.42	8.42	8.38	8.53	8.50	8.43	8.40
21	---	---	---	---	8.44	8.42	8.42	8.39	8.52	8.48	8.41	8.39
22	---	---	---	---	8.45	8.43	8.43	8.41	8.49	8.47	8.43	8.40
23	---	---	---	---	8.45	8.44	8.44	8.42	8.50	8.48	8.43	8.41
24	---	---	---	---	8.45	8.42	8.45	8.41	8.49	8.46	8.42	8.40
25	---	---	---	---	8.48	8.41	8.43	8.40	8.47	8.44	8.42	8.40
26	---	---	---	---	8.47	8.38	8.42	8.40	8.46	8.42	8.40	8.35
27	---	---	---	---	8.45	8.35	8.41	8.37	8.43	8.40	8.42	8.36
28	---	---	---	---	8.43	8.31	8.44	8.38	8.41	8.37	8.42	8.38
29	---	---	---	---	8.45	8.42	8.48	8.41	8.43	8.40	8.45	8.41
30	---	---	---	---	8.45	8.42	8.41	8.37	8.46	8.42	8.45	6.11
31	---	---	---	---	---	---	8.39	8.35	8.46	8.45	---	---
MONTH	---	---	---	---	---	---	8.48	8.31	8.53	8.27	8.70	6.11

11467585 WHEATFIELD FORK GUALALA RIVER ABOVE SOUTH FORK GUALALA RIVER, NEAR ANNAPOLIS, CA

LOCATION.—Lat 38°42'34", long 123°24'24", in SE 1/4 sec.15, T.10 N., R.14 W., [Sonoma County](#), Hydrologic Unit 18010109, on right bank, 1.0 mi above confluence of South Fork Gualala River, and 2.1 mi southwest of Annapolis.

DRAINAGE AREA.—111 mi².

PERIOD OF RECORD.—October 2000 to September 2002 (discontinued).

GAGE.—Water stage recorder and crest stage gage. Elevation of gage is 75 ft above sea level, from topographic map.

REMARKS.—No regulation above gage.

COOPERATION.—Records collected by California State Department of Water Resources, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,500 ft³/s, Jan. 2, 2002, gage height, 17.37 ft; no flow several days in October 2000, September and October 2001.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 12,500 ft³/s, Jan. 2; no flow, several days in October.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	5.8	3360	1780	99	152	103	33	16	4.7	2.1	0.50
2	0.00	2.3	2120	8020	99	133	95	32	16	4.4	2.1	0.52
3	0.00	1.3	1530	2510	97	119	90	31	15	4.2	2.2	0.53
4	0.00	0.79	792	1310	95	112	86	30	14	4.0	2.3	0.51
5	0.00	0.63	1220	1400	94	107	84	29	13	3.8	2.2	0.58
6	0.00	0.55	2230	2190	92	135	81	27	12	3.6	2.1	0.61
7	0.00	0.48	1030	1550	115	259	76	26	11	3.1	1.8	0.60
8	0.00	0.48	649	1090	329	197	72	26	11	2.9	1.7	0.57
9	0.00	0.48	482	835	173	151	69	25	10	2.7	1.3	0.53
10	0.00	0.61	377	686	148	460	69	24	10	2.6	1.2	0.51
11	0.00	4.4	311	573	133	318	65	24	10	2.5	0.97	0.49
12	0.00	181	271	471	127	264	63	23	9.8	2.4	e0.95	0.44
13	0.00	157	252	398	123	219	61	22	9.8	2.4	e0.93	0.44
14	0.00	100	1610	324	117	182	58	22	9.8	2.4	e0.90	0.44
15	0.00	78	693	249	112	156	56	23	9.8	2.4	e0.88	0.45
16	0.00	53	495	196	115	138	57	22	9.5	2.4	e0.86	0.44
17	0.00	73	1320	163	239	130	70	21	8.9	2.6	e0.84	0.41
18	0.01	48	848	147	164	115	61	21	8.4	2.6	e0.81	0.37
19	0.01	37	663	139	526	104	54	21	8.1	2.6	e0.79	0.37
20	0.00	64	1240	132	1290	98	43	27	7.8	2.6	e0.77	0.43
21	0.00	195	1640	131	769	93	41	34	7.0	2.4	e0.75	1.2
22	0.01	940	1520	128	532	135	39	28	6.7	2.0	e0.72	4.2
23	0.01	218	1160	120	411	491	38	24	6.7	2.1	e0.70	2.0
24	0.02	690	801	110	327	346	35	22	6.6	2.1	e0.68	1.2
25	0.02	505	656	101	265	251	34	21	6.6	2.0	e0.66	0.92
26	0.03	226	556	125	223	208	34	20	7.0	2.2	e0.63	0.78
27	0.05	124	516	122	195	176	33	20	6.9	2.5	e0.61	0.65
28	0.07	930	818	112	172	152	32	20	6.3	2.5	e0.59	0.66
29	0.12	3210	1420	108	---	135	33	20	5.9	2.5	e0.57	0.65
30	3.7	718	1300	104	---	121	33	19	5.1	2.4	e0.55	0.64
31	18	---	2210	100	---	110	---	17	---	2.4	e0.52	---
TOTAL	22.05	8564.82	34090	25424	7181	5767	1765	754	284.7	86.0	34.68	22.64
MEAN	0.711	285.5	1100	820.1	256.5	186.0	58.83	24.32	9.490	2.774	1.119	0.755
MAX	18	3210	3360	8020	1290	491	103	34	16	4.7	2.3	4.2
MIN	0.00	0.48	252	100	92	93	32	17	5.1	2.0	0.52	0.37
AC-FT	44	16990	67620	50430	14240	11440	3500	1500	565	171	69	45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
MEAN	4.594	151.5	563.8	522.7	516.2	283.4	52.88	20.56	8.045	2.684	0.795	0.394
MAX	8.48	285	1100	820	776	381	58.8	24.3	9.49	2.77	1.12	0.75
(WY)	2001	2002	2002	2002	2001	2001	2002	2002	2002	2002	2002	2002
MIN	0.71	17.5	28.0	225	256	186	46.9	16.8	6.60	2.59	0.47	0.033
(WY)	2002	2001	2001	2001	2002	2002	2001	2001	2001	2001	2001	2001

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	85412.44		83995.89			
ANNUAL MEAN	234.0		230.1		175.9	
HIGHEST ANNUAL MEAN					230	
LOWEST ANNUAL MEAN					122	
HIGHEST DAILY MEAN	3360	Dec 1	8020	Jan 2	8020	Jan 2 2002
LOWEST DAILY MEAN	0.00	Sep 11	0.00	Oct 1	0.00	Oct 1 2000
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 11	0.00	Oct 1	0.00	Oct 1 2000
MAXIMUM PEAK FLOW			12500	Jan 2	12500	Jan 2 2002
MAXIMUM PEAK STAGE			17.37	Jan 2	17.37	Jan 2 2002
ANNUAL RUNOFF (AC-FT)	169400		166600		127400	
10 PERCENT EXCEEDS	796		688		481	
50 PERCENT EXCEEDS	17		24		17	
90 PERCENT EXCEEDS	0.00		0.44		0.24	

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA

LOCATION.—Lat 39°10'14", long 123°40'01", in SE 1/4 sec.7, T.15 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on left bank, 2.8 mi downstream from North Fork, 5.3 mi upstream from mouth, and 6.7 mi west of Navarro.

DRAINAGE AREA.—303 mi².

PERIOD OF RECORD.—October 1950 to current year.

WATER-DISCHARGE RECORDS

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 sea level. Prior to Oct. 1, 1998, at site 0.1 mi downstream at datum 2.00 ft lower. Prior to Jan. 9, 1995, at current datum. Prior to Oct. 1, 1969, at site 0.1 mi upstream at datum 0.14 ft lower.

REMARKS.—Records fair except for estimated daily discharges, which are poor. Minor diversion upstream from station at discharges above 200 ft³/s for irrigation.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 64,500 ft³/s, Dec. 22, 1955, gage height, 40.60 ft, site and datum then in use, from rating curve extended above 19,000 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.23 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	0945	9,890	20.85

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	14	e2500	2290	204	346	238	83	34	14	5.9	2.4
2	1.9	18	e2000	7820	198	307	218	80	32	14	5.8	2.3
3	2.7	14	e1700	4320	187	273	200	76	32	14	5.4	2.2
4	2.5	11	e1250	e2500	175	247	188	73	31	13	5.2	2.2
5	2.3	10	e2470	e2250	166	234	179	70	30	13	5.1	2.2
6	2.0	9.4	e4200	e6750	158	255	169	67	29	12	5.0	2.0
7	1.7	8.6	1390	e4600	163	347	160	63	28	11	4.7	1.7
8	1.6	8.4	824	e2850	332	388	150	60	27	11	4.9	1.7
9	1.8	8.1	617	e1600	273	315	144	58	26	11	4.8	1.6
10	1.8	8.2	468	1060	238	449	138	56	26	11	4.7	1.7
11	2.0	11	363	831	215	446	131	56	25	11	4.4	1.7
12	2.1	34	297	692	202	391	125	54	25	9.9	4.1	1.7
13	2.1	120	262	603	192	370	118	53	24	9.3	4.0	1.6
14	2.0	96	2180	532	181	341	113	50	23	9.0	3.7	1.5
15	1.8	69	1190	465	170	309	109	49	23	8.5	3.6	1.5
16	1.5	69	757	413	164	285	108	49	22	8.4	3.5	1.5
17	1.5	78	2090	369	259	267	136	49	22	8.6	3.4	1.5
18	1.4	86	1630	329	223	250	130	47	22	8.5	3.2	1.5
19	2.3	66	1160	299	e940	224	111	47	21	8.2	3.1	1.5
20	2.3	49	1870	274	e3700	208	106	62	21	7.9	3.1	1.5
21	2.1	72	2660	266	1840	196	100	93	20	7.5	3.0	1.3
22	3.9	474	2370	275	1180	216	e97	82	19	7.2	3.2	1.3
23	4.5	282	2300	241	876	567	e93	63	19	6.9	2.9	1.3
24	4.6	741	1600	218	716	665	e89	55	18	6.7	2.7	1.4
25	3.7	966	1140	205	590	521	e84	49	18	6.7	2.6	1.3
26	3.6	427	864	273	503	450	e78	45	18	6.7	2.5	1.5
27	4.5	266	729	340	439	397	e76	44	17	6.5	2.4	1.8
28	5.0	e320	939	280	389	356	e74	42	17	6.2	2.4	1.5
29	5.7	e1600	1080	252	---	320	e78	41	16	6.1	2.6	1.5
30	9.2	e830	977	229	---	286	83	39	15	5.9	2.6	1.5
31	12	---	2180	212	---	259	---	36	---	5.9	2.4	---
TOTAL	98.1	6765.7	46057	43638	14873	10485	3823	1791	700	285.6	116.9	49.9
MEAN	3.165	225.5	1486	1408	531.2	338.2	127.4	57.77	23.33	9.213	3.771	1.663
MAX	12	1600	4200	7820	3700	665	238	93	34	14	5.9	2.4
MIN	1.4	8.1	262	205	158	196	74	36	15	5.9	2.4	1.3
AC-FT	195	13420	91350	86560	29500	20800	7580	3550	1390	566	232	99

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	38.13	263.3	950.0	1679	1502	1062	475.5	136.6	53.49	21.03	11.24	9.983
MAX	367	2033	4396	6496	5546	4280	2517	499	261	74.0	31.7	32.6
(WY)	1958	1974	1965	1995	1998	1983	1982	1983	1998	1998	1998	1957
MIN	2.95	9.06	18.5	24.0	58.6	69.8	34.2	14.1	4.23	0.62	0.67	1.33
(WY)	1995	1991	1977	1991	1977	1988	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL TOTAL	124549.5		128683.2			
ANNUAL MEAN	341.2		352.6		513.0	
HIGHEST ANNUAL MEAN					1310 1983	
LOWEST ANNUAL MEAN					25.0 1977	
HIGHEST DAILY MEAN	5460	Feb 20	7820	Jan 2	45100	Jan 16 1974
LOWEST DAILY MEAN	1.1	Sep 23	1.3	Sep 21	0.23	Jul 13 1977
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 18	1.4	Sep 19	0.28	Jul 8 1977
MAXIMUM PEAK FLOW			9890	Jan 2	64500	Dec 22 1955
MAXIMUM PEAK STAGE			20.85	Jan 2	40.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	247000		255200		371600	
10 PERCENT EXCEEDS	1100		950		1220	
50 PERCENT EXCEEDS	33		56		60	
90 PERCENT EXCEEDS	1.9		2.0		7.6	

11468000 NAVARRO RIVER NEAR NAVARRO, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1959 to current year (storm season only).

CHEMICAL ANALYSES: Water years 1959–66, 1973–79.

WATER TEMPERATURE: Water years 1966 to February 1979, January 1999 to current year (storm season only).

SEDIMENT DATA: Water years October 1998 to current year (storm season only).

PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: October 1965 to February 1979 (storm season only).

SUSPENDED-SEDIMENT DISCHARGE: October 1998 to current year (storm season only).

REMARKS.—Sediment samples were collected on most days where water temperature is published. Zero bed-load discharge observed at flows less than 317 ft³/s.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: Maximum recorded, 26.5°C, July 8, 1976; minimum recorded, 3.0°C, Jan. 2, 1976.

SEDIMENT CONCENTRATION: Maximum daily mean, 2,030 mg/L, Feb. 14, 2000; minimum daily mean, 1 mg/L, many days during 1999, Feb. 14–16, 2002.

SEDIMENT LOAD: Maximum daily, 59,400 tons, Feb. 14, 2000; minimum daily, 0.0 ton, Oct. 7–10, 18, 2001.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 984 mg/L, Jan. 2; minimum daily mean, 1 mg/L, Feb. 14–16.

SEDIMENT LOAD (storm season only): Maximum daily, 21,600 tons, Jan. 2; minimum daily, 0.0 ton, Oct. 7–10, 18.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE D (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)
OCT								
12...	1130	2.10	15.5	8	.04	--	--	--
NOV								
13...	1645	138	13.0	4	1.5	--	--	--
20...	1045	48	13.0	4	.52	--	--	--
22...	1120	817	14.0	152	335	--	--	--
29...	1000	e1710	10.0	486	e2240	--	--	--
DEC								
01...	1645	e5990	10.5	1180	e19100	33	35	39
05...	1545	e1140	11.0	48	e148	--	--	--
06...	1130	3010	12.5	114	926	--	--	--
14...	1200	3080	9.5	460	3820	--	--	--
22...	1615	3130	10.5	312	2640	--	--	--
JAN								
02...	1315	9490	12.0	1020	26100	--	--	--
18...	1420	325	7.0	12	10.5	--	--	--
26...	1635	295	8.5	8	6.4	--	--	--
FEB								
20...	1220	74	10.5	132	26.4	--	--	--
20...	1550	2470	11.0	103	687	--	--	--
MAR								
10...	0950	382	9.0	6	6.2	--	--	--
25...	1210	519	11.0	10	14.0	--	--	--
APR								
01...	1415	233	15.5	2	1.3	--	--	--
09...	1110	144	14.0	3	1.2	--	--	--
MAY								
03...	1400	76	16.5	4	.82	--	--	--

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	SUSP. FALL DIAM. % FINER THAN (70340)	SUSP. FALL DIAM. % FINER THAN (70341)	SUSP. SIEVE DIAM. % FINER THAN (70331)	SUSP. SIEVE DIAM. % FINER THAN (70332)	SUSP. SIEVE DIAM. % FINER THAN (70333)	SUSP. SIEVE DIAM. % FINER THAN (70334)	SUSP. SIEVE DIAM. % FINER THAN (70335)
OCT							
12...	--	--	76	--	--	--	--
NOV							
13...	--	--	92	--	--	--	--
20...	--	--	62	--	--	--	--
22...	--	--	81	92	99	100	--
29...	--	--	90	94	97	100	--
DEC							
01...	53	67	78	86	93	98	100
05...	--	--	67	78	91	100	--
06...	--	--	68	76	87	100	--
14...	--	--	91	94	97	100	--
22...	--	--	84	90	95	100	--
JAN							
02...	--	--	84	91	95	100	--
18...	--	--	62	--	--	--	--
26...	--	--	80	--	--	--	--
FEB							
20...	--	--	68	80	92	100	--
20...	--	--	69	82	93	100	--
MAR							
10...	--	--	80	--	--	--	--
25...	--	--	96	98	100	--	--
APR							
01...	--	--	86	--	--	--	--
09...	--	--	82	--	--	--	--
MAY							
03...	--	--	70	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)	BED MAT. SIEVE DIAM. % FINER THAN (80167)
			OCT					
04...	1555	1	2.4	17.0	--	2	14	32
04...	1600	1	2.4	17.0	--	--	2	12
04...	1605	1	2.4	17.0	--	1	2	6
04...	1610	1	2.4	17.0	--	1	2	8
04...	1615	1	2.4	17.0	--	1	2	10
04...	1620	1	2.4	17.0	--	--	1	5
04...	1625	1	2.4	17.0	--	--	1	10
04...	1630	1	2.4	17.0	--	--	1	7
04...	1635	1	2.4	17.0	--	--	1	9
MAY								
03...	1545	1	76	16.5	10	41	83	95
03...	1550	1	76	16.5	2	9	51	97
03...	1555	1	76	16.5	--	1	5	22
03...	1600	1	76	16.5	--	--	1	4
03...	1605	1	76	16.5	--	--	1	6
03...	1610	1	76	16.5	--	--	1	6
03...	1615	1	76	16.5	--	--	--	6
03...	1620	1	76	16.5	15	42	78	94
03...	1625	1	76	16.5	29	64	87	91

11468000 NAVARRO RIVER NEAR NAVARRO, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.	BED MAT. SIEVE DIAM.
	% FINER THAN 1.00 MM (80168)	% FINER THAN 2.00 MM (80169)	% FINER THAN 4.00 MM (80170)	% FINER THAN 8.00 MM (80171)	% FINER THAN 16.0 MM (80172)	% FINER THAN 32.0 MM (80173)	% FINER THAN 64.0 MM (80174)
OCT							
04...	36	42	56	74	93	100	--
04...	16	22	30	44	60	100	--
04...	9	13	20	29	43	77	100
04...	14	20	27	39	61	94	100
04...	17	24	32	43	64	100	--
04...	8	12	22	41	70	95	100
04...	18	28	48	66	82	100	--
04...	12	19	31	48	72	87	100
04...	18	25	36	52	75	100	--
MAY							
03...	98	99	100	--	--	--	--
03...	99	99	100	--	--	--	--
03...	30	37	53	71	93	100	--
03...	7	11	18	33	68	100	--
03...	15	22	34	48	69	100	--
03...	9	15	33	63	82	100	--
03...	14	25	45	70	87	100	--
03...	96	98	99	100	--	--	--
03...	94	98	100	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAM-PLING METHOD, CODES (82398)	SAM-PLER TYPE (CODE) (84164)	BAG MESH SIZE SAMPLER (30333)	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)	HORI-ZONTAL WIDTH OF VER-TICAL (FEET) (04121)
				(MM)	(CODE)	(2400 HOURS)	(2400 HOURS)	(SEC)	(FEET)
DEC									
05...	1230	1000	1100	.25	0	1210	1245	30	5.0
05...	1305	1000	1100	.25	0	1255	1315	30	5.0
FEB									
20...	1640	1000	1100	.25	0	1630	1655	15	5.0
APR									
01...	1510	1000	1120	.25	0	1505	1520	30	4.0
01...	1540	1000	1120	.25	0	1530	1550	30	4.0

Date	COMPSTD SAMPLES IN X-SEC BEDLOAD (NUM) (04118)	VER-TICALS IN COM-POSITE (NUM) (04119)	NUMBER OF SAM-PLING (COUNT) (00063)	SAMPLE LOC-ATION CROSS SECTIO L BANK (00009)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT (04122)	SEDI-MENT DIS-CHARGE, BEDLOAD (TONS/DAY) (80225)
	(04118)	(04119)	(00063)	(00009)	(00061)	(00010)	(04122)	(80225)
DEC								
05...	2	19	19	3.0	e882	11.0	.24	18
05...	2	19	19	3.0	e926	11.0	.17	18
FEB								
20...	1	21	21	3.0	2470	10.5	3.37	337
APR								
01...	2	20	20	3.0	236	15.5	.02	1.7
01...	2	20	20	3.0	236	15.5	.02	1.7

e Estimated.

NAVARRO RIVER BASIN

11468000 NAVARRO RIVER NEAR NAVARRO, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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	2.0	2.0	0.01	14	15	0.61	e2500	e210	e1420
2	1.9	2.0	0.01	18	16	0.76	e2000	e271	e1460
3	2.7	2.0	0.02	14	6.0	0.25	e1700	e105	e482
4	2.5	2.0	0.01	11	4.0	0.14	e1250	e47	e189
5	2.3	2.0	0.01	10	4.0	0.11	e2470	e56	e279
6	2.0	2.0	0.01	9.4	3.0	0.08	e4200	e84	e953
7	1.7	2.0	0.00	8.6	3.0	0.06	1390	40	158
8	1.6	2.0	0.00	8.4	2.0	0.06	824	20	45.1
9	1.8	2.0	0.00	8.1	2.0	0.05	617	11	18.7
10	1.8	2.0	0.00	8.2	2.0	0.04	468	9.0	11.4
11	2.0	7.0	0.04	11	2.0	0.06	363	7.0	6.6
12	2.1	8.0	0.05	34	3.0	0.42	297	6.0	4.7
13	2.1	7.0	0.04	120	8.0	2.6	262	5.0	3.8
14	2.0	6.0	0.03	96	2.0	0.56	2180	299	2140
15	1.8	5.0	0.02	69	2.0	0.34	1190	50	174
16	1.5	4.0	0.02	69	4.0	0.81	757	20	40.9
17	1.5	3.0	0.01	78	3.0	0.57	2090	192	1290
18	1.4	2.0	0.00	86	2.0	0.50	1630	65	305
19	2.3	2.0	0.01	66	4.0	0.75	1160	26	82.2
20	2.3	2.0	0.01	49	4.0	0.52	1870	115	677
21	2.1	2.0	0.01	72	4.0	0.88	2660	155	1220
22	3.9	5.0	0.05	474	70	118	2370	154	1180
23	4.5	6.0	0.07	282	19	15.9	2300	59	377
24	4.6	4.0	0.05	741	47	209	1600	33	144
25	3.7	3.0	0.03	966	59	168	1140	24	73.1
26	3.6	2.0	0.01	427	21	25.7	864	17	40.1
27	4.5	2.0	0.03	266	15	14.3	729	19	36.7
28	5.0	4.0	0.05	e320	e26	e22.5	939	40	103
29	5.7	6.0	0.09	e1600	e68	e294	1080	47	140
30	9.2	9.0	0.23	e830	e74	e166	977	36	101
31	12	12	0.39	---	---	---	2180	215	1320
TOTAL	98.1	---	1.31	6765.7	---	1043.57	46057	---	14475.3
	JANUARY			FEBRUARY			MARCH		
1	2290	186	1250	204	4.0	2.3	346	7.0	6.3
2	7820	984	21600	198	4.0	1.9	307	5.0	4.6
3	4320	304	3780	187	3.0	1.6	273	4.0	3.2
4	e2500	e149	e1130	175	3.0	1.3	247	3.0	2.0
5	e2250	e58	e374	166	2.0	1.1	234	2.0	1.3
6	e6750	e412	e5010	158	2.0	0.89	255	4.0	2.7
7	e4600	e436	e6680	163	3.0	1.5	347	7.0	6.9
8	e2850	e75	e752	332	11	9.9	388	9.0	9.4
9	e1600	e63	e233	273	4.0	3.3	315	5.0	4.5
10	1060	50	144	238	3.0	1.9	449	7.0	9.3
11	831	39	87.3	215	2.0	1.2	446	5.0	6.3
12	692	29	53.5	202	2.0	0.98	391	4.0	4.6
13	603	25	40.4	192	2.0	0.83	370	4.0	3.8
14	532	22	31.3	181	1.0	0.68	341	3.0	3.0
15	465	19	23.7	170	1.0	0.55	309	3.0	2.5
16	413	17	18.5	164	1.0	0.61	285	3.0	2.0
17	369	14	14.3	259	4.0	3.1	267	2.0	1.7
18	329	12	10.7	223	4.0	2.4	250	2.0	1.5
19	299	8.0	6.6	e940	e86	e541	224	2.0	1.3
20	274	5.0	3.3	e3700	e101	e288	208	2.0	1.2
21	266	4.0	2.9	1840	74	375	196	2.0	1.1
22	275	4.0	3.0	1180	39	127	216	4.0	2.2
23	241	4.0	2.6	876	27	64.1	567	18	30.6
24	218	4.0	2.4	716	23	45.0	665	18	32.7
25	205	4.0	2.2	590	19	30.9	521	11	15.0
26	273	7.0	5.7	503	16	21.1	450	8.0	9.5
27	340	11	9.9	439	12	13.9	397	6.0	6.0
28	280	7.0	5.6	389	8.0	8.7	356	4.0	4.2
29	252	7.0	4.5	---	---	---	320	4.0	3.0
30	229	6.0	3.5	---	---	---	286	3.0	2.1
31	212	5.0	2.8	---	---	---	259	2.0	1.6
TOTAL	43638	---	41287.7	14873	---	1550.74	10485	---	186.1

e Estimated.

11468000 NAVARRO RIVER NEAR NAVARRO, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	238	2.0	1.3
2	218	2.0	1.2
3	200	2.0	1.1
4	188	2.0	1.0
5	179	2.0	0.99
6	169	2.0	1.0
7	160	3.0	1.1
8	150	3.0	1.1
9	144	3.0	1.2
10	138	3.0	1.1
11	131	3.0	1.1
12	125	4.0	1.3
13	118	3.0	1.1
14	113	3.0	0.91
15	109	2.0	0.73
16	108	2.0	0.67
17	136	4.0	1.5
18	130	3.0	0.91
19	111	2.0	0.60
20	106	2.0	0.57
21	100	2.0	0.54
22	e97	e2.0	e0.52
23	e93	e4.0	e0.97
24	e89	e3.0	e0.85
25	e84	e3.0	e0.72
26	e78	e3.0	e0.57
27	e76	e2.0	e0.46
28	e74	e2.0	e0.41
29	e78	e2.0	e0.43
30	83	3.0	0.66
31	---	---	---
TOTAL	3823	---	26.61
PERIOD	125739.80		58571.33

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	98.10	1.31	0	1
NOVEMBER	6765.70	1043.57	232	1276
DECEMBER	46057.00	14475.30	2521	16996
JANUARY 2002	43638.00	41287.70	4565	45853
FEBRUARY	14873.00	1550.74	1650	3201
MARCH	10485.00	186.10	411	597
APRIL	3823.00	26.61	3	30
TOTAL	125739.80	58571.33	9382	67954

e Estimated.

11468092 BIG RIVER BELOW TWO LOG CREEK, NEAR COMPTCHE, CA

LOCATION.—Lat 39°19'06", long 123°36'49", in NW 1/4 sec. SE 1/4 sec. 23, T.17 N., R.16 W., Mendocino County, Hydrologic Unit 18010108, on right bank, 150 ft downstream of Two Log Creek, 3.8 mi northwest of Comptche.

DRAINAGE AREA.—88.7 mi².

PERIOD OF RECORD.—May 2001 to current year (discontinued).

GAGE.—Water-stage recorder. Elevation of gage is 120 ft above sea level, from topographic map.

REMARKS.—Records good. Partial record only, May 30 to Sept. 30. No regulation or diversion above station.

COOPERATION.—Records collected by California State Department of Water Resources, under general supervision of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 4,120 ft³/s, Dec. 6, 2002, gage height, 12.46 ft; minimum daily discharge, 1.1 ft³/s, several days in September 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	6.1	1470	1260	118	250	137	43	20	e11	e5.7	3.1
2	1.4	3.9	1260	3260	115	218	126	40	19	e11	e5.5	2.9
3	1.4	3.2	1140	1840	107	192	116	38	19	e11	e5.3	2.8
4	1.4	2.8	832	999	99	173	108	36	18	e11	e5.2	2.6
5	1.4	2.7	1590	750	93	162	103	35	18	e11	e5.0	2.4
6	1.4	2.6	3100	1000	88	181	96	33	17	e10	e4.8	2.4
7	1.4	2.5	1500	1010	96	260	90	33	17	e10	e4.6	2.5
8	1.5	2.5	950	787	175	244	84	32	16	e10	e4.4	2.5
9	1.5	2.5	693	643	157	222	82	31	16	e9.8	e4.3	2.4
10	1.5	2.9	414	528	148	308	81	30	16	e9.7	e4.1	2.5
11	1.5	4.5	258	431	137	307	74	29	15	e9.5	e3.9	2.4
12	1.5	29	175	353	129	286	70	28	14	e9.3	e3.7	2.4
13	1.5	45	160	298	121	274	66	27	14	e9.1	e3.5	2.2
14	1.5	29	1750	257	112	250	63	27	14	e8.9	e3.4	2.2
15	1.6	21	1120	223	102	226	61	27	14	e8.8	e3.2	2.3
16	1.6	22	807	198	96	209	63	26	14	e8.6	e3.1	2.4
17	1.6	30	1740	177	115	197	84	26	14	e8.4	3.1	2.8
18	1.6	22	1360	160	100	181	70	25	e14	e8.2	3.3	3.1
19	1.6	18	1130	145	454	164	62	25	e13	e8.0	3.4	3.1
20	1.6	20	1580	134	2680	152	57	39	e13	e7.9	3.5	3.0
21	1.7	55	1480	137	1540	142	55	48	e13	e7.7	3.5	2.8
22	1.7	403	1330	139	903	148	52	35	e13	e7.5	3.5	2.6
23	1.8	121	1310	124	691	231	50	30	e13	e7.3	3.6	2.4
24	1.8	499	1060	112	566	333	47	27	e13	e7.1	3.7	2.4
25	1.9	647	838	105	464	296	45	26	e12	e7.0	3.7	2.4
26	2.0	217	632	137	389	264	44	24	e12	e6.8	3.7	2.4
27	2.0	102	479	153	334	231	43	23	e12	e6.6	3.6	2.5
28	2.1	109	453	145	289	207	42	23	e12	e6.4	3.5	2.6
29	2.2	1110	387	138	---	184	42	22	e12	e6.2	3.4	2.8
30	5.6	530	364	127	---	164	43	21	e12	e6.1	3.3	3.0
31	9.9	---	841	117	---	149	---	20	---	e5.9	3.2	---
TOTAL	62.7	4065.2	32203	15887	10418	6805	2156	929	439	265.8	121.7	77.9
MEAN	2.023	135.5	1039	512.5	372.1	219.5	71.87	29.97	14.63	8.574	3.926	2.597
MAX	9.9	1110	3100	3260	2680	333	137	48	20	11	5.7	3.1
MIN	1.4	2.5	160	105	88	142	42	20	12	5.9	3.1	2.2
AC-FT	124	8060	63870	31510	20660	13500	4280	1840	871	527	241	155

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002	2001	2002
MEAN	2.023	135.5	1039	512.5	372.1	219.5	71.87	29.97	11.11	6.329	2.902	1.945
MAX	2.02	136	1039	512	372	220	71.9	30.0	14.6	8.57	3.93	2.60
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	2.02	136	1039	512	372	220	71.9	30.0	7.58	4.08	1.88	1.29
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2001	2001	2001	2001

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

ANNUAL TOTAL	73430.3											
ANNUAL MEAN	201.2									201.2		
HIGHEST ANNUAL MEAN										201		2002
LOWEST ANNUAL MEAN										201		2002
HIGHEST DAILY MEAN	3260	Jan	2						3260	Jan	2	2002
LOWEST DAILY MEAN	1.4	Oct	2						1.1	Sep	4	2001
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct	1						1.1	Sep	3	2001
MAXIMUM PEAK FLOW	4120	Dec	6						4120	Dec	6	2001
MAXIMUM PEAK STAGE	12.46	Dec	6						12.46	Dec	6	2001
ANNUAL RUNOFF (AC-FT)	145600									145700		
10 PERCENT EXCEEDS	645									645		
50 PERCENT EXCEEDS	27									27		
90 PERCENT EXCEEDS	2.4									2.4		

e Estimated.

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 mi².

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 sea level.

REMARKS.—Records good except for estimated discharges, which are fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 26,600 ft³/s, Mar. 29, 1974, gage height, 27.14 ft, from rating curve extended above 4,500 ft³/s, on basis of slope-conveyance study; minimum daily, 0.79 ft³/s, Sept. 8, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,400 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1630	2,860	12.19	Feb. 20	1430	3,130	12.77
Dec. 6	0145	4,990	16.24				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	7.9	1540	e1850	134	273	130	47	27	14	6.2	3.5
2	2.2	6.1	1140	e4200	128	240	121	45	26	14	6.1	3.3
3	2.1	5.1	1020	e2450	123	210	115	44	25	14	6.0	3.2
4	2.1	4.3	734	e1350	117	187	109	43	24	12	6.2	3.1
5	2.2	4.2	1690	e1200	113	174	105	42	24	12	6.1	2.9
6	2.2	4.0	3370	e3500	110	198	100	41	23	11	5.9	2.8
7	5.2	3.9	1280	e2350	117	261	95	40	23	9.8	5.5	2.8
8	2.7	4.0	709	e1300	177	253	90	39	22	11	5.1	2.8
9	2.2	4.0	477	e740	166	238	87	39	20	11	4.9	2.9
10	2.1	4.2	341	e504	159	295	86	38	20	11	4.8	2.9
11	2.2	7.7	256	433	148	292	79	37	21	11	4.4	2.9
12	2.2	28	199	361	139	283	75	37	20	10	4.3	2.9
13	2.2	40	186	309	131	272	71	36	20	9.9	4.1	2.8
14	2.2	30	1300	273	123	254	68	36	19	9.9	4.1	2.8
15	2.2	20	806	240	116	231	66	36	18	9.9	3.8	2.9
16	2.2	21	531	214	112	214	65	35	19	9.8	3.8	2.9
17	2.2	28	1390	190	123	201	79	35	19	9.8	3.9	2.9
18	2.2	21	1070	172	113	183	69	35	19	9.8	4.1	3.1
19	2.2	16	833	158	487	167	63	35	18	9.8	4.1	3.0
20	2.2	17	1100	146	2830	155	60	43	18	9.5	4.1	3.3
21	2.3	48	931	150	1680	147	58	51	18	9.2	4.2	3.3
22	2.4	249	805	148	943	159	55	40	17	9.2	4.1	5.2
23	2.5	118	825	135	682	227	53	36	17	8.8	4.0	2.3
24	2.6	405	706	126	557	295	51	34	17	8.5	4.1	1.9
25	2.8	447	550	121	463	276	49	33	17	7.9	4.1	1.9
26	2.6	206	421	157	398	248	48	31	16	7.9	4.1	1.9
27	2.6	112	377	167	349	219	48	30	15	7.5	4.1	1.9
28	2.8	177	e500	159	308	194	46	30	15	7.6	4.0	1.9
29	3.1	1050	e605	150	---	172	45	29	15	7.1	3.8	2.1
30	7.2	495	e580	139	---	153	47	28	15	6.7	3.8	2.2
31	9.6	---	e1400	130	---	140	---	28	---	6.2	3.7	---
TOTAL	87.7	3583.4	27672	23522	11046	6811	2233	1153	587	305.8	141.5	84.3
MEAN	2.829	119.4	892.6	758.8	394.5	219.7	74.43	37.19	19.57	9.865	4.565	2.810
MAX	9.6	1050	3370	4200	2830	295	130	51	27	14	6.2	5.2
MIN	2.1	3.9	186	121	110	140	45	28	15	6.2	3.7	1.9
AC-FT	174	7110	54890	46660	21910	13510	4430	2290	1160	607	281	167

e Estimated.

NOYO RIVER BASIN

11468500 NOYO RIVER NEAR FORT BRAGG, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.26	113.2	400.6	658.3	564.1	443.7	207.6	76.31	34.46	14.36	7.894	6.348
MAX	166	750	2293	1890	2114	1406	877	377	170	32.0	17.7	12.7
(WY)	1963	1974	1965	1953	1958	1983	1963	1990	1993	1953	1953	1983
MIN	2.83	5.29	9.25	16.6	18.1	32.4	11.7	9.50	3.88	1.90	1.35	2.16
(WY)	2002	1960	1977	1977	1977	1988	1977	1977	1977	1977	1977	1970

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1952 - 2002
ANNUAL TOTAL	54392.8	77226.7	
ANNUAL MEAN	149.0	211.6	210.6
HIGHEST ANNUAL MEAN			484 1983
LOWEST ANNUAL MEAN			10.9 1977
HIGHEST DAILY MEAN	3370 Dec 6	4200 Jan 2	20500 Dec 22 1964
LOWEST DAILY MEAN	2.1 Oct 3	1.9 Sep 24	0.79 Sep 8 1977
ANNUAL SEVEN-DAY MINIMUM	2.2 Sep 30	2.0 Sep 24	1.0 Aug 16 1977
MAXIMUM PEAK FLOW		4990 Dec 6	26600 Mar 29 1974
MAXIMUM PEAK STAGE		16.24 Dec 6	27.14 Mar 29 1974
ANNUAL RUNOFF (AC-FT)	107900	153200	152600
10 PERCENT EXCEEDS	484	553	530
50 PERCENT EXCEEDS	21	35	33
90 PERCENT EXCEEDS	2.5	2.8	5.2

11468900 MATTOLE RIVER NEAR ETTERSBURG, CA

LOCATION.— Lat 40°08'22", long 123°59'25", in NW 1/4, SE 1/4 sec. 6, T.4 S., R.2 E., [Humboldt County](#), Hydrologic Unit 18010107, 0.04 mi downstream of Bear Creek, and 0.3 mi east of Ettersburg, on left bank, upstream side of Ettersburg Honeydew Road.

DRAINAGE AREA.—58.11 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—June 2001 to current year.

GAGE.—Water stage recorder. Elevation of gage is 578.93 ft above sea level.

REMARKS.—Records are poor. No regulation or diversion upstream.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 6,980 ft³/s, Dec. 5, 2001, gage height, 22.52 ft; minimum daily, 4.1 ft³/s, Sept. 24, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 4,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1100	4,310	19.19	Jan. 2	0915	4,820	19.88
Dec. 5	2100	6,980	22.52	Jan. 6	1000	6,270	21.70

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.6	38	2850	1740	374	364	224	93	41	20	9.6	5.2
2	e5.5	22	1670	3640	335	346	208	88	40	19	9.7	4.9
3	e5.6	17	1220	1930	325	343	193	85	39	18	9.3	4.8
4	e5.5	15	901	1230	313	339	182	82	37	18	9.3	4.6
5	5.7	13	3900	1510	302	324	172	79	35	18	9.1	4.6
6	6.0	12	3510	5050	288	398	164	77	34	17	9.0	4.8
7	6.3	12	1520	2790	869	522	155	75	34	17	8.4	5.2
8	6.3	11	995	2420	1030	438	145	73	33	17	8.0	5.3
9	5.9	11	744	1640	706	407	165	70	32	16	7.7	5.1
10	5.9	11	585	1070	572	494	200	69	32	16	7.3	4.7
11	5.9	17	474	795	465	778	162	67	32	15	7.2	4.6
12	5.7	209	400	625	387	670	147	65	30	14	6.9	4.5
13	5.6	315	e554	524	341	578	138	64	29	15	6.7	4.4
14	5.6	514	1870	432	324	513	130	63	30	14	6.5	4.5
15	5.7	246	1070	365	311	448	127	60	30	13	6.5	4.7
16	5.7	700	1060	334	295	388	147	58	29	14	6.5	4.9
17	5.8	391	2120	319	279	352	165	57	29	13	6.3	5.0
18	6.1	187	1520	e311	246	345	139	57	28	13	6.1	5.1
19	6.3	195	1860	276	804	343	129	62	28	12	5.9	4.9
20	6.2	368	1910	247	2220	336	123	99	26	12	5.8	4.6
21	6.2	1240	1320	454	1260	306	116	80	26	11	6.0	4.4
22	6.2	1240	1250	363	842	338	112	64	26	11	5.9	4.3
23	6.5	610	1210	327	1300	408	107	58	25	12	6.1	4.2
24	6.6	911	1010	314	1170	408	103	55	24	12	6.2	4.1
25	6.3	783	842	334	853	352	100	52	23	12	6.2	4.2
26	6.2	593	726	676	656	345	97	50	23	12	5.9	4.2
27	6.1	451	723	521	530	343	95	49	22	11	5.5	4.2
28	6.5	705	749	433	433	334	93	51	21	10	5.3	4.3
29	8.2	1450	840	366	---	299	92	49	21	10	5.2	4.5
30	102	988	928	335	---	269	97	46	21	11	5.3	4.7
31	85	---	1380	320	---	245	---	43	---	10	5.5	---
TOTAL	362.7	12275	41711	31691	17830	12373	4227	2040	880	433	214.9	139.5
MEAN	11.70	409.2	1346	1022	636.8	399.1	140.9	65.81	29.33	13.97	6.932	4.650
MAX	102	1450	3900	5050	2220	778	224	99	41	20	9.7	5.3
MIN	5.5	11	400	247	246	245	92	43	21	10	5.2	4.1
AC-FT	719	24350	82730	62860	35370	24540	8380	4050	1750	859	426	277

e Estimated.

MATTOLE RIVER BASIN

11468900 MATTOLE RIVER NEAR ETTERSBERG, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	11.70	409.2	1346	1022	636.8	399.1	140.9	65.81	29.33	16.47	7.961	4.995
MAX	11.7	409	1346	1022	637	399	141	65.8	29.3	19.0	8.99	5.34
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2001	2001	2001
MIN	11.7	409	1346	1022	637	399	141	65.8	29.3	14.0	6.93	4.65
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

ANNUAL TOTAL	124177.1		
ANNUAL MEAN	340.2	340.2	
HIGHEST ANNUAL MEAN		340	2002
LOWEST ANNUAL MEAN		340	2002
HIGHEST DAILY MEAN	5050	Jan 6	5050 Jan 6 2002
LOWEST DAILY MEAN	4.1	Sep 24	4.1 Sep 24 2002
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 22	4.2 Sep 22 2002
MAXIMUM PEAK FLOW	6980	Dec 5	6980 Dec 5 2001
MAXIMUM PEAK STAGE	22.52	Dec 5	22.52 Dec 5 4002
ANNUAL RUNOFF (AC-FT)	246300		246500
10 PERCENT EXCEEDS	1000		1000
50 PERCENT EXCEEDS	70		70
90 PERCENT EXCEEDS	5.5		5.5

11468900 MATTOLE RIVER NEAR ETTERSBURG, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—June 2001 to current year.

WATER TEMPERATURE: June 2001 to current year.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: June 2001 to current year.

INSTRUMENTATION.—Water temperature recorded since June 21, 2001.

REMARKS.—Records excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: Maximum recorded, 26.5°C, July 24, 25, Aug. 7, 8, 2001, Aug 12–14, 2002; minimum recorded, 6.0°C, Jan. 28, Mar. 18, 2001.

EXTREMES FOR CURRENT YEAR.—

WATER TEMPERATURE: Maximum recorded, 28.0°C, July 11; minimum recorded, 5.0°C, Jan. 30, 31.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- TION, (FEET) (81903)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
OCT				
04...	1128	1.00	14.9	2.00
04...	1129	1.00	15.0	10.0
04...	1130	1.00	14.4	20.0
04...	1131	1.00	14.4	40.0
04...	1132	1.00	14.7	60.0
04...	1133	1.00	14.8	70.0
MAR				
05...	1344	2.00	8.1	10.0
05...	1345	2.00	8.1	20.0
05...	1346	2.00	8.1	40.0
05...	1347	2.00	8.1	60.0
05...	1348	2.00	8.1	70.0
20...	1210	1.00	9.3	10.0
20...	1211	2.00	9.1	20.0
20...	1212	2.00	9.1	30.0
20...	1213	2.00	9.1	40.0
20...	1214	2.00	9.0	50.0
20...	1215	2.00	9.1	60.0
20...	1216	2.00	9.1	70.0
20...	1217	1.00	9.1	80.0

* Instantaneous discharge at time of the cross-sectional measurements: Oct. 4, 5.7 ft³/s, Mar. 5, 321 ft³/s, Mar. 20, 340 ft³/s.

11468900 MATTOLE RIVER NEAR ETTERSBERG, CA—Continued

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	14.0	11.5	11.0	10.0	11.0	11.0	8.0	6.5	9.5	7.5
2	---	---	13.0	11.0	11.0	10.0	11.5	10.5	8.5	7.5	9.5	7.0
3	---	---	14.0	11.5	10.5	9.5	10.5	10.0	9.5	8.0	9.5	7.0
4	---	---	14.0	11.5	10.0	9.0	10.0	9.5	8.5	7.5	9.0	7.0
5	18.5	15.5	13.5	11.0	11.5	9.5	11.0	10.0	8.0	6.5	8.5	7.5
6	18.0	14.0	12.5	10.0	11.5	11.0	11.5	10.5	9.0	8.0	10.0	8.5
7	17.0	13.5	11.0	8.0	11.0	10.5	11.5	11.5	9.5	8.5	9.5	8.0
8	16.5	13.5	10.5	7.5	10.5	10.0	11.5	11.0	9.0	8.5	8.5	7.0
9	16.0	12.5	11.0	7.5	10.0	9.0	11.0	10.5	9.0	7.5	8.0	6.5
10	16.0	12.0	10.0	8.0	9.5	8.5	11.0	10.0	8.5	7.5	9.5	8.0
11	16.5	14.5	11.5	10.0	9.5	9.0	10.5	9.5	9.0	7.5	10.0	9.5
12	16.5	13.0	11.5	11.0	9.5	9.0	10.5	9.5	9.5	8.0	11.0	9.0
13	17.0	13.5	11.5	11.0	---	---	9.5	8.5	9.5	8.5	9.0	8.0
14	16.5	13.5	12.5	11.5	10.0	9.5	9.0	8.0	9.5	8.5	9.5	7.5
15	16.0	13.0	12.5	12.0	9.5	9.0	8.0	7.5	9.5	8.5	9.0	7.0
16	15.5	14.0	12.0	11.5	10.5	9.5	7.5	6.5	9.5	9.0	8.5	7.0
17	16.5	13.5	11.5	10.0	10.5	10.5	8.0	7.0	9.5	8.5	9.0	7.0
18	16.0	12.5	11.0	9.5	10.5	10.0	---	---	9.0	8.0	9.0	6.0
19	15.0	12.0	12.0	11.0	10.5	10.0	---	---	10.0	8.5	9.5	6.5
20	15.0	12.0	12.0	11.0	10.5	10.5	---	---	10.5	10.0	10.5	7.0
21	15.0	12.5	12.0	11.5	10.5	10.0	---	---	11.0	10.0	10.5	7.5
22	15.0	12.0	12.0	11.0	10.0	10.0	---	---	11.0	10.0	9.5	9.0
23	15.0	13.0	11.0	10.0	10.5	10.0	---	---	10.5	9.5	10.0	9.0
24	13.5	11.0	10.5	10.0	10.5	10.0	---	---	10.5	9.5	10.5	8.5
25	13.5	10.0	10.0	9.5	10.0	10.0	---	---	10.5	9.0	9.5	8.0
26	13.5	10.0	10.0	9.0	10.5	10.0	9.0	7.5	10.5	9.0	11.5	8.5
27	12.5	10.5	9.0	8.0	10.5	10.0	7.5	7.0	11.0	9.0	11.5	8.0
28	13.0	11.5	10.0	8.5	11.0	10.5	7.0	6.0	10.5	8.5	12.5	8.5
29	12.5	12.0	10.5	10.0	11.0	10.5	6.5	5.5	---	---	12.5	9.0
30	13.0	12.0	10.0	9.5	11.0	11.0	6.0	5.0	---	---	13.0	9.0
31	13.5	12.0	---	---	11.0	11.0	6.5	5.0	---	---	13.0	9.0
MONTH	---	---	14.0	7.5	---	---	---	---	11.0	6.5	13.0	6.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	9.0	14.5	9.0	21.0	15.5	25.5	19.0	25.0	19.5	25.0	18.5
2	14.5	9.5	16.0	10.5	21.0	14.5	25.5	19.0	24.0	19.0	25.0	19.0
3	14.0	10.5	16.5	11.5	20.5	15.0	24.0	18.5	22.0	18.5	24.5	19.0
4	11.5	10.5	16.5	11.0	22.0	15.0	23.5	17.5	20.5	17.0	22.0	17.0
5	12.0	10.0	17.0	11.5	22.5	16.0	24.0	17.5	22.0	15.5	21.0	16.0
6	14.0	10.5	16.0	11.5	21.5	16.0	24.5	17.5	22.0	16.5	20.5	15.5
7	14.0	9.5	15.5	10.5	20.0	15.5	24.5	18.5	23.0	16.0	20.5	15.0
8	13.0	10.0	15.5	10.0	19.5	14.0	25.0	18.0	24.0	17.0	21.0	14.5
9	12.0	11.0	15.5	10.0	19.5	13.5	26.0	18.0	25.5	18.0	21.5	15.0
10	14.5	10.5	15.5	10.5	21.0	13.5	27.0	19.5	26.0	19.5	22.5	16.0
11	13.5	11.5	16.5	10.0	22.5	15.0	28.0	20.5	26.0	19.5	22.5	16.5
12	14.0	11.0	17.0	11.0	23.0	16.0	25.0	22.0	26.5	19.5	22.5	17.0
13	16.0	11.0	17.5	12.5	23.0	16.5	26.0	20.0	26.5	20.0	22.0	16.5
14	15.0	12.5	17.5	12.0	22.5	16.5	26.0	19.5	25.5	20.0	21.0	17.0
15	13.0	10.5	17.5	12.0	22.5	15.5	26.0	19.0	26.0	20.0	20.5	17.0
16	10.5	9.0	18.0	11.5	22.5	16.0	26.0	19.0	24.5	19.5	21.5	16.0
17	11.0	8.0	19.0	12.5	22.5	16.0	26.0	19.5	24.0	18.5	21.0	16.5
18	12.5	8.0	16.5	13.0	23.5	18.0	25.5	19.5	23.0	18.0	22.5	17.0
19	13.0	8.0	14.0	12.5	22.5	16.0	25.5	19.5	23.0	17.5	22.5	17.0
20	13.5	8.5	13.5	11.0	22.5	16.5	26.5	19.0	23.0	17.5	22.5	17.0
21	14.0	8.5	13.5	10.5	22.5	16.0	26.0	20.5	23.0	17.0	22.5	17.0
22	14.5	9.5	16.5	10.5	23.5	17.0	25.0	20.0	23.0	17.0	22.0	16.5
23	15.5	10.5	17.5	11.0	23.5	17.0	25.5	19.5	23.0	17.5	22.0	16.5
24	15.5	11.5	18.5	11.5	24.5	17.0	25.0	19.5	23.5	18.0	22.0	16.0
25	15.5	11.0	19.0	13.5	25.0	18.0	25.5	18.5	23.0	17.5	21.5	16.5
26	14.5	11.0	20.0	13.5	25.5	19.0	26.0	20.0	22.5	17.5	20.5	16.0
27	13.5	10.5	16.5	14.5	25.0	18.5	26.5	20.0	24.0	17.5	20.0	15.5
28	13.0	9.0	19.0	14.0	24.5	19.0	26.0	20.0	24.5	18.5	19.5	15.0
29	11.0	9.5	21.5	16.0	25.5	19.5	26.0	20.0	23.5	19.0	18.5	14.5
30	10.0	9.5	22.0	16.5	25.5	19.5	25.5	20.0	24.5	18.0	17.5	14.5
31	---	---	20.5	15.0	---	---	24.5	20.5	24.5	18.5	---	---
MONTH	16.0	8.0	22.0	9.0	25.5	13.5	28.0	17.5	26.5	15.5	25.0	14.5

11469000 MATTOLE RIVER NEAR PETROLIA, CA

LOCATION.—Lat 40°18'48", long 124°16'56", in SE 1/4 NW 1/4 sec.10, T.2 S., R.2 W., [Humboldt County](#), Hydrologic Unit 18010107, on downstream side of bridge, on left bank, 0.2 mi downstream from Mill Creek, 0.8 mi south of Petrolia, and 0.6 mi upstream from North Fork.
 DRAINAGE AREA.—245 mi².

WATER-DISCHARGE RECORDS

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 49.91 ft above sea level. 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. Oct. 27, 1967, to Oct. 30, 1996, at site 1.1 mi upstream at datum 7.00 ft higher.

REMARKS.—Records poor. Diversions for irrigation of about 350 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 90,400 ft³/s, Dec. 22, 1955, gage height, 36.60 ft, site and datum then in use, from rating curve extended above 26,000 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 14 ft³/s, Sept. 26–30, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 15,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1115	17,500	20.97	Jan. 2	1130	18,200	21.14
Dec. 6	0130	20,400	21.70	Jan. 6	1215	28,900	23.72

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	195	12300	5900	1280	1850	795	282	134	65	37	20
2	19	108	8060	15700	1240	1690	743	261	133	63	37	19
3	18	69	6420	8500	1180	1560	698	249	132	61	35	19
4	17	54	4450	5120	1140	1470	658	237	130	60	34	18
5	17	46	9770	5000	1100	1390	617	226	127	59	33	18
6	17	41	13800	24600	1070	1520	584	216	124	58	31	17
7	17	39	6020	14200	2970	2100	551	209	120	57	30	17
8	17	36	4080	11200	3920	1840	513	205	117	56	29	18
9	17	35	3310	6940	2580	1740	503	198	115	58	27	18
10	17	34	2800	4760	2130	1950	548	193	114	57	26	18
11	18	43	2460	e3820	1900	2330	508	189	113	55	25	18
12	17	559	2230	e3030	1750	2200	474	183	110	54	25	18
13	17	898	2380	e2460	1660	2010	449	178	108	54	24	18
14	17	2060	6800	e2030	1590	1850	433	173	106	53	23	18
15	17	1310	4090	e1760	1530	1680	422	168	105	51	23	18
16	17	3360	3780	e1490	1510	1550	434	165	103	51	23	18
17	17	1950	7810	1350	1500	1450	517	160	101	50	23	19
18	17	863	5660	1250	1460	1340	443	158	100	49	22	19
19	17	686	7130	1190	2040	1230	396	165	97	46	22	19
20	18	1230	7980	1140	5830	1140	370	235	92	46	21	17
21	18	4100	5490	1360	4030	1060	349	241	86	45	21	17
22	18	5660	5210	1390	2950	1360	330	e190	84	44	21	16
23	22	2530	4820	1230	4130	1920	313	170	82	44	21	16
24	20	3270	3980	1160	4000	1830	298	160	79	44	22	16
25	20	3390	3450	1160	3140	e1570	289	154	78	44	22	15
26	19	2310	2990	2010	2650	e1380	280	149	75	43	22	14
27	19	1610	2950	1660	2300	1240	280	147	73	41	21	14
28	20	2910	3140	1470	2040	1120	272	150	70	39	21	14
29	22	6940	3060	1340	---	1000	264	148	69	38	21	14
30	219	4320	3100	1260	---	918	287	143	67	38	21	14
31	347	---	4770	1190	---	850	---	138	---	37	21	---
TOTAL	1091	50656	164290	136670	64620	48138	13618	5840	3044	1560	784	514
MEAN	35.19	1689	5300	4409	2308	1553	453.9	188.4	101.5	50.32	25.29	17.13
MAX	347	6940	13800	24600	5830	2330	795	282	134	65	37	20
MIN	17	34	2230	1140	1070	850	264	138	67	37	21	14
AC-FT	2160	100500	325900	271100	128200	95480	27010	11580	6040	3090	1560	1020

e Estimated.

MATTOLE RIVER BASIN

11469000 MATTOLE RIVER NEAR PETROLIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	220.2	1395	2884	3602	3126	2275	1173	531.0	208.8	81.55	49.40	58.43
MAX	1900	7159	8340	8928	10710	7929	5225	1842	1058	191	164	237
(WY)	1951	1974	1956	1970	1958	1983	1963	1960	1993	1993	1983	1977
MIN	23.8	41.8	39.7	135	243	187	166	151	68.9	31.3	22.9	17.1
(WY)	1988	1960	1977	1977	1977	1988	1988	1970	1977	1977	1977	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1912 - 2002	
ANNUAL TOTAL	386040		490825			
ANNUAL MEAN	1058		1345		1293	
HIGHEST ANNUAL MEAN					2642	
LOWEST ANNUAL MEAN					157	
HIGHEST DAILY MEAN	13800	Dec 6	24600	Jan 6	55200	Dec 22 1964
LOWEST DAILY MEAN	17	Sep 23	14	Sep 26	14	Sep 26 2002
ANNUAL SEVEN-DAY MINIMUM	17	Oct 4	14	Sep 24	14	Sep 24 2002
MAXIMUM PEAK FLOW			28900	Jan 6	90400	Dec 22 1955
MAXIMUM PEAK STAGE			23.72	Jan 6	36.60	Dec 22 1955
ANNUAL RUNOFF (AC-FT)	765700		973600		936900	
10 PERCENT EXCEEDS	3450		3990		3360	
50 PERCENT EXCEEDS	187		198		271	
90 PERCENT EXCEEDS	19		18		35	

11469000 MATTOLE RIVER NEAR PETROLIA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—

WATER TEMPERATURE: October 2000 to current year (storm season only).

SEDIMENT DATA: October 2000 to current year (storm season only).

PERIOD OF DAILY RECORD.—

SUSPENDED SEDIMENT DISCHARGE: October 2000 to current year (storm season only).

REMARKS.—Sediment samples were collected on most days where water temperature is published. Zero bed-load discharge observed for flows less than 1310 ft³/s.

EXTREMES FOR PERIOD OF RECORD.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 3120 mg/L, Feb. 22, 2001; minimum daily mean, 1 mg/L, several days in most years.

SEDIMENT LOAD (storm season only): Maximum daily, 209,000 tons, Jan. 6, 2002; minimum daily, 0.05 ton, several days in October 2001.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 3030 mg/L, Jan. 6; minimum daily mean, 1 mg/L, several days in October and November.

SEDIMENT LOAD (storm season only): Maximum daily, 209,000 tons, Jan. 6; minimum daily, 0.05 ton, several days in October.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
NOV 16...	0900	3290	13.0	959	8520	74	--	--	--	--
DEC 01...	1200	17200	11.5	3800	176000	69	--	--	--	--
14...	1345	6390	10.0	708	12200	78	85	93	99	100
17...	0945	8780	11.0	1240	29400	71	--	--	--	--
JAN 06...	0900	27600	12.5	3400	253000	64	77	92	98	100
MAR 25...	1450	1550	11.0	52	218	84	--	--	--	--

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM-PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START-ING TIME (2400 HOURS) (82073)	END-ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)
NOV 20...	1100	1000	1100	.25	0	1045	1115	30
20...	1135	1000	1100	.25	0	1125	1150	30
MAR 25...	1300	1000	1100	.25	0	1245	1315	15
25...	1345	1000	1100	.25	0	1327	1400	15

Date	HORI-ZONTAL WIDTH OF VER-TICAL (FEET) (04121)	COMPSTD IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER-TICALS IN COM-POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT (04122)
NOV 20...	10.0	2	16	16	5.00	1100	12.0	.66
20...	10.0	2	16	16	5.00	1080	12.0	.96
MAR 25...	10.0	2	22	22	5.00	1570	11.0	1.32
25...	10.0	2	22	22	5.00	1560	11.0	.58

MATTOLE RIVER BASIN

11469000 MATTOLE RIVER NEAR PETROLIA, CA—Continued

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY) (80225)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80235)
NOV								
20...	134	6	16	20	34	64	94	100
20...	134	8	24	34	50	66	86	100
MAR								
25...	200	8	16	28	53	79	89	100
25...	200	9	19	30	51	76	95	100

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	11.0	12.5	9.0	10.5	---	---	---	---	---	---
2	---	---	---	12.0	---	---	---	---	---	---	---	---
3	---	14.5	---	11.5	11.0	---	---	15.5	---	---	---	---
4	---	---	---	---	---	---	16.0	---	---	---	---	---
5	17.5	---	10.5	11.0	---	10.0	---	---	---	---	---	---
6	---	---	12.0	12.5	---	---	---	---	19.5	---	---	---
7	---	---	11.0	12.5	---	9.0	15.5	---	---	---	---	---
8	---	---	---	12.5	---	---	---	---	---	---	---	---
9	---	10.5	11.0	11.0	---	9.0	15.0	---	---	---	21.0	---
10	---	---	---	10.0	---	---	---	---	---	22.0	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	17.5	14.0	---	10.5	---	---	---	---	---	---	---	---
13	---	12.5	10.0	---	---	---	---	---	---	---	---	---
14	---	14.0	10.0	---	---	---	---	---	---	---	---	---
15	---	14.0	9.5	---	---	---	---	---	---	---	---	---
16	---	13.0	---	6.5	---	---	11.5	---	---	---	---	---
17	---	---	11.0	9.5	---	8.0	---	---	---	---	---	---
18	---	---	10.0	---	---	---	---	---	---	---	---	23.0
19	16.0	---	11.0	---	---	---	---	---	---	---	---	---
20	---	12.0	9.5	8.0	---	---	---	---	---	---	---	---
21	---	12.0	9.0	9.0	---	12.5	---	---	---	---	---	---
22	---	12.5	10.5	---	---	11.0	---	---	---	---	---	---
23	---	---	---	---	---	10.0	---	---	---	---	---	---
24	---	10.5	---	6.0	---	9.0	---	---	---	---	---	---
25	---	---	---	---	---	11.0	15.0	---	---	---	---	---
26	---	---	11.0	8.0	---	10.0	---	---	---	---	---	---
27	12.5	---	---	---	---	---	---	---	---	---	---	---
28	---	---	11.5	---	---	11.5	---	---	---	---	---	---
29	---	10.0	11.5	---	---	---	---	---	---	---	---	---
30	14.0	---	---	4.0	---	---	---	---	---	---	---	---
31	15.5	---	11.0	---	---	14.5	---	---	---	---	---	---

11469000 MATTOLE RIVER NEAR PETROLIA, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	19	1.0	0.05	195	8.0	4.1	12300	2800	103000
2	19	1.0	0.05	108	4.0	1.1	8060	1600	35500
3	18	1.0	0.05	69	1.0	0.27	6420	578	10200
4	17	1.0	0.05	54	1.0	0.14	4450	280	3440
5	17	1.0	0.05	46	1.0	0.12	9770	2010	68800
6	17	1.0	0.06	41	1.0	0.11	13800	2070	91400
7	17	2.0	0.07	39	1.0	0.10	6020	553	9410
8	17	2.0	0.09	36	1.0	0.10	4080	301	3350
9	17	2.0	0.10	35	1.0	0.09	3310	195	1750
10	17	2.0	0.11	34	1.0	0.09	2800	152	1150
11	18	3.0	0.13	43	1.0	0.12	2460	123	819
12	17	3.0	0.14	559	226	439	2230	94	567
13	17	3.0	0.13	898	164	401	2380	183	1700
14	17	2.0	0.11	2060	607	3650	6800	1200	24200
15	17	2.0	0.10	1310	249	989	4090	338	3790
16	17	2.0	0.09	3360	896	9500	3780	321	3350
17	17	2.0	0.07	1950	407	2410	7810	963	21300
18	17	1.0	0.06	863	108	269	5660	381	5910
19	17	1.0	0.05	686	59	123	7130	656	12800
20	18	1.0	0.05	1230	169	609	7980	654	14400
21	18	1.0	0.05	4100	731	8560	5490	317	4770
22	18	1.0	0.05	5660	956	16200	5210	485	6940
23	22	1.0	0.06	2530	327	2330	4820	514	6710
24	20	1.0	0.05	3270	545	5750	3980	387	4180
25	20	1.0	0.05	3390	530	4930	3450	261	2440
26	19	1.0	0.05	2310	330	2090	2990	150	1220
27	19	1.0	0.05	1610	169	749	2950	191	1620
28	20	1.0	0.05	2910	578	9940	3140	244	2120
29	22	1.0	0.07	6940	1060	21300	3060	217	1790
30	219	32	32	4320	497	5820	3100	257	2360
31	347	24	24	---	---	---	4770	880	11500
TOTAL	1091	---	58.09	50656	---	96065.34	164290	---	462486
	JANUARY			FEBRUARY			MARCH		
1	5900	1240	21800	1280	59	203	1850	50	249
2	15700	2070	88400	1240	44	147	1690	37	171
3	8500	813	20100	1180	25	81	1560	31	129
4	5120	401	5600	1140	23	69	1470	24	94
5	5000	374	6080	1100	24	72	1390	17	64
6	24600	3030	209000	1070	26	76	1520	63	277
7	14200	1320	54600	2970	181	2180	2100	247	1410
8	11200	816	24900	3920	254	2800	1840	119	597
9	6940	515	9840	2580	138	972	1740	161	801
10	4760	308	4000	2130	89	516	1950	261	1380
11	e3820	e213	e2120	1900	70	356	2330	383	2430
12	e3030	e152	e1410	1750	61	287	2200	178	1060
13	e2460	e136	e1010	1660	56	250	2010	110	601
14	e2030	e138	e835	1590	52	221	1850	82	412
15	e1760	e139	e710	1530	47	195	1680	67	305
16	e1490	e114	e472	1510	43	173	1550	62	259
17	1350	52	192	1500	38	154	1450	59	232
18	1250	33	113	1460	36	142	1340	47	169
19	1190	28	91	2040	78	565	1230	32	106
20	1140	25	76	5830	392	6280	1140	24	72
21	1360	153	605	4030	266	2960	1060	17	49
22	1390	134	510	2950	173	1390	1360	249	1190
23	1230	60	201	4130	280	3240	1920	370	1920
24	1160	29	90	4000	270	2950	1830	103	526
25	1160	53	175	3140	188	1610	e1570	e53	e222
26	2010	499	2770	2650	140	1010	e1380	e49	e184
27	1660	301	1360	2300	110	685	1240	36	122
28	1470	178	707	2040	79	439	1120	25	75
29	1340	96	352	---	---	---	1000	20	56
30	1260	37	127	---	---	---	918	17	42
31	1190	47	153	---	---	---	850	14	32
TOTAL	136670	---	458399	64620	---	30023	48138	---	15236

e Estimated.

MATTOLE RIVER BASIN

11469000 MATTOLE RIVER NEAR PETROLIA, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	795	12	25
2	743	10	20
3	698	8.0	15
4	658	7.0	12
5	617	10	16
6	584	14	22
7	551	18	27
8	513	15	20
9	503	7.0	9.9
10	548	5.0	8.0
11	508	6.0	8.2
12	474	7.0	8.4
13	449	7.0	8.7
14	433	8.0	9.0
15	422	8.0	9.4
16	434	9.0	10
17	517	9.0	12
18	443	8.0	9.6
19	396	7.0	7.9
20	370	7.0	6.8
21	349	6.0	5.9
22	330	6.0	5.1
23	313	5.0	4.3
24	298	5.0	3.6
25	289	4.0	3.1
26	280	4.0	2.8
27	280	3.0	2.6
28	272	3.0	2.4
29	264	3.0	2.1
30	287	3.0	2.1
31	---	---	---
TOTAL	13618	---	298.9
PERIOD	479083.00		1062566.00

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	1091.00	58.09	0	58
NOVEMBER	50656.00	96065.34	32232	128297
DECEMBER	164290.00	462486.00	121200	583686
JANUARY 2002	136670.00	458399.00	73020	531419
FEBRUARY	64620.00	30023.00	23319	53342
MARCH	48138.00	15236.00	5974	21210
APRIL	13618.00	298.90	0	299
PERIOD	479083.00	1062566.00	255745	1318311

e Estimated.

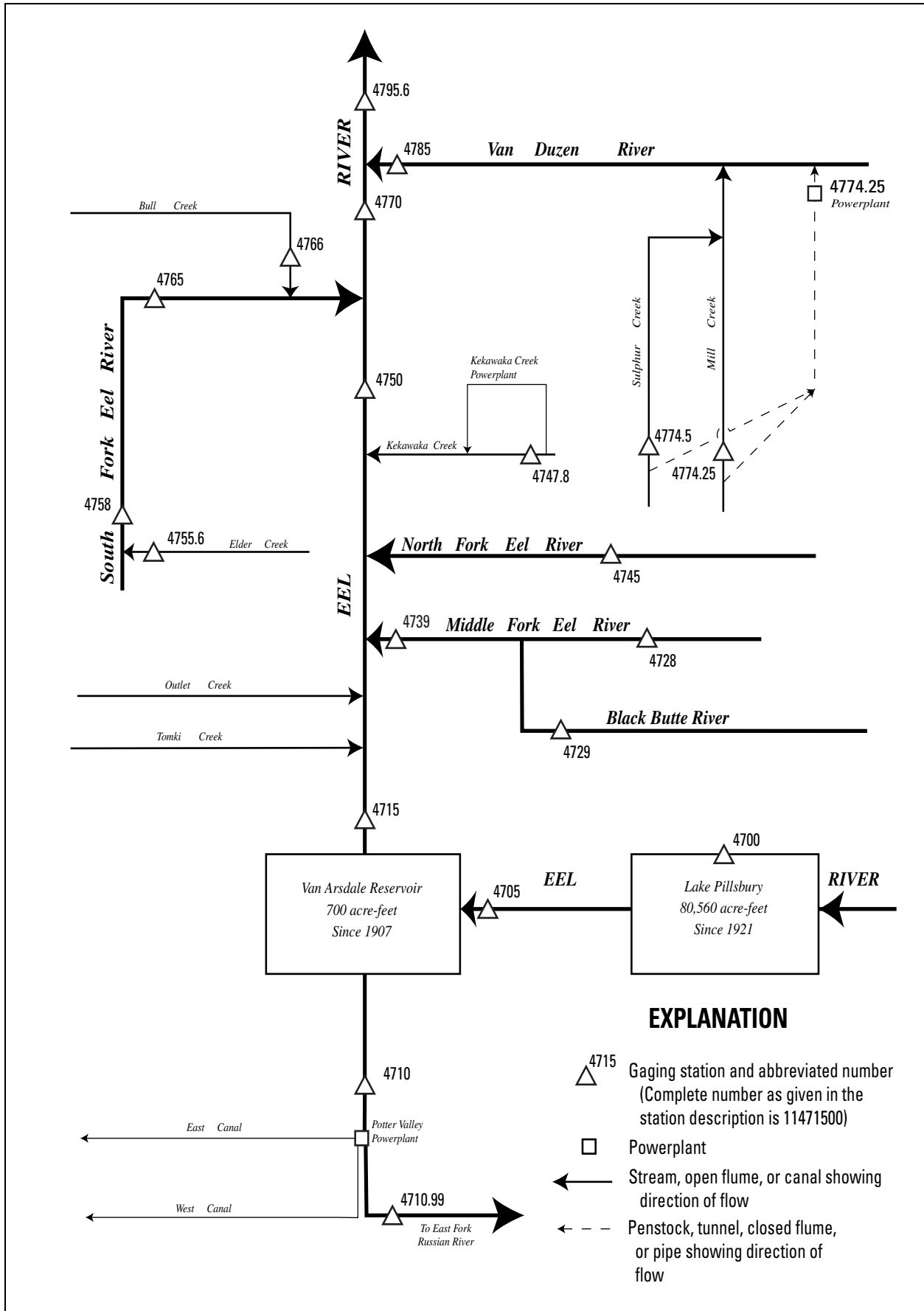


Figure 23. Diversions and storage in Eel River Basin.

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 mi².

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 sea level (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, 80,560 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 (station 11477100); part is then used for irrigation and remainder flows into East Fork Russian River. Records given, including extremes, represent total contents at 2400 hours. See schematic diagram of [Eel River Basin](#).

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 no. 77.

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.

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	1,840	2,463	1,865	13,701	1,890	41,811
1,824	153	1,845	3,391	1,870	17,664	1,895	50,179
1,827	333	1,850	5,710	1,875	22,451	1,900	59,469
1,830	626	1,855	7,831	1,880	28,071	1,905	69,675
1,835	1,371	1,860	10,456	1,885	34,474	1,910	80,643

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43700	36100	56500	63300	59600	59800	62300	64900	60400	54500	47900	41300
2	43500	35800	57800	63300	59500	59700	62500	64900	60200	54200	47700	41100
3	43300	35500	60300	63200	59400	59600	62800	64800	60100	54000	47500	40800
4	43100	35100	59500	62700	59300	59500	63100	64700	59900	53800	47300	40600
5	42900	34800	62500	63200	59100	59500	63400	64700	59700	53600	47000	40400
6	42700	34500	62500	65500	58900	60000	63600	64600	59500	53400	46800	40200
7	42500	34100	61500	63800	59200	60400	63800	64400	59300	53200	46600	40000
8	42300	33800	61000	62800	59800	60300	63900	64300	59000	53000	46400	39800
9	42100	33500	61000	62100	59800	60300	64100	64200	58800	52800	46100	39600
10	41800	33200	62900	61600	59700	60600	64300	64000	58600	52600	45900	39300
11	41600	33000	60000	61200	59600	60400	64400	63900	58500	52400	45700	39200
12	41300	33500	59700	60900	60100	60300	64600	63700	58300	52200	45500	39000
13	41100	33600	60100	60700	59400	60200	64700	63600	58200	52000	45300	38700
14	40800	33400	61500	60500	59400	60100	64800	63400	58000	51800	45100	38500
15	40600	33000	60800	60400	59200	60000	64900	63100	57800	51600	44800	38300
16	40300	32600	60700	60200	59100	59900	65000	62800	57600	51400	44600	38100
17	40100	32300	62600	60100	59000	59800	65100	62600	57400	51200	44400	37900
18	39800	31800	61700	60200	58900	59700	65100	62300	57200	51000	44200	37700
19	39600	31300	61800	59900	60300	59600	65100	62100	57000	50700	44000	37500
20	39300	30900	62000	59800	61400	59600	65100	62100	56800	50500	43700	37300
21	39000	32900	61500	59800	61100	59600	65100	62000	56600	50300	43500	37100
22	38700	36500	61800	59700	60800	59700	65100	61900	56400	50100	43300	36900
23	38400	37000	61500	59600	60600	60400	65000	61800	56200	49900	43100	36700
24	38200	42400	61100	59600	60400	60900	65000	61700	56000	49700	42900	36600
25	37900	44000	60800	59600	60300	61300	65000	61600	55800	49400	42700	36400
26	37600	44400	60800	60100	60100	61500	64900	61400	55600	49200	42400	36200
27	37400	44400	60900	60100	60100	61700	64900	61200	55400	49000	42300	36000
28	37100	45200	61400	60000	59900	61900	64800	61100	55100	48800	42100	35800
29	36900	47800	61900	60000	---	62000	64900	60900	54900	48600	41900	35600
30	36700	48500	63200	59700	---	62100	64900	60800	54700	48400	41700	35400
31	36400	---	63300	59600	---	62100	---	60600	---	48100	41500	---
TOTAL	1246700	1094900	1894600	1893200	1674000	1872500	1932200	1950100	1729000	1591400	1383900	1148000
MEAN	40216	36497	61116	61071	59786	60403	64407	62906	57633	51335	44642	38267
MAX	43700	48500	63300	65500	61400	62100	65100	64900	60400	54500	47900	41300
MIN	36400	30900	56500	59600	58900	59500	62300	60600	54700	48100	41500	35400
a	1886.41	1894.05	1901.93	1900.07	1900.24	1901.35	1902.72	1900.57	1897.48	1893.84	1889.79	1885.66
b	-7500	12100	14800	-3700	300	2200	2800	-4300	-5900	-6600	-6600	-6100

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 mi².

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 sea level, from topographic map. Prior to Dec. 15, 1930, at datum 3.00 ft higher.

REMARKS.—Flow regulated by Lake Pillsbury (station 11470000) 0.7 mi upstream. No diversion upstream from station. See schematic diagram of [Eel River Basin](#).

COOPERATION.—Records collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 77.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 56,300 ft³/s, Dec. 22, 1964, gage height, 24.24 ft, from floodmarks, from rating curve extended above 37,000 ft³/s; minimum daily, 0.1 ft³/s, Sept. 8, 1924.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	170	193	3810	400	622	356	187	154	120	103	102
2	97	175	425	9590	394	562	240	186	142	120	103	102
3	95	181	2060	6290	386	520	222	184	134	106	103	102
4	93	182	1640	3490	389	483	231	183	131	101	101	102
5	93	182	1650	2690	405	463	221	181	134	101	100	101
6	93	182	3040	5770	416	524	231	182	133	101	101	101
7	93	181	2100	5110	417	846	228	183	131	101	103	101
8	93	181	1430	3410	481	950	239	180	129	101	105	106
9	92	181	1160	2530	550	840	242	177	128	98	106	111
10	103	181	957	1890	532	1030	265	180	124	95	103	112
11	115	160	785	1540	493	1050	223	188	114	95	103	106
12	115	124	649	1360	461	952	230	191	113	100	104	102
13	115	220	575	1220	441	868	242	189	115	103	104	101
14	116	278	1610	1100	431	790	243	222	115	103	104	101
15	116	328	1400	996	426	718	236	237	117	101	104	101
16	115	387	1140	896	424	660	234	232	119	99	104	101
17	115	384	2490	805	424	607	228	228	119	100	103	101
18	115	381	2130	727	424	558	230	223	120	100	103	101
19	124	380	1800	662	473	519	230	219	120	101	102	102
20	133	379	1990	608	1340	462	233	219	121	102	102	102
21	133	310	1800	587	1450	434	230	172	118	101	102	102
22	133	84	1690	577	1270	434	226	152	116	101	102	102
23	133	238	1780	503	1150	340	226	165	116	103	102	101
24	132	190	1480	443	1060	316	227	165	116	105	102	101
25	133	125	1290	422	940	342	206	164	116	101	102	101
26	132	209	1200	464	833	334	191	166	116	103	102	101
27	132	349	1210	569	750	343	190	166	117	104	102	101
28	140	348	1340	539	688	375	188	156	120	104	102	100
29	150	264	1870	492	---	407	188	154	120	103	102	100
30	151	323	2060	524	---	412	188	152	120	103	102	99
31	163	---	3990	465	---	416	---	149	---	103	102	---
TOTAL	3660	7257	48934	60079	17848	18177	6864	5732	3688	3179	3183	3066
MEAN	118.1	241.9	1579	1938	637.4	586.4	228.8	184.9	122.9	102.5	102.7	102.2
MAX	163	387	3990	9590	1450	1050	356	237	154	120	106	112
MIN	92	84	193	422	386	316	188	149	113	95	100	99
AC-FT	7260	14390	97060	119200	35400	36050	13610	11370	7320	6310	6310	6080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2002, BY WATER YEAR (WY)

MEAN	220.1	278.7	742.6	1289	1432	1060	654.2	333.1	199.8	175.5	177.0	207.1
MAX	361	1851	4945	5687	6624	4536	3357	1184	717	329	334	336
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1998	1959	1959	1996
MIN	19.1	13.3	27.6	35.8	7.28	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 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1923 - 2002

ANNUAL TOTAL	109483	181667		
ANNUAL MEAN	300.0	497.7	560.1	
HIGHEST ANNUAL MEAN			1443	1983
LOWEST ANNUAL MEAN			85.4	1977
HIGHEST DAILY MEAN	3990	Dec 31	45300	Dec 22 1964
LOWEST DAILY MEAN	52	Jan 11	0.10	Sep 8 1924
ANNUAL SEVEN-DAY MINIMUM	56	Feb 10	0.43	Sep 6 1924
MAXIMUM PEAK FLOW			11000	Jan 2
MAXIMUM PEAK STAGE			11.92	Jan 2
ANNUAL RUNOFF (AC-FT)	217200	360300	405800	
10 PERCENT EXCEEDS	730	1240	1130	
50 PERCENT EXCEEDS	114	182	232	
90 PERCENT EXCEEDS	89	101	93	

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 sea level, 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.—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. See schematic diagram of [Eel River Basin](#).

COOPERATION.—Records collected by Pacific Gas & Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 77.

EXTREMES FOR PERIOD OF RECORD (1922 TO CURRENT YEAR).—Maximum daily discharge, 351 ft³/s, Oct. 31, 1982; no flow at times in several years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	152	254	303	314	314	230	95	95	90	93	88
2	92	150	273	65	303	313	154	93	95	91	92	88
3	97	156	266	105	291	314	121	93	96	92	95	90
4	97	157	308	306	288	313	127	92	90	90	93	93
5	93	159	292	314	297	313	119	91	90	88	91	93
6	89	161	238	314	301	287	122	90	88	89	91	92
7	88	161	314	313	311	312	118	94	91	93	92	93
8	91	161	323	314	315	312	122	91	92	93	92	93
9	85	163	316	313	315	312	126	85	91	94	96	92
10	84	164	314	313	315	312	135	85	91	92	95	93
11	104	154	309	313	315	312	111	92	90	90	96	92
12	104	147	309	313	317	311	113	97	89	90	94	93
13	102	137	310	314	319	311	123	98	89	90	96	93
14	103	176	313	316	319	310	124	135	89	92	96	93
15	102	184	320	315	316	310	122	135	89	96	95	93
16	97	239	320	315	312	310	129	133	89	95	96	93
17	98	242	321	315	314	310	130	130	91	91	95	93
18	102	232	325	315	307	310	125	128	92	90	96	93
19	106	230	326	315	317	310	125	133	91	91	94	93
20	118	232	327	315	318	313	125	140	90	93	92	93
21	121	236	246	315	317	316	125	93	93	95	93	93
22	120	203	303	315	316	314	120	91	91	94	93	95
23	121	203	304	315	316	312	119	92	90	90	93	96
24	121	206	303	311	318	264	117	92	90	97	96	94
25	121	178	303	305	320	291	109	92	91	98	98	92
26	123	189	303	317	320	269	94	88	90	93	91	92
27	123	276	303	317	320	268	91	90	90	94	89	92
28	126	299	303	178	316	266	90	92	90	98	88	92
29	138	317	303	135	---	262	93	86	90	97	88	92
30	143	323	302	77	---	259	94	100	90	94	88	93
31	142	---	211	314	---	256	---	91	---	95	89	---
TOTAL	3346	5987	9262	8705	8747	9286	3653	3137	2723	2875	2886	2775
MEAN	107.9	199.6	298.8	280.8	312.4	299.5	121.8	101.2	90.77	92.74	93.10	92.50
MAX	143	323	327	317	320	316	230	140	96	98	98	96
MIN	84	137	211	65	288	256	90	85	88	88	88	88
AC-FT	6640	11880	18370	17270	17350	18420	7250	6220	5400	5700	5720	5500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2002, BY WATER YEAR (WY)

MEAN	186.7	194.9	210.4	223.6	241.1	244.2	229.6	211.7	176.1	157.1	153.6	177.4
MAX	321	311	311	316	325	330	330	330	325	314	320	314
(WY)	1991	1963	1982	1982	1998	1998	1998	1982	1982	1953	1953	1967
MIN	0.000	9.70	3.10	15.4	11.8	0.000	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 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1910 - 2002

ANNUAL TOTAL	48437.57	63382	
ANNUAL MEAN	132.7	173.6	200.8
HIGHEST ANNUAL MEAN			305
LOWEST ANNUAL MEAN			84.0
HIGHEST DAILY MEAN	327	Dec 20	351
LOWEST DAILY MEAN	0.18	Mar 14	0.00
ANNUAL SEVEN-DAY MINIMUM	0.20	Mar 8	88
ANNUAL RUNOFF (AC-FT)	96080	125700	145400
10 PERCENT EXCEEDS	299	315	313
50 PERCENT EXCEEDS	98	120	215
90 PERCENT EXCEEDS	40	90	61

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 18010110, 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 (station 11471105) and Potter Valley Irrigation District West Canal (station 11471106). Elevation of tailrace is 1,020 ft above sea level, from topographic map.

REMARKS.—Flow represents inflow into the Russian River Basin after passing through powerhouse. See schematic diagrams of [Russian River](#) and [Eel River Basins](#).

COOPERATION.—Records collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 77.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 335 ft³/s, Mar. 19, 20, 22, 23, 1998; no flow Apr. 4, 5, July 18–20, 1990; Nov. 15–19, 1993; and many days in 1995 and 2001.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	152	247	300	311	312	230	94	80	69	65	65
2	62	150	270	63	295	312	153	92	87	69	66	64
3	70	156	263	105	291	312	121	86	86	67	70	65
4	64	157	305	303	287	311	126	81	70	66	71	67
5	65	159	289	312	296	312	118	80	71	64	73	67
6	61	161	237	311	301	286	121	77	67	65	74	69
7	61	161	311	311	310	311	117	80	71	67	72	73
8	63	156	320	311	314	310	121	73	70	68	72	73
9	59	155	313	310	314	310	125	66	67	70	71	72
10	71	157	311	310	314	310	135	67	67	66	69	73
11	91	154	306	310	314	310	111	73	67	64	73	73
12	84	146	306	311	316	309	112	77	65	62	71	75
13	86	135	306	311	318	309	123	79	64	64	71	76
14	95	173	310	313	318	309	123	115	65	71	71	76
15	95	181	317	313	315	309	120	115	69	75	70	76
16	84	235	317	313	311	309	124	112	71	75	70	80
17	84	238	317	313	313	309	121	107	72	71	72	81
18	88	229	322	313	306	309	113	105	78	69	74	72
19	94	227	323	313	316	309	110	109	82	65	73	70
20	107	228	324	313	317	312	111	119	73	65	73	70
21	106	230	243	313	316	314	113	79	70	66	74	74
22	100	200	300	313	315	312	110	85	69	66	74	76
23	100	200	301	314	315	311	110	81	70	72	74	75
24	99	200	301	310	317	263	108	85	70	85	78	74
25	100	176	300	304	319	290	102	91	68	73	80	68
26	101	187	300	316	318	268	89	85	66	66	75	66
27	101	273	300	316	318	267	86	87	65	67	73	69
28	108	294	300	177	315	265	87	83	63	75	71	74
29	127	313	300	130	---	261	92	71	66	74	71	75
30	133	320	299	74	---	258	92	82	68	68	71	76
31	137	---	209	309	---	255	---	72	---	67	69	---
TOTAL	2766	5903	9167	8635	8710	9244	3524	2708	2117	2131	2231	2164
MEAN	89.23	196.8	295.7	278.5	311.1	298.2	117.5	87.35	70.57	68.74	71.97	72.13
MAX	137	320	324	316	319	314	230	119	87	85	80	81
MIN	59	135	209	63	287	255	86	66	63	62	65	64
AC-FT	5490	11710	18180	17130	17280	18340	6990	5370	4200	4230	4430	4290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	183.1	186.9	191.4	199.6	222.0	246.2	197.9	173.3	140.2	102.0	101.7	143.0			
MAX	311	291	296	294	319	329	327	316	307	160	151	286			
(WY)	1991	1998	2002	1998	1996	1998	1998	1993	1998	1993	1996	1996			
MIN	79.3	90.1	46.5	35.8	45.0	51.4	53.7	87.4	59.0	50.5	47.4	57.8			
(WY)	1989	1988	2001	1991	1991	1995	1990	2002	1994	2001	2001	2001			

SUMMARY STATISTICS

	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL TOTAL	41192.31		59300			
ANNUAL MEAN	112.9		162.5		173.7	
HIGHEST ANNUAL MEAN					248	
LOWEST ANNUAL MEAN					82.8	
HIGHEST DAILY MEAN	325	Mar 31	324	Dec 20	335	Mar 19 1998
LOWEST DAILY MEAN	0.00	Feb 23	59	Oct 9	0.00	Apr 4 1990
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 23	63	Oct 3	0.00	Mar 10 1995
ANNUAL RUNOFF (AC-FT)	81700		117600		125800	
10 PERCENT EXCEEDS	291		313		318	
50 PERCENT EXCEEDS	84		107		135	
90 PERCENT EXCEEDS	37		67		65	

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 mi².

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 sea level, 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.—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 flow only in the Eel River. See schematic diagram of [Eel River Basin](#).

COOPERATION.—Records collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 77.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 64,100 ft³/s, Dec. 22, 1964, gage height, 33.9 ft, from floodmarks; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	26	1250	5810	115	311	111	111	68	30	5.3	7.3
2	5.5	28	666	10200	115	242	111	111	58	26	5.1	7.4
3	7.6	30	799	6620	115	197	111	111	53	22	6.5	7.4
4	12	30	769	3680	114	161	111	112	46	17	7.7	7.4
5	12	27	1310	2930	115	140	112	111	41	14	7.6	7.3
6	13	24	3140	5070	115	251	112	111	37	8.0	5.3	7.2
7	15	26	1800	4810	117	542	111	111	37	8.3	7.3	7.2
8	12	23	961	3540	188	627	112	111	37	8.4	7.4	7.1
9	12	23	852	2600	206	525	112	111	38	8.1	7.4	7.1
10	12	27	505	1970	186	736	111	111	37	7.7	7.4	7.2
11	18	26	337	1650	153	741	111	109	35	7.5	7.4	7.4
12	23	31	490	1420	121	634	111	109	35	7.5	7.4	7.4
13	24	101	500	1240	115	560	111	109	35	7.4	7.4	7.4
14	23	103	420	1100	115	489	111	109	35	7.3	7.4	7.4
15	28	109	345	930	115	414	111	109	35	7.3	7.4	7.4
16	28	113	403	799	115	357	110	108	35	7.1	7.4	7.4
17	28	111	1230	695	115	304	109	99	35	7.1	7.4	7.4
18	21	111	2030	612	115	248	110	99	35	7.2	7.4	7.4
19	21	111	1480	544	277	205	111	89	35	7.3	7.4	7.4
20	24	112	2000	483	1180	158	111	88	35	7.3	7.4	7.4
21	23	110	1980	376	1300	119	111	101	35	7.3	7.4	7.4
22	23	110	1370	255	1050	128	110	93	35	7.1	7.4	7.4
23	23	807	1870	188	863	160	110	89	35	7.0	7.4	7.4
24	23	254	1480	132	731	111	111	92	35	7.0	7.4	7.4
25	21	114	1160	105	599	112	110	88	35	6.8	7.4	7.3
26	21	111	1170	186	502	111	111	92	35	6.8	7.4	7.4
27	21	111	1130	250	408	111	111	90	34	6.8	7.3	7.4
28	21	110	711	368	356	111	110	80	34	6.7	7.3	7.4
29	26	548	1500	370	---	111	110	82	34	5.5	7.3	7.4
30	26	131	1610	433	---	111	110	75	34	5.1	7.3	7.4
31	26	---	6940	168	---	111	---	75	---	5.0	7.3	---
TOTAL	598.5	3598	42208	59534	9616	9138	3324	3096	1148	293.6	221.9	220.5
MEAN	19.31	119.9	1362	1920	343.4	294.8	110.8	99.87	38.27	9.471	7.158	7.350
MAX	28	807	6940	10200	1300	741	112	112	68	30	7.7	7.4
MIN	5.4	23	337	105	114	111	109	75	34	5.0	5.1	7.1
AC-FT	1190	7140	83720	118100	19070	18130	6590	6140	2280	582	440	437

11471500 EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.17	125.4	704.8	1392	1524	1044	544.3	177.3	28.94	5.764	5.724	5.485
MAX	153	2389	5249	6293	8904	5492	3863	1174	366	25.3	54.1	27.9
(WY)	1963	1974	1965	1970	1986	1983	1982	1983	1998	1999	1980	1959
MIN	0.86	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1923 - 2002	
ANNUAL TOTAL	71363.1		132996.5			
ANNUAL MEAN	195.5		364.4		455.1	
HIGHEST ANNUAL MEAN					1546	
LOWEST ANNUAL MEAN					3.46	
HIGHEST DAILY MEAN	6940	Dec 31	10200	Jan 2	49500	Dec 22 1964
LOWEST DAILY MEAN	4.9	Sep 20	5.0	Jul 31	0.00	Sep 13 1953
ANNUAL SEVEN-DAY MINIMUM	5.3	Sep 15	5.6	Jul 28	0.16	Dec 5 1965
MAXIMUM PEAK FLOW			13400	Jan 2	64100	Dec 22 1964
MAXIMUM PEAK STAGE			20.21	Jan 2	33.90	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	141500		263800		329700	
10 PERCENT EXCEEDS	539		942		1070	
50 PERCENT EXCEEDS	61		105		9.7	
90 PERCENT EXCEEDS	6.7		7.3		2.0	

11472800 MIDDLE FORK EEL RIVER ABOVE BLACK BUTTE RIVER, NEAR COVELO, CA

LOCATION.—Lat 39°49'45", long 123°04'11", in SE 1/4 SE 1/4 sec.22, T.23 N., R.11 W., Mendocino County, Hydrologic Unit 18010104, on left bank, 1.2 mi upstream from Black Butte River, and 9.8 mi northeast of Covelo.

DRAINAGE AREA.—204 mi².

PERIOD OF RECORD.—October 1967 to September 1970, October 2001 to September 2002.

GAGE.—Water-stage recorder. Datum of gage is 1,446.47 ft above sea level. Oct 31, 1968 to September 1970 at different datum. Prior to Oct. 31, 1968, at datum 5.0 ft higher.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 48,400 ft³/s, Jan. 23, 1970, gage height, 16.08 ft, from rating curve extended above 10,000 ft³/s; minimum daily, 3.5 ft³/s, Sept. 13–20, 1970.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	unknown	e17,400	unknown	Jan. 6	unknown	13,200	20.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.0	e18	e4750	e7570	340	1150	1130	311	120	21	e11	e5.9
2	e6.8	e16	e3750	e15200	312	977	1230	289	105	20	e10	e5.7
3	e6.7	e15	e3500	e7480	291	870	1410	288	94	19	e9.9	e5.5
4	e6.6	e13	e1700	e4500	277	786	1440	284	85	19	e9.7	e5.3
5	e6.2	e12	e3500	e3650	282	769	1360	293	80	18	e9.6	5.2
6	e6.0	e10	e7900	e10700	275	1330	1090	296	74	18	e9.6	5.3
7	e6.0	e10	e4500	e7200	876	1370	990	296	67	18	e9.7	5.3
8	e6.1	e9.4	e3400	e5120	1550	1050	925	259	62	17	e10	5.3
9	e6.4	e9.0	e2780	e4120	921	943	983	241	57	17	e10	5.3
10	e6.5	e8.2	e2280	e2850	773	959	1110	229	54	16	e9.8	5.3
11	e6.4	e14	e1900	e2110	702	901	1030	208	50	16	e9.5	5.2
12	e6.4	e45	e1630	e1750	684	976	983	201	47	15	e9.1	5.0
13	e6.5	e200	e1680	e1500	762	949	940	204	44	15	e8.9	4.9
14	e6.7	e180	e5700	e1220	743	840	1270	205	42	15	e8.6	4.9
15	e6.8	e140	e3100	e985	762	762	1060	203	41	15	e8.3	4.9
16	e7.0	e101	e2670	e780	734	688	766	195	38	14	e8.0	4.8
17	e7.2	e160	e6800	e680	691	625	619	193	37	14	e7.8	4.9
18	e7.0	e130	e4760	e590	609	552	510	193	35	14	e7.7	4.9
19	e6.8	e100	e5210	e510	2360	526	455	174	35	14	e7.6	4.9
20	e6.5	e140	e5530	e470	7310	521	416	194	33	13	e7.3	4.7
21	e6.4	e600	e4010	e500	4300	559	388	192	31	13	e7.0	4.6
22	e6.5	e4000	e4300	e530	2950	696	364	172	30	13	e6.9	4.5
23	e6.5	e1100	e4330	e425	2890	1070	377	160	29	e13	e6.8	4.6
24	e6.6	e3500	e3250	e393	2280	1060	395	139	28	e13	e6.8	4.4
25	e6.5	e1100	e3000	e375	1830	942	421	130	27	e13	e6.7	4.2
26	e6.5	e480	e2790	e540	1570	827	476	131	26	e13	e6.7	4.2
27	e6.5	e300	e2930	e520	1450	773	423	131	24	e13	e6.7	4.2
28	e6.6	e850	e3450	e460	1320	792	357	131	24	e12	e6.6	4.2
29	e8.0	e3100	e4030	e400	---	957	317	134	23	e12	e6.5	4.2
30	e10	e920	e4240	e360	---	996	315	138	22	e12	e6.4	4.3
31	e14	---	e7830	e360	---	1050	---	128	---	e11	e6.1	---
TOTAL	215.7	17280.6	121200	83848	39844	27266	23550	6342	1464	466	255.3	146.6
MEAN	6.958	576.0	3910	2705	1423	879.5	785.0	204.6	48.80	15.03	8.235	4.887
MAX	14	4000	7900	15200	7310	1370	1440	311	120	21	11	5.9
MIN	6.0	8.2	1630	360	275	521	315	128	22	11	6.1	4.2
AC-FT	428	34280	240400	166300	79030	54080	46710	12580	2900	924	506	291

e Estimated.

11472800 MIDDLE FORK EEL RIVER ABOVE BLACK BUTTE RIVER, NEAR COVELO CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.93	242.7	1932	3624	1583	919.2	783.1	549.8	120.0	24.12	13.32	7.772
MAX	28.4	576	3910	5112	2848	1078	1639	1534	317	46.1	24.2	11.6
(WY)	1970	2002	2002	1970	1968	1969	1969	1969	1969	1969	1968	1968
MIN	6.96	63.1	513	1605	784	733	234	205	46.2	15.0	7.40	4.57
(WY)	2002	1968	1968	1968	1970	1970	1970	2002	1970	2002	1970	1970

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1968 - 2002

ANNUAL TOTAL	321878.2		
ANNUAL MEAN	881.9	818.1	
HIGHEST ANNUAL MEAN		1066	1969
LOWEST ANNUAL MEAN		565	1968
HIGHEST DAILY MEAN	15200	Jan 2	33600 Jan 20 1969
LOWEST DAILY MEAN	4.2	Sep 25	3.5 Sep 13 1970
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 24	3.5 Sep 13 1970
MAXIMUM PEAK FLOW	e17400	Jan 2	48400 Jan 23 1970
MAXIMUM PEAK STAGE	unknown	Jan 2	16.08 Jan 23 1970
ANNUAL RUNOFF (AC-FT)	638400		592700
10 PERCENT EXCEEDS	2970		1880
50 PERCENT EXCEEDS	180		170
90 PERCENT EXCEEDS	6.4		8.9

e Estimated.

11472900 BLACK BUTTE RIVER NEAR COVELO, CA

LOCATION.—Lat 39°49'15", long 123°04'50", in SE 1/4 sec.28, T.23 N., R.11 W., Mendocino County, Hydrologic Unit 18010104, on right bank 10 ft upstream from old highway bridge abutment, 0.5 mi upstream from mouth, and 9.5 mi east of Covelo.

DRAINAGE AREA.—162 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—Occasional low-flow measurements, water years 1951–56, and annual maximum, water years 1954–57, October 1958 to September 1975, October 2001 to September 2002.

REVISIONS (WATER YEARS).—WSP 1715: 1959(M).

GAGE.—Water-stage recorder. Datum of gage is 1,450.20 ft above sea level. Sept. 10, 1953, to Sept. 30, 1957, crest-stage gage only at same site at different datum. Oct. 1, 1958, to Sec. 22, 1964, water-stage recorder at site 0.1 mi upstream at same datum. December 1964 to September 1975 at same site at different datum.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 29,000 ft³/s, Dec. 22, 1964, gage height, 26.4 ft, from floodmarks at site and datum then in use; minimum daily, 0.76 ft³/s, Sept. 27, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 11, 1947, reached a stage of 36.2 ft, from floodmarks at crest-stage site (discharge, 26,000 ft³/s).

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 7,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	0200	8,230	16.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.1	e10	e1200	2950	182	384	285	124	36	11	2.0	1.0
2	e1.2	e9.0	e1010	6650	173	344	290	115	34	11	2.0	0.94
3	e1.2	e8.2	e830	3100	161	313	304	104	33	9.9	1.9	0.91
4	e1.1	e7.6	e320	1760	153	290	309	97	32	9.6	1.9	0.86
5	e1.1	e6.9	e980	1590	151	292	303	92	30	9.0	2.0	0.85
6	e1.1	e6.4	e2900	4480	145	435	276	88	28	8.8	2.0	0.89
7	e1.2	e6.0	e1400	2800	283	513	265	85	27	8.2	2.0	1.1
8	e1.2	e5.5	e750	2020	438	394	249	80	27	7.9	2.0	1.3
9	e1.2	e5.0	e500	1520	265	354	253	77	26	7.6	1.9	1.4
10	e1.2	e4.9	e250	1070	229	436	257	74	25	7.0	1.7	1.3
11	e1.3	e4.8	e190	824	212	394	249	72	24	6.4	1.5	1.2
12	e1.3	e40	190	676	207	390	243	67	23	5.8	1.4	1.0
13	e1.3	e120	295	562	209	363	228	64	22	5.7	1.3	0.95
14	e1.4	e115	1470	479	204	328	251	62	22	5.4	1.2	0.89
15	e1.4	e90	489	413	202	306	242	60	21	4.9	1.2	0.91
16	e1.4	e75	435	358	194	285	215	57	20	4.7	1.1	0.93
17	e1.4	e105	2210	321	192	271	209	55	20	4.3	1.1	1.0
18	e1.4	e70	1050	288	173	249	192	53	19	4.0	1.2	1.1
19	e1.3	e42	1770	267	1070	236	179	52	19	3.8	1.0	1.1
20	e1.3	e100	1220	249	2740	233	173	67	18	3.6	0.96	1.0
21	e1.2	e500	748	294	1580	232	168	73	18	3.4	1.1	0.93
22	e1.2	e820	760	262	1010	255	149	67	17	3.2	1.1	0.91
23	e1.2	e310	681	227	927	351	141	61	17	3.0	1.2	0.90
24	e1.2	e800	472	211	742	367	135	54	16	2.9	1.2	0.89
25	e1.2	e290	380	206	593	317	129	50	15	2.6	1.2	0.89
26	e1.2	e200	383	300	511	284	128	46	15	2.6	1.2	0.83
27	e1.3	e180	496	251	466	267	123	44	14	2.5	1.2	0.76
28	e1.4	e160	654	224	427	262	117	44	13	2.3	1.2	0.78
29	e1.8	e690	1060	208	---	274	119	42	12	2.2	1.1	0.86
30	e3.7	e310	1330	185	---	275	126	40	12	2.2	1.1	1.0
31	e3.8	---	2510	181	---	278	---	37	---	2.0	1.0	---
TOTAL	44.3	5091.3	28933	34926	13839	9972	6307	2103	655	167.5	43.96	29.38
MEAN	1.429	169.7	933.3	1127	494.2	321.7	210.2	67.84	21.83	5.403	1.418	0.979
MAX	3.8	820	2900	6650	2740	513	309	124	36	11	2.0	1.4
MIN	1.1	4.8	190	181	145	232	117	37	12	2.0	0.96	0.76
AC-FT	88	10100	57390	69280	27450	19780	12510	4170	1300	332	87	58

e Estimated.

11472900 BLACK BUTTE RIVER NEAR COVELO CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.06	172.4	646.6	975.7	704.9	595.5	484.8	270.5	71.72	18.73	6.724	4.739
MAX	231	1183	3542	2876	1434	1628	1273	704	207	39.4	12.7	10.9
(WY)	1963	1974	1965	1970	1968	1975	1963	1967	1967	1975	1975	1972
MIN	1.43	4.69	10.0	91.6	250	160	167	67.8	21.8	5.40	1.42	0.98
(WY)	2002	1960	1960	1960	1964	1964	1970	2002	2002	2002	2002	2002

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1959 - 2002

ANNUAL TOTAL	102111.44	
ANNUAL MEAN	279.8	330.1
HIGHEST ANNUAL MEAN		624 1965
LOWEST ANNUAL MEAN		124 1964
HIGHEST DAILY MEAN	6650 Jan 2	25000 Dec 22 1964
LOWEST DAILY MEAN	0.76 Sep 27	0.76 Sep 27 2002
ANNUAL SEVEN-DAY MINIMUM	0.84 Sep 23	0.84 Sep 23 2002
MAXIMUM PEAK FLOW	8230 Jan 2	29000 Dec 22 1964
MAXIMUM PEAK STAGE	16.10 Jan 2	26.4 Dec 22 1964
ANNUAL RUNOFF (AC-FT)	202500	239200
10 PERCENT EXCEEDS	711	760
50 PERCENT EXCEEDS	67	76
90 PERCENT EXCEEDS	1.1	4.3

11472900 BLACK BUTTE RIVER NEAR COVELO, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—November 1964 to September 1966, November 2001 to September 2002.

SPECIFIC CONDUCTANCE: October 1966 to September 1968.

WATER TEMPERATURE: May 1964 to September 1975, November 2001 to September 2002.

SEDIMENT DATA: Water year 1966 (partial-record station), December 1966 to September 1973.

TURBIDITY: Water year 1966–68 (partial-record station).

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1966 to September 1968.

WATER TEMPERATURE: May 1964 to September 1975, November 2001 to September 2002.

SEDIMENT DATA: Water year 1966 (partial-record station), December 1966 to September 1973.

REMARKS.—Records excellent. Interruptions in record were due to malfunction of sensing and (or) recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: Maximum recorded, 34.5°C, July 26, 1973; minimum recorded, 0.0°C, on many days in 1965–69, 1971, 1973, 1975.

EXTREMES FOR CURRENT YEAR.—

WATER TEMPERATURE: Maximum recorded, 27.0°C, several days in June and July; minimum recorded 0.5°C, Jan. 29, 30.

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- ATION, (FEET) (81903)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
DEC 2001				
13...	1150	.67	5.5	20.0
13...	1155	.90	5.5	40.0
13...	1200	1.48	5.5	60.0
13...	1205	1.15	5.5	80.0
13...	1210	.97	5.5	100
APR 2002				
04...	1135	.82	11.5	102
04...	1140	1.08	11.5	92.0
04...	1145	1.60	11.5	72.0
04...	1150	1.76	11.5	52.0
04...	1155	1.38	11.5	32.0
04...	1200	1.27	11.5	12.0

* Instantaneous discharge at the time of the cross-sectional measurements: Dec. 13, 166 ft³/s, Apr. 4, 304 ft³/s.

11472900 BLACK BUTTE RIVER NEAR COVELO, CA—Continued

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	7.5	6.0	8.5	7.5	5.0	3.0	8.0	5.0
2	---	---	---	---	7.0	6.0	8.5	7.0	4.5	2.5	8.0	4.5
3	---	---	---	---	6.5	5.5	7.0	6.0	5.0	2.5	8.5	4.5
4	---	---	---	---	6.0	4.5	7.0	5.5	5.0	2.0	8.5	5.0
5	---	---	---	---	6.0	5.0	8.0	6.5	5.0	2.5	6.5	5.0
6	---	---	---	---	7.5	6.0	8.5	8.0	5.5	3.0	8.0	6.5
7	---	---	---	---	7.0	5.0	8.5	8.0	6.5	5.0	8.0	5.0
8	---	---	---	---	6.5	5.5	9.0	8.5	5.5	4.0	6.0	3.0
9	---	---	---	---	6.0	5.0	8.0	6.0	5.5	3.0	5.5	3.5
10	---	---	---	---	5.0	4.0	7.0	5.5	6.0	3.5	6.5	5.0
11	---	---	---	---	5.0	3.5	7.5	6.0	6.5	4.0	9.0	5.5
12	---	---	---	---	6.0	4.5	7.5	6.5	7.5	4.5	9.0	6.5
13	---	---	---	---	6.5	5.0	6.0	4.5	8.0	6.0	7.0	5.0
14	---	---	---	---	6.5	4.5	5.0	4.0	8.5	5.5	7.5	3.5
15	---	---	---	---	6.0	4.0	4.0	3.0	8.5	5.5	6.5	4.0
16	---	---	---	---	7.0	6.0	4.5	3.0	8.0	5.5	6.0	4.0
17	---	---	---	---	7.0	6.5	4.5	3.5	8.0	5.5	6.5	4.0
18	---	---	---	---	7.0	5.5	4.0	2.5	6.5	5.0	7.0	2.5
19	---	---	---	---	8.0	7.0	4.0	2.5	7.0	6.0	8.5	3.5
20	---	---	---	---	7.0	6.0	4.0	3.0	8.5	6.5	10.0	5.5
21	---	---	---	---	6.0	5.0	5.0	4.0	9.0	6.5	10.0	6.0
22	---	---	---	---	6.0	6.0	4.0	3.0	9.0	6.5	8.5	6.5
23	---	---	---	---	6.5	5.5	3.5	2.0	8.5	7.0	8.0	6.5
24	---	---	---	---	6.0	4.5	4.0	2.0	8.5	6.0	10.0	6.0
25	---	---	---	---	7.0	5.5	5.0	3.0	8.5	6.0	8.0	5.0
26	---	---	---	---	7.5	6.0	5.5	4.5	9.0	5.5	10.0	5.0
27	---	---	---	---	7.0	6.5	4.0	2.5	9.5	6.0	11.0	5.5
28	---	---	---	---	7.0	6.0	3.5	2.0	9.0	5.5	12.5	6.5
29	---	---	7.5	6.0	8.0	7.0	2.5	0.5	---	---	12.5	7.5
30	---	---	6.5	5.5	8.5	7.0	2.5	0.5	---	---	13.0	7.5
31	---	---	---	---	8.0	7.0	3.5	1.0	---	---	13.0	8.0
MONTH	---	---	---	---	8.5	3.5	9.0	0.5	9.5	2.0	13.0	2.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	8.5	15.0	8.5	23.5	18.0	26.5	21.0	---	---	25.0	20.0
2	14.5	8.5	16.0	9.5	23.0	16.5	26.5	22.0	---	---	25.0	20.0
3	14.5	9.5	16.5	10.5	23.5	16.5	26.0	21.5	---	---	25.0	20.0
4	14.5	9.5	17.5	10.5	24.5	17.0	26.0	20.0	---	---	24.5	20.0
5	12.0	10.5	17.5	11.5	26.0	18.5	26.0	20.0	---	---	23.5	18.5
6	14.0	9.5	17.5	11.0	25.5	18.5	26.0	20.0	---	---	23.0	17.5
7	14.0	8.5	17.0	11.5	24.0	17.5	25.5	20.5	---	---	23.0	16.5
8	14.5	9.5	16.5	10.0	22.5	16.5	26.0	18.0	---	---	23.0	16.0
9	12.5	10.5	16.5	10.5	22.5	15.0	26.5	20.0	---	---	23.5	16.0
10	14.5	10.0	16.5	10.5	23.5	15.5	27.0	21.0	---	---	24.0	16.5
11	13.5	10.5	17.5	10.5	24.5	17.0	27.0	22.5	---	---	24.0	17.0
12	14.5	9.0	18.5	11.5	25.0	17.5	26.0	24.0	---	---	23.5	17.0
13	16.5	10.0	18.5	13.0	25.5	18.0	27.0	22.5	---	---	23.5	17.5
14	16.5	13.0	19.0	12.5	25.5	18.5	27.0	23.0	---	---	22.5	17.0
15	13.0	8.5	19.0	13.0	26.0	19.0	26.5	22.0	---	---	20.5	18.0
16	10.0	7.5	19.5	13.0	25.5	18.0	26.5	21.0	---	---	22.5	16.5
17	8.5	6.5	20.5	14.0	25.5	18.5	26.5	20.5	---	---	23.0	17.0
18	11.0	6.0	19.0	14.5	27.0	20.5	26.5	20.5	---	---	23.0	17.0
19	12.0	5.5	16.0	13.5	26.5	19.5	26.5	21.0	---	---	23.5	17.0
20	13.0	7.0	14.0	11.5	26.5	19.5	27.0	21.0	---	---	23.5	17.0
21	14.5	8.5	13.5	10.0	25.0	19.0	26.5	22.0	---	---	23.5	17.0
22	15.0	9.0	16.5	9.5	25.5	20.0	26.5	23.0	---	---	23.5	17.5
23	17.0	10.0	18.5	11.0	25.0	19.0	26.5	20.5	24.5	18.5	23.5	17.0
24	16.5	10.5	20.0	13.0	25.5	20.0	---	---	24.5	19.0	23.5	17.0
25	16.5	11.5	20.5	14.5	26.0	20.5	---	---	24.5	19.0	23.0	17.0
26	15.5	11.0	21.5	15.0	26.5	22.0	---	---	25.0	19.0	23.0	16.5
27	13.5	10.5	18.5	16.0	26.0	22.0	---	---	25.0	19.5	22.5	18.0
28	12.0	8.5	21.5	15.0	26.0	22.0	---	---	25.5	20.5	22.0	17.0
29	10.0	8.5	24.0	16.5	26.0	21.0	---	---	25.0	20.5	21.5	17.5
30	10.5	8.5	24.5	18.5	26.0	21.0	---	---	25.5	21.0	20.5	15.5
31	---	---	25.5	18.5	---	---	---	---	25.0	20.0	---	---
MONTH	17.0	5.5	25.5	8.5	27.0	15.0	---	---	---	---	25.0	15.5

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, 1.9 mi upstream from mouth, and 1.7 mi southeast of Dos Rios.

DRAINAGE AREA.—745 mi².

PERIOD OF RECORD.—October 1965 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 901.58 ft above sea level.

REMARKS.—Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 135,000 ft³/s, Jan. 1, 1997, gage height, 31.46 ft, from rating curve extended above 52,000 ft³/s, maximum gage height, 32.86 ft, Jan. 4, 1966; minimum daily, 0.39 ft³/s, Sept. 1, 1994.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 25,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	0615	24,800	16.28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	31	6220	10400	970	1900	1580	631	253	41	9.8	4.4
2	5.7	26	5130	21400	951	1730	1610	593	235	39	9.3	4.3
3	5.6	21	e4560	10300	868	1540	1770	568	213	36	9.0	4.3
4	5.4	20	e2570	5980	819	1370	1810	544	203	34	9.0	4.0
5	5.2	19	4730	5000	796	1300	1820	532	186	32	9.0	3.8
6	5.1	18	10800	15200	770	1900	1690	526	167	30	8.7	3.8
7	5.2	17	6280	9700	1110	2760	1560	517	159	29	8.6	3.8
8	5.2	16	4510	7030	3240	2150	1460	493	149	28	8.8	3.7
9	5.2	15	3770	5880	1980	1790	1430	459	140	27	8.9	3.7
10	5.4	15	3200	4480	1660	2410	1630	437	135	26	8.7	3.8
11	5.6	18	2780	3660	1500	2040	1510	416	128	24	8.3	3.9
12	5.7	52	2460	3190	1430	1960	1500	392	114	23	7.8	4.3
13	5.8	352	2520	2800	1450	1860	1360	380	109	22	7.2	4.4
14	6.0	316	7290	2490	1420	1700	1570	375	100	20	6.7	4.3
15	6.1	309	4150	2200	1400	1580	1590	377	95	20	6.4	4.1
16	6.2	200	3650	1960	1350	1440	1250	376	91	19	6.1	4.3
17	6.1	305	9310	1780	1340	1350	1140	369	87	18	5.8	4.2
18	6.1	255	6160	1600	1210	1190	1030	365	85	16	5.7	4.1
19	5.8	160	7200	1440	2360	1120	905	346	82	16	5.4	4.0
20	5.9	198	7470	1310	8530	1060	837	392	88	15	5.0	3.9
21	6.0	808	5470	1460	5640	1060	791	466	77	15	4.9	4.2
22	6.1	5350	5740	1520	4020	1180	737	399	72	14	5.0	4.5
23	6.2	1890	5800	1200	3780	2050	705	366	68	14	4.9	4.4
24	6.2	4810	4540	1070	3280	2070	696	330	65	13	4.9	4.3
25	6.2	1850	3980	1030	2840	1790	703	300	63	12	4.9	4.1
26	6.2	841	3790	1640	2470	1570	730	282	58	12	5.0	3.9
27	6.4	576	3950	1520	2290	1450	705	281	53	12	4.9	3.8
28	6.8	1670	4660	1210	2110	1380	661	281	49	11	4.8	3.8
29	7.5	4270	5320	1120	---	1490	617	279	46	11	4.7	3.9
30	12	1650	5680	987	---	1520	622	269	44	10	4.6	3.9
31	13	---	10700	958	---	1550	---	259	---	10	4.6	---
TOTAL	195.8	26078	164390	131515	61584	51260	36019	12600	3414	649	207.4	121.9
MEAN	6.316	869.3	5303	4242	2199	1654	1201	406.5	113.8	20.94	6.690	4.063
MAX	13	5350	10800	21400	8530	2760	1820	631	253	41	9.8	4.5
MIN	5.1	15	2460	958	770	1060	617	259	44	10	4.6	3.7
AC-FT	388	51730	326100	260900	122200	101700	71440	24990	6770	1290	411	242

e Estimated.

11473900 MIDDLE FORK EEL RIVER NEAR DOS RIOS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	92.14	1110	2446	4278	3551	3393	2028	1219	406.1	81.89	24.76	22.19
MAX	475	6823	7477	13540	12870	8622	6632	3852	1868	316	63.9	172
(WY)	1980	1974	1997	1970	1986	1983	1982	1983	1998	1998	1998	1986
MIN	5.11	26.9	30.5	94.3	172	384	333	241	75.6	13.2	4.33	1.04
(WY)	1995	1996	1977	1977	1977	1977	1977	1977	2001	1977	1994	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	362733.2		488034.1			
ANNUAL MEAN	993.8		1337		1546	
HIGHEST ANNUAL MEAN					3351	
LOWEST ANNUAL MEAN					121	
HIGHEST DAILY MEAN	10800	Dec 6	21400	Jan 2	81200	Jan 1 1997
LOWEST DAILY MEAN	3.5	Sep 8	3.7	Sep 8	0.39	Sep 1 1994
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 4	3.8	Sep 5	0.42	Aug 28 1994
MAXIMUM PEAK FLOW			24800	Jan 2	135000	Jan 1 1997
MAXIMUM PEAK STAGE			16.28	Jan 2	32.86	Jan 4 1966
ANNUAL RUNOFF (AC-FT)	719500		968000		1120000	
10 PERCENT EXCEEDS	3110		4070		3830	
50 PERCENT EXCEEDS	198		365		342	
90 PERCENT EXCEEDS	5.1		4.9		15	

11474500 NORTH FORK EEL RIVER NEAR MINA, CA

LOCATION.—Lat 39°56'15", long 123°20'45", in SW 1/4 sec.8, T.24 N., R.13 W., Mendocino County, Hydrologic Unit 18010105, on right bank, 0.2 mi upstream from county road bridge, 1.4 mi upstream from Asbill Creek, and 2 mi south of Mina.

DRAINAGE AREA.—248 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—August 1953 to September 1976, October 2001 to September 2002.

GAGE.—Water-stage recorder. Datum of gage is 1,016.8 ft above mean sea level. Aug. 27, 1953, to Jan. 15, 1954, water-stage recorder and Jan. 16 to June 22, 1954, nonrecording gage, at site 0.4 mi downstream at different datums. June 23, 1954, to Dec. 21, 1964, water-stage recorder and Feb. 7 to July 8, 1965, non recording gage at site 0.2 mi downstream at different datums. July 9, 1965, to Aug. 20, 1967, water-stage recorder at site 0.6 mi downstream at datum 15.1 ft lower.

REMARKS.—Records good except for estimated daily discharges, which are fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 133,000 ft³/s, Dec. 22, 1964, gage height, 34.5 ft, from floodmarks, present site, different datum, from rating curve extended above 12,000 ft³/s, on basis of slope-area measurement of maximum flow; minimum, 0.10 ft³/s, Aug. 30, 31, 1959, and several days in September 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 9,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1245	10,500	15.01	Jan. 2	0200	12,000	15.69
Dec. 5	2215	11,500	15.47	Jan. 6	0845	9,240	14.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.17	e4.6	5410	4400	467	598	230	113	34	6.6	0.92	0.23
2	e0.17	e4.0	4090	9610	448	509	208	94	33	6.3	0.85	0.21
3	e0.17	e3.5	3770	4450	384	437	201	83	32	6.0	0.79	0.20
4	e0.16	e3.3	1880	2600	344	385	198	77	31	5.6	0.73	0.18
5	e0.16	e3.2	5460	2570	314	360	186	70	29	5.4	0.72	0.17
6	e0.16	e3.0	6320	7480	285	512	178	67	28	5.2	0.68	0.17
7	e0.16	e2.9	2670	4110	610	1310	165	65	26	5.0	0.66	0.17
8	e0.15	e2.7	1600	3050	2150	945	153	62	25	4.7	0.65	0.16
9	e0.15	e2.5	1200	2240	1200	703	152	61	24	4.5	0.60	0.15
10	e0.16	e2.3	864	1710	893	1120	174	59	23	4.2	0.57	0.15
11	e0.16	e2.3	626	1340	714	981	152	58	23	3.8	0.59	0.13
12	e0.16	e25	469	1080	611	840	146	56	22	3.5	0.57	0.13
13	e0.17	e120	660	892	535	736	130	53	20	3.4	0.51	0.14
14	e0.17	e108	4330	742	471	647	123	51	20	3.2	0.46	0.12
15	e0.16	e97	1700	625	413	561	120	50	19	2.9	0.43	0.11
16	e0.15	e90	1400	526	370	513	116	48	18	2.6	0.42	0.13
17	e0.15	e102	4400	456	353	474	154	46	18	e2.2	0.39	0.13
18	e0.16	e72	2440	395	306	421	152	44	17	e2.1	0.38	0.11
19	e0.16	e50	3800	352	1450	373	135	44	17	e2.0	0.37	0.11
20	e0.15	146	3610	316	5760	343	123	63	17	e1.9	0.36	0.10
21	e0.16	1580	2240	703	2890	313	115	111	14	e1.8	0.36	0.10
22	e0.16	2300	2830	831	1810	327	107	78	11	e1.7	0.34	0.10
23	e0.16	605	2790	558	1860	712	99	64	11	e1.6	0.32	0.10
24	e0.16	3730	1920	462	1650	889	93	56	10	e1.5	0.33	0.10
25	e0.17	1680	1480	421	1270	630	88	50	9.6	e1.4	0.32	0.10
26	e0.17	789	1240	1220	1030	512	85	45	9.1	1.3	0.28	0.10
27	e0.17	407	1400	1120	855	439	84	43	8.4	1.2	0.26	0.11
28	e0.19	1730	1570	829	713	384	82	44	7.8	1.2	0.26	0.10
29	e0.50	4040	1550	674	---	341	81	43	7.3	1.1	0.23	0.10
30	e2.9	1480	1820	557	---	298	93	40	6.9	1.0	0.23	0.10
31	e3.1	---	3470	484	---	256	---	37	---	0.94	0.23	---
TOTAL	11.04	19185.3	79009	56803	30156	17869	4123	1875	571.1	95.84	14.81	4.01
MEAN	0.356	639.5	2549	1832	1077	576.4	137.4	60.48	19.04	3.092	0.478	0.134
MAX	3.1	4040	6320	9610	5760	1310	230	113	34	6.6	0.92	0.23
MIN	0.15	2.3	469	316	285	256	81	37	6.9	0.94	0.23	0.10
AC-FT	22	38050	156700	112700	59810	35440	8180	3720	1130	190	29	8.0

e Estimated.

11474500 NORTH FORK EEL RIVER NEAR MINA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	68.72	465.5	1466	1883	1619	1206	631.9	218.4	44.88	10.98	4.282	4.255
MAX	746	2637	7834	3948	5335	3493	2466	905	104	28.3	10.4	24.5
(WY)	1963	1974	1965	1965	1958	1975	1963	1967	1958	1958	1976	1957
MIN	0.36	4.52	30.1	224	242	160	102	55.9	18.2	3.09	0.48	0.13
(WY)	2002	1960	1960	1976	1971	1965	1970	1959	1959	2002	2002	2002

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1954 - 2002

ANNUAL TOTAL	209717.10		
ANNUAL MEAN	574.6	631.6	
HIGHEST ANNUAL MEAN		1181	1965
LOWEST ANNUAL MEAN		281	1976
HIGHEST DAILY MEAN	9610	Jan 2	90000
LOWEST DAILY MEAN	0.10	Sep 20	0.10
ANNUAL SEVEN-DAY MINIMUM	0.10	Sep 20	0.10
MAXIMUM PEAK FLOW	12000	Jan 2	133000
MAXIMUM PEAK STAGE	15.69	Jan 2	34.5
ANNUAL RUNOFF (AC-FT)	416000		457600
10 PERCENT EXCEEDS	1720		1590
50 PERCENT EXCEEDS	58		83
90 PERCENT EXCEEDS	0.16		2.8

11474500 NORTH FORK EEL RIVER NEAR MINA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1966–67, 1973 to October 1976, January 2002 to September 2002.

WATER TEMPERATURE: Water years 1973–75, January 2002 to September 2002.

SEDIMENT DATA: Water years 1966–67, 1973 to October 1976.

TURBIDITY: Water year 1967.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: October 1972 to September 1975, January 2002 to September 2002.

SEDIMENT DATA: October 1972 to September 1975.

REVISED RECORDS.—WDR CA-74-P2: 1973.

INSTRUMENTATION.—Temperature recorder since January 2002 provides 15 minute data.

REMARKS.—Record excellent from Jan. 30 to June 21, and good from July 25 to Sept. 30. Interruptions in record were due to malfunction of the sensing and (or) recording instruments.

EXTREMES FOR PERIOD OF RECORD.—

WATER TEMPERATURES: Maximum recorded, 27.0°C, July 10, 13–15, Aug. 13, 2002; minimum recorded, 2.0°C, Jan. 31, 2002.

SEDIMENT CONCENTRATIONS: Maximum daily, 5,050 mg/L, Jan. 16, 1974; minimum daily, 1 mg/L, many days 1972–75.

SEDIMENT DISCHARGE: Maximum daily, 426,000 tons, Jan. 16, 1974; minimum daily, 0 tons, many days 1973–75.

EXTREMES FOR CURRENT YEAR.—

WATER TEMPERATURES: Maximum recorded, 27.0°C, July 10, 13–15, Aug. 13; minimum recorded, 2.0°C, Jan. 31.

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- ATION, (FEET) (81903)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
APR 2002				
03...*	1230	1.70	14.5	60.0
03...*	1235	2.38	14.5	50.0
03...*	1240	2.00	14.5	40.0
03...*	1245	2.03	14.5	30.0
03...*	1250	1.27	14.5	20.0
03...*	1255	1.04	14.5	10.0

* Instantaneous discharge at the time of the cross-sectional measurement: Apr. 3, 190 ft³/s.

11474500 NORTH FORK EEL RIVER NEAR MINA, CA—Continued

WATER TEMPERATURE (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	---	---	5.0	3.5	8.5	6.0
2	---	---	---	---	---	---	---	---	5.0	3.5	8.5	5.5
3	---	---	---	---	---	---	---	---	5.5	3.5	8.5	5.5
4	---	---	---	---	---	---	---	---	5.0	3.5	9.0	6.0
5	---	---	---	---	---	---	---	---	4.5	3.0	8.0	6.5
6	---	---	---	---	---	---	---	---	5.0	3.5	8.0	7.0
7	---	---	---	---	---	---	---	---	6.5	5.0	7.5	6.0
8	---	---	---	---	---	---	---	---	6.0	4.5	6.5	4.5
9	---	---	---	---	---	---	---	---	5.5	4.0	5.5	4.5
10	---	---	---	---	---	---	---	---	6.0	4.0	6.5	5.5
11	---	---	---	---	---	---	---	---	6.5	4.5	8.5	6.5
12	---	---	---	---	---	---	---	---	7.5	5.5	10.0	8.0
13	---	---	---	---	---	---	---	---	7.5	6.5	8.0	6.5
14	---	---	---	---	---	---	---	---	8.5	6.0	7.5	5.0
15	---	---	---	---	---	---	---	---	7.5	6.0	7.0	4.5
16	---	---	---	---	---	---	---	---	8.0	6.5	6.5	4.5
17	---	---	---	---	---	---	---	---	8.5	6.5	6.5	5.0
18	---	---	---	---	---	---	---	---	7.5	6.0	7.0	3.5
19	---	---	---	---	---	---	---	---	8.0	6.5	8.5	4.5
20	---	---	---	---	---	---	---	---	9.5	8.0	10.0	6.5
21	---	---	---	---	---	---	---	---	10.0	8.5	10.5	7.5
22	---	---	---	---	---	---	---	---	10.0	8.5	10.0	8.5
23	---	---	---	---	---	---	---	---	9.5	8.5	9.0	7.5
24	---	---	---	---	---	---	---	---	9.0	8.0	10.0	7.0
25	---	---	---	---	---	---	---	---	9.0	6.5	8.5	7.0
26	---	---	---	---	---	---	---	---	9.5	7.0	10.5	7.0
27	---	---	---	---	---	---	---	---	10.0	7.0	11.5	8.0
28	---	---	---	---	---	---	---	---	9.5	7.0	12.5	9.0
29	---	---	---	---	---	---	---	---	---	---	13.5	9.5
30	---	---	---	---	---	---	---	---	---	---	14.0	10.0
31	---	---	---	---	---	---	3.5	2.0	---	---	14.5	10.5
MONTH	---	---	---	---	---	---	---	---	10.0	3.0	14.5	3.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.0	11.0	16.0	11.0	24.0	20.0	26.0	22.5	26.5	23.5	26.0	20.0
2	16.0	12.0	17.5	13.5	24.0	19.5	26.0	23.5	26.0	23.5	26.0	20.0
3	---	---	18.5	14.5	23.5	19.5	26.0	22.5	26.0	22.0	26.0	20.0
4	16.5	---	19.0	14.5	24.5	19.0	25.5	21.0	24.0	20.0	26.0	19.5
5	15.0	13.0	19.0	15.0	25.5	20.5	25.5	20.0	25.5	18.5	25.0	17.5
6	16.0	12.5	19.0	15.5	25.0	20.5	26.0	20.5	25.5	18.5	24.5	17.0
7	16.5	13.0	18.0	15.0	23.5	20.0	26.0	21.0	26.0	18.0	24.5	16.5
8	16.0	13.5	18.0	14.0	22.5	18.5	26.0	21.0	26.0	18.5	25.0	16.0
9	15.0	14.0	18.0	15.0	22.5	17.5	26.5	21.0	26.0	19.5	25.5	16.0
10	17.0	13.0	18.0	14.5	24.0	18.5	27.0	21.5	26.5	20.5	26.0	17.0
11	16.5	14.5	18.5	14.0	25.0	19.0	27.5	22.5	26.5	21.0	25.5	18.0
12	16.5	13.0	19.5	15.5	25.5	20.0	26.0	24.5	26.5	21.5	26.0	17.5
13	18.5	14.5	20.0	16.5	26.0	20.5	27.0	23.0	27.0	22.0	25.5	17.5
14	19.5	17.0	20.5	16.5	25.5	21.0	27.0	22.0	26.5	21.5	24.0	17.5
15	17.0	14.0	20.0	17.0	25.5	20.5	27.0	20.0	26.5	22.5	22.5	18.5
16	15.0	11.5	20.0	16.5	25.5	20.5	26.5	20.0	26.0	21.5	25.0	18.0
17	12.0	10.0	21.0	17.0	25.5	20.0	---	---	26.0	20.0	25.0	19.0
18	13.0	9.5	20.0	18.0	25.5	22.0	---	---	26.0	20.0	26.0	18.5
19	14.0	10.0	18.5	17.0	25.5	20.5	---	---	25.5	19.5	26.0	17.5
20	16.0	12.0	17.0	14.5	25.5	20.5	---	---	25.5	18.5	25.5	17.5
21	16.5	12.5	16.5	13.0	---	20.0	---	---	25.5	19.0	26.0	18.0
22	17.5	13.0	18.0	13.5	25.5	20.5	---	---	26.0	19.0	26.0	18.0
23	19.0	14.0	18.5	14.0	26.0	21.0	---	---	26.0	19.0	26.0	18.0
24	19.0	15.0	20.5	16.0	26.0	21.5	---	---	26.0	19.0	25.5	18.0
25	19.0	15.0	21.5	18.0	26.0	22.0	---	---	26.0	19.5	25.5	18.0
26	17.5	15.0	22.5	18.5	26.0	23.0	26.5	23.0	26.0	19.0	25.0	17.0
27	16.5	14.5	20.5	19.0	26.0	23.0	26.5	22.5	26.0	19.0	24.5	17.5
28	15.0	13.0	22.5	18.5	26.0	23.5	26.5	23.0	26.0	19.5	24.0	16.5
29	13.5	12.0	24.5	20.0	26.0	23.5	26.5	23.0	26.0	20.5	23.5	16.5
30	12.0	11.5	25.5	22.0	26.0	23.5	26.5	23.5	26.0	20.5	22.5	16.0
31	---	---	25.0	21.0	---	---	26.5	24.0	26.0	20.0	---	---
MONTH	---	---	25.5	11.0	---	17.5	---	---	27.0	18.0	26.0	16.0

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 mi².

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 sea level. 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.—Records good except for estimated daily discharges, which are fair. Flow slightly regulated by Lake Pillsbury (station 11470000) 99 mi upstream and by diversion through Potter Valley Powerhouse Intake (station 11471000). See schematic diagram of **Eel River Basin**.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 561,000 ft³/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 ft³/s, on basis of slope-area measurement at gage height 72.5 ft; minimum daily, 1.2 ft³/s, Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 41,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 6	0545	42,700	23.39	Jan. 6	1915	51,800	26.24
Jan. 2	1900	72,800	29.75				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	78	24200	29000	2600	4360	2690	1080	492	126	23	7.3
2	14	82	28800	60600	2500	3860	2660	1070	468	118	22	7.6
3	16	94	28900	44700	2350	3430	2660	982	452	113	20	8.0
4	16	99	18000	24300	2210	3090	2710	924	430	108	19	7.8
5	16	89	22000	19000	2110	2900	2670	879	405	101	18	7.4
6	16	83	38800	40000	2040	3240	2540	850	383	94	17	7.4
7	15	82	25500	36400	2900	6780	2310	831	365	85	16	7.4
8	15	80	15400	24400	8730	6910	2160	818	350	81	15	7.3
9	14	80	10200	19800	5410	5070	e2160	777	334	76	14	7.2
10	13	79	7070	15000	4020	6940	e2410	742	323	69	14	7.1
11	14	79	5110	11500	3440	7000	2240	723	317	64	13	6.8
12	21	127	4050	9100	3100	5700	2120	699	309	61	13	7.2
13	19	393	4100	7480	2890	5150	1990	666	298	57	15	7.2
14	18	896	24100	6280	2760	4760	1900	648	285	54	16	7.3
15	22	844	14400	5360	2590	4130	2130	641	273	50	14	7.3
16	23	783	9430	4650	2480	3760	1930	635	263	45	13	7.3
17	23	752	24500	4100	2430	3480	1830	619	220	41	12	7.4
18	34	853	22000	3670	2370	3210	1760	611	209	40	12	7.4
19	36	647	22800	3320	3360	2920	1550	607	201	38	11	7.4
20	37	645	25900	3050	23800	2720	1420	642	197	37	10	7.4
21	39	1510	20400	3290	18800	2580	1340	842	192	36	9.6	7.9
22	43	18900	18700	4270	12900	2590	1270	898	187	35	8.9	7.9
23	43	7060	22000	3320	11100	3970	1190	737	181	34	8.9	7.8
24	38	17000	15800	2870	10300	5510	1140	651	176	32	8.8	7.6
25	37	17700	11500	2650	8150	4330	1120	606	170	31	8.2	7.6
26	39	6240	9080	3760	6620	3630	1110	569	165	29	8.1	7.9
27	38	3310	8100	4830	5600	3220	1140	547	159	28	8.1	8.0
28	39	3930	11000	3700	4920	2980	1100	539	152	26	8.2	8.0
29	42	24000	11500	3350	---	2850	1040	535	144	25	8.0	8.0
30	65	11900	12700	3030	---	2820	1050	522	136	23	7.8	8.1
31	67	---	26200	2820	---	2730	---	508	---	23	7.3	---
TOTAL	884	118415	542240	409600	162480	126620	55340	22398	8236	1780	398.9	226.0
MEAN	28.52	3947	17490	13210	5803	4085	1845	722.5	274.5	57.42	12.87	7.533
MAX	67	24000	38800	60600	23800	7000	2710	1080	492	126	23	8.1
MIN	12	78	4050	2650	2040	2580	1040	508	136	23	7.3	6.8
AC-FT	1750	234900	1076000	812400	322300	251200	109800	44430	16340	3530	791	448

e Estimated.

11475000 EEL RIVER AT FORT SEWARD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	355.9	2865	8676	13140	12700	9652	5083	2249	700.8	145.6	52.50	52.50
MAX	4938	18740	56050	43180	47700	30660	23040	7449	4194	510	199	359
(WY)	1963	1974	1965	1995	1986	1995	1982	1983	1993	1998	1983	1986
MIN	20.5	49.4	45.5	222	434	1071	476	356	131	18.4	3.27	7.53
(WY)	1965	1960	1977	1991	1977	1988	1977	1977	1977	1977	1977	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1955 - 2002	
ANNUAL TOTAL	1144149.4		1448617.9			
ANNUAL MEAN	3135		3969		4606	
HIGHEST ANNUAL MEAN					10350	
LOWEST ANNUAL MEAN					260	
HIGHEST DAILY MEAN	38800	Dec 6	60600	Jan 2	434000	Dec 22 1964
LOWEST DAILY MEAN	7.6	Aug 24	6.8	Sep 11	1.2	Sep 13 1977
ANNUAL SEVEN-DAY MINIMUM	8.4	Aug 19	7.2	Sep 8	1.4	Sep 7 1977
MAXIMUM PEAK FLOW			72800	Jan 2	561000	Dec 22 1964
MAXIMUM PEAK STAGE			29.75	Jan 2	82.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	2269000		2873000		3337000	
10 PERCENT EXCEEDS	10500		12800		11700	
50 PERCENT EXCEEDS	502		651		724	
90 PERCENT EXCEEDS	12		8.2		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.

DRAINAGE AREA.—6.50 mi².

PERIOD OF RECORD.—October 1967 to current year.

CHEMICAL DATA: Water years 1968 to March 1996.

SEDIMENT DATA: Water years 1969 to March 1996.

WATER TEMPERATURE: Water years 1968–79.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 1,391.08 ft above sea level.

REMARKS.—Records good. No regulation; small diversion upstream from station for domestic use. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,480 ft³/s, Dec. 30, 1996, gage height, 9.88 ft, from rating curve extended above 700 ft³/s, on basis of slope-area measurements at gage heights 9.40 and 11.41 ft; minimum daily, 0.27 ft³/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 ft³/s, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 400 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 5	1945	520	6.30	Jan. 2	0930	402	5.97

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.57	1.4	191	136	20	34	17	6.7	3.5	2.0	1.1	0.67
2	0.53	1.2	160	262	19	30	16	6.5	3.4	1.9	1.1	0.61
3	0.52	1.1	157	205	18	26	15	6.3	3.4	1.8	1.1	0.56
4	0.49	1.00	108	126	16	24	14	6.1	3.3	1.8	1.1	0.56
5	0.53	0.95	255	101	16	23	13	5.9	3.2	1.8	1.1	0.59
6	0.58	0.92	281	219	15	25	13	5.7	3.1	1.8	1.1	0.62
7	0.58	0.93	164	191	31	32	12	5.6	3.1	1.8	1.1	0.65
8	0.58	0.94	98	137	44	29	11	5.5	3.0	1.7	1.0	0.64
9	0.55	0.92	74	100	37	29	12	5.3	3.0	1.7	0.96	0.63
10	0.55	0.96	58	81	33	35	12	5.2	2.9	1.6	0.94	0.61
11	0.56	1.5	47	68	29	34	11	5.1	2.9	1.5	0.89	0.58
12	0.54	9.5	40	57	26	32	10	5.0	2.8	1.5	0.86	0.55
13	0.55	8.8	48	48	24	31	9.6	4.9	2.7	1.4	0.81	0.54
14	0.53	8.4	94	41	22	28	9.3	4.8	2.7	1.4	0.79	0.50
15	0.55	5.6	75	35	20	27	9.1	4.8	2.7	1.4	0.78	0.50
16	0.55	6.5	74	31	19	25	9.7	4.7	2.6	1.3	0.76	0.52
17	0.58	6.3	183	28	17	24	9.6	4.5	2.5	1.3	0.74	0.53
18	0.57	4.3	132	25	16	22	9.1	4.5	2.6	1.3	0.74	0.55
19	0.56	4.9	119	23	46	21	9.0	4.7	2.5	1.3	0.74	0.52
20	0.55	9.1	121	21	144	19	8.6	6.7	2.4	1.2	0.74	0.48
21	0.54	74	102	27	107	18	8.3	6.3	2.3	1.2	0.77	0.48
22	0.56	83	100	23	80	21	7.9	5.0	2.3	1.2	0.80	0.46
23	0.65	38	100	21	80	29	7.6	4.8	2.3	1.2	0.79	0.43
24	0.65	109	90	20	76	31	7.4	4.5	2.3	1.2	0.78	0.45
25	0.66	78	77	20	67	30	7.3	4.3	2.3	1.2	0.76	0.40
26	0.65	49	65	26	57	28	7.2	4.0	2.2	1.2	0.75	0.37
27	0.66	36	64	25	48	26	7.3	3.9	2.2	1.1	0.74	0.37
28	0.71	50	66	24	41	24	7.1	3.9	2.1	1.1	0.73	0.41
29	0.86	94	76	23	---	22	7.0	3.9	2.1	1.1	0.72	0.45
30	2.1	73	77	22	---	20	7.0	3.7	2.0	1.1	0.71	0.45
31	1.8	---	94	21	---	19	---	3.6	---	1.1	0.69	---
TOTAL	20.86	759.22	3390	2187	1168	818	304.1	156.4	80.4	44.2	26.69	15.68
MEAN	0.673	25.31	109.4	70.55	41.71	26.39	10.14	5.045	2.680	1.426	0.861	0.523
MAX	2.1	109	281	262	144	35	17	6.7	3.5	2.0	1.1	0.67
MIN	0.49	0.92	40	20	15	18	7.0	3.6	2.0	1.1	0.69	0.37
AC-FT	41	1510	6720	4340	2320	1620	603	310	159	88	53	31

11475560 ELDER CREEK NEAR BRANSCOMB, CA—Continued
(Hydrologic-Benchmark Station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.115	19.00	49.01	71.93	62.47	53.74	24.77	11.23	5.659	2.331	1.298	1.067
MAX	8.72	132	192	210	173	147	91.9	33.4	31.6	5.84	2.49	2.36
(WY)	1980	1974	1997	1970	1986	1983	1982	1996	1993	1993	1990	1986
MIN	0.57	0.99	1.04	2.32	3.40	5.45	3.01	2.13	1.35	0.67	0.48	0.51
(WY)	1988	1996	1977	1977	1977	1988	1977	1977	1977	1977	1977	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	7370.18		8970.55			
ANNUAL MEAN	20.19		24.58		25.25	
HIGHEST ANNUAL MEAN					54.4 1974	
LOWEST ANNUAL MEAN					2.12 1977	
HIGHEST DAILY MEAN	281	Dec 6	281	Dec 6	1620	Jan 1 1997
LOWEST DAILY MEAN	0.49	Oct 4	0.37	Sep 26	0.27	Sep 10 1981
ANNUAL SEVEN-DAY MINIMUM	0.54	Sep 18	0.41	Sep 23	0.27	Sep 9 1981
MAXIMUM PEAK FLOW			520	Dec 5	2480	Dec 30 1996
MAXIMUM PEAK STAGE			6.30	Dec 5	9.88	Dec 30 1996
ANNUAL RUNOFF (AC-FT)	14620		17790		18290	
10 PERCENT EXCEEDS	74		77		67	
50 PERCENT EXCEEDS	3.5		5.0		5.3	
90 PERCENT EXCEEDS	0.62		0.56		0.91	

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 mi².

PERIOD OF RECORD.—October 1965 to June 1995, October 1997 to April 1999 (seasonal), October 1999 to current year. Stage only July 1995 to September 1997.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 691.32 ft above sea level. Prior to July 29, 1988, at datum 2.00 ft higher.

REMARKS.—Records good. No regulation or diversion upstream from station. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 72,700 ft³/s, Jan. 4, 1966, gage height, 27.4 ft, from floodmarks, present datum, from rating curve extended above 21,000 ft³/s, on basis of slope-area measurement at gage height 28.13 ft; minimum daily, 7.3 ft³/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 ft³/s, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 8,500 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1245	8,780	9.94	Jan. 6	1030	8,890	10.00
Dec. 5	2245	12,900	11.97	Feb. 20	0815	8,690	9.89
Jan. 2	1145	9,260	10.20				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	34	4680	3570	667	950	505	182	97	41	20	15
2	11	30	3370	7770	630	851	473	172	94	39	20	15
3	10	25	3640	4310	581	771	444	165	92	38	19	15
4	10	22	2040	2640	543	701	422	160	89	37	19	14
5	10	20	7180	2460	513	675	406	154	85	36	19	15
6	11	19	7600	7310	488	835	392	149	81	35	19	15
7	11	18	3210	4480	991	1430	369	147	78	35	18	16
8	11	18	2160	3100	1740	1120	349	143	75	35	18	16
9	11	17	1730	2400	1180	979	347	139	73	35	18	16
10	11	17	1380	1950	988	1300	375	136	72	34	18	16
11	11	22	1130	1640	861	1080	341	135	70	33	17	16
12	11	112	960	1390	778	989	315	132	67	31	17	15
13	10	304	1000	1200	710	979	296	128	64	31	17	15
14	11	274	3720	1050	647	1010	282	126	63	30	16	15
15	11	210	2050	924	597	907	272	124	63	30	16	15
16	10	179	1820	829	559	845	272	120	62	30	16	16
17	11	239	5040	753	563	793	331	116	61	28	16	16
18	11	143	2850	688	510	729	301	114	60	28	15	16
19	11	116	3140	637	2080	671	272	121	58	28	15	15
20	11	211	3360	594	7270	626	253	166	56	27	15	14
21	11	1700	2420	836	3450	584	241	232	53	26	15	13
22	11	2720	2470	860	2220	652	227	172	52	26	15	13
23	12	808	2560	701	2280	1120	213	146	51	26	15	12
24	12	3630	2050	638	2090	1130	205	134	50	25	16	12
25	11	1930	1740	612	1730	947	198	125	49	25	16	12
26	11	981	1470	1090	1450	851	193	118	46	24	16	12
27	12	625	1450	974	1240	771	192	113	44	23	16	12
28	12	930	1700	860	1080	702	185	114	42	22	16	12
29	13	2900	1870	784	---	640	180	111	41	22	16	12
30	26	1410	1700	714	---	586	185	108	41	22	16	12
31	36	---	2550	662	---	542	---	102	---	20	16	---
TOTAL	382	19664	84040	58426	38436	26766	9036	4304	1929	922	521	428
MEAN	12.32	655.5	2711	1885	1373	863.4	301.2	138.8	64.30	29.74	16.81	14.27
MAX	36	3630	7600	7770	7270	1430	505	232	97	41	20	16
MIN	10	17	960	594	488	542	180	102	41	20	15	12
AC-FT	758	39000	166700	115900	76240	53090	17920	8540	3830	1830	1030	849

11475800 SOUTH FORK EEL RIVER AT LEGGETT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	67.25	724.1	1546	2320	2174	1784	780.7	281.5	124.8	48.38	28.57	28.70
MAX	272	4050	6072	7278	7294	5515	3528	830	630	129	65.4	87.8
(WY)	1980	1974	1984	1970	1986	1983	1982	1990	1993	1993	1993	1986
MIN	12.3	40.2	32.9	98.1	137	147	78.4	59.5	26.7	9.96	9.67	10.7
(WY)	2002	1994	1977	1977	1977	1988	1977	1977	1977	1977	1977	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	187966		244854			
ANNUAL MEAN	515.0		670.8		785.2	
HIGHEST ANNUAL MEAN					1778	
LOWEST ANNUAL MEAN					69.5	
HIGHEST DAILY MEAN	7600	Dec 6	7770	Jan 2	49800	Jan 4 1966
LOWEST DAILY MEAN	10	Oct 3	10	Oct 3	7.3	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	11	Sep 29	11	Oct 1	7.5	Jul 31 1977
MAXIMUM PEAK FLOW			12900	Dec 5	72700	Jan 4 1966
MAXIMUM PEAK STAGE			11.97	Dec 5	27.40	Jan 4 1966
ANNUAL RUNOFF (AC-FT)	372800		485700		568800	
10 PERCENT EXCEEDS	1730		2040		2000	
50 PERCENT EXCEEDS	97		135		137	
90 PERCENT EXCEEDS	11		13		22	

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, 20 mi upstream from mouth, and 4.3 mi southeast of Miranda.

DRAINAGE AREA.—537 mi².

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

TEMPERATURE DATA: Water years 1960–83.

SEDIMENT DATA: Water year 1981.

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 sea level. 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 except for estimated discharges, which are fair. Occasional storage and release for recreational use during summer months at Benbow Reservoir, capacity, 1,060 acre-ft, 16 mi upstream. No diversion upstream from station. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 199,000 ft³/s, Dec. 22, 1964, gage height, 46.0 ft, from floodmarks, from rating curve extended above 53,000 ft³/s, on basis of slope-area measurement at gage height 42.7 ft; minimum observed, 9 ft³/s, Oct. 17, 1944.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 15,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 1	1900	18,300	16.46	Jan. 6	1615	29,500	19.97
Dec. 6	unknown	28,100	19.57	Feb. 20	1015	16,500	15.79
Jan. 2	1200	23,600	18.22				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	73	11700	7340	1400	2090	1050	405	190	83	37	23
2	16	55	10200	19000	1360	1820	989	382	184	81	36	23
3	15	46	9480	12800	1260	1610	932	363	180	78	37	23
4	15	39	5860	7600	1180	1470	888	346	175	75	36	22
5	15	35	e10700	7800	1120	1390	850	333	168	73	36	21
6	15	32	e19500	25600	1070	1590	821	319	161	71	35	20
7	15	30	8510	16400	2220	3020	785	307	156	69	33	20
8	15	28	5360	10100	4440	2720	748	298	151	67	33	21
9	15	28	4020	7370	2980	2210	728	287	146	66	32	22
10	15	27	3100	5480	2410	2690	761	280	145	64	32	22
11	16	31	2520	4310	2030	2480	740	275	144	62	30	21
12	16	97	2140	3540	1790	2220	688	265	139	60	29	21
13	15	497	2270	3010	1610	2100	646	254	135	59	28	21
14	15	619	8900	2580	1460	2140	617	250	131	57	26	20
15	15	533	5340	2220	1340	1920	600	250	131	55	26	20
16	15	588	4210	1950	1240	1770	588	241	130	54	25	20
17	16	597	10200	1740	1230	1650	680	231	127	52	25	20
18	15	385	7290	1580	1140	1520	685	225	126	50	24	21
19	15	280	7990	1440	1970	1400	601	229	122	48	24	21
20	16	461	8540	1330	13700	1300	555	325	118	47	23	20
21	16	1880	6260	1610	8350	1210	524	482	113	46	23	20
22	17	6710	6030	2040	5310	1320	497	405	110	45	23	19
23	17	2350	6210	1580	5110	1960	473	312	107	42	23	18
24	16	6520	4990	1410	4990	2490	451	269	104	48	23	18
25	16	5300	4120	1340	4040	1970	434	248	102	46	24	17
26	16	2690	3400	2170	3370	1730	420	232	100	45	24	17
27	17	1750	3090	2280	2870	1560	414	225	95	45	24	17
28	17	2550	3670	1900	2440	1430	406	226	90	42	23	16
29	19	7450	3790	1710	---	1310	394	220	89	39	23	17
30	38	4230	3710	1550	---	1210	409	208	86	38	22	17
31	72	---	5540	1430	---	1120	---	199	---	37	22	---
TOTAL	566	45911	198640	162210	83430	56420	19374	8891	3955	1744	861	598
MEAN	18.26	1530	6408	5233	2980	1820	645.8	286.8	131.8	56.26	27.77	19.93
MAX	72	7450	19500	25600	13700	3020	1050	482	190	83	37	23
MIN	15	27	2140	1330	1070	1120	394	199	86	37	22	16
AC-FT	1120	91060	394000	321700	165500	111900	38430	17640	7840	3460	1710	1190

e Estimated.

11476500 SOUTH FORK EEL RIVER NEAR MIRANDA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	253.3	1445	4009	5391	4812	3565	1798	682.0	299.5	111.0	59.72	58.90
MAX	3332	10130	17260	17530	16640	13000	8425	2370	1754	276	131	221
(WY)	1963	1974	1965	1970	1986	1983	1982	1990	1993	1993	1983	1986
MIN	18.3	25.0	74.6	207	284	304	176	122	52.7	20.4	18.0	19.9
(WY)	2002	1940	1977	1977	1977	1988	1977	1977	1977	1977	1977	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	436012		582600			
ANNUAL MEAN	1195		1596		1862	
HIGHEST ANNUAL MEAN					4393	
LOWEST ANNUAL MEAN					156	
HIGHEST DAILY MEAN	19500	Dec 6	25600	Jan 6	161000	Dec 22 1964
LOWEST DAILY MEAN	15	Oct 1	15	Oct 1	10	Aug 30 1964
ANNUAL SEVEN-DAY MINIMUM	15	Oct 3	15	Oct 3	14	Jul 30 1977
MAXIMUM PEAK FLOW			29500	Jan 6	199000	Dec 22 1964
MAXIMUM PEAK STAGE			19.97	Jan 6	46.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	864800		1156000		1349000	
10 PERCENT EXCEEDS	4100		5040		4860	
50 PERCENT EXCEEDS	183		280		341	
90 PERCENT EXCEEDS	17		19		44	

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 mi².

PERIOD OF RECORD.—October 1960 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 269.36 ft above sea level. 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 except for estimated daily discharges, which are poor. Minor diversions upstream from station for domestic and recreational use. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 7,830 ft³/s, Dec. 31, 1996, gage height, 12.84 ft, maximum gage height, 20.6 ft³/s, Dec. 22, 1964, site and datum then in use; minimum daily, 0.24 ft³/s, Sept. 26, 27, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 1,700 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 6	1230	1,680	6.38

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.39	3.9	512	482	135	139	106	31	12	4.6	1.4	0.43
2	0.36	3.0	515	902	131	130	97	28	12	4.4	1.4	0.40
3	0.34	2.5	581	657	129	121	90	26	11	4.3	1.3	0.39
4	0.33	2.3	456	534	126	113	84	25	11	4.2	1.4	0.39
5	0.32	2.1	762	585	124	110	79	24	10	4.1	1.4	0.39
6	0.32	2.0	773	1480	124	129	74	23	10	3.9	1.3	0.38
7	0.34	1.9	544	1120	257	155	69	22	9.9	3.7	1.2	0.37
8	0.36	2.0	436	820	256	132	65	22	9.6	3.6	1.1	0.36
9	0.41	1.9	416	644	217	140	63	21	9.5	3.5	0.99	0.34
10	0.41	2.0	368	516	196	155	59	20	9.3	3.3	0.86	0.33
11	0.40	2.8	331	410	182	163	57	20	8.9	3.1	0.76	0.32
12	0.42	29	275	327	175	161	53	19	8.4	3.1	0.67	0.31
13	0.42	30	327	262	167	166	49	18	8.2	3.3	0.58	0.30
14	0.42	39	468	210	157	159	48	18	8.1	3.0	0.52	e0.32
15	0.44	24	394	177	147	153	49	17	8.0	2.8	0.50	e0.36
16	0.44	71	372	158	140	146	54	17	7.7	2.8	0.49	e0.34
17	0.45	37	458	142	133	141	58	16	7.5	2.7	0.47	0.31
18	0.45	24	420	122	126	130	50	16	7.4	2.7	0.47	0.31
19	0.47	36	484	113	165	121	44	18	7.3	2.6	0.47	0.30
20	0.49	53	548	106	224	113	41	32	6.9	2.5	0.47	e0.28
21	0.48	153	452	134	185	105	39	22	6.8	2.2	0.47	e0.27
22	0.48	154	487	128	171	182	36	19	6.9	2.1	0.48	e0.26
23	0.53	77	459	120	216	218	35	17	6.7	2.3	0.49	e0.25
24	0.55	138	418	117	199	210	33	16	6.4	2.2	0.51	0.25
25	0.58	123	371	121	181	195	32	15	6.0	2.1	0.52	0.25
26	0.60	92	326	155	168	177	31	14	5.6	2.0	0.53	0.24
27	0.63	76	329	148	157	162	32	15	5.3	1.8	0.52	0.24
28	0.69	159	316	144	148	148	29	14	5.2	1.7	0.48	0.25
29	0.83	279	304	138	---	136	28	13	5.0	1.6	0.46	0.25
30	11	232	316	134	---	125	35	13	4.8	1.6	0.46	0.25
31	7.2	---	361	132	---	114	---	12	---	1.4	0.45	---
TOTAL	31.55	1852.4	13579	11238	4736	4549	1619	603	241.4	89.2	23.12	9.44
MEAN	1.018	61.75	438.0	362.5	169.1	146.7	53.97	19.45	8.047	2.877	0.746	0.315
MAX	11	279	773	1480	257	218	106	32	12	4.6	1.4	0.43
MIN	0.32	1.9	275	106	124	105	28	12	4.8	1.4	0.45	0.24
AC-FT	63	3670	26930	22290	9390	9020	3210	1200	479	177	46	19

e Estimated.

11476600 BULL CREEK NEAR WEOTT, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	12.25	106.2	257.2	328.1	303.9	233.5	115.3	39.65	16.64	6.422	3.302	2.753
MAX	160	683	780	901	1056	717	526	137	88.0	14.5	10.0	12.8
(WY)	1963	1974	1997	1978	1986	1983	1963	1963	1993	1993	1983	1986
MIN	0.72	3.61	3.67	10.5	13.8	16.0	11.2	10.3	4.84	1.81	0.70	0.31
(WY)	1988	1994	1977	1977	1977	1988	1988	1988	1977	1977	1992	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	30573.71		38571.11			
ANNUAL MEAN	83.76		105.7		118.0	
HIGHEST ANNUAL MEAN					287	
LOWEST ANNUAL MEAN					9.72	
HIGHEST DAILY MEAN	773	Dec 6	1480	Jan 6	4900	Jan 16 1974
LOWEST DAILY MEAN	0.32	Oct 5	0.24	Sep 26	0.24	Sep 26 2002
ANNUAL SEVEN-DAY MINIMUM	0.34	Oct 2	0.25	Sep 23	0.25	Sep 23 2002
MAXIMUM PEAK FLOW			1680	Jan 6	7830	Dec 31 1996
MAXIMUM PEAK STAGE			6.38	Jan 6	20.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	60640		76510		85500	
10 PERCENT EXCEEDS	328		328		316	
50 PERCENT EXCEEDS	18		20		22	
90 PERCENT EXCEEDS	0.53		0.40		1.9	

11477000 EEL RIVER AT SCOTIA, CA

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 mi².

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.

CHEMICAL DATA: Water years 1952–75, 1977, 1979–95.

BIOLOGICAL DATA: Water years 1979–81.

SEDIMENT DATA: Water years 1955–95, 1998.

SPECIFIC CONDUCTANCE: Water years 1979–81.

WATER TEMPERATURE: Water years 1958–82.

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 sea level. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

REMARKS.—Records good except for estimated daily discharges, which are fair. 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). See schematic diagram of Eel River Basin.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 752,000 ft³/s, Dec. 23, 1964, gage height, 72.0 ft, from floodmarks, from rating curve extended above 220,000 ft³/s, on basis of maximum flow at upstream stations; minimum observed, 10 ft³/s, Aug. 12–14, 1924.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 72,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 6	1130	82,400	28.42	Jan. 6	2345	114,000	32.46
Jan. 2	2215	119,000	33.02				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	226	30900	34800	5610	8560	4940	2060	918	280	95	e47
2	45	217	52600	87500	5290	7600	4790	2010	878	270	94	e46
3	45	198	45900	86300	4990	6790	4620	1900	833	257	90	e44
4	44	178	29300	42500	4620	6140	4600	1770	795	248	88	42
5	43	174	26200	27800	4330	5670	4520	1680	746	246	88	46
6	44	166	71800	84600	4120	5820	4400	1610	696	237	85	46
7	46	154	41100	84500	5780	9950	4110	1560	655	226	83	45
8	44	143	22500	48200	15600	12300	3850	1540	612	216	e89	47
9	46	138	15700	35700	12900	9540	3650	1500	587	205	e85	46
10	45	138	12200	26100	9500	10500	3640	1430	561	197	e82	44
11	51	143	9600	19900	7770	12200	3820	1390	536	188	e80	e44
12	48	240	7740	16100	7130	10300	3630	1360	524	182	e78	e43
13	49	626	6980	13600	6490	9440	3480	1310	502	175	e76	44
14	48	1670	29400	11900	6010	9030	3260	1260	476	165	e75	43
15	49	2200	25400	10300	5590	8270	3320	1230	445	159	e73	43
16	51	2550	16300	9090	5210	7550	3440	1200	432	152	e72	43
17	52	2740	30300	8060	5030	7060	3420	1170	410	140	e71	45
18	51	1980	35500	7200	4860	6550	3440	1150	406	135	e69	45
19	52	1690	32000	6550	5080	5970	3100	1130	392	132	e67	43
20	53	1960	38400	6000	33800	5520	2770	1310	383	131	e66	44
21	57	3560	30300	6110	38500	5160	2570	1520	372	126	e64	44
22	64	21600	25200	8340	22500	5340	2430	1770	372	123	e63	43
23	71	14300	30800	7220	18600	7010	2290	1600	364	117	e62	43
24	70	14700	23900	6070	19000	10400	2160	1370	353	113	e60	43
25	70	32500	17900	5520	15300	9040	2080	1230	339	110	e59	41
26	70	12700	14500	7430	12800	7610	2030	1140	332	109	e57	40
27	70	7340	12600	9620	11000	6720	2040	1070	320	107	e56	39
28	70	6250	14900	8070	9660	6120	2030	1040	311	104	e54	39
29	71	33000	15000	6980	---	5660	1950	1020	302	104	e53	39
30	107	23100	e16300	6390	---	5410	2040	989	288	101	e51	38
31	182	---	e26300	5870	---	5160	---	951	---	96	e50	---
TOTAL	1854	186581	807520	744320	307070	238390	98420	43270	15140	5151	2235	1299
MEAN	59.81	6219	26050	24010	10970	7690	3281	1396	504.7	166.2	72.10	43.30
MAX	182	33000	71800	87500	38500	12300	4940	2060	918	280	95	47
MIN	43	138	6980	5520	4120	5160	1950	951	288	96	50	38
AC-FT	3680	370100	1602000	1476000	609100	472800	195200	85830	30030	10220	4430	2580

e Estimated.

11477000 EEL RIVER AT SCOTIA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	654.3	5068	13830	20050	19990	14320	8738	3621	1268	338.5	148.9	141.1
MAX	10910	38690	84420	69950	77680	51150	39190	11570	7511	920	422	735
(WY)	1963	1974	1965	1970	1958	1983	1982	1912	1993	1993	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1911 - 2002	
ANNUAL TOTAL	1864483		2451250			
ANNUAL MEAN	5108		6716		7290	
HIGHEST ANNUAL MEAN					17300	
LOWEST ANNUAL MEAN					563	
HIGHEST DAILY MEAN	71800	Dec 6	87500	Jan 2	648000	Dec 23 1964
LOWEST DAILY MEAN	43	Oct 5	38	Sep 30	12	Aug 12 1924
ANNUAL SEVEN-DAY MINIMUM	44	Oct 2	40	Sep 24	14	Aug 10 1924
MAXIMUM PEAK FLOW			119000		752000	
MAXIMUM PEAK STAGE			33.02		72.00	
INSTANTANEOUS LOW FLOW					10	
ANNUAL RUNOFF (AC-FT)	3698000		4862000		5281000	
10 PERCENT EXCEEDS	15900		20600		17900	
50 PERCENT EXCEEDS	941		1370		1390	
90 PERCENT EXCEEDS	48		46		102	

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, and 1.9 mi south-southeast of Dinsmore.

DRAINAGE AREA.—0.74 mi².

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 sea level, from topographic map.

REMARKS.—Records of fishery release normally are computed only during periods of diversion to powerhouse. Flow over spillway bypasses this station. See schematic diagram of [Eel River Basin](#).

COOPERATION.—Records provided by North Coast Hydroelectric, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 6154.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.44	0.42	0.31	0.31	0.35	---	---	---	---	---
2	---	---	0.44	0.44	0.31	0.29	0.35	---	---	---	---	---
3	---	---	0.44	0.40	0.31	0.29	0.35	---	---	---	---	---
4	---	---	0.44	0.40	0.31	0.29	0.35	---	---	---	---	---
5	---	---	0.49	0.40	0.29	0.29	0.35	---	---	---	---	---
6	---	---	0.51	0.35	0.31	0.31	0.35	---	---	---	---	---
7	---	---	0.49	0.35	0.33	0.31	0.37	---	---	---	---	---
8	---	---	0.46	0.42	0.31	0.29	---	---	---	---	---	---
9	---	---	0.46	0.42	0.29	0.29	---	---	---	---	---	---
10	---	---	0.46	0.40	0.27	0.29	---	---	---	---	---	---
11	---	---	0.42	0.37	0.29	0.33	---	---	---	---	---	---
12	---	---	0.40	0.37	0.31	0.33	---	---	---	---	---	---
13	---	---	0.42	0.37	0.31	0.33	---	---	---	---	---	---
14	---	---	0.44	0.33	0.31	0.33	---	---	---	---	---	---
15	---	---	0.40	0.33	0.31	0.33	---	---	---	---	---	---
16	---	---	0.44	0.33	0.31	0.31	---	---	---	---	---	---
17	---	---	0.46	0.33	0.31	0.31	---	---	---	---	---	---
18	---	---	0.42	0.33	0.31	0.31	---	---	---	---	---	---
19	---	---	0.42	0.31	0.35	0.31	---	---	---	---	---	---
20	---	---	0.42	0.31	0.37	0.31	---	---	---	---	---	---
21	---	0.42	0.40	0.31	0.35	0.31	---	---	---	---	---	---
22	---	0.33	0.37	0.31	0.33	0.31	---	---	---	---	---	---
23	---	0.33	0.37	0.29	0.35	0.31	---	---	---	---	---	---
24	---	---	0.37	0.29	0.35	0.31	---	---	---	---	---	---
25	---	0.44	0.37	0.31	0.31	0.29	---	---	---	---	---	---
26	---	0.44	0.37	0.31	0.31	0.29	---	---	---	---	---	---
27	---	0.44	0.40	0.31	0.31	0.33	---	---	---	---	---	---
28	---	0.42	0.40	0.31	0.31	0.35	---	---	---	---	---	---
29	---	0.44	0.40	0.31	---	0.35	---	---	---	---	---	---
30	---	0.40	0.40	0.29	---	0.35	---	---	---	---	---	---
31	---	---	0.40	0.29	---	0.35	---	---	---	---	---	---
TOTAL	---	---	13.12	10.71	8.84	9.71	---	---	---	---	---	---
MEAN	---	---	0.423	0.345	0.316	0.313	---	---	---	---	---	---
MAX	---	---	0.51	0.44	0.37	0.35	---	---	---	---	---	---
MIN	---	---	0.37	0.29	0.27	0.29	---	---	---	---	---	---
AC-FT	---	---	26	21	18	19	---	---	---	---	---	---

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, and 2 mi south-southeast of Dinsmore.

DRAINAGE AREA.—1.06 mi².

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 sea level, from topographic map.

REMARKS.—Records of fishery release normally are computed only during periods of diversion to powerhouse. Flow over spillway bypasses this station. See Schematic diagram of [Eel River Basin](#).

COOPERATION.—Records provided by North Coast Hydroelectric, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 6154.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	0.46	0.66	0.37	0.42	0.44	---	---	---	---	---
2	---	---	0.31	0.69	0.37	0.42	0.44	---	---	---	---	---
3	---	---	0.09	0.63	0.37	0.42	0.44	---	---	---	---	---
4	---	---	0.29	0.57	0.37	0.40	0.44	---	---	---	---	---
5	---	---	0.24	0.51	0.37	0.42	0.44	---	---	---	---	---
6	---	---	0.06	0.07	0.37	0.44	0.44	---	---	---	---	---
7	---	---	0.35	0.42	0.31	0.46	0.44	---	---	---	---	---
8	---	---	0.49	0.72	0.14	0.44	---	---	---	---	---	---
9	---	---	0.29	0.66	0.10	0.42	---	---	---	---	---	---
10	---	---	0.14	0.54	0.08	0.44	---	---	---	---	---	---
11	---	---	0.26	0.51	0.19	0.49	---	---	---	---	---	---
12	---	---	0.37	0.49	0.46	0.54	---	---	---	---	---	---
13	---	---	0.37	0.49	0.46	0.51	---	---	---	---	---	---
14	---	---	0.20	0.49	0.46	0.51	---	---	---	---	---	---
15	---	---	0.12	0.46	0.44	0.51	---	---	---	---	---	---
16	---	---	0.11	0.44	0.44	0.51	---	---	---	---	---	---
17	---	---	0.06	0.44	0.44	0.49	---	---	---	---	---	---
18	---	---	0.39	0.44	0.42	0.49	---	---	---	---	---	---
19	---	---	0.75	0.44	0.63	0.49	---	---	---	---	---	---
20	---	---	0.63	0.44	0.54	0.49	---	---	---	---	---	---
21	---	0.19	0.63	0.44	0.46	0.49	---	---	---	---	---	---
22	---	0.18	0.44	0.40	0.29	0.51	---	---	---	---	---	---
23	---	0.35	0.31	0.40	0.37	0.60	---	---	---	---	---	---
24	---	0.60	0.36	0.40	0.18	0.60	---	---	---	---	---	---
25	---	0.60	0.44	0.42	0.13	0.54	---	---	---	---	---	---
26	---	0.51	0.44	0.44	e0.24	0.51	---	---	---	---	---	---
27	---	0.51	0.51	0.40	0.44	0.51	---	---	---	---	---	---
28	---	---	0.60	0.40	0.42	0.51	---	---	---	---	---	---
29	---	0.49	0.57	0.40	---	0.49	---	---	---	---	---	---
30	---	0.46	0.57	0.40	---	0.49	---	---	---	---	---	---
31	---	---	0.60	0.40	---	0.46	---	---	---	---	---	---
TOTAL	---	---	11.45	14.61	9.86	15.02	---	---	---	---	---	---
MEAN	---	---	0.369	0.471	0.352	0.485	---	---	---	---	---	---
MAX	---	---	0.75	0.72	0.63	0.60	---	---	---	---	---	---
MIN	---	---	0.06	0.07	0.08	0.40	---	---	---	---	---	---
AC-FT	---	---	23	29	20	30	---	---	---	---	---	---

e Estimated.

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 mi².

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 sea level. 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. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 48,700 ft³/s, Dec. 22, 1964, gage height, 24.0 ft, from floodmarks, present site and datum, from rating curve extended above 20,000 ft³/s, on basis of slope-area measurement at gage height 21.3 ft, former site and datum; minimum daily, 3.3 ft³/s, Sept. 26, 2002.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 15,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	1130	15,600	10.46	Jan. 6	1045	15,700	10.49

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	82	6940	4560	714	856	483	251	78	23	7.3	4.5
2	5.0	57	5710	11600	683	750	455	217	75	22	7.0	4.2
3	4.9	42	4980	5220	624	664	437	194	71	22	7.0	4.0
4	4.7	34	2460	2890	581	597	420	178	67	21	7.0	3.8
5	4.5	31	7950	2480	536	558	396	164	62	20	7.1	3.7
6	4.5	27	8450	12700	502	713	376	154	59	20	7.2	3.7
7	4.5	24	3630	6370	2360	1390	352	146	56	19	7.2	3.7
8	4.6	21	2170	4740	3260	1020	328	139	53	19	7.2	3.8
9	4.8	20	1650	3090	1730	887	315	132	51	17	7.2	4.0
10	4.8	19	1290	2180	1330	1150	341	126	51	16	7.0	4.2
11	5.4	20	1070	1710	1090	1360	326	120	49	14	6.8	4.3
12	5.4	45	928	1420	954	1220	312	115	46	13	6.2	4.3
13	5.6	362	1280	1200	842	1230	287	108	42	12	5.9	4.1
14	5.8	351	5490	1040	760	1150	293	103	41	12	5.6	4.0
15	5.8	335	2230	908	682	1010	298	102	39	12	5.3	3.9
16	5.7	570	2040	799	622	909	287	97	37	11	5.0	3.9
17	5.6	614	5990	719	576	877	401	93	36	11	4.9	4.1
18	5.5	266	3030	646	529	795	404	90	37	10	4.9	4.1
19	5.5	207	4470	601	1640	722	379	90	39	10	5.1	4.2
20	5.5	726	4020	550	5720	676	325	159	37	10	5.1	4.2
21	5.5	2970	2400	1060	2670	638	295	195	35	9.8	5.0	4.2
22	5.6	3760	3020	1220	1790	678	269	161	35	9.4	5.0	4.0
23	7.8	1300	2920	901	3150	1220	248	132	34	9.1	5.1	3.6
24	7.6	2620	1970	803	2400	1380	230	118	32	8.7	5.2	3.5
25	7.9	2270	1570	804	1710	1030	216	107	31	8.5	5.3	3.5
26	7.8	1310	1330	2080	1370	857	207	98	29	8.4	5.4	3.3
27	7.3	900	1470	1430	1150	749	205	94	27	8.1	5.3	3.4
28	7.3	2230	1870	1130	987	670	198	95	26	7.6	5.2	3.4
29	7.7	5840	2050	955	---	613	187	90	25	7.7	5.1	3.5
30	16	2320	1970	824	---	561	236	85	24	7.5	5.0	3.7
31	53	---	3610	736	---	517	---	81	---	7.5	4.7	---
TOTAL	236.6	29373	99958	77366	40962	27447	9506	4034	1324	406.3	182.3	116.8
MEAN	7.632	979.1	3224	2496	1463	885.4	316.9	130.1	44.13	13.11	5.881	3.893
MAX	53	5840	8450	12700	5720	1390	483	251	78	23	7.3	4.5
MIN	4.5	19	928	550	502	517	187	81	24	7.5	4.7	3.3
AC-FT	469	58260	198300	153500	81250	54440	18860	8000	2630	806	362	232

11478500 VAN DUZEN RIVER NEAR BRIDGEVILLE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	141.0	884.3	1845	2271	2042	1610	901.6	432.1	139.0	35.68	16.62	19.13
MAX	1464	5476	6046	6608	6232	5015	3255	1139	821	98.0	82.4	144
(WY)	1963	1974	1956	1995	1958	1995	1963	1953	1993	1953	1983	1986
MIN	7.20	16.8	18.8	103	156	172	131	109	40.4	12.2	5.88	3.89
(WY)	1988	1960	1977	1977	1977	1988	1977	1985	1987	1977	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL TOTAL	225512.8		290912.0			
ANNUAL MEAN	617.8		797.0		856.7	
HIGHEST ANNUAL MEAN					1610	
LOWEST ANNUAL MEAN					95.7	
HIGHEST DAILY MEAN	8450	Dec 6	12700	Jan 6	33900	Dec 22 1964
LOWEST DAILY MEAN	3.7	Sep 24	3.3	Sep 26	3.3	Sep 26 2002
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 19	3.5	Sep 23	3.5	Sep 23 2002
MAXIMUM PEAK FLOW			15700	Jan 6	48700	Dec 22 1964
MAXIMUM PEAK STAGE			10.49	Jan 6	24.00	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	447300		577000		620600	
10 PERCENT EXCEEDS	1830		2290		2120	
50 PERCENT EXCEEDS	130		126		179	
90 PERCENT EXCEEDS	5.4		4.8		11	

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, and at Fernbridge.

DRAINAGE AREA.—3,614 mi².

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 sea level.

REMARKS.—Data is collected for flood-warning purposes only. Figures given represent only those days when the gage height was above 0.52 ft. See schematic diagram of [Eel River Basin](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum gage height, 25.31 ft, Jan. 9, 1995.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	11.70	5.64	10.08	8.14	2.68	2.58	3.68	3.33
2	---	---	---	---	12.56	10.33	16.09	10.08	2.58	2.45	3.33	3.01
3	---	---	0.79	---	11.25	9.98	15.98	11.73	2.46	2.31	3.02	2.73
4	---	---	---	---	9.98	7.03	11.73	8.60	2.31	2.16	2.73	2.50
5	---	---	---	---	11.77	6.79	8.60	7.36	2.16	2.03	2.50	2.35
6	---	---	---	---	14.07	11.77	16.00	7.98	2.06	1.92	2.58	2.34
7	---	---	---	---	12.32	8.26	16.00	12.09	4.88	1.92	4.85	2.58
8	---	---	---	---	8.26	6.34	12.09	9.85	6.24	4.88	4.86	4.15
9	---	---	---	---	6.34	5.24	9.85	8.24	6.11	4.42	4.15	3.60
10	---	---	---	---	5.24	4.36	8.24	6.90	4.43	3.72	4.31	3.60
11	---	---	---	---	4.36	3.71	6.90	6.00	3.72	3.28	4.73	4.31
12	---	---	0.95	---	3.71	3.22	6.00	5.27	3.28	3.00	4.31	3.92
13	---	---	0.67	---	4.09	2.96	5.28	4.73	3.00	2.76	3.95	3.83
14	---	---	1.25	---	10.25	4.09	4.73	4.26	2.78	2.61	3.94	3.66
15	---	---	2.25	0.80	9.90	6.44	4.27	3.86	2.61	2.43	3.68	3.36
16	---	---	1.69	0.77	6.44	5.57	3.86	3.50	2.44	2.30	3.38	3.15
17	---	---	1.95	1.09	10.61	5.72	3.51	3.20	2.34	2.24	3.16	3.07
18	0.74	---	1.09	0.68	10.61	7.92	3.20	2.94	2.24	2.11	3.08	2.83
19	---	---	0.98	---	9.39	7.89	2.94	2.76	3.98	2.10	2.83	2.60
20	---	---	1.27	---	9.78	9.31	2.76	2.56	11.22	3.98	2.61	2.43
21	---	---	3.54	0.96	9.31	7.38	3.56	2.53	11.15	7.92	2.43	2.29
22	---	---	8.42	3.54	8.22	7.05	3.83	3.56	7.92	6.25	2.75	2.24
23	---	---	7.79	3.94	8.70	8.13	3.79	3.09	6.91	6.07	3.55	2.75
24	---	---	8.60	3.39	8.13	6.60	3.09	2.79	6.89	6.07	4.31	3.55
25	---	---	9.93	6.49	6.60	5.66	2.79	2.65	6.07	5.19	4.17	3.49
26	---	---	6.49	4.04	5.66	4.97	4.17	2.73	5.19	4.55	3.49	3.10
27	---	---	4.04	2.80	4.98	4.63	4.38	4.04	4.55	4.06	3.10	2.82
28	---	---	4.09	2.38	5.63	4.77	4.04	3.42	4.07	3.67	2.82	2.60
29	---	---	10.45	4.09	5.68	5.25	3.42	3.08	---	---	2.62	2.42
30	---	---	9.56	5.81	5.82	5.58	3.09	2.82	---	---	2.47	2.31
31	---	---	---	---	8.89	5.63	2.84	2.63	---	---	2.38	2.18
MONTH	---	---	---	---	14.07	2.96	16.09	2.53	11.22	1.92	4.86	2.18

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, on left bank, on downstream side 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 mi².

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 sea level, from topographic map. June 28 to Sept. 30, 1990, nonrecording gage 400 ft upstream at different datum.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 15,000 ft³/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 ft³/s, maximum gage height, 13.10 ft, Jan. 20, 1993; no flow at times each year.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 3,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 5	2330	3,660	7.69	Jan. 6	0845	3,910	7.89
Jan. 2	1400	3,800	7.80				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	1440	1540	193	277	107	57	18	2.8	0.37	0.00
2	0.00	0.00	1240	3260	179	239	101	52	17	2.7	0.32	0.00
3	0.00	0.00	1030	1590	163	209	94	47	15	2.6	0.30	0.00
4	0.00	0.00	597	878	150	189	88	44	14	2.5	0.32	0.00
5	0.00	0.00	1380	1040	141	184	83	42	13	2.5	0.30	0.00
6	0.00	0.00	2170	3370	135	238	81	39	13	2.5	0.27	0.00
7	0.00	0.00	924	1730	404	364	77	38	12	2.5	0.26	0.00
8	0.00	0.00	593	1240	652	295	73	36	11	2.4	0.21	0.00
9	0.00	0.00	451	931	427	263	77	35	11	2.3	0.19	0.00
10	0.00	0.00	343	707	336	328	81	34	11	e2.3	0.17	0.00
11	0.00	0.00	273	552	279	324	75	33	9.7	e2.2	0.16	0.00
12	0.00	0.12	225	444	242	301	71	31	8.9	e1.9	0.14	0.00
13	0.00	2.1	304	370	214	278	67	30	8.3	1.8	0.13	0.00
14	0.00	6.2	1160	315	190	252	67	29	7.6	1.7	0.12	0.00
15	0.00	1.9	601	274	169	232	64	28	7.0	1.5	0.11	0.00
16	0.00	5.4	546	237	156	215	66	27	6.4	1.5	0.09	0.00
17	0.00	3.7	1470	210	145	201	75	26	6.0	1.4	0.08	0.00
18	0.00	1.2	950	186	134	182	75	25	5.7	1.3	0.07	0.00
19	0.00	4.5	1370	169	509	168	72	25	5.4	1.2	0.05	0.00
20	0.00	8.9	1170	155	2310	157	70	35	5.0	1.1	0.04	0.00
21	0.00	361	827	236	1210	147	67	39	4.8	1.0	0.03	0.00
22	0.00	593	903	244	810	149	63	34	4.5	0.99	0.0	0.00
23	0.00	195	864	200	839	189	59	30	4.3	0.90	0.00	0.00
24	0.00	780	672	180	726	212	55	28	4.0	0.79	0.00	0.00
25	0.00	422	529	179	567	193	52	26	3.8	0.72	0.00	0.00
26	0.00	247	446	391	455	176	51	25	3.6	0.64	0.00	0.00
27	0.00	166	442	350	382	162	49	24	3.4	0.62	0.00	0.00
28	0.00	415	510	302	321	149	48	24	3.2	0.56	0.00	0.00
29	0.00	1100	564	263	---	135	47	23	3.1	0.49	0.00	0.00
30	0.00	491	650	229	---	124	54	21	3.0	0.44	0.00	0.00
31	0.00	---	1120	206	---	115	---	20	---	0.39	0.00	---
TOTAL	0.00	4804.02	25764	21978	12438	6647	2109	1007	242.7	48.24	3.73	0.00
MEAN	0.000	160.1	831.1	709.0	444.2	214.4	70.30	32.48	8.090	1.556	0.120	0.000
MAX	0.00	1100	2170	3370	2310	364	107	57	18	2.8	0.37	0.00
MIN	0.00	0.00	225	155	134	115	47	20	3.0	0.39	0.00	0.00
AC-FT	0.00	9530	51100	43590	24670	13180	4180	2000	481	96	7.4	0.00

e Estimated.

11480390 MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.224	163.9	426.6	616.3	637.5	494.9	243.0	104.4	43.82	6.891	1.084	0.861
MAX	57.6	741	1684	1887	2136	1299	878	301	229	25.0	4.87	12.2
(WY)	1990	1985	1997	1995	1986	1995	1982	1995	1993	1993	1993	1986
MIN	0.000	0.000	8.08	28.5	85.3	38.6	32.0	20.4	4.25	1.15	0.000	0.000
(WY)	1988	1994	1991	1991	1991	1988	1988	1987	2001	2001	1984	1984

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1980 - 2002
ANNUAL TOTAL	47676.28	75041.69	
ANNUAL MEAN	130.6	205.6	226.9
HIGHEST ANNUAL MEAN			419 1995
LOWEST ANNUAL MEAN			51.4 2001
HIGHEST DAILY MEAN	2170 Dec 6	3370 Jan 6	10300 Jan 1 1997
LOWEST DAILY MEAN	0.00 Aug 3	0.00 Oct 1	0.00 Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	0.00 Aug 3	0.00 Oct 1	0.00 Sep 11 1982
MAXIMUM PEAK FLOW		3910 Jan 6	15000 Feb 17 1986
MAXIMUM PEAK STAGE		7.89 Jan 6	13.10 Jan 20 1993
ANNUAL RUNOFF (AC-FT)	94570	148800	164400
10 PERCENT EXCEEDS	444	599	602
50 PERCENT EXCEEDS	12	26	33
90 PERCENT EXCEEDS	0.00	0.00	0.00

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, and 5.6 mi west of Forest Glen.

DRAINAGE AREA.—121 mi².

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 sea level (levels by Humboldt Bay Municipal Water District).

REMARKS.—Reservoir is formed by earthfill dam; storage began July 1961. Total capacity, 48,000 acre-ft, elevation, 2,654.0 ft, crest of spillway. Minimum pool capacity, 7,810 acre-ft, 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, 53,700 acre-ft, Jan. 6, elevation, 2,658.83 ft; minimum contents, 29,200 acre-ft, Nov. 18–20, elevation, 2634.68 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	2,615	15,100	2,635	29,400	2,655	49,200
2,600	7,810	2,620	18,100	2,640	33,800	2,660	55,100
2,605	10,000	2,625	21,500	2,645	38,600	2,664	60,200
2,610	12,500	2,630	25,300	2,650	43,700		

RESERVOIR STORAGE, ACRE-FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33800	30400	43800	52000	48400	48800	47600	48400	47600	45300	42000	38100
2	33800	30300	46800	53600	48300	48600	47700	48400	47500	45300	41800	38000
3	33700	30200	48800	52000	48200	48500	47700	48400	47400	45100	41700	37800
4	33600	30100	49300	50900	48200	48400	47700	48400	47400	45100	41500	37700
5	33400	30000	50900	51600	47800	48400	47800	48400	e47300	45000	41400	37600
6	33300	29900	51600	53700	47900	48500	47900	48400	e47300	44800	41200	e37200
7	33200	29800	50600	52200	48900	48800	47800	48400	e47200	44800	41100	e37000
8	33100	29700	49900	51300	49400	48800	47900	48400	e47100	44600	41000	e36900
9	33000	29600	49400	50800	49200	48800	47800	48200	e47000	44500	40800	e38800
10	32800	29500	49100	50200	49100	48900	47600	48000	e47000	44500	40700	e36700
11	32700	29300	48800	49800	48900	48900	47700	47900	e46900	44400	40600	e36600
12	e32600	29500	48600	49500	48800	48900	47700	47900	e46900	44300	40500	e36400
13	32500	29500	49000	49300	48600	48900	47700	47900	e46800	44200	40400	e36300
14	32300	29400	50000	48900	48500	48800	47600	47900	e46700	44100	40300	e36200
15	32200	29400	49800	48800	48500	48600	47600	47900	e46600	44000	40200	e36000
16	e32200	29400	49800	48800	48300	48600	47700	47800	e46500	43800	40000	e35900
17	32000	29300	51000	48600	48200	48500	47800	47800	e46500	43700	39900	35700
18	31900	29200	50700	48500	48100	48400	47800	47800	e46400	43500	39800	35600
19	31900	29200	51300	48300	49200	48300	47900	47800	46300	43500	39700	35500
20	31700	29200	51000	48100	51500	48200	48000	47900	46200	43400	39600	35400
21	31600	30400	50400	48300	50900	48000	48000	47900	46100	43300	39400	35200
22	31500	31600	50500	48500	50300	48100	48100	47900	46100	43200	39300	35100
23	31300	31900	50400	48300	50200	48200	48100	47900	45900	43000	39200	35000
24	31200	33900	50000	48200	49800	48200	48100	47800	45900	42900	39000	34900
25	31100	34900	49400	48300	49600	48200	48100	47800	45900	42800	38900	34800
26	31000	35300	49400	48800	49300	48200	48100	47800	45800	42700	38800	34600
27	30900	35500	49300	48900	49200	48100	48200	47800	45700	42600	38700	34500
28	30800	36800	49400	48800	49000	48000	48200	47700	45600	42400	38500	34300
29	30700	39400	49500	48700	---	47800	48300	47700	45500	42300	38400	34200
30	30800	40300	49900	48500	---	47700	48400	47700	45500	42200	38300	34100
31	30700	---	50600	48500	---	47600	---	47600	---	42100	38200	---
MAX	33800	40300	51600	53700	51500	48900	48400	48400	47600	45300	42000	38800
MIN	30700	29200	43800	48100	47800	47600	47600	47600	45500	42100	38200	34100
a	2636.44	2646.73	2656.21	2654.41	2654.90	2653.59	2654.33	2653.64	2651.70	2648.49	4644.64	2640.28
b	-3300	+9600	+10300	-2100	+500	-1400	+800	-800	-2100	-3400	-3900	-4100

e Estimated.

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, on left bank, 1,200 ft downstream from Robert W. Matthews Dam, and 5.8 mi west of Forest Glen.

DRAINAGE AREA.—121 mi².

PERIOD OF RECORD.—October 1980 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 2,560 ft above sea level, from topographic map.

REMARKS.—Records good. Flow regulated by Ruth Reservoir (station 11480400) 1,200 ft upstream.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 17,800 ft³/s, Feb. 17, 1986, gage height, 17.61 ft, from floodmarks, from rating curve extended above 8,800 ft³/s; minimum daily, 5.6 ft³/s, Mar. 2, 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	66	250	1690	311	442	167	50	47	48	52	57
2	55	61	225	3480	293	394	97	55	46	48	55	57
3	56	60	305	3050	274	355	97	55	45	48	60	57
4	56	60	543	1860	261	323	98	56	42	48	60	66
5	56	60	804	1410	253	302	98	52	42	48	63	60
6	56	59	2160	3570	252	310	99	51	43	48	59	57
7	56	59	1710	3240	299	384	99	49	43	48	59	55
8	56	59	1090	2280	617	422	99	45	43	48	59	55
9	57	60	761	1710	659	411	155	123	43	48	59	56
10	57	60	576	1290	583	436	167	194	46	48	59	56
11	57	60	457	992	503	461	99	42	43	48	59	55
12	77	61	374	770	440	455	100	42	43	51	59	55
13	56	61	340	638	391	441	100	42	43	51	59	57
14	56	61	866	544	353	411	100	42	43	51	58	57
15	56	60	904	473	322	384	100	42	43	69	58	57
16	77	61	744	416	295	358	73	41	43	73	58	57
17	61	60	1370	373	277	336	53	41	44	64	58	56
18	61	60	1420	335	264	315	53	41	44	64	58	56
19	61	61	1600	307	310	294	53	41	44	62	60	55
20	61	80	1720	285	1410	282	53	42	43	59	59	55
21	61	117	1360	286	1740	268	53	41	43	60	59	55
22	61	117	1200	314	1270	263	55	41	47	60	58	55
23	61	116	1220	306	1050	265	55	41	47	56	58	55
24	61	116	1010	291	962	272	56	41	49	51	58	55
25	61	123	803	281	804	277	57	41	48	51	58	55
26	61	120	662	351	672	259	49	41	48	51	58	55
27	61	119	593	427	580	267	47	41	48	51	59	55
28	61	136	619	425	504	262	50	44	48	51	59	55
29	61	211	656	399	---	261	34	42	48	51	59	55
30	64	248	715	535	---	261	39	42	48	51	63	55
31	63	---	1160	334	---	261	---	42	---	52	60	---
TOTAL	1859	2652	28217	32662	15949	10432	2455	1603	1347	1657	1820	1686
MEAN	59.97	88.40	910.2	1054	569.6	336.5	81.83	51.71	44.90	53.45	58.71	56.20
MAX	77	248	2160	3570	1740	461	167	194	49	73	63	66
MIN	55	59	225	281	252	259	34	41	42	48	52	55
AC-FT	3690	5260	55970	64790	31630	20690	4870	3180	2670	3290	3610	3340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2002, BY WATER YEAR (WY)

MEAN	83.88	140.4	452.0	749.5	833.9	689.1	343.0	147.6	84.67	61.72	76.03	82.38
MAX	118	607	1780	2490	2993	1990	1426	449	408	89.3	103	101
(WY)	1984	1985	1997	1995	1986	1995	1982	1995	1993	1987	1990	1986
MIN	60.0	24.5	8.35	8.02	7.61	24.4	28.0	44.5	38.2	42.5	44.6	54.1
(WY)	2002	1993	1987	1992	1991	1988	1988	2001	1991	1982	1998	1998

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1981 - 2002

ANNUAL TOTAL	51091.0	102339	
ANNUAL MEAN	140.0	280.4	309.7
HIGHEST ANNUAL MEAN			591
LOWEST ANNUAL MEAN			68.7
HIGHEST DAILY MEAN	2160	Dec 6	3570
LOWEST DAILY MEAN	7.7	Jan 30	34
ANNUAL SEVEN-DAY MINIMUM	7.9	Feb 1	41
MAXIMUM PEAK FLOW			4210
MAXIMUM PEAK STAGE			10.57
ANNUAL RUNOFF (AC-FT)	101300		203000
10 PERCENT EXCEEDS	305		727
50 PERCENT EXCEEDS	55		60
90 PERCENT EXCEEDS	16		44

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 mi².

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 sea level. 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 Aug. 10, 1992, water-stage recorder at different datums, at present site.

REMARKS.—Records good. 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 ft³/s, Dec. 22, 1964, gage height, 30.7 ft, prior datum, from high-water profile and flood-routing study; minimum daily, 0.10 ft³/s, Aug. 29, 1977.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	67	3670	4010	1400	1880	905	560	132	53	31	32
2	18	55	3890	9070	1370	1640	797	510	128	48	31	34
3	19	49	4180	7360	1260	1430	667	464	127	46	28	28
4	22	47	2430	4430	1190	1260	625	419	121	43	30	29
5	23	42	10500	3100	1190	1150	592	386	117	46	37	29
6	23	41	14500	11500	1210	1210	562	362	110	39	34	31
7	24	41	5730	9480	2120	1810	530	342	108	37	37	30
8	24	41	3130	6050	4690	1680	502	320	99	39	33	30
9	23	40	2310	4360	3150	1510	487	299	99	35	34	31
10	23	40	1850	3220	2520	1610	517	279	98	33	30	29
11	26	41	1540	2530	2170	1980	547	406	93	32	31	30
12	28	48	1340	2200	1930	2140	471	299	93	31	31	28
13	28	83	1500	1930	1750	2300	437	245	90	29	30	27
14	31	123	7580	1720	1610	2240	500	228	88	30	31	27
15	34	152	3380	1540	1480	1910	522	221	81	32	32	28
16	25	300	2610	1370	1380	1760	507	212	78	31	30	31
17	26	471	5460	1280	1310	1810	848	200	79	33	29	30
18	31	213	3980	1160	1230	1720	766	191	88	49	31	31
19	34	138	4500	1090	2620	1530	653	189	92	42	33	31
20	31	183	5340	1030	12700	1420	597	224	85	38	32	30
21	31	477	3550	2050	6980	1370	552	246	81	37	32	25
22	31	2670	3440	2570	4620	1390	513	230	80	35	33	27
23	42	1180	4190	1940	6190	1810	477	203	79	35	33	29
24	40	1340	2990	1670	5870	2420	440	185	76	40	33	27
25	36	2140	2300	1580	3860	1890	411	168	76	36	34	30
26	34	1470	1920	3240	2950	1600	383	160	80	35	34	28
27	34	887	1780	2730	2470	1390	383	155	76	31	32	30
28	33	857	1940	2150	2120	1250	365	164	67	30	32	32
29	34	4480	2000	1830	---	1150	346	161	60	31	31	35
30	47	2300	2080	1590	---	1060	462	150	51	30	31	33
31	70	---	3590	1410	---	975	---	142	---	30	30	---
TOTAL	943	20016	119200	101190	83340	50295	16364	8320	2732	1136	990	892
MEAN	30.42	667.2	3845	3264	2976	1622	545.5	268.4	91.07	36.65	31.94	29.73
MAX	70	4480	14500	11500	12700	2420	905	560	132	53	37	35
MIN	18	40	1340	1030	1190	975	346	142	51	29	28	25
AC-FT	1870	39700	236400	200700	165300	99760	32460	16500	5420	2250	1960	1770

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
MAXIMUM PEAK FLOW	77800 Dec 22 1955
MAXIMUM 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 - 2002, BY WATER YEAR (WY)

	1963	1974	1965	1970	1986	1975	1963	1995	1993	1964	1983	1986
MEAN	194.3	1242	2713	3530	3050	2816	1688	657.2	227.1	58.03	43.98	62.24
MAX	2255	6671	10400	8847	9796	7150	6253	1654	1721	152	123	392
(WY)	1963	1974	1965	1970	1986	1975	1963	1995	1993	1964	1983	1986
MIN	21.3	52.6	29.8	135	138	194	165	122	31.2	8.40	7.04	15.0
(WY)	1993	1994	1977	1977	1977	1988	1988	1968	1974	1977	1977	1992

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1963 - 2002

ANNUAL TOTAL	249211	405418	
ANNUAL MEAN	682.8	1111	1350
HIGHEST ANNUAL MEAN			2478 1974
LOWEST ANNUAL MEAN			151 1977
HIGHEST DAILY MEAN	14500 Dec 6	14500 Dec 6	58000 Dec 22 1964
LOWEST DAILY MEAN	11 Aug 12	18 Oct 1	0.10 Aug 29 1977
ANNUAL SEVEN-DAY MINIMUM	12 Aug 11	21 Oct 1	0.63 Aug 23 1977
MAXIMUM PEAK FLOW		23900 Jan 6	81000 Dec 22 1964
MAXIMUM PEAK STAGE		17.16 Jan 6	30.70 Dec 22 1964
ANNUAL RUNOFF (AC-FT)	494300	804100	978100
10 PERCENT EXCEEDS	1930	3110	3700
50 PERCENT EXCEEDS	169	212	275
90 PERCENT EXCEEDS	20	30	31

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 mi².

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 sea level.

REMARKS.—Records good except for daily discharges below 15 ft³/s, which are fair. No storage or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,830 ft³/s, Mar. 18, 1975, gage height, 14.19 ft, from rating curve extended above 3,100 ft³/s, on basis of slope-area measurement at gage height 14.08 ft; minimum daily, 1.8 ft³/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 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 5	2000	3,340	8.82	Feb. 20	0300	3,180	8.61

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	11	598	472	175	154	83	77	20	12	6.1	4.2
2	3.4	6.9	454	585	167	135	78	62	20	11	6.1	3.8
3	3.1	5.4	606	378	154	121	72	56	18	11	6.2	3.4
4	3.0	4.7	260	260	142	108	68	48	17	11	6.3	3.4
5	3.3	4.4	1790	258	132	105	66	44	16	10	6.1	3.3
6	3.4	4.1	1530	1110	125	130	63	42	16	9.9	5.8	3.3
7	3.8	3.8	546	575	273	212	59	40	16	9.7	5.7	3.4
8	3.8	3.8	322	463	374	159	56	37	15	9.4	5.3	3.4
9	3.6	3.3	230	334	253	147	57	36	15	9.3	4.9	3.3
10	3.5	3.3	176	254	194	171	57	34	15	9.1	4.8	3.3
11	4.3	3.5	147	206	164	262	55	32	14	8.9	4.6	3.3
12	4.2	15	130	182	146	332	52	31	14	8.8	4.5	3.4
13	3.9	37	363	161	132	360	47	30	14	9.0	4.3	3.6
14	3.8	23	932	144	121	316	82	29	14	8.8	4.3	3.8
15	3.8	18	391	130	110	225	69	28	14	8.5	4.3	3.8
16	3.7	142	307	118	102	195	71	27	14	8.3	4.3	3.8
17	3.8	55	605	114	98	202	153	26	14	8.2	4.3	4.0
18	3.7	26	389	103	92	186	115	26	20	7.9	4.4	4.3
19	3.8	20	465	102	434	158	88	26	16	7.8	4.4	4.7
20	3.8	24	580	97	1850	138	75	32	14	7.8	4.4	3.8
21	3.8	74	326	409	581	124	66	26	14	7.6	4.5	3.3
22	4.4	154	425	357	321	148	59	25	14	7.6	4.4	3.1
23	13	75	523	263	1060	197	54	24	14	8.1	4.5	2.9
24	7.6	210	322	200	701	235	48	23	14	8.2	4.9	2.7
25	4.8	271	235	188	391	181	46	22	14	8.0	5.2	2.6
26	4.2	209	192	740	275	152	44	22	12	7.6	5.1	2.6
27	3.8	102	169	424	215	133	46	22	12	7.3	4.6	2.7
28	3.8	235	150	288	180	118	43	24	11	6.7	4.3	2.8
29	4.0	584	155	222	---	107	41	22	11	6.5	4.3	3.0
30	23	237	183	185	---	97	92	21	12	6.5	4.3	3.0
31	22	---	456	162	---	89	---	20	---	6.2	4.3	---
TOTAL	167.9	2565.2	13957	9484	8962	5397	2005	1014	444	266.7	151.5	102.0
MEAN	5.416	85.51	450.2	305.9	320.1	174.1	66.83	32.71	14.80	8.603	4.887	3.400
MAX	23	584	1790	1110	1850	360	153	77	20	12	6.3	4.7
MIN	3.0	3.3	130	97	92	89	41	20	11	6.2	4.3	2.6
AC-FT	333	5090	27680	18810	17780	10700	3980	2010	881	529	301	202

11481200 LITTLE RIVER NEAR TRINIDAD, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.35	159.6	311.9	341.0	294.8	254.2	136.6	74.04	32.45	13.08	8.181	7.644
MAX	202	849	1083	1145	816	819	521	271	168	31.4	23.3	28.4
(WY)	1963	1974	1965	1970	1986	1975	1963	1960	1993	1983	1983	1986
MIN	4.70	4.62	7.45	28.2	19.7	35.5	22.1	21.9	12.2	6.12	3.59	3.35
(WY)	1988	1994	1977	1977	1977	1988	1977	1987	1966	1959	1959	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1956 - 2002	
ANNUAL TOTAL	26726.2		44516.3			
ANNUAL MEAN	73.22		122.0		137.7	
HIGHEST ANNUAL MEAN					240	
LOWEST ANNUAL MEAN					23.8	
HIGHEST DAILY MEAN	1790	Dec 5	1850	Feb 20	7860	Mar 18 1975
LOWEST DAILY MEAN	2.4	Sep 23	2.6	Sep 25	1.8	Sep 25 1991
ANNUAL SEVEN-DAY MINIMUM	2.7	Sep 18	2.8	Sep 23	1.9	Sep 24 1991
MAXIMUM PEAK FLOW			3340	Dec 5	9830	Mar 18 1975
MAXIMUM PEAK STAGE			8.82	Dec 5	14.19	Mar 18 1975
ANNUAL RUNOFF (AC-FT)	53010		88300		99780	
10 PERCENT EXCEEDS	179		333		360	
50 PERCENT EXCEEDS	21		26		35	
90 PERCENT EXCEEDS	3.8		3.8		5.7	

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—June 1953 to September 1958, October 1972 to September 1993, October 1997 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 sea level, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 12,200 ft³/s, Mar. 18, 1975, gage height, 13.70 ft, from rating curve extended above 6,400 ft³/s; minimum daily, 0.69 ft³/s, Sept. 30, 1993.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,300 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 6	unknown	5,200	9.06	Jan. 6	0215	2,400	6.20
Dec. 14	0000	3,060	6.98	Feb. 20	0645	3,010	6.92
Jan. 2	1015	2,360	6.15				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	9.3	737	859	280	362	203	143	34	14	5.3	1.9
2	2.9	6.1	623	1640	265	323	196	129	33	14	5.2	1.6
3	2.8	4.7	635	923	251	288	191	114	e32	13	5.1	1.4
4	2.5	3.9	356	636	239	264	182	105	30	13	5.6	1.4
5	2.4	3.7	e2360	664	225	260	172	98	28	13	6.1	1.6
6	2.8	3.7	e3200	2090	217	283	162	93	27	12	6.2	2.0
7	3.0	3.5	839	1180	794	320	154	88	27	12	5.9	2.5
8	3.0	3.5	535	976	816	267	145	83	26	11	5.4	2.8
9	3.0	3.4	423	700	528	254	148	78	26	11	4.7	2.6
10	3.0	3.2	339	547	424	255	149	74	25	11	3.9	2.3
11	3.1	3.6	285	456	361	292	145	70	24	9.7	3.4	1.9
12	3.4	8.1	264	403	324	359	137	66	23	9.2	3.1	1.6
13	3.6	24	638	359	298	377	125	63	22	9.4	2.6	1.4
14	3.4	37	1450	322	276	352	148	61	21	8.9	2.3	1.2
15	3.2	29	660	289	253	316	140	59	21	8.8	2.3	1.3
16	3.0	135	621	261	236	289	143	56	21	8.8	2.2	1.7
17	3.0	75	1280	245	222	280	171	54	21	8.8	2.1	2.0
18	3.0	36	782	222	206	258	159	52	22	8.8	2.0	3.0
19	3.0	27	869	212	803	250	156	53	22	8.5	2.1	3.4
20	3.0	70	785	200	2030	259	151	66	21	8.5	2.5	2.6
21	3.0	288	550	517	938	269	142	59	19	7.5	2.9	1.8
22	3.1	310	657	423	667	315	135	55	19	7.1	3.2	1.4
23	7.8	127	649	337	1100	415	125	51	18	7.6	3.0	1.0
24	8.2	181	492	307	874	445	115	48	18	7.2	2.9	1.00
25	5.3	237	408	323	659	356	110	45	17	6.9	2.8	0.91
26	4.4	140	355	612	541	309	104	42	17	6.9	2.9	0.83
27	4.3	81	360	435	467	277	110	42	15	6.5	2.8	0.81
28	4.3	314	380	366	410	253	102	44	15	6.0	2.4	0.90
29	4.7	628	504	316	---	239	99	40	15	5.6	2.1	1.1
30	13	303	514	280	---	225	139	38	15	5.5	1.9	1.6
31	19	---	686	253	---	214	---	36	---	5.4	1.9	---
TOTAL	137.4	3098.7	23236	17353	14704	9225	4358	2105	674	285.6	106.8	51.55
MEAN	4.432	103.3	749.5	559.8	525.1	297.6	145.3	67.90	22.47	9.213	3.445	1.718
MAX	19	628	3200	2090	2030	445	203	143	34	14	6.2	3.4
MIN	2.4	3.2	264	200	206	214	99	36	15	5.4	1.9	0.81
AC-FT	273	6150	46090	34420	29170	18300	8640	4180	1340	566	212	102

e Estimated.

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	35.53	241.5	437.8	502.8	563.1	469.3	289.8	150.8	65.81	20.88	9.368	8.387
MAX	226	1179	1563	1628	1479	1306	748	337	253	46.4	27.4	29.2
(WY)	1974	1974	1956	1956	1958	1975	1982	1993	1993	1993	1983	1986
MIN	2.30	15.2	12.3	31.3	42.2	81.5	62.6	53.0	22.3	9.21	3.14	1.72
(WY)	1988	1977	1977	1977	1977	1988	1988	1992	1987	2002	1992	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1954 - 2002	
ANNUAL TOTAL	51085.5		75335.05			
ANNUAL MEAN	140.0		206.4		231.3	
HIGHEST ANNUAL MEAN					423 1956	
LOWEST ANNUAL MEAN					44.2 1977	
HIGHEST DAILY MEAN	3200	Dec 6	3200	Dec 6	8360	Mar 18 1975
LOWEST DAILY MEAN	1.8	Sep 23	0.81	Sep 27	0.69	Sep 30 1993
ANNUAL SEVEN-DAY MINIMUM	2.0	Sep 18	0.94	Sep 23	0.94	Sep 23 2002
MAXIMUM PEAK FLOW			5200	Dec 6	12200	Mar 18 1975
MAXIMUM PEAK STAGE			9.06	Dec 6	13.70	Mar 18 1975
ANNUAL RUNOFF (AC-FT)	101300		149400		167600	
10 PERCENT EXCEEDS	355		616		588	
50 PERCENT EXCEEDS	45		55		74	
90 PERCENT EXCEEDS	3.0		2.5		6.1	

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 1973–92, October 2000 to current year.

SEDIMENT DATA: Water years 1973–92, October 2000 to current year.

PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: October 1972 to September 1992 (storm season only).

SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1992, October 2000 to April 2002.

REMARKS.—Sediment samples are collected on most days where water temperature is published. Zero bed-load discharge observed for flows less than 310 ft³/s.

EXTREMES FOR PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: Maximum recorded, 33.5°C, Aug. 2, 1977; minimum recorded, 0.5°C, Jan. 9, 1997.

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.—

SEDIMENT CONCENTRATION (storm season only): Maximum daily mean, 1520 mg/L, estimated, Dec. 6; minimum daily mean, 0 mg/L, Oct. 1.

SEDIMENT LOAD (storm season only): Maximum daily, 8100 tons, estimated, Dec. 6; minimum daily, 0 ton, on Oct. 1, 2.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
31...	1630	17	13.0	18	.83	45
NOV						
29...	1630	578	7.0	66	103	73
DEC						
05...	1630	e3170	8.0	1240	e10600	52
06...	1610	1510	9.0	333	1360	64
07...	1630	723	7.5	75	146	68
18...	1440	706	7.0	60	530	64
JAN						
08...	1455	937	12.0	84	212	53
FEB						
20...	1425	1820	8.5	378	1860	47
MAR						
26...	1320	303	8.5	2	1.6	72
MAY						
02...	1410	128	11.5	2	.69	69

PARTICLE SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE BEDLOAD SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLNG (YES=1) (CODE) (04117)	START- ING TIME (2400 HOURS) (82073)	END- ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)	HORI- ZONTAL WIDTH OF VER- TICAL (FEET) (04121)
DEC									
18...	1200	1000	1100	.25	0	1155	1207	15	4.0
18...	1220	1000	1100	.25	0	1215	1224	15	4.0
JAN									
08...	1220	1000	1100	.25	0	1215	1232	15	4.0
08...	1245	1000	1100	.25	0	1236	1257	15	4.0
FEB									
20...	1125	1000	1100	.25	0	1105	1141	15	4.0
20...	1205	1000	1100	.25	0	1145	1223	15	4.0
20...	1550	1000	1100	.25	0	1530	1612	15	5.0

e Estimated.

REDWOOD CREEK BASIN

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	3.2	0.0	0.00	9.3	16	0.40	737	249	689
2	2.9	1.0	0.00	6.1	13	0.22	623	72	120
3	2.8	2.0	0.02	4.7	11	0.14	635	187	348
4	2.5	4.0	0.02	3.9	8.0	0.09	356	38	36.9
5	2.4	5.0	0.03	3.7	6.0	0.06	e2360	e1200	e6400
6	2.8	6.0	0.04	3.7	3.0	0.03	e3200	e1520	e8100
7	3.0	6.0	0.05	3.5	3.0	0.02	839	135	330
8	3.0	5.0	0.04	3.5	3.0	0.03	535	61	89.4
9	3.0	5.0	0.04	3.4	4.0	0.04	423	45	51.6
10	3.0	5.0	0.04	3.2	5.0	0.04	339	28	25.9
11	3.1	4.0	0.04	3.6	5.0	0.05	285	12	9.7
12	3.4	4.0	0.04	8.1	7.0	0.16	264	8.0	5.6
13	3.6	4.0	0.04	24	15	1.0	638	285	1790
14	3.4	4.0	0.03	37	10	1.1	1450	581	3010
15	3.2	3.0	0.03	29	13	1.0	660	159	286
16	3.0	3.0	0.02	135	65	32.4	621	161	273
17	3.0	3.0	0.02	75	20	4.7	1280	387	1520
18	3.0	2.0	0.02	36	8.0	0.80	782	142	311
19	3.0	2.0	0.02	27	4.0	0.34	869	154	366
20	3.0	2.0	0.01	70	13	2.5	785	78	169
21	3.0	1.0	0.01	288	139	250	550	62	92.4
22	3.1	1.0	0.01	310	115	113	657	52	92.3
23	7.8	3.0	0.06	127	45	15.7	649	50	88.4
24	8.2	3.0	0.06	181	57	30.6	492	51	67.8
25	5.3	2.0	0.03	237	84	53.4	408	52	56.8
26	4.4	2.0	0.02	140	67	25.7	355	52	49.9
27	4.3	2.0	0.02	81	44	9.8	360	56	54.7
28	4.3	2.0	0.02	314	179	332	380	55	57.1
29	4.7	2.0	0.03	628	106	198	504	91	126
30	13	10	0.46	303	29	25.4	514	102	156
31	19	18	0.91	---	---	---	686	142	267
TOTAL	137.4	---	2.18	3098.7	---	1098.72	23236	---	25039.5
	JANUARY			FEBRUARY			MARCH		
1	859	214	541	280	10	7.6	362	9.0	8.9
2	1640	504	2420	265	8.0	5.5	323	9.0	8.0
3	923	242	615	251	5.0	3.6	288	9.0	7.2
4	636	134	234	239	4.0	2.6	264	9.0	6.7
5	664	145	399	225	5.0	2.8	260	10	6.7
6	2090	798	4590	217	5.0	2.9	283	10	7.3
7	1180	320	1050	794	171	604	320	10	8.4
8	976	109	293	816	123	301	267	10	7.1
9	700	67	127	528	23	33.4	254	10	6.8
10	547	64	94.5	424	8.0	9.3	255	10	6.9
11	456	61	74.7	361	6.0	5.8	292	10	7.9
12	403	57	62.4	324	6.0	4.9	359	17	16.9
13	359	54	52.1	298	5.0	4.1	377	15	15.6
14	322	50	43.4	276	5.0	3.7	352	14	13.1
15	289	46	36.0	253	5.0	3.4	316	13	10.8
16	261	32	23.0	236	4.0	2.8	289	12	9.4
17	245	16	10.7	222	4.0	2.3	280	11	8.0
18	222	11	6.7	206	3.0	1.8	258	9.0	6.1
19	212	14	8.2	803	251	992	250	8.0	5.2
20	200	15	8.0	2030	731	4700	259	7.0	5.0
21	517	74	133	938	195	508	269	7.0	4.8
22	423	56	65.2	667	69	128	315	11	10.9
23	337	37	33.9	1100	137	432	415	21	24.7
24	307	35	29.1	874	150	358	445	17	21.1
25	323	40	34.8	659	85	154	356	5.0	5.3
26	612	54	95.4	541	26	39.0	309	3.0	2.6
27	435	28	32.9	467	12	15.7	277	4.0	3.0
28	366	23	23.0	410	10	10.8	253	4.0	2.4
29	316	18	15.8	---	---	---	239	3.0	1.9
30	280	15	11.3	---	---	---	225	3.0	1.8
31	253	12	8.5	---	---	---	214	3.0	1.7
TOTAL	17353	---	11171.6	14704	---	8339.0	9225	---	252.2

e Estimated.

11481500 REDWOOD CREEK NEAR BLUE LAKE, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	203	3.0	1.6
2	196	2.0	1.2
3	191	3.0	1.3
4	182	3.0	1.5
5	172	3.0	1.3
6	162	2.0	0.95
7	154	2.0	0.83
8	145	2.0	0.79
9	148	3.0	1.3
10	149	4.0	1.8
11	145	4.0	1.7
12	137	4.0	1.4
13	125	3.0	1.0
14	148	5.0	2.2
15	140	5.0	1.8
16	143	4.0	1.7
17	171	8.0	3.8
18	159	7.0	3.1
19	156	5.0	2.3
20	151	5.0	2.2
21	142	4.0	1.6
22	135	3.0	1.2
23	125	3.0	1.0
24	115	3.0	0.93
25	110	3.0	0.89
26	104	3.0	0.85
27	110	3.0	0.89
28	102	3.0	0.83
29	99	3.0	0.81
30	139	4.0	1.5
31	---	---	---
TOTAL	4358	---	44.27
PERIOD	72112.10		45947.47

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	137.40	2.18	0	2
NOVEMBER	3098.70	1098.72	152	1251
DECEMBER	23236.00	25039.50	8805	33844
JANUARY 2002	17353.00	11171.60	4741	15912
FEBRUARY	14704.00	8339.00	3593	11932
MARCH	9225.00	252.20	60	312
APRIL	4358.00	44.27	0	44
TOTAL	72112.10	45947.47	17351	63298

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 mi².

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 sea level. 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 to Aug. 3, 1987, nonrecording gage at same site and datum.

REMARKS.—Records good except for daily discharges below 10 ft³/s, which are fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 50,500 ft³/s, Dec. 22, 1964, former site, from outside high-water marks, maximum gage height, 28.22 ft, Jan. 1, 1997; minimum daily, 2.1 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 9,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 6	0130	16,500	21.95	Dec. 14	0500	9,420	19.28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	62	2760	2410	1480	1740	802	535	154	64	23	9.3
2	5.0	45	3300	4260	1450	1510	742	472	150	61	22	8.5
3	4.9	32	3820	3300	1380	1310	687	434	144	58	22	8.1
4	4.5	24	2290	2270	1290	1150	648	398	137	56	21	7.8
5	4.2	19	8280	1970	1200	1050	614	369	132	54	20	7.5
6	4.3	16	11100	7240	1130	1130	582	352	128	53	19	7.2
7	4.1	15	4640	5370	2150	1790	548	336	122	51	19	7.3
8	4.0	12	2720	4420	3850	1350	517	319	118	48	18	6.9
9	4.0	11	2110	3350	2620	1190	505	304	114	46	18	6.6
10	3.8	11	1690	2590	2110	1270	547	293	112	45	17	6.5
11	5.2	11	1370	2110	1820	1580	529	281	109	43	16	6.5
12	6.4	38	1190	1870	1620	1830	506	268	104	41	15	6.4
13	5.7	95	1470	1640	1410	2010	460	259	99	41	14	6.4
14	5.2	118	6840	1450	1260	2110	703	251	96	40	13	6.5
15	4.9	124	3190	1300	1170	1810	638	242	94	38	12	6.6
16	4.5	487	2690	1170	1090	1630	591	233	92	37	12	6.5
17	4.4	425	4500	1090	1030	1630	994	224	90	36	11	6.6
18	4.3	198	3310	997	970	1480	976	218	107	36	11	7.7
19	4.1	128	3630	958	1640	1310	785	217	101	36	11	7.4
20	4.0	139	4140	893	7160	1230	682	237	93	36	11	7.2
21	3.8	368	2840	2120	4010	1170	607	234	89	34	11	7.0
22	4.2	1560	2900	2350	2630	1230	546	216	83	33	10	7.1
23	21	762	3370	1820	4990	1490	498	204	85	33	10	6.8
24	13	866	2490	1570	4930	1840	456	193	83	32	11	6.5
25	12	1890	2050	1510	3390	1540	428	183	78	31	11	6.0
26	11	1360	1740	3250	2690	1360	408	175	75	31	11	5.5
27	12	765	1560	2820	2300	1210	424	172	72	29	11	5.3
28	13	1060	1480	2280	2000	1100	401	185	71	27	10	5.1
29	11	3830	1530	1950	---	1010	373	178	68	26	9.8	5.4
30	38	1940	1500	1700	---	929	560	170	69	25	9.9	5.2
31	94	---	2500	1470	---	859	---	161	---	24	9.7	---
TOTAL	325.8	16411	99000	73498	64770	43848	17757	8313	3069	1245	439.4	203.4
MEAN	10.51	547.0	3194	2371	2313	1414	591.9	268.2	102.3	40.16	14.17	6.780
MAX	94	3830	11100	7240	7160	2110	994	535	154	64	23	9.3
MIN	3.8	11	1190	893	970	859	373	161	68	24	9.7	5.1
AC-FT	646	32550	196400	145800	128500	86970	35220	16490	6090	2470	872	403

11482500 REDWOOD CREEK AT ORICK, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	147.0	1036	2117	2511	2214	1924	1185	616.9	250.6	85.38	40.76	37.59
MAX	1559	5219	8981	6041	6320	5565	4026	1732	1213	194	91.6	149
(WY)	1963	1974	1965	1956	1986	1975	1963	1912	1993	1993	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1911 - 2002	
ANNUAL TOTAL	193889.3		328879.6			
ANNUAL MEAN	531.2		901.0		1009	
HIGHEST ANNUAL MEAN					1726	
LOWEST ANNUAL MEAN					192	
HIGHEST DAILY MEAN	11100	Dec 6	11100	Dec 6	43200	Dec 22 1964
LOWEST DAILY MEAN	3.2	Sep 24	3.8	Oct 10	2.1	Oct 20 1987
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 19	4.1	Oct 4	2.2	Oct 17 1987
MAXIMUM PEAK FLOW			16500	Dec 6	50500	Dec 22 1964
MAXIMUM PEAK STAGE			21.95	Dec 6	28.22	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	384600		652300		730900	
10 PERCENT EXCEEDS	1470		2540		2700	
50 PERCENT EXCEEDS	179		218		307	
90 PERCENT EXCEEDS	5.2		6.6		24	

11482500 REDWOOD CREEK AT ORICK, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1955–56, 1959 to September 1980, October 1981 to September 1992, October 2000 to September 2001 (daily), October 2001 to September 2002 (storm season only).

CHEMICAL DATA: Water years 1959–66, 1973–81.

WATER TEMPERATURE: Water years 1966–92, October 2000 to September 2001 (daily), October 2001 to September 2002 (storm season only).

SEDIMENT DATA: Water years 1955–56, 1970–92, October 2000 to September 2001 (daily), October 2001 to September 2002 (storm season only).

PERIOD OF DAILY RECORD.—

WATER TEMPERATURE: October 1965 to September 1981, October 1981 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: March 1970 to September 1981, October 1981 to September 1992, October 2000 to April 2001.

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 and 2001.

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 and 2001.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE D (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
26...	1145	1340	9.5	32	116	84
DEC						
20...	1435	3980	9.0	131	1410	69
JAN						
07...	1410	5010	13.5	252	3410	72

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BAG MESH SIZE SAMPLER (MM) (30333)	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START- ING TIME (2400 HOURS) (82073)	END- ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)	HORI- ZONTAL WIDTH OF VER- TICAL (FEET) (04121)
NOV									
26...	1220	1000	1100	.250	0	1213	1230	20	6.0
26...	1245	1000	1100	.250	0	1238	1254	20	6.0
DEC									
20...	1050	1000	1100	.250	0	1030	1112	15	10.0
20...	1140	1000	1100	.250	0	1120	1204	15	10.0
JAN									
07...	1100	1000	1100	.250	0	1045	1118	15	10.0
07...	1140	1000	1100	.250	0	1125	1158	15	10.0

Date	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMT (NUM) (04118)	VER- TICALS IN COM- POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE (T/D/FT (04122)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY) (80225)
NOV								
26...	2	21	21	3.00	1420	9.5	2.79	370
26...	2	21	21	3.00	1420	9.5	2.69	370
DEC								
20...	2	20	20	5.00	4250	9.0	23.0	4300
20...	2	20	20	5.00	4170	9.0	22.3	4300
JAN								
07...	2	20	20	5.00	5330	13.5	17.6	2800
07...	2	20	20	5.00	5300	13.5	10.0	2800

11482500 REDWOOD CREEK AT ORICK, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	BEDLOAD SIEVE DIAM. % FINER THAN (80229)	BEDLOAD SIEVE DIAM. % FINER THAN (80230)	BEDLOAD SIEVE DIAM. % FINER THAN (80231)	BEDLOAD SIEVE DIAM. % FINER THAN (80232)	BEDLOAD SIEVE DIAM. % FINER THAN (80233)	BEDLOAD SIEVE DIAM. % FINER THAN (80234)	BEDLOAD SIEVE DIAM. % FINER THAN (80235)	BEDLOAD SIEVE DIAM. % FINER THAN (80236)
NOV								
26...	1	9	20	45	77	96	100	--
26...	2	9	32	59	81	95	100	--
DEC								
20...	4	15	28	48	71	89	99	100
20...	6	25	36	51	65	86	95	100
JAN								
07...	5	20	37	60	75	89	100	100
07...	8	17	25	43	64	84	94	100

KLAMATH RIVER BASIN

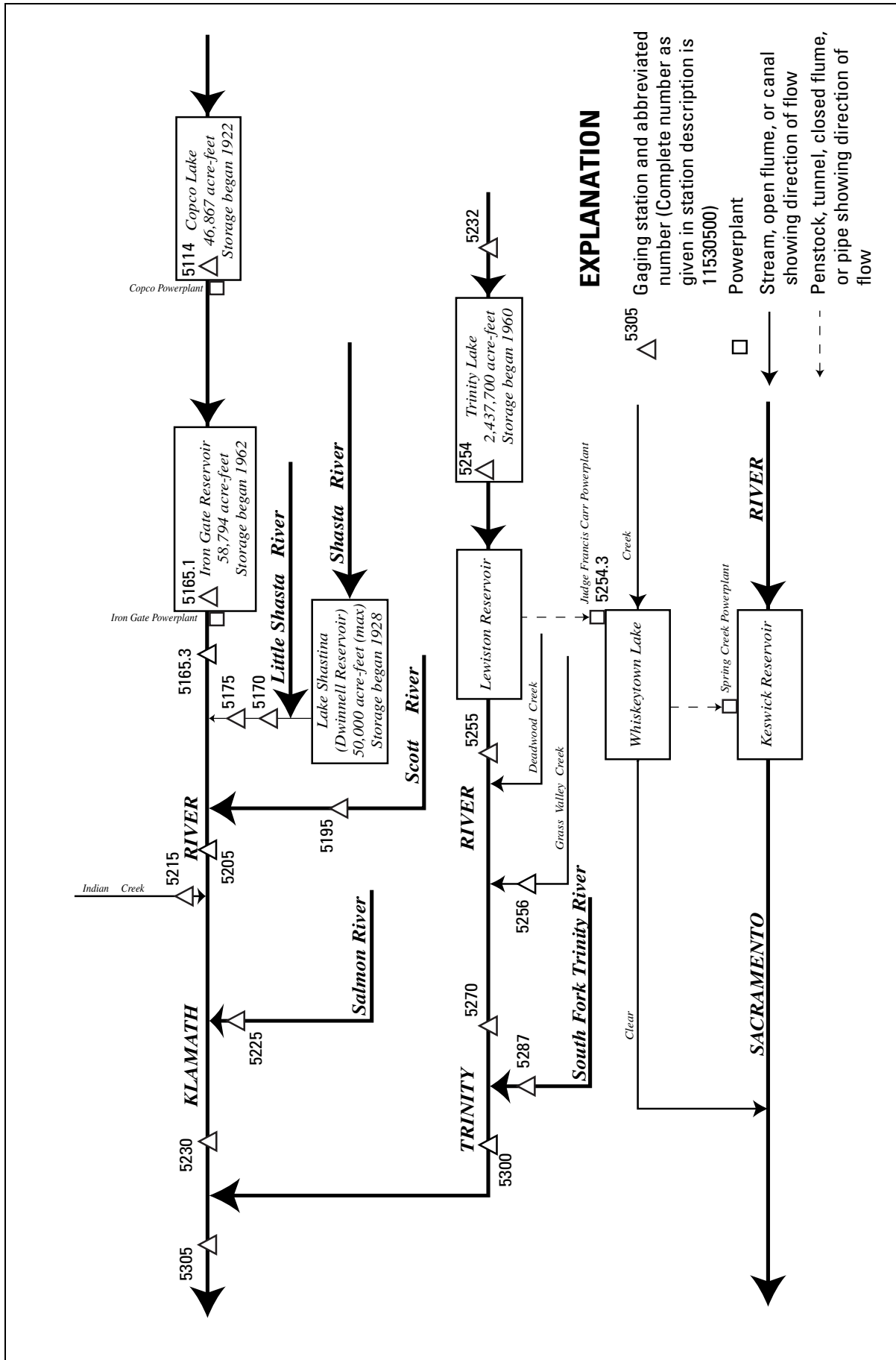


Figure 24. Diversions and storage in Klamath River and Trinity River Basins

RESERVOIRS IN KLAMATH RIVER BASIN, CA

11511400 COPCO LAKE NEAR COPCO

LOCATION.—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 mi², 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 sea level (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 Federal Energy Regulatory Commission project no. 2082. 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, 46,372 acre-ft, June 6 and Sept. 26, elevation, 2,607.00 ft; minimum, 39,660 acre-ft, Apr. 23, elevation, 2,599.95 ft.

11516510 IRON GATE RESERVOIR NEAR HORN BROOK

LOCATION.—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 mi², 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 sea level (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 Federal Energy Regulatory Commission project no. 2082. Contents not rounded to U.S. Geological Survey standards.

EXTREMES (at 0800) FOR PERIOD OF RECORD.—Maximum contents, 61,797 acre-ft, Jan. 1, 1997, elevation, 2,330.98 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, 59,385 acre-ft, Feb. 27, 28, elevation, 2,328.60 ft; minimum, 53,725 acre-ft, Dec. 26, elevation, 2,322.59 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800 HOURS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)
	11511400 COPCO LAKE			11516510 IRON GATE RESERVOIR		
Sept. 30	2,605.05	44,466	—	2,325.62	56,508	—
Oct. 31	2,601.90	41,474	-2,992	2,325.38	56,283	-225
Nov. 30	2,603.30	42,790	+1,316	2,323.98	54,986	-1,297
Dec. 31	2,603.68	43,150	+360	2,325.26	56,169	+1,183
CAL YR 2001	—	—	+3,351	—	—	-1,538
Jan. 31	2,603.80	43,266	+116	2,323.68	54,711	-1,458
Feb. 28	2,606.35	45,730	+2,464	2,328.60	59,385	+4,674
Mar. 31	2,600.30	39,982	-5,748	2,328.08	58,870	-515
Apr. 30	2,604.40	43,840	+3,858	2,325.88	56,754	-2,116
May 31	2,605.95	45,340	+1,500	2,325.35	56,253	-501
June 30	2,604.09	43,544	-1,796	2,325.44	56,338	+85
July 31	2,603.80	43,266	-278	2,325.75	56,631	+293
Aug. 31	2,606.00	45,390	+2,124	2,325.85	56,726	+95
Sept. 30	2,605.80	45,194	-196	2,325.70	56,582	-144
WTR YR 2002	—	—	+728	—	—	+74

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 mi², approximately (not including Lost River, Butte Creek, or Lower Klamath Lake Basins).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1960 to current year.

GAGE.—Water-stage recorder. Datum of gage is 2,162.44 ft above sea level (levels by PacifiCorp, formerly Pacific Power & Light Co.).

REMARKS.—Records excellent. 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 ft³/s, Dec. 22, 1964, gage height, 13.63 ft, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 389 ft³/s, Aug. 25–28, 1992.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	1330	1320	1330	1590	3020	1950	1410	1260	957	679	731
2	1170	1330	1300	1450	1590	2980	1850	1380	1130	957	660	762
3	1170	1330	1300	2170	1590	2980	1800	1390	994	956	660	759
4	1170	1330	1300	2580	1590	2950	1790	1580	967	957	659	757
5	1200	1330	1310	2540	1590	2710	1790	1710	980	955	659	762
6	1340	1330	1300	2390	1590	2510	1790	1710	983	953	660	762
7	1350	1330	1300	2190	1600	2490	1790	1720	984	951	660	762
8	1350	1330	1300	2200	1600	2480	1790	1710	988	952	660	762
9	1340	1310	1300	2010	1600	2440	1790	1720	992	954	660	762
10	1340	1310	1300	1820	1610	2430	1780	1720	995	955	662	762
11	1330	1300	1310	1750	1610	2420	1790	1710	995	887	663	762
12	1330	1310	1310	1700	1610	2450	1790	1710	994	794	663	762
13	1340	1310	1360	1690	1610	2470	1790	1720	996	773	662	761
14	1340	1300	1410	1690	1610	2460	1790	1730	999	772	665	762
15	1330	1300	1330	1700	1610	2460	1790	1710	1000	771	665	760
16	1330	1310	1320	1700	1610	2430	1790	1710	1000	773	665	757
17	1330	1310	1330	1700	1610	2430	1790	1670	993	773	663	758
18	1340	1310	1320	1730	1610	2420	1780	1640	981	773	663	761
19	1330	1310	1320	1780	1610	2300	1780	1520	982	778	665	758
20	1330	1310	1330	1780	1740	2130	1780	1410	983	774	665	761
21	1330	1310	1320	1720	1810	1950	1770	1310	971	778	666	758
22	1330	1300	1320	1630	1810	1970	1770	1330	959	778	670	762
23	1330	1310	1310	1600	2190	2040	1770	1320	957	778	669	761
24	1330	1310	1310	1600	2560	2100	1770	1320	958	778	667	762
25	1330	1310	1320	1600	2550	2050	1770	1320	958	778	669	762
26	1330	1300	1320	1600	2760	2040	1730	1320	959	773	671	763
27	1330	1300	1320	1600	3020	2040	1610	1320	959	772	671	767
28	1330	1300	1320	1590	3070	2050	1470	1330	958	773	672	1170
29	1330	1300	1330	1590	---	2020	1380	1320	955	774	674	1350
30	1330	1300	1330	1580	---	1970	1410	1320	956	777	674	1350
31	1330	---	1340	1590	---	1970	---	1320	---	776	672	---
TOTAL	40560	39370	40910	55600	51950	73160	52440	47110	29786	25950	20633	24388
MEAN	1308	1312	1320	1794	1855	2360	1748	1520	992.9	837.1	665.6	812.9
MAX	1350	1330	1410	2580	3070	3020	1950	1730	1260	957	679	1350
MIN	1170	1300	1300	1330	1590	1950	1380	1310	955	771	659	731
AC-FT	80450	78090	81140	110300	103000	145100	104000	93440	59080	51470	40930	48370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	1624	2069	2660	2958	3114	3619	2991	2142	1154	797.2	975.9	1281
MAX	3353	5254	6735	9553	9150	10780	6922	5559	3289	1429	1208	2052
(WY)	1985	1985	1984	1997	1965	1972	1971	1998	1998	1982	1965	1965
MIN	852	873	889	888	525	511	572	512	506	428	398	538
(WY)	1982	1992	1992	1992	1992	1992	1994	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	489367		501857			
ANNUAL MEAN	1341		1375		2111	
HIGHEST ANNUAL MEAN					3657	
LOWEST ANNUAL MEAN					641	
HIGHEST DAILY MEAN	2120	Jun 5	3070	Feb 28	25000	Dec 22 1964
LOWEST DAILY MEAN	977	Jul 2	659	Aug 4	389	Aug 25 1992
ANNUAL SEVEN-DAY MINIMUM	979	Jul 2	660	Aug 2	390	Aug 24 1992
MAXIMUM PEAK FLOW			3110		Feb 28	29400
MAXIMUM PEAK STAGE			5.07		Feb 28	13.63
INSTANTANEOUS LOW FLOW					389	
ANNUAL RUNOFF (AC-FT)	970700		995400		1529000	
10 PERCENT EXCEEDS	1670		2040		4120	
50 PERCENT EXCEEDS	1300		1330		1400	
90 PERCENT EXCEEDS	1020		758		734	

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1962–80, December 1999 to September 2001, June 2002 to September 2002.

CHEMICAL DATA: Water years 1962–81, June 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: Water years 2000–01, June 2002 to September 2002 (seasonal only).

pH: Water years 2000–01, June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: Water years 2000–01, June 2002 to September 2002 (seasonal only).

AIR TEMPERATURE: Water years 2000–01.

WATER TEMPERATURE: Water years 1962–80, 2000–01, June 2002 to September 2002 (seasonal only).

PRECIPITATION: Water years 2000–01.

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: December 1999 to September 2001, June 2002 to September 2002 (seasonal only).

pH: December 1999 to September 2001, June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: December 1999 to September 2001, June 2002 to September 2002 (seasonal only).

AIR TEMPERATURE: December 1999 to September 2001.

WATER TEMPERATURE: October 1962 to June 1980, December 1999 to September 2001, June 2002 to September 2002 (seasonal only).

PRECIPITATION: December 1999 to September 2001.

INSTRUMENTATION.—Water-quality monitor since December 1999. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved Oxygen records rated excellent except for Sept. 18–30, which are rated good. pH records rated excellent except for Aug. 29 to Sept. 18, which are rated good. Specific conductance records rated excellent. Water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 13.5 mg/L, Mar. 8, 2001; minimum recorded, 3.0 mg/L, July 23, 2001.

pH: Maximum recorded, 9.3 standard units, Aug. 20, 2001; minimum recorded, 6.4 standard units, Dec. 7, 8, 2001.

SPECIFIC CONDUCTANCE: Maximum recorded, 219 microsiemens, June 16, 17, 2000; minimum recorded, 132 microsiemens, June 17, 2001.

AIR TEMPERATURE: Maximum recorded, 109°F, May 22, 2001; minimum recorded, 13°F, Dec. 30, 2000, Jan. 17, 2001.

WATER TEMPERATURE: Maximum recorded, 23.5°C, Aug. 3, 4, 1977, Aug. 10, 1978; minimum recorded, 0.5°C, many days in 1972.

PRECIPITATION: Maximum daily rainfall, 0.26 inches, Jan. 10, 2000; no rainfall for many days each year.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 12.9 mg/L, July 15; minimum recorded, 5.1 mg/L, Sept. 4.

pH: Maximum recorded, 9.0 standard units, July 30; minimum recorded, 7.4 standard units, Sept. 14.

SPECIFIC CONDUCTANCE: Maximum recorded, 205 microsiemens, July 14; minimum recorded, 164 microsiemens, Sept. 22.

WATER TEMPERATURE: Maximum recorded, 22.5°C, July 13, 14, 19, 26, 28; minimum recorded, 16.5°C, Sept. 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)
JUN								
25...*	1400	696	6.6	79	8.1	197	19.7	100
25...*	1405	696	6.5	78	8.1	198	19.7	80.0
25...*	1410	696	6.5	78	8.1	197	19.6	60.0
25...*	1415	696	6.5	78	8.1	197	19.6	40.0
25...*	1420	696	6.5	78	8.1	197	19.5	20.0
SEP								
18...*	0955	703	8.6	100	8.2	183	18.5	106
18...*	1000	703	8.6	100	8.2	183	18.5	82.0
18...*	1005	703	8.6	100	8.2	183	18.5	64.0
18...*	1010	703	8.6	99	8.2	184	18.0	46.0
18...*	1015	703	8.6	99	8.2	184	18.0	26.0

* Instantaneous discharge at the time of the cross-sectional measurements: June 25, 959 ft³/s; Sept. 18, 762 ft³/s.

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, PH WATER SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LITY WAT. DIS FET LAB CACO3 (MG/L) (29801)	
JUL 2002										
11...	0820	897	1.7	700	7.1	86	8.4	209	20.5	80
AUG										
14...	1610	665	3.4	702	9.9	122	8.7	182	21.5	81
SEP										
18...	0845	773	1.7	703	8.7	99	8.1	183	17.5	e77
Date		NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
JUL 2002										
11...	.032	.54	.073	.11	.15	6.3	2.0	3.6	--	--
AUG										
14...	.039	.66	.131	.10	.17	10.3	2.8	40.4	--	--
SEP										
18...	.027	.55	.214	.15	.16	6.4	5.0	8.4	2	2
Date		ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JUL 2002										
11...	--	--	--	--	--	--	--	--	--	--
AUG										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	e.03	5	7	<.06	<.04	<.8	.11	.8	e.07	e.07
Date		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JUL 2002										
11...	--	--	--	--	--	--	--	--	--	--
AUG										
14...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	7.3	e.01	<.01	1.0	.80	<2	<1	v4	.10	.10

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	9.2	7.6	7.5	6.9
3	---	---	---	---	---	---	---	---	9.6	8.2	7.5	5.2
4	---	---	---	---	---	---	---	---	9.4	7.8	7.5	5.1
5	---	---	---	---	---	---	---	---	9.0	7.7	7.4	6.8
6	---	---	---	---	---	---	---	---	9.1	8.2	7.8	6.9
7	---	---	---	---	---	---	---	---	8.5	7.5	7.4	7.0
8	---	---	---	---	---	---	---	---	8.6	7.8	7.8	6.8
9	---	---	---	---	---	---	---	---	8.5	7.6	7.0	6.0
10	---	---	---	---	---	---	---	---	---	---	6.6	5.9
11	---	---	---	---	---	---	---	---	---	---	7.0	6.1
12	---	---	---	---	---	---	11.6	9.3	---	---	7.6	5.7
13	---	---	---	---	---	---	12.2	10.7	---	---	7.7	6.0
14	---	---	---	---	---	---	12.6	11.0	---	---	8.1	5.9
15	---	---	---	---	---	---	12.9	11.4	8.8	7.7	7.7	6.4
16	---	---	---	---	---	---	12.8	11.4	8.6	7.7	---	---
17	---	---	---	---	---	---	12.0	10.6	9.4	7.7	---	---
18	---	---	---	---	---	---	10.6	8.3	8.3	7.4	---	---
19	---	---	---	---	---	---	---	---	8.8	7.5	10.7	9.5
20	---	---	---	---	---	---	---	---	9.4	7.3	9.8	8.8
21	---	---	---	---	---	---	---	---	8.2	7.1	9.6	8.4
22	---	---	---	---	---	---	---	---	9.3	7.1	9.4	8.4
23	---	---	---	---	---	---	---	---	9.8	8.4	9.4	8.4
24	---	---	---	---	---	---	---	---	9.4	8.2	9.3	8.4
25	---	---	---	---	---	---	---	---	8.2	7.3	10.6	8.4
26	---	---	---	---	9.0	7.9	---	---	---	---	9.5	8.6
27	---	---	---	---	8.9	7.8	---	---	---	---	9.3	8.6
28	---	---	---	---	---	---	---	---	---	---	9.6	8.0
29	---	---	---	---	---	---	---	---	---	---	9.0	7.4
30	---	---	---	---	---	---	---	---	---	---	8.5	7.4
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.4	8.1	8.8	8.4	8.5	8.1
2	---	---	---	---	---	---	8.4	8.1	8.8	8.3	8.6	8.2
3	---	---	---	---	---	---	8.6	8.1	8.7	8.0	8.8	7.9
4	---	---	---	---	---	---	8.5	8.1	8.6	8.2	8.8	8.2
5	---	---	---	---	---	---	8.4	8.2	8.8	8.3	8.6	8.0
6	---	---	---	---	---	---	8.5	8.2	8.6	8.2	8.5	8.0
7	---	---	---	---	---	---	8.6	8.2	8.6	8.2	8.1	7.6
8	---	---	---	---	---	---	8.4	8.2	8.6	8.2	8.3	7.7
9	---	---	---	---	---	---	8.4	8.2	8.5	8.2	8.3	7.8
10	---	---	---	---	---	---	8.5	8.2	---	---	8.2	7.8
11	---	---	---	---	---	---	8.3	8.1	---	---	8.2	7.7
12	---	---	---	---	---	---	8.3	8.0	---	---	8.3	7.7
13	---	---	---	---	---	---	8.3	8.1	---	---	8.3	7.7
14	---	---	---	---	---	---	8.5	8.0	---	---	8.5	7.4
15	---	---	---	---	---	---	8.4	8.1	8.7	8.2	8.4	7.6
16	---	---	---	---	---	---	8.4	8.1	8.6	8.3	8.3	8.0
17	---	---	---	---	---	---	8.5	8.2	8.9	8.4	8.3	7.7
18	---	---	---	---	---	---	8.5	8.2	8.6	8.2	8.3	8.0
19	---	---	---	---	---	---	8.6	8.1	8.6	8.2	8.4	7.9
20	---	---	---	---	---	---	8.5	8.2	8.8	8.0	8.3	7.8
21	---	---	---	---	---	---	8.5	8.2	8.6	8.0	8.3	7.9
22	---	---	---	---	---	---	8.5	8.1	8.3	7.9	8.2	7.8
23	---	---	---	---	---	---	8.4	7.7	8.5	8.0	8.4	7.8
24	---	---	---	---	---	---	8.6	7.8	8.5	8.1	8.3	7.8
25	---	---	---	---	---	---	8.8	8.4	8.7	8.0	8.8	7.8
26	---	---	---	---	8.3	7.8	8.8	8.3	8.6	8.1	8.5	7.9
27	---	---	---	---	8.2	7.8	8.8	8.3	8.6	8.2	8.3	8.0
28	---	---	---	---	8.3	7.9	8.9	8.4	8.7	8.3	8.5	8.0
29	---	---	---	---	8.3	8.0	8.7	8.5	8.6	8.2	8.3	7.7
30	---	---	---	---	8.4	8.1	9.0	8.4	8.5	8.0	8.1	7.7
31	---	---	---	---	---	---	8.9	8.5	8.3	8.0	---	---
MONTH	---	---	---	---	---	---	9.0	7.7	---	---	8.8	7.4

11516530 KLAMATH RIVER BELOW IRON GATE DAM, CA—Continued

SPECIFIC CONDUCTANCE (MICROLSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	197	195	190	183	177	175
2	---	---	---	---	---	---	198	196	190	183	178	174
3	---	---	---	---	---	---	198	197	190	188	176	174
4	---	---	---	---	---	---	199	196	194	188	178	175
5	---	---	---	---	---	---	202	199	189	187	176	175
6	---	---	---	---	---	---	201	199	190	187	177	172
7	---	---	---	---	---	---	203	201	191	187	178	171
8	---	---	---	---	---	---	203	201	192	187	179	171
9	---	---	---	---	---	---	203	201	191	188	178	175
10	---	---	---	---	---	---	204	203	---	---	178	174
11	---	---	---	---	---	---	204	203	---	---	180	176
12	---	---	---	---	---	---	204	203	---	---	180	179
13	---	---	---	---	---	---	204	203	---	---	182	180
14	---	---	---	---	---	---	205	203	---	---	184	179
15	---	---	---	---	---	---	204	203	183	181	182	179
16	---	---	---	---	---	---	203	201	181	179	182	179
17	---	---	---	---	---	---	203	201	181	179	185	180
18	---	---	---	---	---	---	202	199	184	178	184	182
19	---	---	---	---	---	---	201	199	179	176	185	182
20	---	---	---	---	---	---	200	198	179	177	188	182
21	---	---	---	---	---	---	198	196	181	177	186	183
22	---	---	---	---	---	---	197	194	178	176	187	164
23	---	---	---	---	---	---	197	193	178	175	191	177
24	---	---	---	---	---	---	196	193	177	175	185	181
25	---	---	---	---	---	---	196	193	177	175	182	165
26	---	---	---	---	193	192	194	192	179	175	190	165
27	---	---	---	---	194	193	193	190	179	172	184	177
28	---	---	---	---	195	193	191	189	181	174	190	178
29	---	---	---	---	196	193	191	188	181	176	191	189
30	---	---	---	---	196	195	190	188	177	176	197	191
31	---	---	---	---	---	---	191	187	177	176	---	---
MONTH	---	---	---	---	---	---	205	187	---	---	197	164

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	21.0	19.5	22.0	21.0	20.5	19.5
2	---	---	---	---	---	---	21.5	20.0	21.5	20.5	20.5	19.5
3	---	---	---	---	---	---	22.0	20.0	21.5	20.5	20.5	19.5
4	---	---	---	---	---	---	21.5	19.5	21.0	20.0	20.0	19.5
5	---	---	---	---	---	---	21.0	20.0	21.0	19.5	19.5	19.0
6	---	---	---	---	---	---	21.5	20.0	20.5	20.0	19.0	18.5
7	---	---	---	---	---	---	22.0	20.5	20.5	19.5	18.5	18.0
8	---	---	---	---	---	---	21.0	20.0	20.5	19.5	18.5	18.0
9	---	---	---	---	---	---	21.0	20.0	20.5	19.5	18.5	18.0
10	---	---	---	---	---	---	21.5	20.5	---	---	18.5	18.0
11	---	---	---	---	---	---	22.0	20.5	---	---	19.0	18.0
12	---	---	---	---	---	---	21.5	20.5	---	---	19.0	18.0
13	---	---	---	---	---	---	22.5	20.5	---	---	19.0	18.0
14	---	---	---	---	---	---	22.5	20.5	---	---	19.0	17.5
15	---	---	---	---	---	---	22.0	20.5	21.0	19.5	18.5	17.5
16	---	---	---	---	---	---	21.5	21.0	21.0	20.0	18.5	18.0
17	---	---	---	---	---	---	22.0	21.0	21.5	20.0	18.5	18.0
18	---	---	---	---	---	---	22.0	21.0	21.0	19.5	18.5	17.5
19	---	---	---	---	---	---	22.5	21.0	21.0	20.0	18.5	17.5
20	---	---	---	---	---	---	22.0	21.0	21.0	19.5	18.5	17.5
21	---	---	---	---	---	---	22.0	21.0	20.0	19.5	18.5	17.5
22	---	---	---	---	---	---	22.0	21.0	20.0	19.5	18.0	17.5
23	---	---	---	---	---	---	21.5	20.5	20.5	19.5	18.5	17.5
24	---	---	---	---	---	---	21.5	20.5	20.0	19.5	18.5	17.5
25	---	---	---	---	---	---	22.0	21.0	21.0	19.5	18.5	17.5
26	---	---	---	---	21.0	19.0	22.5	21.0	20.5	19.5	18.0	17.0
27	---	---	---	---	21.0	19.0	22.0	21.0	20.5	19.5	18.0	17.5
28	---	---	---	---	20.5	19.0	22.5	21.0	20.5	19.5	18.0	17.0
29	---	---	---	---	21.0	19.0	22.0	21.0	20.5	19.5	17.5	17.0
30	---	---	---	---	21.0	19.5	22.0	21.0	21.0	19.5	17.5	16.5
31	---	---	---	---	---	---	22.0	21.0	20.0	19.5	---	---
MONTH	---	---	---	---	---	---	22.5	19.5	---	---	20.5	16.5

11517000 SHASTA RIVER NEAR MONTAGUE, CA

LOCATION.—Lat 41°42'33", long 122°32'13", in SE 1/4 NE 1/4 sec.33, T.45 N., R.6 W., Siskiyou County, Hydrologic Unit 18010207, on right bank, 1.0 mi below Little Shasta River, 17 mi downstream from Lake Shastina, and 2.2 mi southeast of Montague.

DRAINAGE AREA.—673 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—August 1911 to September 1913, September 1916 to November 1933, October 2001 to September 2002.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,458 ft above sea level, from topographic map.

REMARKS.—Records fair. Low flow completely regulated by Lake Shastina (formerly Lake Dwinnell) beginning in 1928; storage limited to 50,000 acre-ft. Many diversions upstream from station for irrigation. See schematic diagram of [Klamath River and Trinity River Basins](#).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,700 ft³/s, Feb. 11, 1925, gage height, 14.9 ft, site and datum then in use; minimum daily, 0.10 ft³/s, Apr. 7, 8, 1918.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	165	180	188	152	159	91	248	42	23	36	34
2	115	165	191	207	155	157	65	226	42	23	35	27
3	108	160	193	261	156	154	52	197	36	22	38	23
4	113	159	179	186	156	156	63	152	37	22	36	22
5	118	159	173	168	154	157	62	135	32	27	32	23
6	118	160	168	165	154	158	65	120	56	32	28	21
7	121	158	165	174	154	159	74	108	60	36	26	38
8	129	159	165	182	156	159	66	103	60	29	25	44
9	133	160	166	186	157	159	55	102	54	29	27	49
10	134	161	167	173	157	160	52	89	59	31	24	40
11	131	161	166	165	157	162	58	57	57	35	24	31
12	137	164	165	162	157	160	61	57	56	28	26	23
13	147	167	168	162	162	160	58	52	41	38	22	25
14	139	168	218	160	158	160	60	38	23	40	22	26
15	136	169	221	158	159	159	69	36	21	38	26	25
16	129	166	193	157	157	165	67	33	21	25	32	24
17	129	162	186	158	158	167	76	32	19	26	20	27
18	127	165	183	158	158	167	97	28	34	28	18	31
19	121	163	180	159	158	167	84	28	28	30	25	34
20	119	165	184	159	175	161	77	41	26	31	26	34
21	128	174	188	166	182	135	72	53	27	28	33	35
22	125	184	181	166	175	124	79	53	24	29	26	32
23	131	181	178	160	175	131	85	64	25	29	23	32
24	143	184	176	158	173	150	86	72	25	28	27	31
25	138	186	174	159	168	153	86	75	31	35	25	35
26	135	184	173	157	166	145	76	54	30	39	21	37
27	143	180	173	156	165	129	72	58	32	34	37	42
28	158	186	171	154	162	124	69	56	29	29	34	41
29	149	185	175	153	---	120	71	47	30	46	28	43
30	155	181	175	151	---	101	184	42	25	32	27	48
31	157	---	193	151	---	94	---	39	---	42	30	---
TOTAL	4074	5081	5568	5219	4516	4612	2232	2495	1082	964	859	977
MEAN	131.4	169.4	179.6	168.4	161.3	148.8	74.40	80.48	36.07	31.10	27.71	32.57
MAX	158	186	221	261	182	167	184	248	60	46	38	49
MIN	108	158	165	151	152	94	52	28	19	22	18	21
AC-FT	8080	10080	11040	10350	8960	9150	4430	4950	2150	1910	1700	1940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2002, BY WATER YEAR (WY)

MEAN	130.9	196.7	217.5	218.8	264.2	213.8	146.6	113.5	71.74	32.69	32.26	71.35
MAX	151	380	536	453	623	491	348	308	218	148	135	147
(WY)	1928	1927	1927	1921	1921	1921	1927	1913	1913	1913	1913	1912
MIN	96.8	96.8	130	136	139	129	14.9	12.2	9.36	8.77	10.7	32.6
(WY)	1930	1930	1933	1933	1933	1924	1924	1924	1924	1924	1924	2002

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1912 - 2002

ANNUAL TOTAL	37679	
ANNUAL MEAN	103.2	141.8
HIGHEST ANNUAL MEAN		254
LOWEST ANNUAL MEAN		86.7
HIGHEST DAILY MEAN	261	2780
LOWEST DAILY MEAN	18	0.10
ANNUAL SEVEN-DAY MINIMUM	24	3.1
MAXIMUM PEAK FLOW	363	5700
MAXIMUM PEAK STAGE	2.91	14.90
ANNUAL RUNOFF (AC-FT)	74740	102700
10 PERCENT EXCEEDS	175	270
50 PERCENT EXCEEDS	118	134
90 PERCENT EXCEEDS	26	16

11517000 SHASTA RIVER NEAR MONTAGUE, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 2001 to September 2002.

CHEMICAL DATA: July 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: October 2001 to September 2002. (seasonal only).

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: October 2001 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since June 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated fair. pH records rated good except for Aug. 1–29, which are rated fair. Specific conductance records rated excellent except for Aug. 29 to Sept. 18, which are rated good. Water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 13.9 mg/L, July 17, 2002; minimum recorded, 5.3 mg/L, Aug. 14, 2002.

pH: Maximum recorded, 8.8 standard units, several days during 2002; minimum recorded, 7.9 standard units, several days during 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 597 microsiemens, Sept. 11, 2002; minimum recorded, 419 microsiemens, July 16, 2002.

WATER TEMPERATURE: Maximum recorded, 27.5°C, June 25, July 11, 2002; minimum recorded, 3.5°C, Jan. 29, 30, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 12.5 mg/L, Sept. 19; minimum recorded, 5.3 mg/L, Aug. 14.

pH: Maximum recorded, 8.8 standard units, several days during the year; minimum recorded, 7.9 standard units, several days during the year.

SPECIFIC CONDUCTANCE: Maximum recorded, 597 microsiemens, Sept. 11; minimum recorded, 419 microsiemens, July 16.

WATER TEMPERATURE: Maximum recorded, 27.5°C, June 25, July 11; minimum recorded, 3.5°C, Jan. 29, 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- TION, (FEET) (81903)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, PH DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- TION, CROSS SECTION (FT FM L BANK) (00009)
APR									
11...*	0925	1.14	--	--	--	--	--	14.0	10.0
11...*	0930	.96	--	--	--	--	--	14.0	18.0
11...*	0935	1.08	--	--	--	--	--	14.0	24.0
11...*	0940	1.00	--	--	--	--	--	14.0	31.0
11...*	0945	.82	--	--	--	--	--	14.0	40.0
JUN									
25...*	1240	--	696	6.0	77	8.2	517	23.0	15.0
25...*	1245	--	696	6.3	81	8.2	517	23.2	25.0
25...*	1250	--	696	6.2	80	8.2	517	23.2	35.0
SEP									
18...*	1700	.50	696	10.5	124	8.4	524	19.0	10.0
18...*	1705	.50	696	10.8	128	8.4	524	19.0	15.0
18...*	1710	.50	696	10.7	127	8.4	524	19.0	20.0
18...*	1715	.50	696	10.7	127	8.4	524	19.0	25.0

* Instantaneous discharge at the time of the cross-sectional measurements: Apr. 11, 53 ft³/s; June 25, 31 ft³/s; Sept. 18, 33 ft³/s.

11517000 SHASTA RIVER NEAR MONTAGUE, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, (PER-CENT SATUR-ATION) (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (MG/L) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT.DIS LAB CACO3 (MG/L) (29801)
JUL 2002										
11...	1130	38	2.3	692	8.2	106	8.4	516	23.0	234
AUG										
15...	0925	25	2.9	693	7.2	86	7.9	503	19.0	233
SEP										
18...	1615	33	2.9	696	11.0	130	8.3	522	19.0	e246

Date	NITRO-GEN, AM-MONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO-PHYTIN A, PHYTON (UG/L) (62360)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
JUL 2002									
11...	e.009	.33	<.013	.16	.19	3.4	1.7	1.0	--
AUG									
15...	<.015	.22	<.013	.15	.16	2.9	1.2	.4	--
SEP									
18...	<.015	.18	<.013	.16	.16	5.0	1.1	.4	<1

Date	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JUL 2002									
11...	--	--	--	--	--	--	--	--	--
AUG									
15...	--	--	--	--	--	--	--	--	--
SEP									
18...	e.04	7	29	<.06	<.04	<.8	.09	.7	<.08

Date	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
JUL 2002									
11...	--	--	--	--	--	--	--	--	--
AUG									
15...	--	--	--	--	--	--	--	--	--
SEP									
18...	4.7	e.01	<.01	.8	3.13	<2	<1	v3	.72

e Estimated.

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

v Analyte was detected in both the environmental sample and the associated blanks.

KLAMATH RIVER BASIN

11517000 SHASTA RIVER NEAR MONTAGUE, CA—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	10.6	6.3
2	---	---	---	---	---	---	---	---	10.5	6.2	10.9	6.0
3	---	---	---	---	---	---	---	---	10.0	6.4	11.0	5.9
4	---	---	---	---	---	---	---	---	10.3	6.6	11.0	5.9
5	---	---	---	---	---	---	---	---	11.2	7.3	11.3	6.4
6	---	---	---	---	---	---	---	---	11.2	6.9	11.0	6.6
7	---	---	---	---	---	---	---	---	11.7	6.7	10.7	7.0
8	---	---	---	---	---	---	---	---	12.0	6.6	10.7	7.6
9	---	---	---	---	---	---	---	---	11.6	6.4	---	---
10	---	---	---	---	---	---	---	---	11.9	6.2	---	---
11	---	---	---	---	---	---	---	---	11.7	6.0	---	---
12	---	---	---	---	---	---	10.7	5.5	11.8	5.8	---	---
13	---	---	---	---	---	---	10.7	5.6	11.7	5.5	---	---
14	---	---	---	---	---	---	10.6	6.0	12.0	5.3	---	---
15	---	---	---	---	---	---	11.1	5.8	10.2	5.9	---	---
16	---	---	---	---	---	---	11.5	5.6	---	---	---	---
17	---	---	---	---	---	---	---	5.4	---	---	---	---
18	---	---	---	---	---	---	10.6	5.9	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	12.5	8.2
20	---	---	---	---	---	---	---	---	---	---	10.2	7.6
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	9.7	5.5	---	---	---	---	---	---
27	---	---	---	---	11.4	5.8	---	---	---	---	---	---
28	---	---	---	---	12.1	5.5	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	10.8	5.8	---	---
31	---	---	---	---	---	---	---	---	10.8	6.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	8.6	8.0	8.6	8.1	8.7	8.3
2	---	---	---	---	---	---	8.6	8.0	8.5	8.1	8.7	8.1
3	---	---	---	---	---	---	8.7	8.0	8.4	8.1	8.7	8.1
4	---	---	---	---	---	---	8.7	8.1	8.4	8.1	8.7	8.1
5	---	---	---	---	---	---	8.8	8.2	8.5	8.1	8.7	8.1
6	---	---	---	---	---	---	8.7	8.2	8.5	8.1	8.6	8.1
7	---	---	---	---	---	---	8.7	8.2	8.6	8.1	8.5	8.1
8	---	---	---	---	---	---	8.8	8.3	8.6	8.1	8.5	8.2
9	---	---	---	---	---	---	8.8	8.2	8.6	8.1	8.4	8.0
10	---	---	---	---	---	---	8.8	8.2	8.7	8.1	8.4	8.0
11	---	---	---	---	---	---	8.5	8.1	8.7	8.0	8.5	8.0
12	---	---	---	---	---	---	8.6	8.0	8.7	8.0	8.7	8.0
13	---	---	---	---	---	---	8.5	8.0	8.7	8.0	8.6	8.0
14	---	---	---	---	---	---	8.5	8.0	8.7	8.0	8.7	8.1
15	---	---	---	---	---	---	8.5	8.0	8.7	7.9	8.6	8.1
16	---	---	---	---	---	---	8.6	7.9	8.6	8.1	8.7	8.0
17	---	---	---	---	---	---	8.6	8.0	8.8	8.1	8.6	8.1
18	---	---	---	---	---	---	8.6	7.9	8.8	8.2	8.6	8.1
19	---	---	---	---	---	---	8.6	7.9	8.8	8.2	8.3	7.9
20	---	---	---	---	---	---	8.6	8.0	8.8	8.1	8.3	7.9
21	---	---	---	---	---	---	8.6	8.0	---	---	8.3	7.9
22	---	---	---	---	---	---	8.5	8.0	---	---	8.4	7.9
23	---	---	---	---	---	---	8.7	8.0	---	---	8.4	8.0
24	---	---	---	---	---	---	8.7	8.1	---	---	8.4	8.0
25	---	---	---	---	---	---	8.6	8.1	---	---	8.4	8.0
26	---	---	---	---	8.4	7.9	8.6	8.1	---	---	8.5	8.1
27	---	---	---	---	8.4	7.9	8.7	8.1	---	---	8.5	8.2
28	---	---	---	---	8.4	8.0	8.8	8.1	---	---	8.5	8.2
29	---	---	---	---	8.5	8.0	8.5	8.1	---	---	8.5	8.2
30	---	---	---	---	8.6	8.0	8.6	8.1	8.7	8.2	8.6	8.2
31	---	---	---	---	---	---	8.6	8.1	8.7	8.2	---	---
MONTH	---	---	---	---	---	---	8.8	7.9	---	---	8.7	7.9

11517000 SHASTA RIVER NEAR MONTAGUE, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C) WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	582	546	---	---	513	498
2	---	---	---	---	---	---	588	526	---	---	506	496
3	---	---	---	---	---	---	563	523	510	486	515	498
4	---	---	---	---	---	---	550	528	531	508	529	506
5	---	---	---	---	---	---	534	498	552	524	520	512
6	---	---	---	---	---	---	503	490	561	535	544	519
7	---	---	---	---	---	---	503	497	563	528	539	511
8	---	---	---	---	---	---	520	497	555	528	534	512
9	---	---	---	---	---	---	529	505	530	505	530	519
10	---	---	---	---	---	---	516	491	517	499	565	523
11	---	---	---	---	---	---	497	452	517	505	597	565
12	---	---	---	---	---	---	493	475	518	501	580	543
13	---	---	---	---	---	---	490	482	518	502	553	532
14	---	---	---	---	---	---	496	477	517	501	537	520
15	---	---	---	---	---	---	499	429	515	458	526	508
16	---	---	---	---	---	---	521	419	518	499	521	499
17	---	---	---	---	---	---	530	496	522	507	526	487
18	---	---	---	---	---	---	521	490	543	503	526	519
19	---	---	---	---	---	---	523	494	531	501	556	519
20	---	---	---	---	---	---	528	506	522	511	565	523
21	---	---	---	---	---	---	528	496	---	---	565	540
22	---	---	---	---	---	---	540	509	---	---	571	546
23	---	---	---	---	---	---	515	488	---	---	586	559
24	---	---	---	---	---	---	507	488	---	---	581	549
25	---	---	---	---	---	---	514	501	---	---	571	544
26	---	---	---	---	527	503	509	482	---	---	558	534
27	---	---	---	---	524	501	489	476	---	---	545	517
28	---	---	---	---	510	487	490	468	---	---	522	514
29	---	---	---	---	533	504	488	474	---	---	519	511
30	---	---	---	---	553	515	503	476	517	493	519	507
31	---	---	---	---	---	---	508	486	517	509	---	---
MONTH	---	---	---	---	---	---	588	419	---	---	597	487

11517000 SHASTA RIVER NEAR MONTAGUE, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	14.0	12.0	10.0	7.0	6.0	9.0	8.5	8.0	5.0	10.0	6.5
2	17.5	14.5	11.0	9.0	7.0	6.0	8.5	7.0	8.0	6.0	11.0	6.5
3	17.5	14.5	11.0	8.0	7.5	6.0	8.0	6.5	9.0	5.5	11.5	7.0
4	17.0	14.0	11.5	8.0	7.0	6.0	8.0	7.0	9.0	6.0	12.0	7.5
5	16.5	13.5	11.5	8.0	8.0	6.5	7.5	7.0	8.0	5.5	10.5	8.0
6	16.5	13.5	11.0	8.5	9.0	7.0	8.5	7.0	8.5	4.5	9.5	7.5
7	16.0	13.0	10.0	7.0	8.0	6.5	9.0	8.0	8.5	7.0	10.0	8.0
8	15.5	13.0	9.5	6.0	8.0	6.0	8.5	7.5	8.5	6.0	9.5	6.0
9	14.5	11.5	9.5	6.5	8.0	6.5	8.5	7.5	8.5	6.0	9.0	6.5
10	14.0	10.0	10.0	7.0	7.0	6.0	8.5	7.5	9.0	6.0	8.5	6.0
11	14.5	12.0	11.5	9.5	8.0	6.5	7.5	7.0	9.5	7.0	11.0	8.0
12	14.5	11.0	11.5	10.5	7.5	6.5	8.5	6.5	10.0	7.0	11.5	9.0
13	14.5	10.5	10.5	9.0	7.5	6.0	8.0	6.0	10.5	8.0	10.0	8.0
14	14.5	11.0	11.0	9.0	6.5	5.5	7.0	5.0	10.5	7.5	10.5	7.5
15	14.0	11.0	11.0	9.5	6.5	5.5	7.0	5.0	11.0	7.0	11.5	7.5
16	13.5	11.5	11.5	10.0	7.5	6.0	7.0	4.5	10.0	8.0	10.0	7.5
17	14.0	11.0	11.0	9.5	7.0	6.0	7.5	5.0	9.5	8.0	9.5	7.5
18	13.5	10.5	10.0	8.5	7.5	6.0	7.5	5.5	10.0	8.0	10.0	6.0
19	13.0	9.5	10.0	8.5	7.5	6.5	7.0	5.0	9.0	7.5	13.0	7.5
20	13.0	10.0	9.0	8.5	7.0	6.0	8.0	5.5	10.0	7.5	14.0	9.5
21	13.0	10.0	9.5	8.5	7.0	6.0	7.5	6.0	12.0	9.0	13.5	9.5
22	13.5	11.0	9.5	8.0	7.5	6.0	6.5	5.0	12.5	9.5	12.5	9.5
23	13.5	11.5	8.0	7.0	8.0	6.5	8.0	5.5	11.0	9.5	12.0	9.5
24	11.5	9.5	7.0	5.5	7.5	6.0	8.0	6.0	11.5	8.5	13.5	9.5
25	11.5	8.0	7.5	5.0	7.5	6.0	7.0	6.0	11.5	8.0	14.0	9.5
26	12.0	8.0	8.5	6.5	8.5	7.0	7.0	5.5	11.5	7.5	14.5	9.5
27	12.0	9.5	7.5	6.5	8.5	7.5	7.0	5.0	12.0	8.0	15.0	9.5
28	12.5	10.0	6.5	4.5	7.5	7.0	6.5	4.0	11.5	8.0	15.0	10.0
29	12.0	11.0	5.5	4.5	8.5	7.0	6.5	3.5	---	---	16.0	10.5
30	13.0	11.0	7.5	5.0	9.0	7.5	7.0	3.5	---	---	15.0	11.0
31	13.0	11.0	---	---	9.0	8.0	6.5	4.0	---	---	15.0	11.5
MONTH	17.5	8.0	12.0	4.5	9.0	5.5	9.0	3.5	12.5	4.5	16.0	6.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.0	11.5	14.5	9.5	23.5	19.0	26.0	19.5	24.0	18.5	22.0	17.0
2	17.0	12.5	17.5	12.5	22.5	17.5	26.5	19.5	22.5	18.5	23.0	17.0
3	18.0	13.5	18.0	13.5	22.5	17.5	25.5	20.0	21.5	18.0	22.5	17.5
4	18.5	13.5	18.5	13.0	23.5	17.5	25.5	18.5	19.5	17.0	21.0	16.5
5	18.0	14.0	19.0	13.5	25.0	18.5	25.0	18.5	19.5	14.5	19.5	14.5
6	16.5	12.5	19.0	13.5	23.0	19.0	25.5	19.5	21.0	15.0	17.0	13.5
7	17.0	11.0	16.5	12.0	20.5	17.5	24.5	20.0	21.5	15.0	17.0	13.0
8	16.5	12.0	17.0	11.5	17.5	15.0	25.0	19.0	22.0	15.5	17.0	12.5
9	15.5	12.5	16.5	12.0	18.0	13.5	25.5	18.5	23.0	16.5	18.0	13.5
10	16.5	12.0	16.0	12.0	20.0	15.0	27.0	20.0	24.0	18.0	19.0	14.5
11	16.5	14.0	17.5	12.5	21.5	17.0	27.5	21.0	25.0	18.5	20.5	15.0
12	16.5	13.0	19.0	13.5	22.5	18.0	27.0	22.5	25.0	19.0	21.0	16.0
13	16.5	14.5	20.0	16.0	24.0	18.5	27.5	22.0	25.5	19.5	21.5	16.0
14	18.5	15.0	20.5	14.0	25.5	18.0	26.5	21.5	25.0	20.0	20.0	15.5
15	16.0	12.5	20.5	14.5	26.0	19.0	26.0	21.0	25.0	19.0	19.0	15.5
16	13.0	9.5	21.0	14.0	26.0	18.5	26.0	20.0	23.5	18.5	19.0	14.5
17	11.0	8.5	22.0	16.0	22.5	18.5	26.0	20.0	23.5	19.0	18.0	15.5
18	13.0	8.5	21.5	17.0	23.0	17.0	26.0	20.0	22.5	17.5	19.5	14.5
19	14.5	9.0	18.5	14.0	23.5	17.0	26.0	20.0	21.5	17.0	20.0	15.0
20	15.0	10.0	15.5	12.0	23.5	17.0	26.5	19.5	20.5	16.0	20.0	15.0
21	16.5	11.0	15.5	11.5	25.0	18.5	26.5	20.5	21.0	15.5	20.0	15.0
22	17.5	12.0	18.0	12.0	25.5	18.5	24.5	21.0	22.0	16.0	20.0	15.0
23	18.0	13.0	18.5	13.0	25.0	19.0	25.0	19.0	23.0	17.0	21.0	15.0
24	18.5	13.0	19.5	15.5	26.0	19.0	24.0	18.5	23.0	17.5	20.0	15.0
25	18.5	14.0	20.0	18.0	27.5	20.0	24.0	19.0	23.5	17.5	19.5	14.0
26	17.0	13.5	22.0	18.0	27.0	20.5	24.5	19.0	23.0	17.5	18.5	13.5
27	15.5	12.5	19.5	17.5	26.5	21.0	24.5	19.5	21.5	17.0	18.0	14.0
28	15.5	11.5	19.5	16.0	24.5	20.5	24.5	18.5	23.0	18.5	17.5	14.0
29	15.0	12.5	22.5	18.0	25.0	19.5	23.5	19.5	23.5	18.5	16.0	13.5
30	13.5	10.0	24.0	18.5	25.5	19.0	24.0	19.5	23.5	18.0	15.0	12.0
31	---	---	24.0	17.5	---	---	24.0	19.0	22.0	17.0	---	---
MONTH	18.5	8.5	24.0	9.5	27.5	13.5	27.5	18.5	25.5	14.5	23.0	12.0

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1933 to December 1941, December 1944 to current year.

REVISED RECORDS.—WSP 1929: Drainage area.

GAGE.—Water-stage recorder and concrete control. Elevation of gage is 2,000 ft above sea level, from topographic map. Prior to Nov. 2, 1933, nonrecording gage at same site and datum.

REMARKS.—Records 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 ft³/s, Dec. 22, 1964, gage height, 12.92 ft, in gage well, 13.85 ft, from floodmarks, from rating curve extended above 4,100 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft³/s, Aug. 24, 1981, July 17, 1985.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 630 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 14	0530	466	4.12

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	164	248	250	198	198	110	343	57	23	35	30
2	121	174	262	261	203	193	89	281	55	24	25	29
3	113	169	267	346	203	190	70	242	55	24	27	24
4	110	167	240	280	203	187	86	182	52	26	32	20
5	114	165	232	247	201	185	84	159	50	21	32	19
6	114	162	225	247	198	184	86	139	53	29	27	20
7	115	160	212	251	208	188	90	132	66	33	21	25
8	119	159	203	280	225	190	87	127	73	29	18	47
9	123	160	200	294	218	189	83	126	63	22	19	51
10	125	161	200	267	212	188	77	120	68	20	23	52
11	127	160	197	250	210	189	79	89	68	22	19	33
12	128	171	195	243	208	185	84	86	69	28	20	29
13	134	177	202	237	208	180	90	79	56	21	22	20
14	136	177	406	230	207	177	88	65	35	34	16	22
15	133	179	309	224	201	174	94	53	26	32	16	25
16	129	178	260	218	199	182	95	57	27	27	22	25
17	127	175	253	216	197	182	102	51	24	18	29	25
18	128	175	244	216	197	179	116	51	30	12	19	29
19	126	177	239	216	204	179	114	46	42	16	16	28
20	124	176	246	213	245	177	106	52	31	18	19	33
21	125	194	249	227	260	146	102	71	33	22	23	40
22	127	223	238	236	248	135	102	79	43	18	33	37
23	129	211	225	223	245	143	103	84	31	18	25	35
24	133	215	219	216	243	172	98	80	36	19	22	29
25	141	226	214	216	232	171	99	84	24	18	26	26
26	136	220	211	216	223	162	88	76	35	26	20	32
27	140	216	210	212	218	144	81	71	36	33	17	33
28	149	225	205	208	210	140	90	75	32	26	39	43
29	153	240	209	204	---	138	88	66	33	22	27	44
30	154	229	212	200	---	119	259	62	25	38	27	50
31	163	---	246	198	---	110	---	56	---	31	26	---
TOTAL	3997	5585	7278	7342	6024	5276	2940	3284	1328	750	742	955
MEAN	128.9	186.2	234.8	236.8	215.1	170.2	98.00	105.9	44.27	24.19	23.94	31.83
MAX	163	240	406	346	260	198	259	343	73	38	39	52
MIN	101	159	195	198	197	110	70	46	24	12	16	19
AC-FT	7930	11080	14440	14560	11950	10460	5830	6510	2630	1490	1470	1890

KLAMATH RIVER BASIN

11517500 SHASTA RIVER NEAR YREKA, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	151.6	196.2	277.1	338.0	340.7	313.1	202.7	139.4	102.5	44.90	38.48	73.99
MAX	351	361	1223	1234	1002	946	753	678	564	147	111	182
(WY)	1963	1985	1965	1997	1958	1983	1974	1998	1998	1995	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1934 - 2002	
ANNUAL TOTAL	40476		45501			
ANNUAL MEAN	110.9		124.7		184.5	
HIGHEST ANNUAL MEAN					364 1974	
LOWEST ANNUAL MEAN					77.9 1934	
HIGHEST DAILY MEAN	406	Dec 14	406	Dec 14	10400	Dec 23 1964
LOWEST DAILY MEAN	10	Aug 28	12	Jul 18	1.5	Aug 24 1981
ANNUAL SEVEN-DAY MINIMUM	14	Aug 6	17	Jul 17	5.5	Aug 9 1939
MAXIMUM PEAK FLOW			466	Dec 14	21500	Dec 22 1964
MAXIMUM PEAK STAGE			4.12	Dec 14	12.92	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	80280		90250		133700	
10 PERCENT EXCEEDS	204		237		350	
50 PERCENT EXCEEDS	121		121		153	
90 PERCENT EXCEEDS	21		23		25	

11517500 SHASTA RIVER NEAR YREKA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1959–79, June 2002 to September 2002.

CHEMICAL DATA: Water years 1959–79, June 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: Water years 1965–79, June 2002 to September 2002 (seasonal only).

SEDIMENT DATA: Water years 1955–56, 1958–62.

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: June 1965 to January 1979, June 2002 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since June 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated good, except for July 10 to Aug. 14, Sept. 17–30, which are rated fair. pH records rated good, except for Aug. 30 to Sept. 17, which are rated fair. Specific conductance records rated excellent. Water temperature records rated excellent.

Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 13.7 mg/L, Aug. 24, 2002; minimum recorded, 5.3 mg/L, July 9, 11, 2002.

pH: Maximum recorded, 8.9 standard units, Aug. 30, 2002; minimum recorded, 8.2 standard units, many days in 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 657 microsiemens, Sept. 18, 2002; minimum recorded, 543 microsiemens, July 15, 16, 2002.

WATER TEMPERATURE: Maximum recorded, 31.5°C, July 15, 16, 1972, and July 11, 2002; minimum recorded, 0.0°C, Jan. 30, 31, 1972.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 13.7 mg/L, Aug. 24; minimum recorded, 5.3 mg/L, July 9, 11.

pH: Maximum recorded, 8.9 standard units, Aug. 30; minimum recorded, 8.2 standard units, many days during the year.

SPECIFIC CONDUCTANCE: Maximum recorded, 657 microsiemens, Sept. 18; minimum recorded, 543 microsiemens, July 15, 16.

WATER TEMPERATURE: Maximum recorded, 31.5°C, July 11; minimum recorded, 11.0°C, Sept. 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK) (00009)
JUN								
28...*	0830	704	6.7	82	8.2	585	21.0	15.0
28...*	0835	704	6.9	84	8.2	585	21.0	30.0
28...*	0840	704	6.8	83	8.2	585	21.0	45.0
SEP								
17...*	1630	703	10.7	126	8.7	633	19.0	8.0
17...*	1635	703	9.7	115	8.6	633	19.5	15.0
17...*	1640	703	9.4	111	8.6	632	19.5	22.0
17...*	1645	703	9.3	110	8.6	632	19.5	28.0

* Instantaneous discharge at the time of the cross-sectional measurements: June 28, 33 ft³/s; Sept. 17, 24 ft³/s.

KLAMATH RIVER BASIN

11517500 SHASTA RIVER NEAR YREKA, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (MG/L) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT.DIS LAB CACO3 (MG/L) (29801)
JUL 10...	1645	21	2.6	735	7.1	98	8.6	590	30.0	280
AUG 14...	1340	17	3.8	702	9.4	124	8.4	642	25.0	310
SEP 17...	1515	24	1.1	703	9.4	110	8.5	627	19.0	e304

Date	NITRO-GEN, AM-MONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO-PHYTIN A, PHYTON (UG/L) (62360)	CHLOR-A PHYTO-PLANK-TON CHROMO-FLUOROM (UG/L) (70953)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
JUL 10...	.030	.52	.016	.29	.35	7.3	3.8	2.1	--
AUG 14...	e.010	.59	<.013	.32	.34	7.9	2.5	1.6	--
SEP 17...	e.009	.47	.015	.26	.27	10.6	3.4	1.7	<1

Date	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JUL 10...	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--
SEP 17...	.09	6	42	<.06	<.04	<.8	.19	1.0	<.08

Date	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01095)	MERCURY DIS-SOLVED (UG/L AS HG) (01000)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (01005)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01010)	NICKEL, DIS-SOLVED (UG/L AS NI) (01025)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01030)	SILVER, DIS-SOLVED (UG/L AS AG) (01035)	ZINC, DIS-SOLVED (UG/L AS ZN) (01040)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (01049)
JUL 10...	--	--	--	--	--	--	--	--	--
AUG 14...	--	--	--	--	--	--	--	--	--
SEP 17...	9.7	.04	.05	1.0	5.05	<2	<1	v1	.72

e Estimated.

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

v Analyte was detected in both the environmental sample and the associated blanks.

11517500 SHASTA RIVER NEAR YREKA, CA—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.4	5.5	10.7	8.3	10.7	7.9
2	---	---	---	---	---	---	8.2	5.4	---	---	10.6	7.3
3	---	---	---	---	---	---	8.1	5.5	---	---	10.7	7.1
4	---	---	---	---	---	---	8.2	5.9	---	---	10.9	7.2
5	---	---	---	---	---	---	8.3	5.5	---	---	10.7	7.3
6	---	---	---	---	---	---	8.1	5.6	---	---	---	---
7	---	---	---	---	---	---	8.2	5.5	---	---	---	---
8	---	---	---	---	---	---	8.6	6.2	---	---	---	---
9	---	---	---	---	---	---	8.9	5.3	---	---	---	---
10	---	---	---	---	---	---	8.3	5.4	---	---	---	---
11	---	---	---	---	---	---	7.6	5.3	---	---	---	---
12	---	---	---	---	---	---	7.7	5.5	---	---	---	---
13	---	---	---	---	---	---	7.9	6.0	---	---	---	---
14	---	---	---	---	---	---	8.1	6.4	---	---	---	---
15	---	---	---	---	---	---	8.5	6.8	10.6	7.6	---	---
16	---	---	---	---	---	---	8.7	6.7	11.1	8.2	---	---
17	---	---	---	---	---	---	9.2	6.4	11.7	8.8	---	---
18	---	---	---	---	---	---	9.3	6.5	12.5	9.8	9.7	7.8
19	---	---	---	---	---	---	9.5	6.8	12.8	9.6	9.8	7.6
20	---	---	---	---	---	---	9.9	6.8	13.4	10.1	9.7	7.7
21	---	---	---	---	---	---	9.8	7.0	13.6	10.8	9.7	7.8
22	---	---	---	---	---	---	10.1	7.1	13.4	11.2	10.0	7.9
23	---	---	---	---	---	---	10.2	6.5	13.3	11.4	10.1	7.8
24	---	---	---	---	---	---	10.7	7.5	13.7	11.6	10.3	7.9
25	---	---	---	---	---	---	10.8	7.5	13.4	11.4	10.7	8.1
26	---	---	---	---	---	---	11.2	7.7	13.6	10.3	10.9	8.3
27	---	---	---	---	---	---	10.6	7.8	13.1	9.7	10.6	8.5
28	---	---	---	---	---	---	11.2	7.8	11.7	9.0	10.8	8.6
29	---	---	---	---	8.4	5.7	11.7	7.5	10.9	8.2	11.0	8.7
30	---	---	---	---	8.9	5.5	11.1	8.0	10.6	8.2	11.2	9.4
31	---	---	---	---	---	---	11.1	8.0	10.7	8.1	---	---
MONTH	---	---	---	---	---	---	11.7	5.3	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.7	8.3	8.8	8.2	8.8	8.4
2	---	---	---	---	---	---	8.7	8.3	8.8	8.3	8.7	8.3
3	---	---	---	---	---	---	8.7	8.3	8.7	8.3	8.7	8.3
4	---	---	---	---	---	---	8.7	8.4	---	---	8.7	8.4
5	---	---	---	---	---	---	8.7	8.4	---	---	8.7	8.4
6	---	---	---	---	---	---	8.7	8.3	---	---	8.6	8.5
7	---	---	---	---	---	---	8.7	8.3	---	---	8.7	8.4
8	---	---	---	---	---	---	8.7	8.3	---	---	8.6	8.3
9	---	---	---	---	---	---	8.7	8.4	---	---	8.6	8.2
10	---	---	---	---	---	---	8.6	8.4	---	---	8.6	8.2
11	---	---	---	---	---	---	8.6	8.2	---	---	8.7	8.2
12	---	---	---	---	---	---	8.5	8.2	---	---	8.7	8.2
13	---	---	---	---	---	---	8.6	8.2	---	---	8.7	8.3
14	---	---	---	---	---	---	8.6	8.2	---	---	8.7	8.3
15	---	---	---	---	---	---	8.7	8.2	8.7	8.5	8.6	8.3
16	---	---	---	---	---	---	8.7	8.2	8.7	8.4	8.6	8.2
17	---	---	---	---	---	---	8.6	8.3	8.7	8.3	8.6	8.2
18	---	---	---	---	---	---	8.5	8.2	8.8	8.4	8.6	8.3
19	---	---	---	---	---	---	8.6	8.2	8.8	8.4	8.6	8.3
20	---	---	---	---	---	---	8.6	8.3	8.7	8.5	8.6	8.3
21	---	---	---	---	---	---	8.6	8.2	8.7	8.4	8.6	8.2
22	---	---	---	---	---	---	8.6	8.2	8.7	8.4	8.6	8.2
23	---	---	---	---	---	---	8.6	8.2	8.8	8.3	8.6	8.2
24	---	---	---	---	---	---	8.7	8.4	8.8	8.4	8.6	8.2
25	---	---	---	---	---	---	8.7	8.4	8.8	8.4	8.6	8.3
26	---	---	---	---	---	---	8.7	8.4	8.8	8.4	8.6	8.3
27	---	---	---	---	---	---	8.6	8.2	8.8	8.5	8.6	8.3
28	---	---	---	---	---	---	8.7	8.2	8.8	8.3	8.6	8.2
29	---	---	---	---	8.7	8.3	8.7	8.3	8.8	8.3	8.6	8.2
30	---	---	---	---	8.7	8.3	8.7	8.2	8.9	8.4	8.7	8.2
31	---	---	---	---	---	---	8.7	8.2	8.8	8.4	---	---
MONTH	---	---	---	---	---	---	8.7	8.2	---	---	8.8	8.2

KLAMATH RIVER BASIN

11517500 SHASTA RIVER NEAR YREKA, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C) WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	576	556	587	566	623	604
2	---	---	---	---	---	---	606	563	586	564	613	587
3	---	---	---	---	---	---	608	565	594	557	602	588
4	---	---	---	---	---	---	630	589	---	---	608	589
5	---	---	---	---	---	---	631	585	---	---	610	605
6	---	---	---	---	---	---	618	591	---	---	611	598
7	---	---	---	---	---	---	607	566	---	---	601	590
8	---	---	---	---	---	---	576	548	---	---	616	583
9	---	---	---	---	---	---	578	548	---	---	587	566
10	---	---	---	---	---	---	602	567	---	---	585	569
11	---	---	---	---	---	---	609	573	---	---	579	571
12	---	---	---	---	---	---	604	575	---	---	621	579
13	---	---	---	---	---	---	585	570	---	---	640	621
14	---	---	---	---	---	---	588	558	---	---	646	636
15	---	---	---	---	---	---	559	543	649	632	639	627
16	---	---	---	---	---	---	565	543	644	627	632	620
17	---	---	---	---	---	---	568	546	645	606	640	621
18	---	---	---	---	---	---	573	564	613	597	657	623
19	---	---	---	---	---	---	594	565	620	608	653	638
20	---	---	---	---	---	---	594	577	631	620	638	604
21	---	---	---	---	---	---	595	575	628	612	621	603
22	---	---	---	---	---	---	588	565	629	606	624	611
23	---	---	---	---	---	---	591	563	606	594	634	620
24	---	---	---	---	---	---	590	578	613	600	635	626
25	---	---	---	---	---	---	589	573	625	597	636	626
26	---	---	---	---	---	---	600	580	618	598	647	607
27	---	---	---	---	---	---	611	576	613	603	623	599
28	---	---	---	---	---	---	598	576	626	572	613	597
29	---	---	---	---	612	558	588	569	579	559	600	591
30	---	---	---	---	588	553	604	554	593	563	609	580
31	---	---	---	---	---	---	575	554	611	576	---	---
MONTH	---	---	---	---	---	---	631	543	---	---	657	566

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	28.0	19.5	26.0	19.5	24.0	17.0
2	---	---	---	---	---	---	28.5	19.5	24.0	19.0	24.5	18.0
3	---	---	---	---	---	---	27.5	20.0	22.5	18.0	24.5	18.5
4	---	---	---	---	---	---	26.5	18.5	---	---	22.0	17.0
5	---	---	---	---	---	---	27.0	18.5	---	---	21.0	14.5
6	---	---	---	---	---	---	28.0	19.5	---	---	17.5	14.5
7	---	---	---	---	---	---	25.5	20.5	---	---	19.5	13.5
8	---	---	---	---	---	---	26.5	18.0	---	---	19.0	13.0
9	---	---	---	---	---	---	28.5	18.5	---	---	20.0	13.5
10	---	---	---	---	---	---	30.5	21.0	---	---	20.5	14.0
11	---	---	---	---	---	---	31.5	22.5	---	---	22.0	15.0
12	---	---	---	---	---	---	30.0	24.0	---	---	22.5	16.0
13	---	---	---	---	---	---	30.5	23.5	---	---	23.5	17.0
14	---	---	---	---	---	---	28.5	22.5	---	---	21.5	16.0
15	---	---	---	---	---	---	28.5	21.0	27.5	19.5	20.0	16.0
16	---	---	---	---	---	---	29.0	21.0	27.0	19.5	20.0	15.5
17	---	---	---	---	---	---	29.5	21.0	25.0	19.5	21.0	16.0
18	---	---	---	---	---	---	29.0	21.0	24.5	18.0	20.0	15.0
19	---	---	---	---	---	---	29.5	21.5	23.5	18.0	20.5	14.5
20	---	---	---	---	---	---	29.5	20.5	23.0	17.0	21.0	15.5
21	---	---	---	---	---	---	29.0	21.5	23.0	16.0	20.5	15.0
22	---	---	---	---	---	---	27.0	22.5	22.5	16.5	20.5	15.0
23	---	---	---	---	---	---	28.5	20.5	23.5	17.5	20.5	15.0
24	---	---	---	---	---	---	27.0	19.0	24.0	18.0	20.5	15.0
25	---	---	---	---	---	---	27.0	20.0	24.0	18.0	19.5	14.5
26	---	---	---	---	---	---	27.0	20.0	23.5	17.5	18.5	13.0
27	---	---	---	---	---	---	26.5	20.5	24.0	17.0	18.5	14.0
28	---	---	---	---	---	---	26.5	19.0	24.5	18.5	18.0	13.5
29	---	---	---	---	27.5	20.0	27.0	20.5	24.5	19.0	16.0	13.0
30	---	---	---	---	27.5	19.0	26.5	21.0	25.0	19.0	15.0	11.0
31	---	---	---	---	---	---	26.5	20.5	24.0	17.0	---	---
MONTH	---	---	---	---	---	---	31.5	18.0	---	---	24.5	11.0

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 mi².

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 sea level (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.—Records good. 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 ft³/s, Dec. 22, 1964, gage height, 25.34 ft, from floodmarks, from rating curve extended above 15,000 ft³/s, on basis of slope-area measurement at 21.40 ft, site and datum then in use; minimum daily, 3.4 ft³/s, Sept. 20–22, 2001.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,700 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 7	0300	3,280	10.26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.8	120	827	425	783	632	788	883	143	29	11
2	4.1	5.1	177	1910	415	736	703	733	837	133	26	11
3	3.8	4.8	205	2100	401	694	823	736	741	119	22	11
4	3.7	4.8	176	1280	386	661	988	738	654	106	22	12
5	3.7	4.9	162	996	382	644	1260	753	646	101	22	12
6	3.6	4.8	318	2150	377	663	1270	782	680	94	21	13
7	3.7	5.0	388	2890	463	666	1170	790	631	87	19	13
8	3.7	5.0	304	2540	689	624	1060	725	554	80	17	13
9	3.9	4.9	255	2220	585	594	1110	660	480	76	15	12
10	3.8	5.1	226	1630	523	581	1330	619	434	69	14	12
11	3.9	5.2	202	1320	499	563	1260	584	397	64	13	12
12	4.0	5.6	181	1160	480	604	1320	564	365	59	12	11
13	4.0	5.3	211	1050	468	630	1270	613	350	57	12	11
14	4.0	5.0	785	969	456	596	2060	700	341	61	12	11
15	4.0	5.1	601	884	444	576	2140	679	329	58	12	11
16	4.1	5.5	456	812	441	553	1490	656	319	55	12	11
17	4.2	5.1	611	759	442	531	1190	696	303	52	13	11
18	4.3	5.0	579	702	437	507	978	772	305	50	13	11
19	4.2	5.2	552	659	468	489	848	765	299	50	13	11
20	4.3	5.4	556	621	905	480	763	767	278	48	13	11
21	4.3	17	514	653	1200	474	683	689	256	45	13	11
22	4.3	502	460	668	1150	483	655	609	235	45	13	11
23	4.3	330	419	591	1240	508	652	553	222	49	13	11
24	4.3	201	382	555	1150	513	667	525	211	44	12	10
25	4.5	144	353	534	1000	504	685	532	198	41	12	10
26	4.4	110	333	554	910	481	738	594	192	37	12	11
27	4.4	92	328	524	858	471	732	669	189	36	12	12
28	4.5	103	421	489	824	470	682	773	182	34	11	12
29	4.6	107	442	458	---	493	628	909	173	35	11	13
30	4.9	100	454	438	---	527	762	1030	155	33	11	13
31	4.7	---	737	433	---	573	---	914	---	30	11	---
TOTAL	128.4	1807.6	11908	33376	18018	17672	30549	21917	11839	1991	463	345
MEAN	4.142	60.25	384.1	1077	643.5	570.1	1018	707.0	394.6	64.23	14.94	11.50
MAX	4.9	502	785	2890	1240	783	2140	1030	883	143	29	13
MIN	3.6	4.8	120	433	377	470	628	525	155	30	11	10
AC-FT	255	3590	23620	66200	35740	35050	60590	43470	23480	3950	918	684

KLAMATH RIVER BASIN

11519500 SCOTT RIVER NEAR FORT JONES, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	107.5	331.4	794.4	1063	1150	1043	1025	1136	711.4	186.8	62.71	53.14
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	4.14	10.7	52.7	80.9	99.0	83.3	55.1	121	49.6	7.97	5.52	4.43
(WY)	2002	1995	1995	1977	1977	1977	1977	1977	2001	2001	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1942 - 2002	
ANNUAL TOTAL	55188.3		150014.0			
ANNUAL MEAN	151.2		411.0		636.1	
HIGHEST ANNUAL MEAN					1496	
LOWEST ANNUAL MEAN					74.9	
HIGHEST DAILY MEAN	1060	Mar 25	2890	Jan 7	39500	Dec 23 1964
LOWEST DAILY MEAN	3.4	Sep 20	3.6	Oct 6	3.4	Sep 20 2001
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 18	3.7	Oct 3	3.6	Sep 18 2001
MAXIMUM PEAK FLOW			3280	Jan 7	54600	Dec 22 1964
MAXIMUM PEAK STAGE			10.26	Jan 7	25.34	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	109500		297600		460800	
10 PERCENT EXCEEDS	440		909		1540	
50 PERCENT EXCEEDS	98		341		300	
90 PERCENT EXCEEDS	4.3		4.9		45	

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 mi², approximately (not including Lost River, Butte Creek, or Lower Klamath Lake Basins).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1912 to September 1925, July 1951 to current year. Monthly discharges only for some periods, published in WSP 1315-B.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 1,320 ft above sea level, from river-profile map. November 1912 to June 1925, nonrecording gage at site 3.5 mi upstream at different datum.

REMARKS.—Records excellent. 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 ft³/s, Dec. 23, 1964, gage height, 33.75 ft, from floodmarks, from rating curve extended above 49,000 ft³/s, on basis of slope-area measurements at gage heights 20.1 and 29.2 ft; minimum daily, 320 ft³/s, Nov. 25, 1917.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 7	0415	9,500	8.56

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	1560	2140	3480	2660	4940	3460	3640	2970	1320	943	774
2	1300	1570	2290	4880	2630	4790	3570	3450	2780	1300	e825	841
3	1300	1570	2280	6280	2610	4660	3670	3330	2520	1280	e809	845
4	1290	1560	2130	5550	2580	4570	3980	3290	2290	1270	814	835
5	1290	1560	2160	4960	2560	4440	4370	3500	2250	1260	821	834
6	1390	1550	2560	7640	2550	4280	4410	3550	2270	1250	814	844
7	1480	1550	2560	8720	2810	4170	4240	3540	2230	1240	e807	861
8	1490	1550	2290	8050	3430	4100	4080	3420	2140	1230	798	873
9	1480	1550	2150	7370	3210	3990	4140	3320	2050	1220	789	881
10	1490	1530	2060	5810	3050	3940	4470	3240	1970	1210	787	880
11	1500	1530	2020	4950	2960	3910	4370	3150	1920	1190	783	868
12	1490	1560	1980	4440	2910	4020	4450	3100	1870	1090	776	856
13	1500	1600	2140	4140	2880	4080	4420	3180	1830	1010	774	847
14	1510	1590	4300	3920	2870	4020	5620	3280	1790	1010	767	840
15	1500	1590	3280	3710	2840	3910	5880	3250	1750	1000	763	842
16	1490	1690	2760	3540	2830	3870	4850	3200	1720	993	763	843
17	1490	1720	3170	3410	2830	3820	4330	3210	1700	978	767	845
18	1490	1620	3030	3280	2820	3750	3970	3270	1700	963	764	849
19	1500	1610	2930	3280	2970	3670	3710	3190	1690	960	759	847
20	1490	1660	2990	3210	4160	3480	3540	3080	1630	963	761	914
21	1490	1850	2840	3310	5010	3260	3410	2840	1580	960	771	910
22	1490	2410	2660	3210	4790	3160	3340	2690	1560	964	777	907
23	1500	2260	2510	2990	5040	3290	3340	2600	1500	999	782	908
24	1500	2070	2380	2890	5550	3420	3340	2540	1470	993	772	898
25	1520	2030	2320	2880	5060	3390	3380	2560	1440	984	769	888
26	1520	1910	2270	3000	5040	3320	3450	2630	1420	981	771	881
27	1520	1840	2250	2920	5030	3270	3320	2730	1430	979	769	877
28	1520	1940	2350	2830	5110	3280	3080	2890	1400	969	774	899
29	1540	2040	2520	2750	---	3320	2870	3120	1370	e975	786	1430
30	1550	1950	2660	2700	---	3310	3380	3280	1350	e974	775	1440
31	1570	---	3240	2670	---	3340	---	3070	---	e973	771	---
TOTAL	45360	52020	79220	132770	98790	118770	118440	97140	55590	33488	24401	27057
MEAN	1463	1734	2555	4283	3528	3831	3948	3134	1853	1080	787.1	901.9
MAX	1570	2410	4300	8720	5550	4940	5880	3640	2970	1320	943	1440
MIN	1170	1530	1980	2670	2550	3160	2870	2540	1350	960	759	774
AC-FT	89970	103200	157100	263300	196000	235600	234900	192700	110300	66420	48400	53670

e Estimated.

KLAMATH RIVER BASIN

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2112	3030	4546	5775	6182	6490	5915	5105	3228	1663	1413	1647
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	1200	1395	1408	1466	1145	1132	1285	819	598	436	604
(WY)	1992	1995	1995	1992	1992	1977	1977	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1913 - 2002	
ANNUAL TOTAL	652330		883046			
ANNUAL MEAN	1787		2419		3914	
HIGHEST ANNUAL MEAN					7434	
LOWEST ANNUAL MEAN					1151	
HIGHEST DAILY MEAN	4300	Dec 14	8720	Jan 7	115000	Dec 23 1964
LOWEST DAILY MEAN	1010	Aug 17	759	Aug 19	320	Nov 25 1917
ANNUAL SEVEN-DAY MINIMUM	1030	Aug 15	763	Aug 14	417	Aug 18 1992
MAXIMUM PEAK FLOW			9500	Jan 7	165000	Dec 23 1964
MAXIMUM PEAK STAGE			8.56	Jan 7	33.75	Dec 23 1964
INSTANTANEOUS LOW FLOW					320	Nov 25 1917
ANNUAL RUNOFF (AC-FT)	1294000		1752000		2835000	
10 PERCENT EXCEEDS	2490		4260		8100	
50 PERCENT EXCEEDS	1770		2230		2690	
90 PERCENT EXCEEDS	1050		843		1200	

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1955–79, 2000–01, June 2002 to September 2002.

CHEMICAL DATA: Water years 1959–66, June 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: Water years 2000–01 (daily), June 2002 to September 2002 (seasonal only).

pH: Water years 2000–01 (daily), June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: Water years 2000–01 (daily), June 2002 to September 2002 (seasonal only).

AIR TEMPERATURE: Water years 2000–01.

WATER TEMPERATURE: Water years 1964–79, 2000–01 (daily), June 2002 to September 2002 (seasonal only).

SEDIMENT DATA: Water years 1955–56.

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: January 2000 to September 2001, June 2002 to September 2002 (seasonal only).

pH: January 2000 to September 2001, June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: January 2000 to September 2001, June 2002 to September 2002 (seasonal only).

AIR TEMPERATURE: December 1999 to September 2001.

WATER TEMPERATURE: October 1963 to May 1979, January 2000 to September 2001 (daily), June 2002 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since January 2000. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated excellent except for July 10 to Aug. 30, which are rated good. pH, specific conductance and water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 17.8 mg/L, Apr. 13, 2000; minimum recorded, 5.2 mg/L, Aug. 26, 2001.

pH: Maximum recorded, 9.4 standard units, July 2, 2001; minimum recorded, 6.3 standard units, Nov. 16, 2001.

SPECIFIC CONDUCTANCE: Maximum recorded, 414 microsiemens, Feb. 22, 23, 2000; minimum recorded, 129 microsiemens, May 16, 2001.

AIR TEMPERATURE: Maximum recorded, 98°F, Aug. 8, 2001; minimum recorded, 19°F, Feb. 13, 2001.

WATER TEMPERATURE: Maximum recorded, 29.5°C, July 26, 1970; minimum recorded, 0.0°C, Dec. 30, 31, 1978.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 14.4 mg/L, July 11; minimum recorded, 7.3 mg/L, Aug. 16, 20, 21.

pH: Maximum recorded, 9.1 standard units, Aug. 26; minimum recorded, 7.7 standard units, Aug. 31, Sept. 1, 20.

SPECIFIC CONDUCTANCE: Maximum recorded, 228 microsiemens, July 16; minimum recorded, 191 microsiemens, Aug. 21.

WATER TEMPERATURE: Maximum recorded, 27.0°C, July 13, 21; minimum recorded, 17.5°C, Aug. 6, Sept. 19.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- TION, (FEET) (81903)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
JUN									
27...*	1535	3.00	722	9.7	121	8.5	197	23.5	30.0
27...*	1540	3.20	722	9.6	120	8.5	197	23.5	60.0
27...*	1545	3.70	722	9.5	118	8.5	197	23.5	90.0
27...*	1550	3.80	722	9.4	117	8.6	197	23.5	120
27...*	1555	3.80	722	9.4	117	8.5	197	23.5	150
SEP									
17...*	0905	2.10	720	8.4	94	8.0	205	17.8	24.0
17...*	0910	2.20	720	8.3	93	8.0	204	17.8	56.0
17...*	0915	2.50	720	8.3	93	8.0	205	17.8	86.0
17...*	0920	2.70	720	8.3	93	8.0	205	17.8	116
17...*	0925	2.90	720	8.3	93	8.0	205	17.8	142

* Instantaneous discharge at the time of the cross-sectional measurements: Jun 27, 1430 ft³/s; Sept. 17, 838 ft³/s.

KLAMATH RIVER BASIN

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, PH WATER SPE- CIFIC CON- DUCT- ANCE UNITS (00400)	PH WATER SPE- CIFIC CON- DUCT- ANCE UNITS (00095)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LITY WAT. DIS FET LAB CACO3 (MG/L) (29801)	
JUL 2002										
10...	0840	1200	1.1	722	8.6	105	8.3	224	22.5	90
AUG										
13...	1550	774	2.7	722	8.7	114	8.9	207	26.0	87
SEP										
17...	0800	844	1.4	720	8.5	95	7.8	205	18.0	e88
Date		NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
JUL 2002										
10...		<.015	.39	<.013	.08	.10	5.7	2.5	1.3	--
AUG										
13...		<.015	.54	<.013	.11	.15	6.5	5.2	3.2	--
SEP										
17...		e.010	.51	.069	.12	.14	6.2	11.2	6.0	2
Date		ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JUL 2002										
10...		--	--	--	--	--	--	--	--	--
AUG										
13...		--	--	--	--	--	--	--	--	--
SEP										
17...		e.04	4	10	<.06	<.04	2.4	.13	1.2	e.05
Date		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JUL 2002										
10...		--	--	--	--	--	--	--	--	--
AUG										
13...		--	--	--	--	--	--	--	--	--
SEP										
17...		7.2	.01	.02	1.0	1.36	<2	<1	v4	.12

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA—Continued

OXYGEN DISSOLVED, (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	10.2	7.8	11.8	9.1	10.9	7.5
2	---	---	---	---	---	---	10.1	7.8	11.9	9.0	---	---
3	---	---	---	---	---	---	10.1	7.8	11.7	9.0	---	---
4	---	---	---	---	---	---	10.2	7.8	12.7	9.3	---	---
5	---	---	---	---	---	---	10.2	7.8	12.9	10.3	---	---
6	---	---	---	---	---	---	10.2	8.0	13.1	9.7	---	---
7	---	---	---	---	---	---	10.2	7.8	13.0	9.3	---	---
8	---	---	---	---	---	---	10.6	8.2	12.6	8.9	---	---
9	---	---	---	---	---	---	10.4	8.0	12.1	8.6	---	---
10	---	---	---	---	---	---	12.6	7.7	11.7	8.3	---	---
11	---	---	---	---	---	---	14.4	11.0	11.3	8.0	---	---
12	---	---	---	---	---	---	12.8	10.4	11.2	7.9	---	---
13	---	---	---	---	---	---	12.3	9.9	11.5	7.8	---	---
14	---	---	---	---	---	---	11.8	9.2	11.2	7.5	---	---
15	---	---	---	---	---	---	11.4	8.9	11.4	7.4	---	---
16	---	---	---	---	---	---	11.2	8.8	11.4	7.3	---	---
17	---	---	---	---	---	---	11.2	8.9	12.4	7.6	---	---
18	---	---	---	---	---	---	11.1	8.9	12.1	8.0	10.3	7.7
19	---	---	---	---	---	---	11.0	8.7	12.4	8.3	10.3	7.7
20	---	---	---	---	---	---	11.1	8.4	12.3	7.3	10.0	7.8
21	---	---	---	---	---	---	10.8	8.0	12.6	7.3	---	---
22	---	---	---	---	---	---	11.0	8.0	12.5	8.6	---	---
23	---	---	---	---	---	---	11.3	8.6	12.3	8.4	---	---
24	---	---	---	---	---	---	11.7	8.6	12.3	7.6	---	---
25	---	---	---	---	---	---	12.2	8.7	12.4	8.1	---	---
26	---	---	---	---	---	---	12.2	9.1	12.3	8.2	---	---
27	---	---	---	---	---	---	12.4	9.2	12.6	8.4	---	---
28	---	---	---	---	9.9	7.7	12.7	9.6	12.3	8.2	---	---
29	---	---	---	---	10.0	7.9	12.6	9.6	12.0	8.0	---	---
30	---	---	---	---	10.1	7.8	12.7	9.6	11.3	7.5	---	---
31	---	---	---	---	---	---	12.8	9.5	11.2	7.5	---	---
MONTH	---	---	---	---	---	---	14.4	7.7	13.1	7.3	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.7	8.1	8.8	7.8	8.8	7.7
2	---	---	---	---	---	---	8.7	8.1	8.8	8.0	---	---
3	---	---	---	---	---	---	8.7	8.1	8.8	7.9	---	---
4	---	---	---	---	---	---	8.7	8.1	8.7	7.8	---	---
5	---	---	---	---	---	---	8.7	8.1	8.8	7.8	---	---
6	---	---	---	---	---	---	8.7	8.1	8.9	7.9	---	---
7	---	---	---	---	---	---	8.7	8.0	8.9	7.9	---	---
8	---	---	---	---	---	---	8.7	8.1	8.9	7.9	---	---
9	---	---	---	---	---	---	8.7	8.0	8.9	7.9	---	---
10	---	---	---	---	---	---	8.6	8.0	8.9	7.8	---	---
11	---	---	---	---	---	---	8.5	7.9	8.9	7.8	---	---
12	---	---	---	---	---	---	8.5	7.8	8.9	7.8	---	---
13	---	---	---	---	---	---	8.5	7.8	8.9	7.8	---	---
14	---	---	---	---	---	---	8.5	7.9	8.9	7.8	---	---
15	---	---	---	---	---	---	8.6	7.8	8.9	7.8	---	---
16	---	---	---	---	---	---	8.6	7.9	8.9	7.8	---	---
17	---	---	---	---	---	---	8.6	7.9	8.9	7.8	---	---
18	---	---	---	---	---	---	8.7	8.0	8.9	7.8	8.7	7.8
19	---	---	---	---	---	---	8.7	8.0	8.9	7.8	8.7	7.8
20	---	---	---	---	---	---	8.7	7.9	8.9	7.8	8.7	7.7
21	---	---	---	---	---	---	8.8	8.0	8.9	7.8	---	---
22	---	---	---	---	---	---	8.6	7.9	8.9	7.8	---	---
23	---	---	---	---	---	---	8.7	7.8	9.0	7.9	---	---
24	---	---	---	---	---	---	8.7	7.9	9.0	7.9	---	---
25	---	---	---	---	---	---	8.8	7.9	9.0	7.8	---	---
26	---	---	---	---	---	---	8.8	8.0	9.1	7.8	---	---
27	---	---	---	---	---	---	8.7	8.0	9.0	7.8	---	---
28	---	---	---	---	8.7	8.0	8.7	8.0	9.0	7.8	---	---
29	---	---	---	---	8.7	8.1	8.7	8.0	9.0	7.8	---	---
30	---	---	---	---	8.7	8.1	8.7	7.9	8.9	7.8	---	---
31	---	---	---	---	---	---	8.7	7.9	8.8	7.7	---	---
MONTH	---	---	---	---	---	---	8.8	7.8	9.1	7.7	---	---

11520500 KLAMATH RIVER NEAR SEIAD VALLEY, CA—Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	214	207	226	212	205	201
2	---	---	---	---	---	---	211	207	221	215	---	---
3	---	---	---	---	---	---	212	209	221	215	---	---
4	---	---	---	---	---	---	215	211	218	212	---	---
5	---	---	---	---	---	---	215	213	218	213	---	---
6	---	---	---	---	---	---	217	215	218	207	---	---
7	---	---	---	---	---	---	220	215	218	212	---	---
8	---	---	---	---	---	---	221	217	217	210	---	---
9	---	---	---	---	---	---	221	219	215	209	---	---
10	---	---	---	---	---	---	221	216	213	208	---	---
11	---	---	---	---	---	---	218	216	214	208	---	---
12	---	---	---	---	---	---	221	218	214	208	---	---
13	---	---	---	---	---	---	226	220	212	206	---	---
14	---	---	---	---	---	---	226	222	211	207	---	---
15	---	---	---	---	---	---	226	219	211	205	---	---
16	---	---	---	---	---	---	228	224	208	204	---	---
17	---	---	---	---	---	---	226	223	208	204	---	---
18	---	---	---	---	---	---	226	220	212	205	209	204
19	---	---	---	---	---	---	222	218	215	205	210	206
20	---	---	---	---	---	---	221	216	207	199	213	206
21	---	---	---	---	---	---	223	218	212	191	---	---
22	---	---	---	---	---	---	223	219	207	204	---	---
23	---	---	---	---	---	---	223	218	211	205	---	---
24	---	---	---	---	---	---	222	216	216	207	---	---
25	---	---	---	---	---	---	219	216	209	203	---	---
26	---	---	---	---	---	---	219	215	208	202	---	---
27	---	---	---	---	---	---	220	215	210	204	---	---
28	---	---	---	---	206	204	224	218	207	201	---	---
29	---	---	---	---	209	205	224	219	212	199	---	---
30	---	---	---	---	208	204	220	215	215	206	---	---
31	---	---	---	---	---	---	226	213	208	199	---	---
MONTH	---	---	---	---	---	---	228	207	226	191	---	---

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	24.0	21.0	25.0	22.5	23.5	20.0
2	---	---	---	---	---	---	24.0	21.5	24.0	21.5	---	---
3	---	---	---	---	---	---	24.0	21.5	23.0	21.0	---	---
4	---	---	---	---	---	---	23.5	20.5	21.0	19.5	---	---
5	---	---	---	---	---	---	23.5	21.0	21.0	18.5	---	---
6	---	---	---	---	---	---	24.0	21.0	21.5	17.5	---	---
7	---	---	---	---	---	---	23.5	21.5	22.0	18.0	---	---
8	---	---	---	---	---	---	23.5	20.5	22.5	18.5	---	---
9	---	---	---	---	---	---	24.5	21.0	24.0	19.5	---	---
10	---	---	---	---	---	---	25.5	22.5	24.5	20.5	---	---
11	---	---	---	---	---	---	26.5	23.5	25.5	21.5	---	---
12	---	---	---	---	---	---	26.5	25.0	26.0	22.0	---	---
13	---	---	---	---	---	---	27.0	24.0	26.5	22.0	---	---
14	---	---	---	---	---	---	26.5	23.5	26.5	22.5	---	---
15	---	---	---	---	---	---	26.5	23.5	26.5	22.0	---	---
16	---	---	---	---	---	---	26.5	23.5	25.5	22.0	---	---
17	---	---	---	---	---	---	26.0	23.0	24.5	21.5	---	---
18	---	---	---	---	---	---	26.0	22.5	24.0	20.0	20.5	18.0
19	---	---	---	---	---	---	26.0	22.5	23.5	20.0	20.5	17.5
20	---	---	---	---	---	---	26.5	22.5	22.0	19.5	21.0	18.0
21	---	---	---	---	---	---	27.0	23.5	22.5	18.5	---	---
22	---	---	---	---	---	---	26.0	23.5	22.5	19.0	---	---
23	---	---	---	---	---	---	26.5	22.5	23.0	20.0	---	---
24	---	---	---	---	---	---	25.5	23.0	23.5	20.0	---	---
25	---	---	---	---	---	---	25.0	22.0	23.5	20.0	---	---
26	---	---	---	---	---	---	25.5	22.0	23.5	20.0	---	---
27	---	---	---	---	---	---	25.5	22.5	23.5	20.0	---	---
28	---	---	---	---	23.0	21.5	25.0	22.0	24.5	20.5	---	---
29	---	---	---	---	23.5	21.0	25.0	22.5	24.5	21.0	---	---
30	---	---	---	---	23.0	20.5	26.0	22.5	24.5	21.5	---	---
31	---	---	---	---	---	---	25.5	22.5	23.5	20.0	---	---
MONTH	---	---	---	---	---	---	27.0	20.5	26.5	17.5	---	---

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 right 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 mi².

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 sea level. 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 ft³/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 ft³/s, on basis of slope-area measurement at gage height 29.0 ft, previous site and datum; minimum discharge observed, 20 ft³/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 ft³/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 3,100 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 6	1030	4,500	9.79

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	50	594	1070	312	580	644	408	255	94	53	39
2	27	44	587	2480	298	539	756	417	241	91	52	38
3	25	41	560	1490	291	507	891	425	224	88	52	37
4	25	37	432	988	282	485	974	404	214	86	53	37
5	25	35	560	900	274	485	960	406	218	84	53	37
6	25	35	818	3820	273	543	850	399	212	82	53	37
7	25	34	583	2730	567	651	771	379	192	82	53	38
8	25	34	449	3070	699	562	729	352	180	81	52	39
9	25	34	385	1740	544	525	845	334	173	78	50	39
10	25	34	341	1200	477	514	987	324	166	76	48	38
11	28	34	304	909	436	562	874	310	162	74	48	37
12	31	48	279	752	415	805	843	312	160	72	47	36
13	29	78	575	656	410	732	873	345	158	71	46	35
14	28	133	1360	578	415	646	1300	335	152	68	45	35
15	27	99	670	512	411	596	876	327	144	68	44	35
16	27	283	589	463	408	554	693	318	138	67	43	35
17	27	166	1210	424	410	526	590	328	137	67	43	35
18	26	98	785	387	402	490	520	336	149	65	43	36
19	26	94	684	365	547	472	475	305	137	64	43	37
20	26	218	707	343	1180	465	445	303	127	62	43	36
21	26	713	553	417	1070	473	425	289	124	61	43	35
22	26	919	514	373	997	505	426	272	123	60	43	35
23	31	380	478	348	1140	539	444	260	119	60	43	34
24	34	262	428	334	938	540	442	258	114	59	43	33
25	31	265	393	364	782	509	455	274	110	58	43	33
26	30	193	368	460	695	490	467	285	107	59	43	33
27	29	159	379	409	654	485	449	285	104	56	42	32
28	29	362	502	374	624	497	404	296	103	55	41	32
29	29	432	546	349	---	547	387	314	100	54	41	32
30	43	300	621	331	---	576	452	291	98	54	40	33
31	68	---	1200	319	---	606	---	267	---	53	40	---
TOTAL	906	5614	18454	28955	15951	17006	20247	10158	4641	2149	1426	1068
MEAN	29.23	187.1	595.3	934.0	569.7	548.6	674.9	327.7	154.7	69.32	46.00	35.60
MAX	68	919	1360	3820	1180	805	1300	425	255	94	53	39
MIN	25	34	279	319	273	465	387	258	98	53	40	32
AC-FT	1800	11140	36600	57430	31640	33730	40160	20150	9210	4260	2830	2120

KLAMATH RIVER BASIN

11521500 INDIAN CREEK NEAR HAPPY CAMP, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	78.39	308.0	607.0	740.9	814.7	774.4	659.2	544.3	259.7	99.57	59.53	51.27
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	29.2	45.6	45.7	50.5	87.1	170	198	144	63.6	36.5	25.3	24.6
(WY)	2002	1960	1977	1977	1977	1977	2001	2001	2001	1977	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL TOTAL	56918		126575			
ANNUAL MEAN	155.9		346.8		414.8	
HIGHEST ANNUAL MEAN					817 1974	
LOWEST ANNUAL MEAN					83.7 1977	
HIGHEST DAILY MEAN	1360	Dec 14	3820	Jan 6	30700	Dec 22 1964
LOWEST DAILY MEAN	22	Sep 9	25	Oct 3	21	Sep 12 1977
ANNUAL SEVEN-DAY MINIMUM	22	Sep 18	25	Oct 3	22	Sep 8 1977
MAXIMUM PEAK FLOW			4500	Jan 6	39000	Dec 22 1964
MAXIMUM PEAK STAGE			9.79	Jan 6	24.30	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	112900		251100		300500	
10 PERCENT EXCEEDS	379		762		954	
50 PERCENT EXCEEDS	100		274		204	
90 PERCENT EXCEEDS	24		34		46	

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 mi².

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 sea level. 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 ft³/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 ft³/s; minimum daily, 60 ft³/s, Sept. 21–24, 2001.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 10,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 6	2000	13,200	10.41

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	261	1380	3570	1350	2660	2240	1900	2210	564	221	130
2	95	195	1870	6700	1270	2450	2610	1970	1970	532	214	127
3	91	165	1660	5920	1220	2270	3120	2080	1730	528	212	124
4	87	148	1170	4040	1160	2140	3620	2120	1630	499	213	122
5	86	137	1560	3360	1140	2090	3990	2220	1760	469	218	125
6	86	131	3850	10000	1120	2270	3570	2280	1800	457	220	131
7	86	126	2690	9610	1900	2360	3320	2240	1520	451	218	137
8	86	123	1850	8640	3170	2080	3130	1990	1330	437	209	144
9	84	122	1470	6580	2510	1960	3490	1910	1150	412	199	143
10	83	120	1220	4870	2200	1900	3900	1840	1050	400	191	137
11	92	119	1070	3950	1990	1920	3640	1740	1040	394	181	131
12	97	335	970	3540	1870	2330	3730	1810	1060	383	174	127
13	96	646	1310	3160	1810	2370	3610	2090	1110	380	168	123
14	93	557	5010	2830	1780	2190	5960	2230	1080	368	163	120
15	89	567	2750	2520	1750	2070	4860	2130	1050	358	159	119
16	88	1140	2300	2260	1720	1970	3550	2090	1020	338	153	120
17	87	1280	3520	2070	1670	1870	2980	2190	957	321	151	124
18	87	602	3060	1890	1610	1740	2580	2310	1050	311	151	137
19	87	439	2960	1760	2030	1670	2310	2110	1020	305	147	136
20	86	786	3050	1650	5480	1620	2150	1960	872	296	148	128
21	84	1700	2550	1890	5300	1630	2040	1720	831	287	154	123
22	84	3750	2190	1750	4550	1670	2040	1560	842	289	156	119
23	102	1510	1920	1590	4670	1760	2140	1470	815	319	153	117
24	110	1060	1680	1500	4160	1770	2220	1490	758	309	149	115
25	107	1040	1530	1540	3630	1690	2360	1680	742	276	147	115
26	101	835	1390	1920	3260	1630	2570	1910	745	264	145	113
27	98	674	1350	1840	3050	1590	2410	2020	738	254	143	111
28	96	1010	1580	1690	2890	1610	2100	2300	686	242	140	113
29	98	1560	1720	1570	---	1750	1940	2620	633	234	137	115
30	141	970	1980	1450	---	1880	2110	2610	608	231	135	119
31	366	---	3830	1380	---	2030	---	2260	---	226	133	---
TOTAL	3174	22108	66440	107040	70260	60940	90290	62850	33807	11134	5302	3745
MEAN	102.4	736.9	2143	3453	2509	1966	3010	2027	1127	359.2	171.0	124.8
MAX	366	3750	5010	10000	5480	2660	5960	2620	2210	564	221	144
MIN	83	119	970	1380	1120	1590	1940	1470	608	226	133	111
AC-FT	6300	43850	131800	212300	139400	120900	179100	124700	67060	22080	10520	7430

KLAMATH RIVER BASIN

11522500 SALMON RIVER AT SOMES BAR, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	342.8	1093	2165	2936	2964	2926	2988	3094	1902	617.7	260.4	200.8
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	102	130	175	190	255	448	710	786	402	146	81.6	80.2
(WY)	2002	1937	1937	1937	1977	1977	1977	1977	1992	1931	1931	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1912 - 2002	
ANNUAL TOTAL	243558		537090			
ANNUAL MEAN	667.3		1471		1785	
HIGHEST ANNUAL MEAN					3754	
LOWEST ANNUAL MEAN					339	
HIGHEST DAILY MEAN	5010	Dec 14	10000	Jan 6	100000	Dec 22 1964
LOWEST DAILY MEAN	60	Sep 21	83	Oct 10	60	Sep 21 2001
ANNUAL SEVEN-DAY MINIMUM	61	Sep 18	85	Oct 4	61	Sep 18 2001
MAXIMUM PEAK FLOW			13200	Jan 6	133000	Dec 22 1964
MAXIMUM PEAK STAGE			10.41	Jan 6	46.60	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	483100		1065000		1293000	
10 PERCENT EXCEEDS	1600		3210		4200	
50 PERCENT EXCEEDS	392		1350		1020	
90 PERCENT EXCEEDS	84		118		179	

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 mi², not including Lost River or Lower Klamath Lake Basins.

WATER-DISCHARGE RECORDS

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 sea level. 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 ft³/s, Dec. 22, 1964, gage height, 76.5 ft, from floodmarks, site and datum then in use, from rating curve extended above 80,000 ft³/s, on basis of slope-conveyance study, gage height, 59.4 ft; minimum daily, 320 ft³/s, Aug. 25, Sept. 1, 1931.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 40,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 8	1415	37,800	15.73

DISCHARGE, CUBIC PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	2000	7330	14100	6980	12200	9210	7750	6580	2130	1380	1220
2	1340	1860	9110	24300	6760	11500	10200	7860	6140	2060	1360	1220
3	1430	1810	8530	23600	6620	10900	11400	7770	5520	2020	1310	1260
4	1420	1780	6450	17600	6470	10400	12500	7630	5040	1970	1310	1260
5	1410	1760	7280	14800	6360	10200	13400	7820	4970	1930	1310	1260
6	1410	1750	14100	28600	6280	10400	12700	8050	5010	1900	1310	1270
7	1530	1740	11100	33100	9260	11100	11900	7920	4650	1890	1310	1300
8	1580	1730	8170	34500	14600	10100	11300	7420	4290	1860	e1310	1310
9	1580	1730	6640	27300	12000	9570	11700	7080	3950	1830	e1300	1320
10	1590	1720	5660	20500	10500	9420	13500	6860	3680	1800	e1300	1320
11	1630	1710	5070	16500	9600	9960	12600	6570	3560	1780	e1290	1310
12	1640	1950	4660	14500	9000	11700	12600	6540	3510	1740	e1280	1300
13	1630	2650	5080	12900	8680	11800	12200	6970	3500	1660	e1260	1290
14	1620	3100	18400	11800	8520	10900	17300	7260	3420	1580	1250	1280
15	1630	2890	12600	10900	8350	10300	16500	7170	3300	1570	1230	1280
16	1620	4510	9870	9990	8200	9820	13000	6980	3220	1550	1220	1280
17	1610	4650	14700	9340	8090	9410	11100	7060	3090	1520	1220	1290
18	1610	2930	12900	8740	7900	8900	9840	7320	3240	1500	1220	1310
19	1610	2480	12200	8360	8980	8570	8920	7010	3190	1490	1220	1320
20	1610	3480	12500	8040	17500	8280	8370	6740	2940	1480	1220	1310
21	1600	6600	10800	8900	18700	8100	7990	6240	2800	1470	1230	1300
22	1610	14300	9560	8720	16900	8070	7840	5650	2780	1460	1240	1290
23	1640	7720	8900	7980	17700	8410	8010	5330	2690	1490	1240	1300
24	1680	5280	7890	7520	16800	8620	8100	5230	2560	1490	1240	1300
25	1660	5210	7140	7540	15200	8380	8300	5450	2490	1440	1230	1290
26	1670	4430	6560	9390	13900	8060	8620	5810	2440	1430	1230	1280
27	1660	3690	6270	8980	13300	7880	8290	6070	2410	1420	1230	1280
28	1660	4810	7270	8300	12900	7850	7530	6590	2350	1400	1220	1290
29	1670	9610	7930	7800	---	8210	6930	7300	2260	1390	1220	1350
30	1830	5870	8770	7360	---	8520	7760	7620	2210	1400	1230	1760
31	2210	---	14100	7060	---	8750	---	6940	---	1400	1220	---
TOTAL	49680	115750	287540	439020	306050	296280	319610	214010	107790	51050	39140	39150
MEAN	1603	3858	9275	14160	10930	9557	10650	6904	3593	1647	1263	1305
MAX	2210	14300	18400	34500	18700	12200	17300	8050	6580	2130	1380	1760
MIN	1290	1710	4660	7060	6280	7850	6930	5230	2210	1390	1220	1220
AC-FT	98540	229600	570300	870800	607100	587700	633900	424500	213800	101300	77630	77650

e Estimated.

KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2995	5978	10600	13690	14050	13860	12650	10950	6465	2801	2045	2192
MAX	9876	22080	48770	51290	53740	42600	26860	25320	16900	7226	3666	3807
(WY)	1963	1974	1965	1997	1986	1972	1974	1938	1953	1953	1953	1953
MIN	1354	1930	2288	2334	2630	2806	3065	3081	1626	755	549	790
(WY)	1993	1988	1937	1937	1977	1977	1977	1992	1992	1931	1931	1992

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	1261370		2265070			
ANNUAL MEAN	3456		6206		8161	
HIGHEST ANNUAL MEAN					17030	
LOWEST ANNUAL MEAN					2520	
HIGHEST DAILY MEAN	18400	Dec 14	34500	Jan 8	240000	Dec 23 1964
LOWEST DAILY MEAN	1190	Aug 11	1220	Aug 16	320	Aug 25 1931
ANNUAL SEVEN-DAY MINIMUM	1190	Aug 11	1220	Aug 15	453	Aug 1 1931
MAXIMUM PEAK FLOW			37800	Jan 8	307000	Dec 22 1964
MAXIMUM PEAK STAGE			15.73	Jan 8	76.50	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	2502000		4493000		5912000	
10 PERCENT EXCEEDS	6580		12600		17900	
50 PERCENT EXCEEDS	2820		5650		4840	
90 PERCENT EXCEEDS	1200		1290		1870	

11523000 KLAMATH RIVER AT ORLEANS, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1967–79, June 2002 to September 2002.

CHEMICAL DATA: June 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: Water years 1964–79 (daily). June 2002 to September 2002 (seasonal only).

SEDIMENT DATA: Water years 1967–79.

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: October 1963 to May 1979 (daily). June 2002 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since June 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated good except for Sept. 3–30, which are rated poor. pH, specific conductance, and water temperature records rated excellent.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 12.3 mg/L, Sept. 21–23, 2002; minimum recorded, 7.0 mg/L, Aug. 16, 2002.

pH: Maximum recorded, 8.7 standard units, July 29, 2002; minimum recorded, 8.0 standard units, July 13, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 207 microsiemens, Sept. 30, 2002; minimum recorded, 159 microsiemens, June 28, 29, 2002.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 13, 2002; minimum recorded, 17.0°C, Sept. 30, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 12.3 mg/L, Sept. 21–23; minimum recorded, 7.0 mg/L, Aug. 16.

pH: Maximum recorded, 8.7 standard units, July 29; minimum recorded, 8.0 standard units, July 13.

SPECIFIC CONDUCTANCE: Maximum recorded, 207 microsiemens, Sept. 30; minimum recorded, 159 microsiemens, June 28, 29.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 13; minimum recorded, 17.0°C, Sept. 30.

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- TION, (FEET) (81903)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- TION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- TION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- TION, CROSS SECTION (FT FM L BANK) (00009)
SEP									
16...*	1500	8.40	747	9.7	108	8.4	192	19.5	141
16...*	1510	7.00	747	9.8	109	8.5	192	19.5	185
16...*	1520	7.00	747	9.9	110	8.5	192	19.5	215
16...*	1530	7.50	747	9.8	109	8.3	192	19.5	246
16...*	1540	9.40	747	9.6	107	8.4	192	19.5	286

* Instantaneous discharge at the time of the cross-sectional measurement: Sept. 16, 1290 ft³/s.

KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, PH WATER SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LITY WAT. DIS FET LAB CACO3 (MG/L) (29801)	
JUL 09...	1520	1820	.8	747	8.9	105	8.3	180	22.5	77
AUG 13...	1055	1260	1.8	745	7.5	91	8.1	194	24.0	84
SEP 16...	1525	1290	1.1	747	10.4	116	8.4	193	19.5	e85
Date		NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
JUL 09...		<.015	.21	<.013	.04	e.05	2.7	.7	.7	--
AUG 13...		<.015	.29	<.013	.04	.06	4.0	3.1	2.3	--
SEP 16...		<.015	.33	<.013	.07	.10	4.1	2.6	1.9	<1
Date		ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JUL 09...		--	--	--	--	--	--	--	--	--
AUG 13...		--	--	--	--	--	--	--	--	--
SEP 16...		E.05	3	14	<.06	<.04	<.8	.10	.8	<.08
Date		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JUL 09...		--	--	--	--	--	--	--	--	--
AUG 13...		--	--	--	--	--	--	--	--	--
SEP 16...		2.5	<.01	<.01	.8	2.28	<2	<1	v23	.11

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

11523000 KLAMATH RIVER AT ORLEANS, CA—Continued

OXYGEN DISSOLVED, (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.8	7.6	10.3	7.7	10.2	8.0
2	---	---	---	---	---	---	8.8	7.6	10.3	7.7	10.2	8.1
3	---	---	---	---	---	---	8.9	7.6	10.0	7.8	10.5	8.0
4	---	---	---	---	---	---	9.1	7.9	10.9	8.4	10.6	8.3
5	---	---	---	---	---	---	9.1	7.9	11.3	8.6	10.9	8.9
6	---	---	---	---	---	---	9.2	8.0	11.3	8.7	11.0	9.0
7	---	---	---	---	---	---	9.2	8.0	11.3	8.5	11.0	9.1
8	---	---	---	---	---	---	9.5	8.1	11.4	8.7	11.0	9.1
9	---	---	---	---	---	---	10.0	8.2	11.4	8.5	10.8	9.1
10	---	---	---	---	---	---	9.7	8.2	11.2	8.2	10.7	8.8
11	---	---	---	---	---	---	9.4	7.9	11.0	8.0	10.5	8.6
12	---	---	---	---	---	---	9.0	7.8	10.8	8.0	10.4	8.4
13	---	---	---	---	---	---	9.3	7.9	9.8	7.5	10.3	8.3
14	---	---	---	---	---	---	9.4	7.8	9.7	7.1	10.2	8.2
15	---	---	---	---	---	---	9.4	7.8	9.6	7.1	10.3	8.3
16	---	---	---	---	---	---	9.5	7.8	9.6	7.0	10.8	8.4
17	---	---	---	---	---	---	9.6	7.9	9.7	7.3	11.5	9.3
18	---	---	---	---	---	---	9.7	8.0	9.9	7.5	11.9	9.9
19	---	---	---	---	---	---	9.8	8.0	10.0	7.6	12.1	9.9
20	---	---	---	---	---	---	9.9	7.9	10.2	7.9	12.2	9.9
21	---	---	---	---	---	---	9.8	7.7	10.3	8.1	12.3	9.9
22	---	---	---	---	---	---	9.8	7.8	10.3	8.1	12.3	10.0
23	---	---	---	---	---	---	10.1	8.1	10.4	8.1	12.3	10.1
24	---	---	---	---	---	---	10.2	8.0	10.4	8.2	12.2	10.0
25	---	---	---	---	---	---	10.2	8.0	10.3	8.2	12.2	10.0
26	---	---	---	---	---	---	10.2	7.9	10.3	8.2	12.0	10.0
27	---	---	---	---	---	---	10.2	7.9	10.2	8.0	11.7	9.9
28	---	---	---	---	8.4	7.4	10.4	8.0	10.2	8.0	11.3	9.7
29	---	---	---	---	8.6	7.5	10.3	8.0	10.0	7.8	10.7	9.4
30	---	---	---	---	8.7	7.6	10.2	7.8	10.1	8.0	9.8	8.7
31	---	---	---	---	---	---	10.2	7.6	10.0	8.0	---	---
MONTH	---	---	---	---	---	---	10.4	7.6	11.4	7.0	12.3	8.0

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.6	8.1	8.6	8.3	8.4	8.2
2	---	---	---	---	---	---	8.6	8.1	8.6	8.3	8.4	8.2
3	---	---	---	---	---	---	8.6	8.2	8.5	8.2	8.4	8.2
4	---	---	---	---	---	---	8.6	8.2	8.6	8.2	8.5	8.3
5	---	---	---	---	---	---	8.6	8.2	8.6	8.2	8.4	8.2
6	---	---	---	---	---	---	8.6	8.2	8.6	8.3	8.4	8.2
7	---	---	---	---	---	---	8.6	8.2	8.6	8.3	8.4	8.2
8	---	---	---	---	---	---	8.6	8.2	8.6	8.3	8.4	8.2
9	---	---	---	---	---	---	8.5	8.2	8.6	8.2	8.4	8.1
10	---	---	---	---	---	---	8.5	8.1	8.6	8.2	8.4	8.1
11	---	---	---	---	---	---	8.5	8.1	8.5	8.2	8.4	8.1
12	---	---	---	---	---	---	8.4	8.1	8.5	8.1	8.4	8.1
13	---	---	---	---	---	---	8.5	8.0	8.5	8.1	8.4	8.2
14	---	---	---	---	---	---	8.5	8.1	8.5	8.1	8.4	8.2
15	---	---	---	---	---	---	8.5	8.1	8.5	8.1	8.4	8.2
16	---	---	---	---	---	---	8.5	8.2	8.5	8.1	8.4	8.2
17	---	---	---	---	---	---	8.5	8.2	8.5	8.1	8.4	8.2
18	---	---	---	---	---	---	8.6	8.2	8.5	8.1	8.4	8.1
19	---	---	---	---	---	---	8.6	8.2	8.5	8.1	8.4	8.2
20	---	---	---	---	---	---	8.6	8.2	8.5	8.2	8.4	8.2
21	---	---	---	---	---	---	8.6	8.2	8.5	8.2	8.4	8.2
22	---	---	---	---	---	---	8.5	8.2	8.5	8.2	8.4	8.2
23	---	---	---	---	---	---	8.6	8.1	8.5	8.2	8.4	8.2
24	---	---	---	---	---	---	8.6	8.3	8.5	8.3	8.4	8.2
25	---	---	---	---	---	---	8.6	8.3	8.5	8.2	8.5	8.2
26	---	---	---	---	---	---	8.6	8.3	8.4	8.3	8.5	8.2
27	---	---	---	---	---	---	8.6	8.3	8.4	8.2	8.5	8.3
28	---	---	---	---	8.5	8.1	8.6	8.3	8.4	8.2	8.5	8.2
29	---	---	---	---	8.5	8.1	8.7	8.3	8.4	8.2	8.5	8.2
30	---	---	---	---	8.6	8.1	8.6	8.3	8.4	8.2	8.4	8.2
31	---	---	---	---	---	---	8.6	8.3	8.4	8.2	---	---
MONTH	---	---	---	---	---	---	8.7	8.0	8.6	8.1	8.5	8.1

KLAMATH RIVER BASIN

11523000 KLAMATH RIVER AT ORLEANS, CA—Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	168	165	197	194	195	193
2	---	---	---	---	---	---	170	167	195	193	202	193
3	---	---	---	---	---	---	171	170	197	191	199	192
4	---	---	---	---	---	---	172	169	197	190	194	192
5	---	---	---	---	---	---	174	171	193	191	193	192
6	---	---	---	---	---	---	176	174	194	192	194	192
7	---	---	---	---	---	---	177	176	193	190	193	190
8	---	---	---	---	---	---	179	177	193	191	191	189
9	---	---	---	---	---	---	182	178	195	192	189	188
10	---	---	---	---	---	---	183	181	196	193	190	189
11	---	---	---	---	---	---	185	183	195	193	190	189
12	---	---	---	---	---	---	185	184	196	193	196	188
13	---	---	---	---	---	---	185	183	195	191	197	192
14	---	---	---	---	---	---	184	183	194	191	199	196
15	---	---	---	---	---	---	185	184	195	192	200	195
16	---	---	---	---	---	---	189	185	195	193	196	193
17	---	---	---	---	---	---	189	188	194	193	196	192
18	---	---	---	---	---	---	192	188	195	193	194	192
19	---	---	---	---	---	---	192	191	194	192	195	193
20	---	---	---	---	---	---	192	191	193	192	196	194
21	---	---	---	---	---	---	192	190	194	192	198	195
22	---	---	---	---	---	---	191	189	196	193	199	197
23	---	---	---	---	---	---	190	188	194	191	201	199
24	---	---	---	---	---	---	191	187	193	190	201	198
25	---	---	---	---	---	---	193	189	197	190	201	200
26	---	---	---	---	---	---	192	191	196	193	203	201
27	---	---	---	---	---	---	193	190	199	193	203	202
28	---	---	---	---	160	159	197	191	198	193	204	202
29	---	---	---	---	163	159	197	190	195	192	203	201
30	---	---	---	---	165	163	194	191	196	192	207	201
31	---	---	---	---	---	---	197	193	196	193	---	---
MONTH	---	---	---	---	---	---	197	165	199	190	207	188

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	23.5	21.5	24.7	23.9	23.1	22.5
2	---	---	---	---	---	---	23.5	22.0	24.5	23.7	23.2	22.5
3	---	---	---	---	---	---	23.5	22.0	23.7	22.0	23.1	22.0
4	---	---	---	---	---	---	22.5	21.0	22.0	20.9	22.1	20.3
5	---	---	---	---	---	---	22.5	21.5	21.0	20.2	20.3	19.5
6	---	---	---	---	---	---	22.5	21.5	20.6	19.9	19.6	18.9
7	---	---	---	---	---	---	22.5	21.5	20.6	20.0	19.0	18.4
8	---	---	---	---	---	---	22.5	21.0	21.1	20.2	18.8	18.3
9	---	---	---	---	---	---	23.5	21.5	21.8	20.6	19.2	18.4
10	---	---	---	---	---	---	24.0	22.5	22.6	21.8	19.7	18.8
11	---	---	---	---	---	---	25.5	23.5	23.2	22.5	20.2	19.3
12	---	---	---	---	---	---	25.5	25.0	23.8	23.2	20.4	19.7
13	---	---	---	---	---	---	26.0	25.0	24.4	24.0	20.6	20.0
14	---	---	---	---	---	---	25.5	24.0	24.8	24.3	20.5	19.9
15	---	---	---	---	---	---	25.0	24.0	25.0	24.3	20.1	19.4
16	---	---	---	---	---	---	25.0	24.0	24.9	24.0	19.5	19.0
17	---	---	---	---	---	---	24.5	23.5	24.1	23.3	19.6	19.3
18	---	---	---	---	---	---	24.5	23.5	23.6	22.7	19.5	19.0
19	---	---	---	---	---	---	24.5	23.0	22.8	21.8	19.5	19.0
20	---	---	---	---	---	---	25.0	23.5	22.1	21.3	20.0	19.0
21	---	---	---	---	---	---	25.5	24.5	21.9	21.2	20.0	19.5
22	---	---	---	---	---	---	25.0	24.0	21.9	21.3	20.0	19.5
23	---	---	---	---	---	---	25.0	23.5	21.8	21.2	20.0	19.5
24	---	---	---	---	---	---	24.5	23.5	21.5	21.0	20.5	19.5
25	---	---	---	---	---	---	24.5	23.5	21.7	21.0	20.0	19.5
26	---	---	---	---	---	---	25.0	24.0	22.0	21.2	20.0	19.0
27	---	---	---	---	---	---	25.0	24.0	22.1	21.6	19.0	18.5
28	---	---	---	---	23.0	22.0	24.5	23.0	22.7	22.0	19.0	18.0
29	---	---	---	---	23.0	22.0	24.0	23.0	23.2	22.5	18.5	17.5
30	---	---	---	---	23.0	21.5	24.5	23.5	23.2	22.5	18.0	17.0
31	---	---	---	---	---	---	24.5	24.0	23.4	22.7	---	---
MONTH	---	---	---	---	---	---	26.0	21.0	25.0	19.9	23.2	17.0

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 mi².

PERIOD OF RECORD.—September 1957 to current year.

REVISED RECORDS.—WDR CA-85-2: 1982(M). WDR CA-97-2: 1982(M).

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 2,536.93 ft above sea level. 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 ft³/s, Jan. 16, 1974, gage height, 12.96 ft, site and datum then in use, from rating curve extended above 4,500 ft³/s, on basis of slope-area measurement of peak flow, maximum gage height, 16.82 ft, Jan. 1, 1997, present datum; minimum daily, 16 ft³/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 ft³/s.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 2,300 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	1030	5,770	9.80	Apr. 14	2015	2,390	7.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	47	183	1050	210	617	1080	615	728	114	52	34
2	31	39	242	4460	203	549	1340	675	602	109	50	30
3	30	37	230	1910	199	510	1550	732	516	104	48	24
4	29	35	177	1050	196	495	1800	768	498	104	50	28
5	29	35	174	778	200	491	1890	818	513	99	49	30
6	29	35	170	805	202	490	1560	852	484	97	46	34
7	29	34	171	1070	339	513	1410	824	415	90	45	45
8	29	33	160	1300	366	461	1330	709	358	84	42	43
9	28	33	156	1120	310	425	1610	679	318	83	45	39
10	27	34	148	838	289	408	1490	644	293	83	41	32
11	27	58	144	705	284	401	1380	598	285	78	40	31
12	28	684	138	661	288	435	1320	650	279	75	37	30
13	27	268	147	611	309	436	1490	751	272	74	37	32
14	26	209	155	557	327	402	2130	762	264	72	35	32
15	26	153	137	495	349	377	1640	728	256	72	34	33
16	26	328	139	443	366	353	1140	710	242	68	36	33
17	26	285	146	407	374	334	884	755	227	66	36	34
18	26	161	151	373	373	310	730	770	223	64	35	30
19	26	153	164	349	400	300	641	762	204	62	33	26
20	26	269	191	329	522	314	605	691	189	58	35	30
21	26	538	173	331	600	356	612	572	180	62	35	33
22	26	569	179	303	762	444	681	536	176	76	32	32
23	28	290	170	285	1060	486	782	511	168	68	29	29
24	28	253	157	272	840	474	833	512	157	56	34	28
25	28	204	153	268	708	451	929	566	149	55	33	25
26	27	174	153	265	663	441	959	619	140	54	35	23
27	28	152	250	247	685	463	833	656	136	54	38	25
28	29	162	404	235	687	551	703	686	132	54	36	30
29	32	164	424	226	---	728	638	739	126	49	35	35
30	95	145	465	218	---	825	651	733	120	45	36	32
31	73	---	866	215	---	932	---	689	---	49	34	---
TOTAL	977	5581	6717	22176	12111	14772	34641	21312	8650	2278	1203	942
MEAN	31.52	186.0	216.7	715.4	432.5	476.5	1155	687.5	288.3	73.48	38.81	31.40
MAX	95	684	866	4460	1060	932	2130	852	728	114	52	45
MIN	26	33	137	215	196	300	605	511	120	45	29	23
AC-FT	1940	11070	13320	43990	24020	29300	68710	42270	17160	4520	2390	1870

KLAMATH RIVER BASIN

11523200 TRINITY RIVER ABOVE COFFEE CREEK, NEAR TRINITY CENTER, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	75.37	205.6	326.1	459.8	568.0	668.9	863.3	1049	499.3	132.2	54.87	44.28
MAX	447	1664	1726	1899	2248	1641	1558	2414	2159	778	205	134
(WY)	1963	1974	1965	1974	1958	1995	2000	1983	1998	1983	1983	1978
MIN	24.3	37.4	34.1	35.9	47.2	60.0	137	204	95.7	29.0	20.9	23.3
(WY)	1992	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL TOTAL	91661		131360			
ANNUAL MEAN	251.1		359.9		411.1	
HIGHEST ANNUAL MEAN					851 1974	
LOWEST ANNUAL MEAN					66.2 1977	
HIGHEST DAILY MEAN	2380	Mar 25	4460	Jan 2	18900	Jan 16 1974
LOWEST DAILY MEAN	24	Sep 23	23	Sep 26	16	Sep 11 1977
ANNUAL SEVEN-DAY MINIMUM	26	Sep 18	26	Oct 14	16	Sep 8 1977
MAXIMUM PEAK FLOW			5770	Jan 2	26500	Jan 16 1974
MAXIMUM PEAK STAGE			9.80	Jan 2	16.82	Jan 1 1997
ANNUAL RUNOFF (AC-FT)	181800		260600		297900	
10 PERCENT EXCEEDS	777		820		1050	
50 PERCENT EXCEEDS	99		204		172	
90 PERCENT EXCEEDS	29		30		37	

11525400 TRINITY 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, and 9 mi north of Lewiston.

DRAINAGE AREA.—692 mi².

PERIOD OF RECORD.—November 1960 to current year. From October 1963 to September 1997 published as "Clair Engle Lake near Lewiston".

GAGE.—Water-stage recorder. Datum of gage is sea level (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 HOURS) 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 HOURS) FOR CURRENT YEAR.—Maximum contents, 2,049,394 acre-ft, Apr 30, elevation, 2,344.32 ft; minimum, 1,290,909 acre-ft, Nov. 11, elevation, 2,284.86 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	2,190	529,611	2,310	1,583,586	2,380	2,616,989
2,140	292,859	2,250	955,140				

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1424447	1294684	1340803	1435159	1653849	1761690	1864018	2046745	1984810	1903540	1754362	1590703
2	1421201	1294576	1344251	1485131	1654106	1765961	1872174	2043658	1985243	1899196	1748909	1585584
3	1417375	1294360	1348260	1506624	1655387	1769575	1881759	2038380	1984522	1894305	1743072	1579984
4	1412753	1294035	1351170	1517989	1655900	1773055	1892908	2032809	1984234	1889415	1737106	1573649
5	1407912	1293386	1353968	1526488	1656156	1776803	1904804	2027249	1983801	1884955	1730899	1569435
6	1402159	1292629	1356430	1541984	1658207	1780429	1914777	2022284	1982936	1880369	1725617	1565603
7	1395628	1291983	1358445	1557085	1663224	1784059	1923812	2017612	1982360	1875505	1720486	1561649
8	1387635	1291554	1360359	1571662	1667990	1787554	1932725	2012368	1979765	1871068	1715622	1558437
9	1379896	1291339	1361710	1583338	1671082	1790915	1943086	2007278	1977026	1866921	1710893	1554871
10	1373780	1291124	1362836	1592076	1673535	1794425	1953358	2002916	1974575	1862773	1706445	1551428
11	1368352	1290909	1363849	1598959	1675995	1797396	1962658	1998997	1972268	1858904	1701735	1547986
12	1363061	1291017	1364862	1604732	1678197	1800232	1971837	1995521	1969972	1854228	1696642	1544797
13	1357885	1293062	1366213	1609885	1680398	1803203	1981206	1993203	1967677	1849415	1691436	1541250
14	1353968	1295874	1368239	1614553	1682858	1805503	1994217	1990886	1965383	1844743	1686099	1537335
15	1350834	1297929	1369590	1618465	1685189	1807402	2004370	1988134	1963088	1839679	1680916	1533303
16	1346252	1300201	1370949	1622002	1687921	1809844	2010623	1985243	1959933	1834616	1675607	1529287
17	1343472	1303556	1372874	1625300	1690394	1811743	2014695	1982936	1956354	1829427	1670567	1525027
18	1341693	1306061	1374799	1628217	1693388	1812692	2018634	1980630	1953215	1824794	1665156	1521379
19	1339024	1307804	1377517	1630119	1698988	1814998	2021846	1978179	1950076	1819072	1659746	1518231
20	1334808	1309655	1381028	1632783	1706706	1816898	2024767	1979044	1946366	1814456	1654490	1513630
21	1330390	1312378	1384446	1635709	1714045	1819344	2027395	1978611	1942944	1809572	1649364	1512298
22	1325973	1319386	1387863	1638004	1720880	1821797	2030903	1977891	1939396	1804825	1643741	1511692
23	1321579	1323663	1391053	1639789	1729579	1825339	2035594	1976449	1935706	1799557	1638514	1509877
24	1317631	1327298	1393795	1641956	1736313	1828609	2038233	1975728	1932158	1794560	1633290	1508672
25	1311071	1329948	1395743	1644506	1742143	1832016	2041459	1976305	1928895	1789302	1627963	1507708
26	1306170	1331605	1397462	1646418	1747317	1834890	2044684	1976737	1925224	1784193	1622763	1505901
27	1301282	1332599	1399295	1648211	1752363	1837900	2047186	1977170	1920847	1779353	1617456	1503131
28	1297172	1334366	1402053	1649364	1757427	1841595	2048511	1978179	1916046	1774528	1612661	1501806
29	1294901	1336578	1407336	1650774	---	1846114	2049100	1980197	1911687	1769543	1607619	1501083
30	1294793	1338246	1413214	1651030	---	1851340	2049394	1981927	1907614	1764890	1602348	1500119
31	1294684	---	1423867	1652312	---	1857117	---	1983657	---	1759692	1595947	---
a	2285.21	2289.19	2296.73	2315.44	2323.48	2330.84	2344.32	2339.81	2334.47	2323.65	2310.99	2303.18
b	-133479	+43562	+85621	+228445	+105115	+99690	+192277	-65737	-76043	-147922	-163745	-95828
MAX	1424447	1338246	1423867	1652312	1757427	1857117	2049394	2046745	1985243	1903540	1754362	1590703
MIN	1294684	1290909	1340803	1435159	1653849	1761690	1864018	1975728	1907614	1759692	1595947	1500119

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

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 mi².

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 sea level. See WSP 1929 for history of changes prior to July 7, 1964.

REMARKS.—Records good. Flow completely regulated by Trinity 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 Trinity 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 ft³/s, Dec. 22, 1955, gage height, 27.3 ft, from floodmarks, site and datum then in use; minimum, 23 ft³/s, July 30, 1924. Since completion of Trinity Dam in 1960, maximum discharge, 14,400 ft³/s, Jan. 18, 1974, gage height, 10.41 ft; minimum daily, 100 ft³/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	475	337	330	351	344	351	272	3840	1330	459	481	469
2	475	331	324	355	341	352	283	4120	1260	455	481	469
3	476	334	335	352	339	351	286	5390	1200	453	481	468
4	478	345	361	351	356	344	286	6040	1120	454	446	486
5	476	335	362	355	374	341	277	5990	1080	458	478	481
6	479	335	364	356	366	352	272	5810	1010	456	475	485
7	482	334	347	350	356	330	272	5420	953	456	475	485
8	478	341	329	352	357	328	272	5150	954	451	473	485
9	477	345	329	352	353	330	272	4880	951	462	474	485
10	481	341	330	351	350	331	272	4540	942	472	473	470
11	476	341	338	350	350	325	272	4270	910	474	470	455
12	477	341	338	349	348	332	272	3970	854	472	472	453
13	478	329	339	351	348	340	272	3650	809	473	470	446
14	469	331	342	351	352	341	270	3480	759	469	472	453
15	463	331	344	351	342	337	269	3350	744	472	471	455
16	363	331	345	353	338	334	274	3100	697	469	470	452
17	351	330	346	351	339	329	286	2850	659	472	472	448
18	349	330	345	355	356	341	285	2670	642	474	472	444
19	354	331	348	352	358	347	286	2560	600	475	472	460
20	360	332	350	355	365	339	286	2390	574	471	472	440
21	364	336	350	353	358	312	285	2220	566	452	475	434
22	353	334	359	351	350	273	282	2110	532	448	473	433
23	350	333	355	352	355	267	283	2040	513	460	464	431
24	336	398	352	351	344	268	286	1930	485	471	470	432
25	335	395	351	351	345	282	285	1840	451	482	470	431
26	344	369	351	281	345	295	283	1720	448	481	468	431
27	344	349	348	275	347	295	286	1660	447	476	468	433
28	341	330	350	334	350	287	440	1590	449	479	469	433
29	337	342	352	344	---	276	1060	1530	447	477	465	431
30	334	375	354	343	---	275	2200	1430	451	479	470	430
31	335	---	352	344	---	269	---	1370	---	481	470	---
TOTAL	12690	10266	10720	10722	9826	9874	11226	102910	22837	14483	14612	13608
MEAN	409.4	342.2	345.8	345.9	350.9	318.5	374.2	3320	761.2	467.2	471.4	453.6
MAX	482	398	364	356	374	352	2200	6040	1330	482	481	486
MIN	334	329	324	275	338	267	269	1370	447	448	446	430
AC-FT	25170	20360	21260	21270	19490	19590	22270	204100	45300	28730	28980	26990

KLAMATH RIVER BASIN

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
MAXIMUM PEAK FLOW	71600 Dec 22 1955
MAXIMUM 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 - 2002, BY WATER YEAR (WY)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
MEAN	294.0	303.4	374.9	608.9	601.9	718.0	734.8	932.9	749.4	385.5	335.0	326.0
MAX	424	849	2285	6525	3369	5489	5029	3937	5466	1096	577	556
(WY)	1993	1984	1984	1997	1998	1983	1963	1963	1998	1983	1982	1998
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 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1962 - 2002

ANNUAL TOTAL	196169	243774	
ANNUAL MEAN	537.4	667.9	529.9
HIGHEST ANNUAL MEAN			1795 1998
LOWEST ANNUAL MEAN			165 1977
HIGHEST DAILY MEAN	1760 Aug 27	6040 May 4	13800 Jan 19 1974
LOWEST DAILY MEAN	278 Jan 4	267 Mar 23	100 Apr 14 1976
ANNUAL SEVEN-DAY MINIMUM	281 Feb 3	271 Apr 9	103 Apr 12 1976
MAXIMUM PEAK FLOW		6570 May 3	14400 Jan 18 1974
MAXIMUM PEAK STAGE		7.75 May 3	10.41 Jan 18 1974
ANNUAL RUNOFF (AC-FT)	389100	483500	383900
10 PERCENT EXCEEDS	1520	1100	758
50 PERCENT EXCEEDS	363	361	304
90 PERCENT EXCEEDS	292	287	155

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 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—November 1975 to current year.

REVISED RECORDS.—WDR CA-86-2: 1983(M). WDR CA-94-2: 1993(P). WDR CA-97-2: 1983(P).

GAGE.—Water-stage recorder. Datum of gage is 2,049.73 ft above sea level (California State Highway Department Benchmark).

REMARKS.—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, 3,500 ft³/s, Feb. 28, 1983, gage height, 10.11 ft, from rating curve extended above 700 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 3.8 ft³/s, July 29, 1994.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 220 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	1245	924	6.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	58	220	54	67	55	40	34	19	11	10
2	11	17	74	686	54	64	56	39	31	18	11	9.9
3	11	17	62	393	53	62	56	39	31	17	10	9.9
4	11	17	48	257	52	60	57	38	30	17	10	9.9
5	10	16	50	224	51	58	58	38	29	17	11	10
6	10	16	57	285	50	62	58	38	28	17	11	11
7	11	16	48	236	65	65	57	37	28	17	11	12
8	11	16	43	214	73	60	55	36	28	17	11	12
9	11	16	42	191	61	58	58	36	28	16	11	12
10	11	16	40	163	58	58	58	35	27	16	11	12
11	11	22	38	143	55	58	56	35	26	15	10	12
12	11	61	37	127	54	59	55	34	25	15	10	11
13	11	34	38	115	53	57	54	34	25	14	9.8	11
14	12	28	45	105	53	56	58	34	24	14	9.5	11
15	12	24	39	100	52	56	56	34	24	14	9.3	10
16	12	23	38	97	52	56	54	34	24	13	9.6	11
17	12	25	40	92	52	57	52	34	23	13	9.8	11
18	12	23	42	85	52	55	51	33	22	13	9.8	11
19	12	22	60	80	72	55	49	33	22	13	9.7	12
20	13	23	87	77	148	55	47	47	22	13	9.7	11
21	13	43	71	76	105	55	46	43	21	13	9.9	11
22	13	48	85	72	96	55	44	40	22	13	9.9	11
23	13	33	75	68	92	66	43	38	21	13	10	11
24	13	40	66	65	84	63	42	37	21	12	10	11
25	13	33	59	63	79	60	42	36	20	12	10	11
26	13	29	57	63	74	57	42	35	20	12	10	11
27	13	27	63	60	72	57	40	34	19	12	10	10
28	13	29	80	58	70	58	40	34	19	12	10	10
29	15	31	130	56	---	57	40	34	19	11	9.9	11
30	24	27	136	55	---	56	40	34	19	11	10	11
31	19	---	193	55	---	55	---	33	---	11	10	---
TOTAL	388	789	2001	4581	1886	1817	1519	1126	732	440	314.9	327.7
MEAN	12.52	26.30	64.55	147.8	67.36	58.61	50.63	36.32	24.40	14.19	10.16	10.92
MAX	24	61	193	686	148	67	58	47	34	19	11	12
MIN	10	16	37	55	50	55	40	33	19	11	9.3	9.9
AC-FT	770	1560	3970	9090	3740	3600	3010	2230	1450	873	625	650

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	13.07	23.52	41.64	76.10	103.1	110.8	72.56	53.06	33.39	18.11	12.10	11.48
MAX	20.8	70.4	220	332	493	531	186	174	121	54.1	30.6	23.0
(WY)	1999	1985	1984	1995	1998	1983	1983	1983	1998	1998	1998	1983
MIN	6.94	8.88	8.20	10.2	9.10	13.8	12.3	15.1	9.64	5.85	4.95	6.50
(WY)	1992	1991	1991	1991	1991	1977	1977	1977	1977	1977	1977	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1976 - 2002
ANNUAL TOTAL	14581.1	15921.6	
ANNUAL MEAN	39.95	43.62	48.15
HIGHEST ANNUAL MEAN			136 1983
LOWEST ANNUAL MEAN			10.2 1977
HIGHEST DAILY MEAN	551 Mar 5	686 Jan 2	2420 Mar 2 1983
LOWEST DAILY MEAN	9.2 Sep 9	9.3 Aug 15	3.8 Jul 29 1994
ANNUAL SEVEN-DAY MINIMUM	9.4 Sep 18	9.6 Aug 14	4.0 Jul 25 1994
MAXIMUM PEAK FLOW		924 Jan 2	3500 Feb 28 1983
MAXIMUM PEAK STAGE		6.27 Jan 2	10.11 Feb 28 1983
ANNUAL RUNOFF (AC-FT)	28920	31580	34880
10 PERCENT EXCEEDS	84	73	105
50 PERCENT EXCEEDS	23	34	22
90 PERCENT EXCEEDS	9.9	11	9.2

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.—November 1975 to current year.

SUSPENDED-SEDIMENT DISCHARGE: November 1975 to current year.

REVISED RECORDS.—WDR CA-01-04: 2001 (monthly totals for the Summary of Water and Sediment Discharge).

REMARKS.—Sediment samples were collected on most days where a water temperature is published. Zero bed load observed at flows less than 54 ft³/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 in most years.

SEDIMENT LOAD: Maximum daily, 65,200 tons, Mar. 2, 1983; minimum daily, 0 ton, several days in most years.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATION: Maximum daily mean, 825 mg/L, Jan. 2; minimum daily mean, 1 mg/L, many days during the year.

SEDIMENT LOAD: Maximum daily, 1,610 tons, Jan. 2; minimum daily, 0.03 ton, many days during the year.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
DEC 04...	1010	47	4.0	8.0	1.0	27	--	--	--	--	--
JAN 02...	1035	863	5.5	1460	3420	11	17	26	42	63	89
FEB 11...	0955	54	3.5	3.0	.44	64	--	--	--	--	--
FEB 28...	1115	71	5.0	4.0	.77	56	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	NUMBER OF SAM-PLING POINTS (COUNT) (00063)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)
SEP 09...	1405	1	12	13.5	--	2	5
SEP 09...	1410	1	12	13.5	1	2	9
SEP 09...	1415	1	12	13.5	--	1	3

Date	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
SEP 09...	9	13	18	23	70	100
SEP 09...	22	39	49	55	92	100
SEP 09...	8	14	19	25	71	100

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA—Continued

PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SAM- PLING METHOD, CODES (82398)	SAMPLER TYPE (CODE) (84164)	BEDLOAD SAMPLER (MM) (30333)	BAG MESH SIZE USED IN SAMPLING (YES=1) (CODE) (04117)	TETHER LINE USED IN SAMPLING (YES=1) (CODE) (04117)	START- ING TIME (2400 HOURS) (82073)	END- ING TIME (2400 HOURS) (82074)	TIME ON BED FOR BED LOAD SAMPLE (SEC) (04120)
JAN									
14...	1050	1000	1120	.250	0		1045	1100	30
14...	1110	1000	1120	.250	0		1100	1115	30

Date	HORI- ZONTAL WIDTH OF VER- TICAL (FEET) (04121)	COMPSTD SAMPLES IN X-SEC BEDLOAD MEASMNT (NUM) (04118)	VER- TICALS IN COM- POSITE SAMPLE (NUM) (04119)	NUMBER OF SAM- PLING POINTS (COUNT) (00063)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	DISCH, BEDLOAD AV UNIT FOR COM POSITE SAMPLE T/D/FT (04122)
JAN								
14...	1.0	2	15	15	10.0	105	3.0	.33
14...	1.0	2	15	15	10.0	105	3.0	.20

Date	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY) (80225)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80229)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80230)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80231)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80232)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80233)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80234)	SED. BEDLOAD SIEVE DIAM. % FINER THAN (80235)
JAN								
14...	4.0	2	11	48	93	100	--	--
14...	4.0	5	17	49	85	94	95	100

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA—Continued

WATER TEMPERATURE, DEGREES C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.5	4.5	6.5	---	6.0	---	---	---	---	---	18.0
2	---	---	5.5	5.5	---	---	7.5	8.0	---	---	16.0	---
3	14.5	---	---	6.0	---	---	---	10.0	---	---	---	---
4	---	---	4.0	6.0	---	---	---	---	---	---	---	---
5	---	7.5	4.0	5.5	4.0	7.0	10.0	---	---	---	---	---
6	---	---	5.5	6.0	---	7.0	---	---	---	18.5	---	---
7	---	---	5.0	7.0	5.0	6.5	---	---	---	---	---	---
8	---	---	---	7.0	4.0	---	---	---	---	---	---	14.0
9	11.0	7.5	---	---	---	---	---	---	14.5	---	---	13.5
10	---	---	---	7.0	---	5.0	---	---	---	---	---	---
11	12.5	9.0	---	---	3.5	---	---	14.0	---	---	19.0	---
12	---	10.5	4.5	6.5	---	---	---	---	---	21.0	---	---
13	---	9.0	5.0	---	---	---	---	---	---	---	21.0	---
14	---	10.5	3.5	3.0	---	4.0	10.5	---	---	---	---	---
15	---	---	---	---	5.0	---	---	---	---	---	---	---
16	12.5	11.0	4.0	---	---	---	---	---	18.0	---	---	---
17	---	9.0	4.0	4.5	---	5.0	---	---	---	---	---	---
18	---	---	5.0	---	7.0	---	10.0	---	---	---	---	15.0
19	---	---	4.0	---	5.5	---	---	---	---	---	---	---
20	---	9.5	5.0	---	5.0	---	---	10.0	---	---	---	---
21	---	9.0	5.0	4.5	7.5	---	---	10.0	---	---	---	---
22	---	8.5	4.5	---	---	5.5	---	---	18.5	---	18.5	---
23	11.0	7.0	5.5	---	7.0	---	---	---	---	---	---	---
24	---	2.5	---	---	---	---	---	---	---	21.0	---	14.5
25	---	5.0	---	4.5	---	---	---	---	---	---	---	---
26	---	---	---	4.0	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	18.0	---
28	---	---	5.0	---	5.0	---	---	---	---	---	---	---
29	11.0	---	5.5	---	---	10.0	---	---	19.5	---	---	---
30	11.0	---	6.0	3.0	---	---	---	---	---	---	---	---
31	10.0	---	6.5	---	---	---	---	14.5	---	21.0	---	---

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	11	1.0	0.04	17	2.0	0.09	58	49	8.4
2	11	2.0	0.05	17	2.0	0.08	74	131	28.0
3	11	2.0	0.06	17	1.0	0.07	62	120	21.0
4	11	2.0	0.05	17	1.0	0.06	48	20	2.6
5	10	2.0	0.05	16	1.0	0.05	50	84	12.0
6	10	2.0	0.04	16	1.0	0.04	57	81	12.0
7	11	1.0	0.04	16	1.0	0.04	48	54	7.0
8	11	1.0	0.04	16	1.0	0.04	43	43	5.0
9	11	1.0	0.04	16	1.0	0.05	42	35	4.0
10	11	3.0	0.08	16	3.0	0.15	40	28	3.0
11	11	4.0	0.12	22	10	0.64	38	20	2.1
12	11	4.0	0.12	61	50	8.6	37	13	1.3
13	11	4.0	0.11	34	10	0.92	38	27	3.0
14	12	3.0	0.11	28	4.0	0.29	45	50	6.2
15	12	3.0	0.10	24	4.0	0.23	39	32	3.3
16	12	3.0	0.10	23	3.0	0.22	38	23	2.3
17	12	3.0	0.10	25	2.0	0.15	40	18	1.9
18	12	3.0	0.10	23	2.0	0.14	42	27	3.2
19	12	3.0	0.10	22	3.0	0.16	60	107	18.0
20	13	3.0	0.10	23	3.0	0.19	87	167	40.0
21	13	3.0	0.10	43	16	2.2	71	129	25.0
22	13	3.0	0.10	48	11	1.5	85	112	25.0
23	13	3.0	0.10	33	7.0	0.66	75	44	9.0
24	13	3.0	0.10	40	15	1.7	66	21	3.8
25	13	3.0	0.09	33	10	0.85	59	12	1.9
26	13	3.0	0.09	29	12	0.98	57	11	1.7
27	13	2.0	0.09	27	16	1.2	63	20	3.6
28	13	2.0	0.08	29	20	1.5	80	72	16.0
29	15	3.0	0.12	31	24	2.0	130	295	105
30	24	12	0.79	27	28	2.0	136	217	84.0
31	19	3.0	0.18	---	---	---	193	203	108
TOTAL	388	---	3.39	789	---	26.80	2001	---	567.3
	JANUARY			FEBRUARY			MARCH		
1	220	333	236	54	7.0	0.96	67	7.0	1.2
2	686	825	1610	54	6.0	0.85	64	6.0	1.1
3	393	200	229	53	5.0	0.72	62	6.0	0.95
4	257	60	42.0	52	4.0	0.59	60	5.0	0.79
5	224	89	61.0	51	3.0	0.47	58	4.0	0.68
6	285	117	94.0	50	3.0	0.36	62	9.0	1.5
7	236	36	23.0	65	54	10.0	65	12	2.1
8	214	27	15.0	73	19	4.1	60	8.0	1.3
9	191	22	11.0	61	7.0	1.2	58	4.0	0.67
10	163	16	7.2	58	5.0	0.80	58	3.0	0.48
11	143	14	5.3	55	3.0	0.50	58	3.0	0.46
12	127	12	4.2	54	4.0	0.58	59	4.0	0.61
13	115	11	3.4	53	5.0	0.71	57	2.0	0.34
14	105	10	2.8	53	6.0	0.84	56	1.0	0.17
15	100	9.0	2.4	52	7.0	1.0	56	1.0	0.16
16	97	8.0	2.0	52	11	1.5	56	1.0	0.17
17	92	6.0	1.4	52	15	2.1	57	2.0	0.36
18	85	5.0	1.1	52	19	2.7	55	2.0	0.30
19	80	5.0	1.0	72	37	7.9	55	2.0	0.30
20	77	5.0	0.95	148	68	28.0	55	2.0	0.30
21	76	8.0	1.7	105	17	4.9	55	2.0	0.30
22	72	8.0	1.5	96	12	3.1	55	4.0	0.63
23	68	7.0	1.2	92	9.0	2.1	66	15	2.7
24	65	5.0	0.97	84	7.0	1.6	63	12	2.0
25	63	4.0	0.74	79	6.0	1.4	60	5.0	0.85
26	63	4.0	0.71	74	6.0	1.1	57	4.0	0.58
27	60	5.0	0.82	72	5.0	0.94	57	4.0	0.59
28	58	6.0	0.94	70	5.0	0.90	58	4.0	0.61
29	56	7.0	1.1	---	---	---	57	3.0	0.41
30	55	8.0	1.2	---	---	---	56	2.0	0.32
31	55	7.0	1.1	---	---	---	55	2.0	0.25
TOTAL	4581	---	2364.73	1886	---	81.92	1817	---	23.18

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	APRIL			MAY			JUNE		
				MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	55	1.0	0.20	40	2.0	0.21	34	2.0	0.19			
2	56	2.0	0.23	39	1.0	0.15	31	2.0	0.19			
3	56	1.0	0.23	39	1.0	0.10	31	2.0	0.20			
4	57	1.0	0.21	38	1.0	0.10	30	2.0	0.20			
5	58	2.0	0.39	38	1.0	0.10	29	3.0	0.20			
6	58	2.0	0.36	38	1.0	0.10	28	3.0	0.20			
7	57	3.0	0.42	37	1.0	0.10	28	3.0	0.21			
8	55	1.0	0.21	36	1.0	0.10	28	3.0	0.21			
9	58	4.0	0.60	36	1.0	0.10	28	3.0	0.22			
10	58	3.0	0.53	35	1.0	0.10	27	3.0	0.22			
11	56	2.0	0.25	35	1.0	0.10	26	3.0	0.21			
12	55	1.0	0.15	34	1.0	0.11	25	3.0	0.21			
13	54	1.0	0.15	34	1.0	0.13	25	3.0	0.20			
14	58	3.0	0.41	34	2.0	0.15	24	3.0	0.20			
15	56	2.0	0.27	34	2.0	0.17	24	3.0	0.19			
16	54	2.0	0.22	34	2.0	0.19	24	3.0	0.19			
17	52	1.0	0.18	34	2.0	0.21	23	3.0	0.18			
18	51	1.0	0.14	33	3.0	0.22	22	3.0	0.16			
19	49	1.0	0.14	33	3.0	0.25	22	3.0	0.15			
20	47	1.0	0.14	47	3.0	0.37	22	2.0	0.14			
21	46	1.0	0.15	43	3.0	0.35	21	2.0	0.13			
22	44	1.0	0.15	40	3.0	0.30	22	2.0	0.12			
23	43	1.0	0.16	38	3.0	0.27	21	2.0	0.11			
24	42	1.0	0.16	37	2.0	0.24	21	2.0	0.10			
25	42	1.0	0.17	36	2.0	0.21	20	2.0	0.09			
26	42	2.0	0.18	35	2.0	0.19	20	1.0	0.08			
27	40	2.0	0.18	34	2.0	0.17	19	1.0	0.07			
28	40	2.0	0.19	34	2.0	0.15	19	1.0	0.06			
29	40	2.0	0.20	34	1.0	0.13	19	1.0	0.05			
30	40	2.0	0.20	34	1.0	0.10	19	1.0	0.06			
31	---	---	---	33	2.0	0.14	---	---	---			
TOTAL	1519	---	7.17	1126	---	5.31	732	---	4.74			

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	AUGUST			SEPTEMBER		
				MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	1.0	0.06	11	2.0	0.04	10	1.0	0.03
2	18	1.0	0.07	11	2.0	0.06	9.9	1.0	0.03
3	17	2.0	0.07	10	2.0	0.06	9.9	1.0	0.03
4	17	2.0	0.08	10	2.0	0.06	9.9	1.0	0.03
5	17	2.0	0.09	11	2.0	0.07	10	1.0	0.03
6	17	2.0	0.09	11	2.0	0.07	11	1.0	0.03
7	17	2.0	0.10	11	3.0	0.08	12	1.0	0.03
8	17	2.0	0.10	11	3.0	0.08	12	1.0	0.03
9	16	2.0	0.11	11	3.0	0.08	12	1.0	0.03
10	16	3.0	0.11	11	3.0	0.08	12	1.0	0.03
11	15	3.0	0.11	10	3.0	0.08	12	1.0	0.03
12	15	3.0	0.12	10	2.0	0.06	11	1.0	0.03
13	14	3.0	0.11	9.8	1.0	0.03	11	1.0	0.03
14	14	3.0	0.11	9.5	1.0	0.03	11	1.0	0.03
15	14	3.0	0.11	9.3	1.0	0.03	10	1.0	0.03
16	13	3.0	0.10	9.6	1.0	0.03	11	1.0	0.03
17	13	3.0	0.09	9.8	1.0	0.03	11	1.0	0.03
18	13	3.0	0.09	9.8	1.0	0.03	11	1.0	0.03
19	13	2.0	0.09	9.7	1.0	0.03	12	1.0	0.03
20	13	2.0	0.09	9.7	1.0	0.03	11	1.0	0.03
21	13	2.0	0.08	9.9	1.0	0.03	11	1.0	0.03
22	13	2.0	0.08	9.9	1.0	0.03	11	1.0	0.03
23	13	2.0	0.07	10	1.0	0.03	11	1.0	0.03
24	12	2.0	0.07	10	1.0	0.03	11	1.0	0.03
25	12	2.0	0.06	10	1.0	0.03	11	1.0	0.03
26	12	2.0	0.06	10	1.0	0.03	11	1.0	0.03
27	12	2.0	0.05	10	1.0	0.03	10	1.0	0.03
28	12	1.0	0.05	10	1.0	0.03	10	1.0	0.03
29	11	1.0	0.04	9.9	1.0	0.03	11	1.0	0.03
30	11	1.0	0.03	10	1.0	0.03	11	1.0	0.03
31	11	1.0	0.03	10	1.0	0.03	---	---	---
TOTAL	440	---	2.52	314.9	---	1.39	327.7	---	0.90
YEAR	15921.6		3089.35						

KLAMATH RIVER BASIN

11525600 GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON, CA—Continued

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 2001	388.00	3.39	0	3
NOVEMBER	789.00	26.80	0	27
DECEMBER	2001.00	567.30	6	573
JANUARY 2002	4581.00	2364.73	87	2452
FEBRUARY	1886.00	81.92	4	86
MARCH	1817.00	23.18	2	25
APRIL	1519.00	7.17	1	8
MAY	1126.00	5.31	0	5
JUNE	732.00	4.74	0	5
JULY	440.00	2.52	0	3
AUGUST	314.90	1.39	0	1
SEPTEMBER . . .	327.70	0.90	0	1
TOTAL	15921.60	3089.35	100	3189

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 mi².

PERIOD OF RECORD.—October 1931 to September 1940, October 1956 to current year. Monthly discharge only for some periods, published in WSP 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 sea level. Oct. 1, 1931, to Jan. 19, 1940, at site 2 mi upstream at different datum.

REMARKS.—Records excellent. Flow regulated since November 1960 by Trinity 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 ft³/s, Feb. 25, 1958, gage height, 30.50 ft, from rating curve extended above 40,000 ft³/s, on basis of slope-area measurement at gage height 43.2 ft; minimum, 82 ft³/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 ft³/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 12,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	1500	15,500	13.84

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	556	565	1600	5430	1300	2650	1940	3710	2380	771	574	526
2	552	505	2360	12300	1270	2420	2090	4940	2160	752	571	524
3	548	476	2730	9640	1230	2240	2350	5140	2000	755	569	521
4	545	463	1910	6120	1200	2120	2580	6410	1920	730	565	518
5	547	463	1730	4710	1200	2050	2780	6500	1970	706	547	535
6	545	448	3240	8120	1210	2090	2410	6520	1970	699	569	536
7	549	443	2910	8900	1530	2150	2190	6300	1740	694	568	545
8	549	438	2150	7560	2870	1990	2060	5980	1620	683	564	548
9	545	443	1770	6430	2320	1890	2120	5730	1510	666	558	548
10	546	447	1560	5090	2060	1870	2210	5490	1460	665	552	546
11	550	457	1400	4240	1910	1850	2030	5190	1440	676	545	531
12	546	939	1290	3770	1820	1890	2070	4950	1430	678	541	514
13	548	1230	1290	3410	1790	1920	2010	4590	1430	681	541	510
14	549	1050	2560	3080	1780	1840	2910	4310	1370	669	537	504
15	538	1060	2210	2750	1760	1770	2690	4210	1340	654	535	507
16	535	1310	1910	2460	1730	1700	1980	4000	1310	640	532	513
17	443	1680	2320	2250	1710	1630	1730	3840	1200	623	531	510
18	422	925	2370	2080	1670	1550	1540	3670	1180	614	531	508
19	417	741	3090	1960	1990	1510	1420	3460	1180	607	531	507
20	420	1020	4070	1840	6090	1470	1340	3380	1050	605	531	518
21	425	1420	3680	1860	6100	1460	1280	3160	1020	598	534	498
22	426	3940	3100	1790	5070	1460	1260	2830	1020	592	538	492
23	420	1800	3050	1660	4770	1550	1300	2730	993	598	534	490
24	420	1520	2520	1580	4160	1590	1370	2610	938	601	529	488
25	410	1670	2150	1550	3590	1510	1410	2540	900	594	531	490
26	410	1270	1900	1610	3210	1480	1500	2600	905	597	530	487
27	415	1060	1870	1490	3020	1460	1400	2500	922	587	530	486
28	418	1060	2800	1420	2870	1480	1270	2640	876	579	528	490
29	419	1220	3540	1430	---	1610	1400	2720	818	575	526	491
30	477	1120	3930	1370	---	1700	2220	2710	800	572	524	492
31	742	---	5570	1330	---	1810	---	2400	---	571	527	---
TOTAL	15432	31183	78580	119230	71230	55710	56860	127760	40852	20032	16823	15373
MEAN	497.8	1039	2535	3846	2544	1797	1895	4121	1362	646.2	542.7	512.4
MAX	742	3940	5570	12300	6100	2650	2910	6520	2380	771	574	548
MIN	410	438	1290	1330	1200	1460	1260	2400	800	571	524	486
AC-FT	30610	61850	155900	236500	141300	110500	112800	253400	81030	39730	33370	30490

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 of Hyampom, and 3.5 mi downstream from Hayfork Creek.

DRAINAGE AREA.—764 mi².

PERIOD OF RECORD.—October 1965 to current year.

SEDIMENT DATA: Water years 1967–70, 1981–82.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 1,211.37 ft above sea level. Oct. 1, 1965, to Aug. 24, 2000, at datum 3.00 ft higher.

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, 75,000 ft³/s, Feb. 17, 1986, gage height, 28.47 ft, present datum, from rating curve extended above 15,000 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 31.00 ft, Jan. 26, 1983, present datum; minimum daily, 12 ft³/s, Aug. 19, 20, 2001.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Dec. 22, 1964, reached a stage of 33.45 ft, present datum, from floodmarks, discharge, 88,000 ft³/s, on basis of flood-routing study.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 8,600 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	0745	21,800	17.76	Jan. 6	1300	19,000	16.80

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	103	2260	8230	1340	2280	1250	797	377	134	48	26
2	29	85	3380	18400	1290	2090	1250	753	368	127	47	25
3	27	71	3260	10800	1240	1920	1270	723	358	120	47	23
4	25	64	1900	6630	1190	1800	1280	693	344	116	46	23
5	24	61	2110	5230	1150	1740	1280	675	332	113	47	23
6	23	59	4290	16300	1130	1910	1250	661	322	109	48	23
7	23	57	3010	11700	1680	2170	1200	643	309	106	49	24
8	22	56	2010	9090	3350	2010	1160	627	299	104	49	26
9	22	56	1550	7290	2510	1880	1160	613	293	101	48	28
10	22	56	1270	5440	2150	1910	1200	603	291	97	45	29
11	23	58	1100	4330	1910	1920	1160	586	281	91	42	28
12	24	96	973	3830	1790	1930	1140	575	269	86	39	27
13	26	238	1050	3460	1730	1910	1110	562	258	84	37	25
14	27	227	4140	3110	1670	1830	1140	546	246	80	35	24
15	28	182	2640	2780	1610	1750	1130	537	234	78	33	24
16	29	208	1940	2480	1570	1680	1090	524	226	75	31	24
17	28	261	4520	2230	1550	1610	1060	513	220	73	30	24
18	28	229	3670	2010	1490	1520	1010	502	220	72	29	25
19	28	173	4140	1850	2250	1440	967	500	215	70	29	26
20	28	195	4870	1750	7320	1390	928	548	206	69	28	25
21	27	516	3520	1890	5690	1360	899	570	196	66	29	24
22	27	1610	3230	1860	4300	1370	870	533	193	64	29	23
23	27	986	3110	1660	4300	1540	844	503	187	64	30	22
24	29	768	2540	1550	3810	1530	817	479	180	63	30	22
25	30	917	2150	1510	3290	1470	800	458	171	61	30	22
26	31	719	1850	1800	2910	1410	788	442	163	59	30	22
27	32	573	1840	1760	2660	1350	775	434	155	57	30	22
28	33	609	2990	1630	2470	1310	752	438	148	55	29	22
29	35	1640	3870	1540	---	1280	746	424	143	53	29	22
30	59	1050	4150	1440	---	1270	807	408	139	51	28	22
31	103	---	6540	1380	---	1260	---	394	---	49	27	---
TOTAL	950	11923	89873	144960	69350	51840	31133	17264	7343	2547	1128	725
MEAN	30.65	397.4	2899	4676	2477	1672	1038	556.9	244.8	82.16	36.39	24.17
MAX	103	1640	6540	18400	7320	2280	1280	797	377	134	49	29
MIN	22	56	973	1380	1130	1260	746	394	139	49	27	22
AC-FT	1880	23650	178300	287500	137600	102800	61750	34240	14560	5050	2240	1440

11528700 SOUTH FORK TRINITY RIVER BELOW HYAMPOM, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	119.8	706.7	1958	3554	3442	3344	1867	997.8	459.2	178.7	87.95	73.82
MAX	351	3475	8338	11740	12770	9027	4989	2701	1660	406	227	185
(WY)	1980	1974	1997	1970	1986	1995	1982	1983	1993	1998	1983	1983
MIN	27.4	72.9	86.8	144	218	365	224	199	91.1	33.0	16.1	17.0
(WY)	1988	1988	1977	1977	1977	1977	1977	1977	1977	1977	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	222004		429036			
ANNUAL MEAN	608.2		1175		1390	
HIGHEST ANNUAL MEAN					3049	
LOWEST ANNUAL MEAN					131	
HIGHEST DAILY MEAN	6540	Dec 31	18400	Jan 2	59200	Jan 16 1974
LOWEST DAILY MEAN	12	Aug 19	22	Oct 8	12	Aug 19 2001
ANNUAL SEVEN-DAY MINIMUM	13	Aug 16	22	Sep 23	13	Aug 16 2001
MAXIMUM PEAK FLOW			21800	Jan 2	75000	Feb 17 1986
MAXIMUM PEAK STAGE			17.76	Jan 2	31.00	Jan 26 1983
ANNUAL RUNOFF (AC-FT)	440300		851000		1007000	
10 PERCENT EXCEEDS	1740		3000		3520	
50 PERCENT EXCEEDS	227		502		404	
90 PERCENT EXCEEDS	16		27		64	

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, 0.1 mi upstream from Supply Creek, 0.1 mi downstream from Hospital Creek, and in the town of Hoopa.

DRAINAGE AREA.—2,853 mi².

WATER-DISCHARGE RECORDS

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 sea level. 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 excellent. Flow regulated since November 1960 by Trinity 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 ft³/s, Dec. 22, 1964, gage height, 57.0 ft, present site and datum, from floodmarks, from rating curve extended above 123,000 ft³/s; minimum daily, 162 ft³/s, Oct. 4, 1931.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 30,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 2	1900	46,500	29.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	680	911	4960	17000	4360	7590	4710	4830	3240	1180	760	648
2	679	760	8920	37700	4230	7050	4910	6200	3050	1140	755	645
3	670	683	9730	34900	4100	6550	5260	6200	2840	1110	750	640
4	666	633	6730	21300	3950	6150	5540	7520	2710	1100	753	636
5	666	623	7970	15200	3860	5920	5720	7710	2700	1060	735	636
6	664	604	14800	33300	3810	6130	5380	7670	2720	1040	748	659
7	652	587	11000	36300	5220	6640	4960	7480	2500	1030	757	667
8	659	581	7650	28400	9840	6250	4690	7130	2340	1020	750	683
9	655	575	6080	23100	8160	5770	4700	6830	2220	998	742	693
10	652	584	5140	17400	6970	5690	4960	6580	2120	970	726	685
11	659	583	4490	13700	6280	5860	4710	6220	2080	974	713	672
12	660	663	4000	11500	5870	6070	4670	5950	2060	966	700	638
13	659	1900	4030	9920	5650	6260	4500	5610	2030	965	692	626
14	661	1660	12200	8830	5510	5970	5280	5300	1990	949	686	619
15	657	1750	9390	7950	5350	5650	5570	5150	1920	929	680	619
16	631	1710	7320	7210	5190	5410	4550	4970	1890	910	672	623
17	621	3030	10900	6650	5080	5190	4200	4820	1790	886	667	631
18	523	1810	11100	6130	4920	4900	3860	4670	1730	866	664	633
19	512	1330	11300	5750	6110	4690	3620	4460	1770	852	663	624
20	506	1500	14100	5400	19600	4590	3460	4460	1630	845	666	634
21	519	2530	11600	5820	20100	4580	3340	4310	1530	836	668	628
22	515	8410	9830	6020	15100	4640	3240	3970	1530	818	675	605
23	534	5050	9980	5320	14500	5000	3200	3760	1510	829	681	601
24	526	3690	8460	4990	13100	5210	3220	3620	1430	836	665	596
25	525	4300	7290	4900	10900	4920	3240	3530	1380	825	668	595
26	509	3500	6420	5840	9520	4670	3300	3540	1330	810	670	596
27	507	2740	6040	5790	8720	4490	3240	3470	1340	808	663	592
28	520	3010	7880	5300	8160	4380	3040	3540	1310	784	660	595
29	525	5390	9660	5010	---	4430	3000	3650	1250	775	657	602
30	604	4280	11200	4700	---	4510	3770	3660	1220	766	652	609
31	912	---	16000	4450	---	4600	---	3330	---	757	650	---
TOTAL	18928	65377	276170	405780	224160	169760	127840	160140	59160	28634	21588	18930
MEAN	610.6	2179	8909	13090	8006	5476	4261	5166	1972	923.7	696.4	631.0
MAX	912	8410	16000	37700	20100	7590	5720	7710	3240	1180	760	693
MIN	506	575	4000	4450	3810	4380	3000	3330	1220	757	650	592
AC-FT	37540	129700	547800	804900	444600	336700	253600	317600	117300	56800	42820	37550

KLAMATH RIVER BASIN

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
MAXIMUM PEAK FLOW	a 190000 Dec 22 1955
MAXIMUM PEAK STAGE	36.90 Dec 22 1955
ANNUAL RUNOFF (AC-FT)	4070000
10 PERCENT EXCEEDS	12700
50 PERCENT EXCEEDS	3070
90 PERCENT EXCEEDS	442

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	821.8	3027	7002	10810	10040	10010	6491	4611	2737	1234	748.4	663.6
MAX	1805	12900	29710	32090	28810	32240	16040	12020	9731	3233	1681	1309
(WY)	1980	1974	1965	1970	1986	1983	1983	1983	1998	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 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	946477	1576467	
ANNUAL MEAN	2593	4319	4829
HIGHEST ANNUAL MEAN			11350 1983
LOWEST ANNUAL MEAN			786 1977
HIGHEST DAILY MEAN	16000 Dec 31	37700 Jan 2	168000 Dec 22 1964
LOWEST DAILY MEAN	506 Oct 20	506 Oct 20	244 Aug 23 1977
ANNUAL SEVEN-DAY MINIMUM	519 Oct 20	519 Oct 20	246 Aug 18 1977
MAXIMUM PEAK FLOW		46500 Jan 2	231000 Dec 22 1964
MAXIMUM PEAK STAGE		29.10 Jan 2	57.00 Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1877000	3127000	3498000
10 PERCENT EXCEEDS	5950	9110	11200
50 PERCENT EXCEEDS	1630	3240	2140
90 PERCENT EXCEEDS	617	630	595

a From rating curve extended above 56,000 ft³/s.

11530000 TRINITY RIVER AT HOOPA, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1960–79, 1998 to current year.

CHEMICAL DATA: June 2002 to September 2002 (seasonal only) (discontinued).

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only) (discontinued).

pH: June 2002 to September 2002 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only) (discontinued).

WATER TEMPERATURE: Water year 1998 to current year.

SEDIMENT DATA: Water years 1960–79.

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only) (discontinued).

pH: June 2002 to September 2002 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only) (discontinued).

WATER TEMPERATURE: July 1998 to current year.

INSTRUMENTATION.—Temperature recorder since July 1998. Water Quality monitor since June 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated excellent except for June 27 to July 29, which are rated good. pH, specific conductance, and water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 14.5 mg/L, Aug. 5, 2002; minimum recorded, 7.0 mg/L, Sept. 3, 2002.

pH: Maximum recorded, 8.7 standard units, several days during 2002; minimum recorded, 7.7 standard units, Sept. 17, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 157 microsiemens, July 26, Aug. 3, 2002; minimum recorded, 127 microsiemens, July 21, 2002.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 25, 26, 2001; minimum recorded, 2.0°C, Dec. 23, 24, 1998.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 14.5 mg/L, Aug. 5; minimum recorded, 7.0 mg/L, Sept. 3.

pH: Maximum recorded, 8.7 standard units, several days during the year; minimum recorded, 7.7 standard units, Sept. 17.

SPECIFIC CONDUCTANCE: Maximum recorded, 157 microsiemens, July 26, Aug. 3; minimum recorded, 127 microsiemens, July 21.

WATER TEMPERATURE: Maximum recorded, 25.5°C, July 21; minimum recorded, 4.5°C, Jan. 29–31.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOCATION, (FEET) (81903)	BARO- METRIC PRES- SURE OF (MM HG) (00025)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
APR									
01...*	1450	6.10	--	--	--	--	--	12.0	115
01...*	1455	8.80	--	--	--	--	--	12.0	90.0
01...*	1500	10.4	--	--	--	--	--	12.0	70.0
01...*	1505	10.8	--	--	--	--	--	12.0	52.0
01...*	1510	9.20	--	--	--	--	--	12.0	35.0
JUN									
27...*	1130	--	752	9.7	110	8.5	197	21.0	30.0
27...*	1135	--	752	9.6	109	8.5	197	21.0	50.0
27...*	1140	--	752	9.5	108	8.5	197	21.0	70.0
27...*	1145	--	752	9.4	107	8.6	197	21.0	90.0
27...*	1150	--	752	9.4	107	8.6	197	21.0	110
SEP									
16...*	1245	--	750	9.4	102	8.2	143	18.5	54.0
16...*	1250	--	750	9.4	102	8.2	143	18.5	86.0
16...*	1255	--	750	9.4	102	8.2	143	18.5	113
16...*	1300	--	750	9.4	102	8.2	143	18.5	129
16...*	1305	--	750	9.4	102	8.2	143	18.5	164

* Instantaneous discharge at the time of the cross-sectional measurements: Apr. 1, 4760 ft³/s; June 27, 1320 ft³/s; Sept. 16, 626 ft³/s.

KLAMATH RIVER BASIN

11530000 TRINITY RIVER AT HOOPA, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LITY WAT. DIS LAB CACO3 (MG/L) (29801)
JUL 2002 09...	1155	1010	1.0	750	8.1	94	8.6	149	22.0	68
AUG 12...	1350	707	1.6	745	9.2	112	7.7	142	24.0	68
SEP 16...	1130	631	.7	750	9.8	106	7.5	145	18.5	e67
Date		NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
JUL 2002 09...		<.015	e.05	e.011	<.02	<.06	.8	.3	.2	--
AUG 12...		<.015	<.10	<.013	<.02	<.06	.9	.3	.2	--
SEP 16...		<.015	e.05	<.013	<.02	<.06	1.2	.8	.4	1
Date		ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JUL 2002 09...		--	--	--	--	--	--	--	--	--
AUG 12...		--	--	--	--	--	--	--	--	--
SEP 16...		.09	<2	14	<.06	<.04	<.8	.04	.5	.10
Date		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JUL 2002 09...		--	--	--	--	--	--	--	--	--
AUG 12...		--	--	--	--	--	--	--	--	--
SEP 16...		.9	e.01	e.01	.5	1.55	<2	<1	v3	.06

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

11530000 TRINITY RIVER AT HOOPA, CA—Continued

OXYGEN DISSOLVED, (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	10.7	7.9	12.0	8.1	9.8	7.8
2	---	---	---	---	---	---	10.6	7.7	11.4	8.2	9.0	7.3
3	---	---	---	---	---	---	11.2	7.8	10.6	8.3	8.4	7.0
4	---	---	---	---	---	---	11.7	8.0	12.0	8.9	---	---
5	---	---	---	---	---	---	11.9	7.9	14.5	9.2	---	---
6	---	---	---	---	---	---	12.0	7.9	14.1	9.3	---	---
7	---	---	---	---	---	---	11.3	7.9	14.2	9.3	---	---
8	---	---	---	---	---	---	12.0	8.0	13.9	9.2	---	---
9	---	---	---	---	---	---	11.9	7.8	11.7	9.0	---	---
10	---	---	---	---	---	---	12.8	7.7	11.5	8.5	---	---
11	---	---	---	---	---	---	10.2	7.7	11.4	8.6	---	---
12	---	---	---	---	---	---	9.9	7.4	11.3	8.2	---	---
13	---	---	---	---	---	---	10.1	7.6	9.7	8.0	---	---
14	---	---	---	---	---	---	10.6	7.6	9.8	8.0	---	---
15	---	---	---	---	---	---	11.1	7.7	10.2	8.1	---	---
16	---	---	---	---	---	---	11.6	7.8	10.7	8.3	---	---
17	---	---	---	---	---	---	11.2	7.7	11.0	8.6	10.4	8.9
18	---	---	---	---	---	---	11.5	7.9	11.2	8.8	10.6	9.2
19	---	---	---	---	---	---	12.1	7.9	11.3	9.0	10.6	9.2
20	---	---	---	---	---	---	11.8	7.8	11.8	9.2	---	---
21	---	---	---	---	---	---	12.4	7.6	12.0	9.4	---	---
22	---	---	---	---	---	---	11.6	7.6	12.3	9.4	---	---
23	---	---	---	---	---	---	12.5	7.9	11.9	9.4	---	---
24	---	---	---	---	---	---	11.4	7.9	12.0	9.4	---	---
25	---	---	---	---	---	---	11.8	7.9	11.8	9.4	---	---
26	---	---	---	---	---	---	11.8	7.8	11.3	9.1	---	---
27	---	---	---	---	---	---	11.4	7.7	11.2	9.1	---	---
28	---	---	---	---	9.8	7.8	11.6	7.7	10.9	8.8	---	---
29	---	---	---	---	10.0	7.9	10.9	7.8	10.9	8.5	---	---
30	---	---	---	---	10.5	7.8	11.2	8.1	10.7	8.4	---	---
31	---	---	---	---	---	---	11.7	8.0	10.1	8.1	---	---
MONTH	---	---	---	---	---	---	12.8	7.4	14.5	8.0	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.2	7.9	8.3	8.0	8.5	8.0
2	---	---	---	---	---	---	8.3	7.9	8.4	8.0	8.5	8.0
3	---	---	---	---	---	---	8.3	8.0	8.3	8.0	8.5	8.0
4	---	---	---	---	---	---	8.4	8.0	8.3	8.0	8.6	8.0
5	---	---	---	---	---	---	8.6	8.0	8.3	8.0	8.6	8.1
6	---	---	---	---	---	---	8.6	8.0	8.3	8.0	8.6	8.1
7	---	---	---	---	---	---	8.6	8.0	8.3	8.0	8.6	8.1
8	---	---	---	---	---	---	8.6	8.0	8.4	7.9	8.6	8.1
9	---	---	---	---	---	---	8.6	7.8	8.5	7.9	8.6	8.1
10	---	---	---	---	---	---	8.2	7.9	8.5	7.9	8.6	8.1
11	---	---	---	---	---	---	8.2	7.9	8.5	7.9	8.6	8.1
12	---	---	---	---	---	---	8.2	7.9	8.4	7.9	8.6	8.1
13	---	---	---	---	---	---	8.3	7.9	8.2	7.8	8.6	8.1
14	---	---	---	---	---	---	8.5	7.9	8.2	7.8	8.6	8.1
15	---	---	---	---	---	---	8.5	7.9	8.3	7.8	8.7	8.1
16	---	---	---	---	---	---	8.4	7.9	8.3	7.8	8.3	7.8
17	---	---	---	---	---	---	8.5	7.9	8.3	7.9	8.3	7.7
18	---	---	---	---	---	---	8.6	7.9	8.3	7.9	8.3	7.8
19	---	---	---	---	---	---	8.6	7.9	8.3	7.9	8.3	7.8
20	---	---	---	---	---	---	8.7	7.9	8.3	7.9	---	---
21	---	---	---	---	---	---	8.7	7.9	8.3	7.9	---	---
22	---	---	---	---	---	---	8.6	7.9	8.4	7.9	---	---
23	---	---	---	---	---	---	8.7	7.9	8.4	7.9	---	---
24	---	---	---	---	---	---	8.7	7.9	8.4	8.0	---	---
25	---	---	---	---	---	---	8.7	8.0	8.4	8.0	---	---
26	---	---	---	---	---	---	8.7	7.9	8.4	8.0	---	---
27	---	---	---	---	---	---	8.6	7.9	8.4	8.0	---	---
28	---	---	---	---	8.2	7.9	8.6	7.9	8.4	8.0	---	---
29	---	---	---	---	8.2	7.9	8.4	8.0	8.5	8.0	---	---
30	---	---	---	---	8.2	7.9	8.4	8.0	8.5	8.0	---	---
31	---	---	---	---	---	---	8.3	8.0	8.5	8.0	---	---
MONTH	---	---	---	---	---	---	8.7	7.8	8.5	7.8	---	---

KLAMATH RIVER BASIN

11530000 TRINITY RIVER AT HOOPA, CA—Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	143	138	147	146	148	143
2	---	---	---	---	---	---	142	140	149	146	144	142
3	---	---	---	---	---	---	143	142	157	146	143	142
4	---	---	---	---	---	---	147	142	146	145	144	141
5	---	---	---	---	---	---	143	142	147	145	142	141
6	---	---	---	---	---	---	144	142	147	146	144	138
7	---	---	---	---	---	---	145	144	148	147	141	140
8	---	---	---	---	---	---	146	145	149	147	141	140
9	---	---	---	---	---	---	146	145	149	148	142	140
10	---	---	---	---	---	---	147	146	151	148	142	141
11	---	---	---	---	---	---	148	147	149	148	144	142
12	---	---	---	---	---	---	147	146	149	146	143	142
13	---	---	---	---	---	---	146	144	147	146	146	143
14	---	---	---	---	---	---	144	143	147	145	144	143
15	---	---	---	---	---	---	144	143	146	145	144	143
16	---	---	---	---	---	---	144	143	148	145	146	143
17	---	---	---	---	---	---	145	143	145	144	147	143
18	---	---	---	---	---	---	149	144	145	143	144	143
19	---	---	---	---	---	---	149	145	143	142	144	144
20	---	---	---	---	---	---	150	133	143	142	---	---
21	---	---	---	---	---	---	149	127	144	142	---	---
22	---	---	---	---	---	---	149	148	143	142	---	---
23	---	---	---	---	---	---	149	137	143	142	---	---
24	---	---	---	---	---	---	150	136	143	142	---	---
25	---	---	---	---	---	---	150	148	143	142	---	---
26	---	---	---	---	---	---	157	148	147	141	---	---
27	---	---	---	---	---	---	149	148	146	142	---	---
28	---	---	---	---	138	133	149	148	144	143	---	---
29	---	---	---	---	137	132	152	147	144	143	---	---
30	---	---	---	---	139	135	148	147	149	143	---	---
31	---	---	---	---	---	---	148	147	144	143	---	---
MONTH	---	---	---	---	---	---	157	127	157	141	---	---

11530000 TRINITY RIVER AT HOOPA, CA—Continued

TEMPERATURE, WATER (DEGREE C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	16.5	14.0	13.0	8.0	7.0	9.0	9.0	6.0	5.0	8.5	7.5
2	19.0	17.0	14.0	13.0	7.5	7.0	9.5	9.0	7.0	6.0	8.0	7.0
3	19.0	17.0	14.0	12.5	8.0	7.5	9.0	8.5	7.0	6.5	8.5	7.0
4	18.5	17.0	13.5	12.5	8.0	7.5	8.5	8.0	7.0	6.0	8.5	7.5
5	18.0	16.5	13.0	12.5	8.0	7.5	8.5	8.0	6.0	5.5	8.0	7.5
6	18.0	16.5	13.5	12.0	8.0	7.5	8.5	8.5	6.0	5.5	8.5	8.0
7	17.5	16.5	12.5	11.0	8.0	7.5	9.5	9.5	7.0	6.0	8.5	7.5
8	17.0	16.0	11.5	10.0	7.5	7.5	9.5	9.5	7.0	6.5	8.0	7.0
9	16.5	15.0	11.0	10.0	7.5	7.0	9.5	9.0	7.0	6.5	7.0	6.5
10	16.0	14.5	10.5	10.0	7.0	7.0	9.0	8.0	7.0	6.0	7.0	6.5
11	16.5	15.0	11.0	10.0	7.0	6.5	8.0	8.0	7.0	6.5	8.5	7.0
12	16.0	14.5	11.5	11.0	7.5	7.0	8.5	8.0	7.5	7.0	9.5	8.5
13	16.0	14.5	11.5	11.5	8.0	7.5	8.5	7.5	8.0	7.5	8.5	7.5
14	16.0	14.5	12.0	11.5	8.0	6.5	7.5	6.5	8.0	7.5	8.5	7.0
15	15.0	14.5	11.5	11.5	7.0	6.5	7.0	6.0	8.0	7.0	7.5	7.0
16	14.5	14.0	11.5	11.5	8.0	7.0	6.0	5.5	8.5	7.5	7.5	7.0
17	15.0	13.5	11.5	11.0	8.0	8.0	6.0	5.5	8.5	8.0	7.5	6.5
18	15.5	13.5	11.0	10.0	8.0	7.5	6.0	5.5	8.5	8.0	8.0	6.5
19	15.5	13.5	11.0	11.0	8.0	8.0	6.5	5.5	8.5	8.0	8.0	6.5
20	15.5	13.5	11.0	10.5	8.0	7.5	6.0	5.5	8.5	7.5	9.5	7.0
21	15.5	13.5	10.5	10.5	8.0	7.5	6.5	6.0	9.5	8.5	10.0	8.0
22	14.5	13.5	10.5	10.0	8.0	7.5	6.5	6.0	9.5	9.0	9.5	9.0
23	15.0	13.0	10.0	9.0	8.0	7.5	6.0	5.5	9.5	9.0	9.5	9.0
24	14.5	12.5	9.0	7.5	7.5	7.5	6.0	5.5	9.5	8.5	10.5	8.5
25	14.0	12.0	7.5	7.0	7.5	7.0	6.0	5.5	9.0	8.5	10.5	9.0
26	14.0	12.0	7.5	7.0	8.0	7.5	6.5	6.0	9.0	8.0	10.5	9.0
27	13.0	12.0	8.0	7.5	8.5	8.0	6.0	5.5	9.0	8.0	11.0	9.0
28	13.5	12.0	7.5	7.0	8.5	8.0	5.5	5.0	9.0	8.0	11.5	9.5
29	13.5	12.5	7.0	6.5	9.0	8.5	5.0	4.5	---	---	12.0	10.0
30	13.5	12.5	7.0	6.5	9.0	8.5	5.0	4.5	---	---	12.5	10.5
31	14.0	13.0	---	---	9.0	8.5	5.0	4.5	---	---	12.5	10.5
MONTH	19.0	12.0	14.0	6.5	9.0	6.5	9.5	4.5	9.5	5.0	12.5	6.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	10.5	12.0	10.0	17.5	15.5	23.0	21.0	24.5	22.5	23.0	21.0
2	13.5	11.0	13.5	11.5	17.5	15.0	23.5	21.5	24.0	22.0	23.5	21.0
3	13.5	11.5	13.5	11.5	17.5	15.5	22.5	21.5	22.5	20.5	23.0	21.0
4	14.0	11.5	13.5	11.5	18.5	15.5	22.0	20.0	21.0	19.5	21.5	19.5
5	12.5	12.0	13.5	11.5	19.0	16.0	22.0	20.0	20.5	18.5	20.0	18.5
6	13.0	11.5	13.0	11.0	19.0	16.5	22.0	20.0	20.5	18.5	19.5	18.0
7	14.0	11.5	12.5	11.0	18.5	16.5	22.0	20.5	21.0	18.5	19.0	17.0
8	13.5	11.5	12.5	10.5	17.5	15.5	22.5	20.5	21.5	19.0	19.0	17.0
9	12.5	12.0	12.5	10.0	17.5	14.5	23.5	21.0	22.5	19.5	19.0	17.0
10	13.0	11.5	12.5	10.5	18.0	15.0	24.5	22.0	23.5	20.5	19.5	17.5
11	14.0	12.0	13.0	10.5	19.5	16.0	25.0	22.5	24.0	21.5	20.5	18.0
12	14.0	12.0	14.0	11.0	20.5	17.0	24.5	24.0	24.5	21.5	20.5	18.5
13	14.0	12.0	14.5	12.0	20.5	17.5	25.0	23.5	24.5	22.0	20.5	18.5
14	14.5	13.0	14.5	12.0	20.0	17.5	24.5	23.0	24.5	22.5	20.5	18.5
15	13.0	10.5	14.5	12.0	20.5	17.5	24.5	22.5	24.5	22.5	19.5	18.5
16	10.5	9.5	14.5	12.0	20.5	17.5	24.5	22.5	24.0	22.0	19.5	18.0
17	10.0	9.0	15.0	12.5	19.5	17.5	24.5	22.5	23.0	21.5	19.5	18.5
18	11.0	8.5	14.0	13.0	20.0	17.5	24.0	22.0	23.0	21.0	20.5	18.0
19	11.5	9.0	13.5	12.5	20.5	17.5	24.0	22.0	22.0	20.5	20.5	18.5
20	12.0	9.5	13.0	11.5	20.5	18.0	24.5	22.0	21.0	19.5	21.0	19.0
21	13.0	10.0	12.0	11.0	20.5	18.0	25.5	23.0	21.0	19.0	21.0	19.0
22	14.0	11.0	14.0	11.0	21.0	18.5	24.0	22.5	21.5	19.0	20.5	18.5
23	15.0	12.0	14.5	11.5	21.0	18.5	24.5	22.0	21.0	19.5	20.5	18.5
24	15.0	12.5	15.5	12.5	22.0	19.0	24.5	22.0	21.0	19.0	20.5	18.5
25	15.5	13.0	16.0	14.0	22.5	20.0	24.5	22.0	21.5	19.5	20.5	18.5
26	15.0	13.0	16.5	14.5	23.0	20.5	25.0	22.5	21.5	19.5	20.0	18.5
27	14.0	12.5	16.0	14.5	23.0	21.0	25.0	22.5	22.0	19.5	19.5	18.0
28	13.0	11.0	16.0	14.5	22.5	20.5	25.0	22.5	23.0	20.5	19.5	17.5
29	12.0	10.5	17.5	15.0	23.0	21.0	24.5	22.5	23.0	21.0	18.5	17.0
30	11.0	10.5	18.5	16.0	23.0	21.5	25.0	22.5	23.0	20.5	18.0	16.0
31	---	---	17.5	16.0	---	---	24.5	23.0	23.0	21.0	---	---
MONTH	15.5	8.5	18.5	10.0	23.0	14.5	25.5	20.0	24.5	18.5	23.5	16.0

11530500 KLAMATH RIVER NEAR KLAMATH, CA

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 mi², 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 September 1994, October 1995 to September 1997 (stage only), and October 1997 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 sea level. 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 sea level.

REMARKS.—Records poor. Medium and low flows considerably regulated by reservoirs and powerplants upstream from station and by transbasin diversion (from Trinity River) to Judge Francis Carr Powerplant (station 11525430) since April 1963. Large diversions for irrigation upstream from station. Gage is affected by tide at discharges below 30,000 ft³/s. See schematic diagram of Klamath River and Trinity River Basins.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 557,000 ft³/s, Dec. 23, 1964, gage height, 55.3 ft, former datum, from floodmarks, from rating curve extended above 230,000 ft³/s, on basis of flood-routing study; minimum daily, 1,310 ft³/s, Sept. 4, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of December 1861 reached a stage of 60 ft, site and datum then in use, discharge 450,000 ft³/s; flood of February 1881 reached a discharge of 360,000 ft³/s; flood of February 1890 reached a stage of 63 ft, site and datum then in use, discharge 425,000 ft³/s. Maximum discharges for 1927 and 1932–50, determined from upstream stations, are published in WSP 1686, Part 11, Volume 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3010	5440	17700	42900	15300	26100	16400	13500	10700	4130	2590	1940
2	e3200	4330	29100	72100	14900	23900	17100	15100	10200	3990	e2560	1920
3	e3200	e4240	31600	95000	14400	21700	18700	15400	9410	3860	2580	1920
4	e3120	3860	23000	57800	14100	20300	20200	16100	8730	3800	2500	1980
5	e3160	3640	33900	43300	13600	19400	21500	16900	8360	3720	2500	1970
6	e3120	3680	59600	83800	13200	19500	20800	17100	8450	3640	2490	2030
7	e3080	e3750	43000	121000	18800	22500	19400	17000	8180	3570	2520	2110
8	e3160	e3710	27600	98000	37300	21100	18400	16300	7690	3540	2520	2110
9	e3280	3850	20600	81400	32400	19400	18100	15400	7260	3520	2480	2120
10	e3400	3580	16900	58200	25700	19100	20800	14800	6880	3480	2560	e2020
11	e3560	3550	14600	44600	21800	22300	20200	14200	6680	3480	e2540	e2020
12	3750	4280	12700	37200	19800	25300	19800	13600	6620	3450	e2520	e1990
13	3590	6020	13000	32200	18500	26600	18900	13500	6490	3310	2560	1990
14	e3810	7820	46900	28200	17800	24700	23000	13500	6390	3170	e2490	1920
15	3780	8720	40000	25000	17000	22700	27700	13300	6210	3050	2510	1890
16	3600	9540	28200	22000	16500	21100	21000	13000	6050	3010	e2470	1890
17	3750	10700	37700	19900	16000	20000	18400	12600	5890	2960	2360	2020
18	3690	8200	40600	18600	15400	18800	16400	12800	5810	2940	2270	e2020
19	3500	6700	37400	17300	17400	17600	14900	12500	5950	2930	2240	e2010
20	3590	8530	41300	16100	45900	17000	13900	12300	5680	2930	2180	e2000
21	3350	15200	36500	18700	58800	16500	13300	11800	5340	2900	2150	e1980
22	3350	31500	30800	21300	45500	16500	12900	10900	5220	2870	2180	1960
23	e3510	19400	31000	18200	46800	17300	12600	10200	5190	2900	2160	1900
24	3410	12500	26500	16500	46800	18500	12700	9800	5050	2910	2110	e1960
25	3310	10300	22700	15900	39200	17900	12700	9700	4850	2830	2050	e1980
26	3370	8500	19900	22800	33400	16800	13000	9950	4720	2750	2030	2020
27	3370	e8010	18400	23100	30200	16000	12900	10300	4620	2700	2020	1980
28	3370	10200	19500	20100	28200	15500	12200	10700	4570	2650	2010	e1980
29	3380	27100	22600	18200	---	15600	11200	11400	4400	2620	1970	e1980
30	3750	14300	26300	16500	---	16000	12300	12000	4250	2600	2030	e2190
31	4340	---	36400	15300	---	16000	---	11400	---	2600	2000	---
TOTAL	106860	271150	906000	1221200	734700	611700	511400	407050	195840	98810	72150	59800
MEAN	3447	9038	29230	39390	26240	19730	17050	13130	6528	3187	2327	1993
MAX	4340	31500	59600	121000	58800	26600	27700	17100	10700	4130	2590	2190
MIN	3010	3550	12700	15300	13200	15500	11200	9700	4250	2600	1970	1890
AC-FT	212000	537800	1797000	2422000	1457000	1213000	1014000	807400	388400	196000	143100	118600

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
MAXIMUM PEAK FLOW	a425000 Dec 22 1955
MAXIMUM PEAK STAGE	b49.7 Dec 22 1955
ANNUAL RUNOFF (AC-FT)	12320000
10 PERCENT EXCEEDS	37300
50 PERCENT EXCEEDS	10200
90 PERCENT EXCEEDS	2860

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)

MEAN	4861	14490	25900	33470	33370	33820	25800	19310	11160	4664	3120	3220
MAX	17830	55620	87770	97760	102700	82410	60400	40080	30060	12220	6599	5923
(WY)	1963	1974	1965	1970	1986	1983	1974	1983	1998	1983	1983	1983
MIN	2134	3236	3942	4212	4231	6954	5448	5638	3630	1782	1441	1977
(WY)	1995	1988	1977	1977	1977	1977	1977	1977	1977	1977	1977	1991

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1963 - 2002

ANNUAL TOTAL	3246590	5196660	
ANNUAL MEAN	8895	14240	17520
HIGHEST ANNUAL MEAN			36100 1983
LOWEST ANNUAL MEAN			4036 1977
HIGHEST DAILY MEAN	59600 Dec 6	121000 Jan 7	420000 Dec 23 1964
LOWEST DAILY MEAN	2500 Sep 23	1890 Sep 15	1310 Sep 4 1977
ANNUAL SEVEN-DAY MINIMUM	2510 Sep 18	1960 Sep 10	1370 Aug 18 1977
MAXIMUM PEAK FLOW		134000 Jan 7	557000 Dec 23 1964
MAXIMUM PEAK STAGE		23.40 Jan 7	55.30 Dec 23 1964
ANNUAL RUNOFF (AC-FT)	6440000	10310000	12690000
10 PERCENT EXCEEDS	17400	30900	39500
50 PERCENT EXCEEDS	6540	10700	9490
90 PERCENT EXCEEDS	2600	2120	2830

a From rating curve extended above 140,000 ft³/s on basis of flood-routing study.

b From floodmarks, site and datum then in use.

11530500 KLAMATH RIVER NEAR KLAMATH, CA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1951 to September 1995, July 2002 to September 2002.

CHEMICAL DATA: Water years 1951 to September 1995, July 2002 to September 2002.

BIOLOGICAL DATA: Water years 1975–81.

DISSOLVED OXYGEN: July 2002 to September 2002.

pH: July 2002 to September 2002.

SPECIFIC CONDUCTANCE: Water years 1975–81, July 2002 to September 2002.

WATER TEMPERATURE: Water years 1966–81, July 2002 to September 2002.

SEDIMENT DATA: Water years 1955–56, 1975 to September 1995.

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: July 2002 to September 2002.

pH: July 2002 to September 2002.

SPECIFIC CONDUCTANCE: October 1974 to September 1981 (once daily), July 2002 to September 2002.

WATER TEMPERATURE: November 1965 to September 1981, July 2002 to September 2002.

INSTRUMENTATION.—Water-quality monitor since July 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen, pH, specific conductance, and water temperature records are good. Interruptions in record are due to malfunction of recording and (or) sensing equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 10.0 mg/L, Aug. 5, 2002; minimum recorded, 6.7 mg/L, July 12, Aug. 29, Sept. 14, 2002.

pH: Maximum recorded, 8.7 standard units, several days in 2002; minimum recorded, 7.9 standard units, Sept. 12–14, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 186 microsiemens, Sept. 27, 2002; minimum recorded, 164 microsiemens, July 16–18, 2002.

WATER TEMPERATURE: Maximum recorded, 27.0°C, Sept. 12, 1979; minimum recorded, 2.5°C, Feb. 2, 1972.

EXTREMES FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 10.0 mg/L, Aug. 5; minimum recorded, 6.7 mg/L, July 12, Aug. 29, Sept. 14.

pH: Maximum recorded, 8.7 standard units, several days; minimum recorded, 7.9 standard units, Sept. 12–14.

SPECIFIC CONDUCTANCE: Maximum recorded, 186 microsiemens, Sept. 27; minimum recorded, 164 microsiemens, July 16–18.

WATER TEMPERATURE: Maximum recorded, 24.0°C, July 11, 12, 27; minimum recorded, 18.0°C, Sept. 8, 9.

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- ATION, (FEET) (81903)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED SATUR- ATION) (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	
JUL									
15...*	1243	--	760	7.8	89	8.4	170	22.0	48.0
15...*	1249	--	760	8.0	91	8.4	170	22.0	150
15...*	1255	--	760	8.2	93	8.4	170	22.0	175
15...*	1300	--	760	8.2	93	8.4	170	22.0	360
15...*	1305	--	760	8.4	95	8.4	171	22.0	450
AUG									
20...*	1340	4.00	764	9.1	102	8.7	178	21.0	45.0
20...*	1350	6.00	764	9.0	101	8.7	178	21.0	135
20...*	1400	6.30	764	8.8	99	8.7	178	21.0	225
20...*	1408	7.40	764	9.2	103	8.7	178	21.0	315
20...*	1415	7.00	764	9.6	108	8.7	178	21.0	415
SEP									
24...*	1315	4.10	758	9.2	102	8.6	183	20.0	45.0
24...*	1320	5.20	758	8.4	93	8.6	183	20.0	135
24...*	1325	5.80	758	9.3	103	8.6	183	20.0	225
24...*	1332	7.50	758	8.4	93	8.6	183	20.0	315
24...*	1342	4.80	758	9.6	106	8.7	182	20.0	405

* Instantaneous discharge at the time of cross-sectional measurements; July 15, 3020 ft³/s, Aug. 20, 2110 ft³/s, Sept. 24, 2010 ft³/s.

11530500 KLAMATH RIVER NEAR KLAMATH, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBIDITY LAB HACH 2100AN (NTU) (99872)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (MG/L) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
------	------	---	---	--	-----------------------------------	------------------------------------	--	---	------------------------------------

JUL	15...	1255	3020	2.0	760	8.2	94	8.4	170	22.0
AUG	20...	1400	2110	2.1	764	9.2	103	8.7	178	21.0
SEP	24...	1340	2030	e1.6	758	9.0	100	8.6	183	20.0

Date	ALKA-LINITY WAT.DIS FET LAB CACO3 (MG/L) (29801)	NITRO-GEN, AM-MONIA + DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO-PHYTTIN A, PHYTON (UG/L) (62360)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)
------	--	--	--	---	--	---------------------------------------	---	---------------------------------------	---

JUL	15...	75	<.015	.11	e.009	e.02	e.03	1.7	.9	2.9
AUG	20...	83	<.015	.18	<.013	.07	e.03	2.4	2.2	2.3
SEP	24...	e82	<.015	.18	e.010	.03	e.05	4.3	2.8	2.8

Date	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
------	--	--	---	---	---	---	--	---	---

JUL	15...	--	--	--	--	--	--	--	--	--
AUG	20...	--	--	--	--	--	--	--	--	--
SEP	24...	<1	<.05	3	14	<.06	<.04	<.8	.08	.7

Date	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URIANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
------	---------------------------------------	---	---	---	--	---	--	---	---------------------------------------	---

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

11532500 SMITH RIVER NEAR CRESCENT CITY, CA

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 mi².

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 sea level. Prior to Oct. 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 ft³/s, Dec. 22, 1964, gage height, 48.5 ft, from floodmarks, from rating curve extended above 110,000 ft³/s, on basis of slope-area measurement at gage height 39.51 ft, former site and datum; minimum daily, 160 ft³/s, Oct. 24, 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Nov. 30, 1926, reached a stage of 41.40 ft, at datum 10.35 ft higher, from floodmarks, discharge, 166,000 ft³/s, from rating extension above 39.51 ft.

EXTREMES FOR CURRENT YEAR.—Peak discharges greater than base discharge of 36,000 ft³/s, or maximum:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 5	2400	36,900	19.37	Dec. 14	0030	38,300	19.67

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	861	13200	7580	4670	3750	2800	1890	903	472	292	226
2	186	539	13700	12100	5010	3350	2780	1810	858	452	291	223
3	182	393	13700	10500	6820	3020	2810	1750	820	439	287	222
4	176	329	8640	7990	6100	2760	2740	1650	787	436	290	223
5	175	293	25900	6590	5030	2610	2610	1580	765	434	292	223
6	176	274	26900	20700	4500	2860	2370	1530	742	425	291	227
7	175	260	13100	14500	15200	5340	2210	1470	716	416	290	231
8	176	249	8620	23600	17300	4220	2070	1390	689	412	283	232
9	174	241	6630	13400	10500	3690	2200	1330	675	406	273	229
10	172	234	5320	9170	7630	4190	3230	1300	661	395	267	225
11	262	230	4470	7020	6090	9570	2970	1240	642	386	264	222
12	271	477	3960	5860	5180	13100	3100	1210	623	378	261	218
13	211	1470	8690	4970	4600	9530	2780	1190	607	375	256	215
14	190	3370	21300	4330	4170	7650	7330	1170	593	372	254	212
15	184	2440	10200	3820	3820	6180	5420	1140	588	363	255	216
16	181	7160	10100	3420	3550	5310	4210	1100	576	358	252	218
17	177	3610	18600	3120	3310	4840	4620	1080	570	354	249	227
18	175	1980	12200	2830	3060	4430	4610	1060	659	352	250	266
19	175	1610	12000	2730	4460	4080	4120	1070	621	350	246	259
20	176	2990	11200	2530	12100	4030	3730	1180	566	347	248	229
21	175	7110	8340	7200	8870	4180	3360	1090	548	336	250	218
22	203	17100	7970	6570	6640	4290	3060	1050	544	327	251	215
23	513	8270	8580	4930	12400	4730	2800	983	539	335	249	212
24	347	5290	6840	4280	10600	5980	2550	942	525	332	250	210
25	245	8320	5600	6380	7430	4940	2370	921	512	325	250	207
26	217	7060	4760	15200	5830	4240	2220	907	496	320	249	203
27	207	4580	4400	8910	4890	3790	2130	912	484	311	245	202
28	209	10600	4850	6450	4250	3450	1970	1030	482	299	238	201
29	224	18900	4680	5180	---	3280	1850	1040	485	295	234	205
30	832	9600	4740	4400	---	3090	2000	1060	501	298	235	207
31	1400	---	8790	3880	---	2930	---	965	---	296	231	---
TOTAL	8358	125840	317980	240140	194010	149410	93020	38040	18777	11396	8073	6623
MEAN	269.6	4195	10260	7746	6929	4820	3101	1227	625.9	367.6	260.4	220.8
MAX	1400	18900	26900	23600	17300	13100	7330	1890	903	472	292	266
MIN	172	230	3960	2530	3060	2610	1850	907	482	295	231	201
AC-FT	16580	249600	630700	476300	384800	296400	184500	75450	37240	22600	16010	13140

11532500 SMITH RIVER NEAR CRESCENT CITY, CA—Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1009	4595	7518	8568	7528	6453	4327	2743	1268	530.8	337.9	332.7
MAX	11770	23620	21740	21930	22680	15760	11960	7550	3876	1217	715	1471
(WY)	1951	1974	1997	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL TOTAL	773920		1211667			
ANNUAL MEAN	2120		3320		3752	
HIGHEST ANNUAL MEAN					7027	
LOWEST ANNUAL MEAN					975	
HIGHEST DAILY MEAN	26900	Dec 6	26900	Dec 6	180000	Dec 22 1964
LOWEST DAILY MEAN	172	Oct 10	172	Oct 10	160	Oct 24 1964
ANNUAL SEVEN-DAY MINIMUM	175	Oct 4	175	Oct 4	163	Oct 20 1964
MAXIMUM PEAK FLOW			38300	Dec 14	228000	Dec 22 1964
MAXIMUM PEAK STAGE			19.67	Dec 14	48.50	Dec 22 1964
ANNUAL RUNOFF (AC-FT)	1535000		2403000		2718000	
10 PERCENT EXCEEDS	5130		8820		8820	
50 PERCENT EXCEEDS	1100		1190		1570	
90 PERCENT EXCEEDS	208		218		265	

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 mi².

PERIOD OF RECORD.—October 1989 to current year. Records prior to October 1989 in files of the California Department of Water Resources.

GAGE.—Water-stage recorder. Datum of gage is sea level.

REMARKS.—Data is collected for flood-warning purposes. Interruptions in record were due to malfunction of the sensing equipment.

EXTREMES FOR PERIOD OF RECORD.—Maximum gage height, 34.12 ft, Jan. 8, 1990.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.56	12.54	13.84	13.49	---	---	17.17	16.78	16.15	15.54	15.62	15.41
2	12.55	11.28	13.49	13.15	19.58	18.50	19.17	17.17	16.16	15.97	15.42	15.23
3	12.52	12.49	13.15	12.98	19.65	18.09	18.53	17.63	16.95	15.98	15.24	15.08
4	12.50	12.49	12.98	12.87	18.09	17.03	17.63	16.84	16.78	16.24	15.09	14.96
5	12.50	12.48	12.88	12.81	23.85	17.07	17.04	16.44	16.24	15.94	14.96	14.90
6	12.50	12.49	12.81	12.76	23.89	20.14	21.77	17.04	15.96	15.79	15.43	14.92
7	12.50	12.49	12.77	12.72	20.15	18.00	20.09	18.67	22.32	15.86	16.44	15.43
8	12.51	12.49	12.73	12.70	18.00	17.11	22.77	19.47	21.94	18.79	16.02	15.54
9	12.50	12.49	12.70	12.68	17.12	16.40	20.07	18.17	18.79	17.48	15.56	15.38
10	12.57	12.48	12.68	12.66	16.41	16.00	18.17	17.18	17.48	16.74	16.53	15.42
11	12.74	12.57	12.68	12.65	16.00	15.68	17.18	16.58	16.75	16.30	17.94	16.53
12	12.79	12.69	13.50	12.66	15.69	15.49	16.59	16.21	16.30	15.98	19.47	17.61
13	12.69	12.58	14.42	13.50	23.28	15.46	16.21	15.89	15.98	15.77	18.18	17.49
14	12.58	12.55	15.33	14.42	23.93	18.80	15.90	15.65	15.77	15.59	17.50	16.81
15	12.55	12.53	15.23	14.50	18.80	17.39	15.66	15.43	15.60	15.44	16.82	16.37
16	12.54	12.52	17.47	15.23	18.62	17.35	15.43	15.26	15.45	15.32	16.38	16.13
17	12.55	12.50	16.28	14.94	21.56	18.62	15.27	15.10	15.33	15.20	16.13	15.93
18	12.52	12.50	14.94	14.34	18.89	18.10	15.10	14.98	15.20	15.09	15.94	15.73
19	12.51	12.50	14.61	14.15	18.85	18.23	15.04	14.91	16.91	15.10	15.75	15.58
20	12.52	12.50	15.16	14.61	18.55	17.81	14.92	14.85	19.03	16.43	15.62	15.56
21	12.52	12.50	19.69	15.14	---	---	17.96	14.87	18.18	16.96	15.69	15.58
22	12.69	12.50	20.35	18.78	---	---	17.29	16.26	16.96	16.46	15.80	15.62
23	13.25	12.69	18.78	16.34	---	---	16.26	15.87	19.64	16.48	16.19	15.80
24	13.18	12.81	16.38	16.01	---	---	15.89	15.64	18.96	17.47	16.54	16.19
25	12.81	12.67	17.56	16.38	16.51	16.10	19.25	15.60	17.48	16.69	16.21	15.83
26	12.67	12.61	17.47	16.31	16.11	15.81	20.32	18.26	16.69	16.20	15.84	15.58
27	12.62	12.59	16.33	15.59	15.85	15.72	18.26	17.07	16.21	15.88	15.59	15.39
28	12.61	12.59	22.23	15.53	16.00	15.84	17.08	16.43	15.88	15.62	15.39	15.23
29	12.65	12.61	22.15	18.85	15.89	15.81	16.44	16.01	---	---	15.25	15.15
30	14.53	12.64	---	---	16.17	15.78	16.02	15.72	---	---	15.18	15.05
31	14.58	13.84	---	---	17.81	16.17	15.74	15.53	---	---	15.06	14.97
MONTH	14.58	11.28	---	---	---	---	22.77	14.85	22.32	15.09	19.47	14.90

11532650 SMITH RIVER NEAR FORT DICK, CA—Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.98	14.90	14.49	14.42	13.71	13.61	13.15	13.04	12.73	12.69	12.57	12.52
2	14.95	14.90	14.42	14.38	13.65	13.57	13.11	13.01	12.73	12.69	12.55	12.52
3	14.98	14.90	14.39	14.33	13.60	13.51	13.08	12.99	12.73	12.68	12.55	12.50
4	14.95	14.86	14.34	14.26	13.57	13.49	13.06	12.98	12.72	12.69	12.55	12.50
5	14.89	14.78	14.27	14.22	13.55	13.46	13.05	12.97	12.73	12.69	12.55	12.50
6	14.79	14.66	14.24	14.18	13.52	13.44	13.04	12.96	12.73	12.69	12.56	12.51
7	14.66	14.57	14.20	14.11	13.49	13.40	13.02	12.94	12.73	12.69	12.57	12.52
8	14.58	14.51	14.14	14.06	13.47	13.37	13.01	12.93	12.72	12.67	12.57	12.52
9	14.83	14.49	14.09	14.03	13.44	13.34	13.00	12.92	12.71	12.66	12.57	12.53
10	15.23	14.83	14.07	13.98	13.40	13.33	12.99	12.90	12.68	12.64	12.57	12.52
11	15.11	14.96	14.02	13.94	13.39	13.30	12.98	12.87	12.66	12.61	12.56	12.51
12	15.17	14.98	13.97	13.92	13.36	13.27	12.90	12.87	12.65	12.62	12.56	12.51
13	14.98	14.88	13.96	13.90	13.34	13.25	12.88	12.86	12.64	12.60	12.55	12.48
14	17.79	14.97	13.94	13.89	13.32	13.24	12.88	12.85	12.63	12.60	12.54	12.48
15	16.83	15.81	13.91	13.86	13.31	13.23	12.87	12.84	12.63	12.60	12.54	12.49
16	15.81	15.56	13.89	13.83	13.30	13.21	12.85	12.83	12.63	12.60	12.55	12.50
17	15.94	15.77	13.86	13.80	13.32	13.19	12.84	12.82	12.62	12.59	12.58	12.51
18	15.97	15.73	13.84	13.79	13.43	13.27	12.84	12.82	12.62	12.59	12.69	12.55
19	15.74	15.52	13.90	13.45	13.41	13.27	12.84	12.03	12.62	12.58	12.71	12.59
20	15.75	15.36	13.99	13.85	13.31	13.20	12.83	12.81	12.61	12.59	12.62	12.53
21	15.36	15.17	13.88	13.80	13.26	13.18	12.82	12.78	12.62	12.59	12.56	12.50
22	15.19	15.04	13.84	13.75	13.25	13.17	12.80	12.77	12.62	12.59	12.55	12.49
23	15.05	14.91	13.79	13.70	13.24	13.16	12.82	12.78	12.62	12.59	12.54	12.49
24	14.92	14.77	13.73	13.66	13.22	13.14	12.82	12.78	12.62	12.59	12.53	12.47
25	14.80	14.70	13.69	13.64	13.19	13.12	12.80	12.76	12.62	12.60	12.53	12.46
26	14.71	14.62	13.68	13.62	13.17	13.09	12.79	12.75	12.62	12.59	12.52	12.46
27	14.65	14.57	13.71	13.61	13.15	13.07	12.78	12.73	12.61	12.58	12.51	12.46
28	14.58	14.47	13.83	13.68	13.14	13.06	12.76	12.71	12.60	12.56	12.51	12.45
29	14.48	14.39	13.85	13.74	13.14	13.07	12.74	12.70	12.58	12.55	12.51	12.46
30	14.60	14.42	13.85	13.75	13.17	13.09	12.74	12.71	12.58	12.54	12.51	12.47
31	---	---	13.79	13.67	---	---	12.74	12.71	12.58	12.54	---	---
MONTH	17.79	14.39	14.49	13.45	13.71	13.06	13.15	12.03	12.73	12.54	12.71	12.45

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.

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 2002

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	1962–2001	12-05-2001 01-15-2002 04-03-2002	202 128 68.5
ALAMEDA CREEK BASIN						
Alameda Creek Tributary Canal at Huntwood Avenue, at Hayward, CA	Alameda Creek	Lat 37°37'17", long 122°03'19" in Arroyo de la Alameda Grant, Alameda County, Hydrologic Unit 18050004, at left bank, at bridge on Huntwood Avenue, 1700 ft downstream of Southern Pacific railroad tracks, 1.0 mi upstream of Interstate 880, and 2.7 mi northwest of Union City.	—	1999–2001	01-09-2002 03-15-2002 06-13-2002 08-19-2002	0.00 1.12 0.63 0.00
Ward Creek at Folsom Street, at Hayward, CA	Alameda Creek	Lat 37°37'28", long 122°04'14" in Arroyo de la Alameda Grant, Alameda County, Hydrologic Unit 18050004, on left bank, at bridge on Folsom Street, 2700 ft upstream of mouth, and 3.2 mi southeast of Hayward City Hall.	—	1999–2001	10-05-2001 03-15-2002 06-13-2002	0.36 1.38 0.66

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 2002

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 , Hydrologic Unit 18010211, 300 ft upstream from mouth and 0.7 mi northeast of Lewiston.	9.10	a1965-75, 1976-2002	12-04-01 09-24-02	13.5 b0.71

a Published as a miscellaneous measurement.

b Base flow.

Water-quality partial-record stations are particular sites where chemical-quality, biological, and (or) sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

KLAMATH RIVER BASIN

11488495 LOST RIVER NEAR HATFIELD, CA

LOCATION.—Lat 41°57'14", long 121°30'12", in NW 1/4 SW 1/4 sec. 34, T.48 N., R.4 E., Siskiyou County, Hydrologic Unit 18010204, on left bank, 0.9 mi upstream from Tule Lake Sump, 3.3 mi downstream from the Oregon border, and 3.0 mi south of Hatfield.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—July 2002 to September 2002.

CHEMICAL DATA: July 2002 to September 2002 (seasonal only) (discontinued).

DISSOLVED OXYGEN: July 2002 to September 2002 (seasonal only) (discontinued).

pH: July 2002 to September 2002 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: July 2002 to September 2002 (seasonal only) (discontinued).

WATER TEMPERATURE: July 2002 to September 2002 (seasonal only) (discontinued).

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: July 2002 to September 2002 (seasonal only) (discontinued).

pH: July 2002 to September 2002 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: July 2002 to September 2002 (seasonal only) (discontinued).

WATER TEMPERATURE: July 2002 to September 2002 (seasonal only) (discontinued).

INSTRUMENTATION.—Water-quality monitor since July 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated fair except for July 18 to Aug. 1, which are rated poor. pH, specific conductance, and water temperature records rated good. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 20.8 mg/L, July 28, 2002; minimum recorded, 0.3 mg/L, Aug. 14, 2002.

pH: Maximum recorded, 9.2 standard units, July 27–29, 2002; minimum recorded, 7.1 standard units, July 19, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 541 microsiemens, Aug. 31, 2002; minimum recorded, 179 microsiemens, July 19, 2002.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 19–21, Aug. 14, 15, 2002; minimum recorded, 13.5°C, Sept. 9, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 20.8 mg/L, July 28; minimum recorded, 0.3 mg/L, Aug. 14.

pH: Maximum recorded, 9.2 standard units, July 27–29; minimum recorded, 7.1 standard units, July 19.

SPECIFIC CONDUCTANCE: Maximum recorded, 541 microsiemens, Aug. 31; minimum recorded, 179 microsiemens, July 19.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 19–21, Aug. 14, 15; minimum recorded, 13.5°C, Sept. 9.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- TION, (FEET) (81903)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)
JUL									
18...*	1355	3.20	655	6.5	90	7.2	170	24.0	20.0
18...*	1400	3.70	655	10.0	142	8.3	167	25.0	40.0
18...*	1405	3.20	655	9.7	137	8.2	167	25.0	60.0
18...*	1410	2.60	655	4.7	65	7.4	175	23.5	84.0
18...*	1415	2.70	655	6.5	91	7.7	169	24.5	100
SEP									
19...*	1700	1.50	658	11.9	151	8.7	258	19.5	18.0
19...*	1705	2.00	658	11.7	148	8.7	259	19.3	43.0
19...*	1710	2.00	658	11.4	144	8.4	264	19.2	63.0
19...*	1715	1.60	658	10.8	136	8.5	273	19.3	90.0
19...*	1720	1.50	658	9.9	125	8.2	294	19.5	127

* Instantaneous discharge at the time of the cross-sectional measurement: July 18, 52 ft³/s; Sept. 19, 207 ft³/s.

KLAMATH RIVER BASIN

11488510 TULELAKE CANAL AT SHEEPY RIDGE PUMPING STATION NEAR HATFIELD, CA

LOCATION.—Lat 41°55'29", long 121°33'58", in SW 1/4 SW sec. 7, T.47 N., R.4 E., Siskiyou County, Hydrologic Unit 18010204, on left bank, 0.8 mi downstream from Tule Lake Sump, 100 ft upstream from Sheepy Ridge Pumping Station, and 5.5 mi southwest of Hatfield.

PERIOD OF RECORD.—July 2002 to September, 2002.

CHEMICAL DATA: July 2002 to September 2002 (seasonal only) (discontinued).

DISSOLVED OXYGEN: July 2002 to September 2002 (seasonal only) (discontinued).

pH: July 2002 to September 2002 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: July 2002 to September 2002 (seasonal only) (discontinued).

WATER TEMPERATURE: July 2002 to September 2002 (seasonal only) (discontinued).

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: July 2002 to September 2002 (seasonal only) (discontinued).

pH: July 2002 to September 2002 (seasonal only) (discontinued).

SPECIFIC CONDUCTANCE: July 2002 to September 2002 (seasonal only) (discontinued).

WATER TEMPERATURE: July 2002 to September 2002 (seasonal only) (discontinued).

INSTRUMENTATION.—Water-quality monitor since July 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated fair except for Aug. 1–19, which are rated poor. pH, specific conductance, and water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 14.9 mg/L, Aug. 3, 2002; minimum recorded, 0.3 mg/L, Aug. 7, 15, 2002.

pH: Maximum recorded, 10.2 standard units, July 19–21, 23, Aug. 1, 2002; minimum recorded, 7.9 standard units, Aug. 10, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 1100 microsiemens, Aug. 1, 2002; minimum recorded, 375 microsiemens, Sept. 25, 2002.

WATER TEMPERATURE: Maximum recorded, 27.0°C, July 21, 2002; minimum recorded, 11.0°C, Sept. 30, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 14.9 mg/L, Aug. 3; minimum recorded, 0.3 mg/L, Aug. 7, 15.

pH: Maximum recorded, 10.2 standard units, July 19–21, 23, Aug. 1; minimum recorded, 7.9 standard units, Aug. 10.

SPECIFIC CONDUCTANCE: Maximum recorded, 1100 microsiemens, Aug. 1; minimum recorded, 375 microsiemens, Sept. 25.

WATER TEMPERATURE: Maximum recorded, 27.0°C, July 21; minimum recorded, 11.0°C, Sept. 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)
JUL								
18...*	1535	654	5.6	78	9.9	633	24.0	15.0
18...*	1540	654	5.7	75	9.9	627	21.0	30.0
18...*	1545	654	5.3	70	9.9	625	21.0	45.0
SEP								
19...*	1630	655	11.8	152	9.1	584	19.8	15.0
19...*	1635	655	12.1	156	9.0	584	20.0	30.0
19...*	1640	655	12.2	157	9.2	584	20.0	45.0

* Instantaneous discharge at the time of the cross-sectional measurements: July 18, no flow; Sept. 19, 219 ft³/s.

KLAMATH RIVER BASIN

11488510 TULELAKE CANAL AT SHEEPY RIDGE PUMPING STATION NEAR HATFIELD, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, PH DISELVED WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LITY WAT. DIS FET LAB CACO3 (MG/L) (29801)	
AUG 2002										
19...	1445	151	11	654	9.2	120	9.8	570	20.5	137
SEP										
19...	1630	219	6.5	655	11.3	145	9.5	530	20.0	e141
Date		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L AS C) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
AUG 2002										
19...	e.013	1.8	<.013	.03	.24	29.8	8.3	37.2	--	--
SEP										
19...	.020	1.9	<.013	.02	.24	28.5	25.9	45.5	2	
Date		ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
AUG 2002										
19...	--	--	--	--	--	--	--	--	--	--
SEP										
19...	.16	9	11	<.06	e.02	<.8	.20	1.7	<.08	
Date		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 2002										
19...	--	--	--	--	--	--	--	--	--	--
SEP										
19...	2.6	e.01	e.01	7.9	2.21	<2	<1	v4	.49	

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD SITES

KLAMATH RIVER BASIN

11488510 TULELAKE CANAL AT SHEEPY RIDGE PUMPING STATION NEAR HATFIELD, CA—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	9.2	8.7	1.7	0.9
2	---	---	---	---	---	---	---	---	14.2	4.7	---	---
3	---	---	---	---	---	---	---	---	14.9	7.0	---	---
4	---	---	---	---	---	---	---	---	12.4	4.4	---	---
5	---	---	---	---	---	---	---	---	11.0	2.3	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	3.4	0.3	---	---
8	---	---	---	---	---	---	---	---	10.1	3.2	---	---
9	---	---	---	---	---	---	---	---	13.0	10.1	---	---
10	---	---	---	---	---	---	---	---	12.3	5.1	---	---
11	---	---	---	---	---	---	---	---	8.3	4.3	---	---
12	---	---	---	---	---	---	---	---	5.6	3.0	---	---
13	---	---	---	---	---	---	---	---	4.2	1.0	---	---
14	---	---	---	---	---	---	---	---	2.4	1.6	---	---
15	---	---	---	---	---	---	---	---	2.4	0.3	---	---
16	---	---	---	---	---	---	---	---	2.9	1.4	---	---
17	---	---	---	---	---	---	---	---	3.3	1.9	---	---
18	---	---	---	---	---	---	---	---	4.8	2.8	---	---
19	---	---	---	---	---	---	---	---	13.6	4.8	---	---
20	---	---	---	---	---	---	---	---	12.6	7.1	10.8	7.2
21	---	---	---	---	---	---	---	---	11.3	5.8	8.3	3.8
22	---	---	---	---	---	---	---	---	7.1	3.6	9.1	3.1
23	---	---	---	---	---	---	---	---	8.1	5.6	6.8	3.4
24	---	---	---	---	---	---	---	---	5.6	1.1	6.2	2.7
25	---	---	---	---	---	---	---	---	3.3	0.6	3.8	1.6
26	---	---	---	---	---	---	---	---	1.4	0.6	7.8	1.6
27	---	---	---	---	---	---	---	---	1.7	1.3	8.1	4.0
28	---	---	---	---	---	---	---	---	1.9	0.7	---	---
29	---	---	---	---	---	---	---	---	13.1	0.8	---	---
30	---	---	---	---	---	---	8.4	7.8	7.8	1.9	---	---
31	---	---	---	---	---	---	8.9	8.2	2.1	1.3	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	10.2	8.0	9.8	9.6
2	---	---	---	---	---	---	---	---	10.0	9.6	---	---
3	---	---	---	---	---	---	---	---	9.6	9.2	---	---
4	---	---	---	---	---	---	---	---	9.3	9.0	---	---
5	---	---	---	---	---	---	---	---	9.0	8.7	---	---
6	---	---	---	---	---	---	---	---	8.8	8.6	---	---
7	---	---	---	---	---	---	---	---	8.7	8.4	---	---
8	---	---	---	---	---	---	---	---	8.4	8.2	---	---
9	---	---	---	---	---	---	---	---	8.2	8.0	---	---
10	---	---	---	---	---	---	---	---	10.1	7.9	---	---
11	---	---	---	---	---	---	---	---	10.0	9.8	---	---
12	---	---	---	---	---	---	---	---	9.8	9.5	---	---
13	---	---	---	---	---	---	---	---	9.5	9.3	---	---
14	---	---	---	---	---	---	---	---	9.3	8.9	---	---
15	---	---	---	---	---	---	---	---	8.9	8.8	---	---
16	---	---	---	---	---	---	---	---	8.8	8.6	---	---
17	---	---	---	---	---	---	---	---	9.0	8.6	---	---
18	---	---	---	---	---	---	---	---	8.9	8.7	---	---
19	---	---	---	---	---	---	10.2	9.7	9.7	8.8	---	---
20	---	---	---	---	---	---	10.2	9.9	9.7	9.6	9.6	9.5
21	---	---	---	---	---	---	10.2	9.9	9.8	9.6	9.6	9.5
22	---	---	---	---	---	---	10.1	9.8	9.8	9.6	9.6	9.5
23	---	---	---	---	---	---	10.2	9.8	9.8	9.6	9.6	9.5
24	---	---	---	---	---	---	9.9	9.5	9.8	9.6	9.6	9.4
25	---	---	---	---	---	---	9.6	9.2	9.7	9.5	9.5	9.4
26	---	---	---	---	---	---	9.5	9.1	9.7	9.5	9.5	9.4
27	---	---	---	---	---	---	9.3	8.6	9.7	9.5	9.5	9.4
28	---	---	---	---	---	---	8.6	8.4	9.7	9.5	9.4	9.3
29	---	---	---	---	---	---	8.4	8.2	9.8	9.5	9.6	9.4
30	---	---	---	---	---	---	8.2	8.1	9.8	9.6	9.6	9.3
31	---	---	---	---	---	---	8.1	8.0	9.8	9.6	---	---
MONTH	---	---	---	---	---	---	---	---	10.2	7.9	---	---

KLAMATH RIVER BASIN

11488510 TULELAKE CANAL AT SHEEPY RIDGE PUMPING STATION NEAR HATFIELD, CA—Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	1100	529	585	518
2	---	---	---	---	---	---	---	---	568	526	---	---
3	---	---	---	---	---	---	---	---	628	530	---	---
4	---	---	---	---	---	---	---	---	635	618	---	---
5	---	---	---	---	---	---	---	---	628	569	---	---
6	---	---	---	---	---	---	---	---	669	508	---	---
7	---	---	---	---	---	---	---	---	669	531	---	---
8	---	---	---	---	---	---	---	---	618	544	---	---
9	---	---	---	---	---	---	---	---	689	602	---	---
10	---	---	---	---	---	---	---	---	726	497	---	---
11	---	---	---	---	---	---	---	---	557	498	---	---
12	---	---	---	---	---	---	---	---	637	495	---	---
13	---	---	---	---	---	---	---	---	728	495	---	---
14	---	---	---	---	---	---	---	---	556	514	---	---
15	---	---	---	---	---	---	---	---	586	534	---	---
16	---	---	---	---	---	---	---	---	579	539	---	---
17	---	---	---	---	---	---	---	---	576	515	---	---
18	---	---	---	---	---	---	---	---	589	515	---	---
19	---	---	---	---	---	---	628	548	887	510	---	---
20	---	---	---	---	---	---	548	510	546	503	487	424
21	---	---	---	---	---	---	529	509	611	513	480	419
22	---	---	---	---	---	---	529	509	575	519	486	415
23	---	---	---	---	---	---	561	523	589	509	472	407
24	---	---	---	---	---	---	593	561	586	551	449	386
25	---	---	---	---	---	---	640	572	608	540	466	375
26	---	---	---	---	---	---	718	640	567	543	486	405
27	---	---	---	---	---	---	823	637	557	546	500	417
28	---	---	---	---	---	---	895	804	598	547	580	489
29	---	---	---	---	---	---	993	853	697	553	553	419
30	---	---	---	---	---	---	1030	873	577	506	493	419
31	---	---	---	---	---	---	1070	958	608	504	---	---
MONTH	---	---	---	---	---	---	---	---	1100	495	---	---

WATER TEMPERATURE, (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	24.5	20.0	23.0	17.0
2	---	---	---	---	---	---	---	---	23.0	18.5	---	---
3	---	---	---	---	---	---	---	---	22.0	18.5	---	---
4	---	---	---	---	---	---	---	---	20.5	17.0	---	---
5	---	---	---	---	---	---	---	---	19.0	16.0	---	---
6	---	---	---	---	---	---	---	---	18.0	15.0	---	---
7	---	---	---	---	---	---	---	---	19.5	15.0	---	---
8	---	---	---	---	---	---	---	---	20.5	16.0	---	---
9	---	---	---	---	---	---	---	---	22.0	17.5	---	---
10	---	---	---	---	---	---	---	---	24.0	19.0	---	---
11	---	---	---	---	---	---	---	---	24.5	19.0	---	---
12	---	---	---	---	---	---	---	---	25.0	19.0	---	---
13	---	---	---	---	---	---	---	---	26.0	20.5	---	---
14	---	---	---	---	---	---	---	---	25.5	21.5	---	---
15	---	---	---	---	---	---	---	---	25.0	20.5	---	---
16	---	---	---	---	---	---	---	---	24.5	19.5	---	---
17	---	---	---	---	---	---	---	---	23.5	20.0	---	---
18	---	---	---	---	---	---	---	---	23.0	18.5	---	---
19	---	---	---	---	---	---	26.0	20.5	21.5	18.0	---	---
20	---	---	---	---	---	---	26.5	19.5	19.5	16.0	20.5	16.0
21	---	---	---	---	---	---	27.0	20.5	21.0	15.5	21.0	16.0
22	---	---	---	---	---	---	24.5	21.0	22.0	16.5	22.0	17.0
23	---	---	---	---	---	---	24.5	20.0	21.0	16.5	22.5	17.5
24	---	---	---	---	---	---	24.5	20.5	22.5	17.5	21.5	17.0
25	---	---	---	---	---	---	23.5	21.0	21.5	17.0	20.0	16.0
26	---	---	---	---	---	---	23.0	20.0	21.0	16.0	19.5	16.0
27	---	---	---	---	---	---	22.5	19.5	21.5	16.5	17.5	13.5
28	---	---	---	---	---	---	23.0	19.5	24.0	18.0	18.5	13.5
29	---	---	---	---	---	---	23.5	20.0	24.0	18.5	16.0	13.0
30	---	---	---	---	---	---	23.0	20.5	23.5	19.0	14.0	11.0
31	---	---	---	---	---	---	23.0	20.5	22.5	17.0	---	---
MONTH	---	---	---	---	---	---	---	---	26.0	15.0	---	---

KLAMATH RIVER BASIN

11510990 KLAMATH RIVER ABOVE SHOVEL CREEK NEAR COPCO, CA

LOCATION.—Lat 41°58'21", long 122°12'03", in NE 1/4 SW 1/4 sec.27, T. 48 N., R. 3 W., Siskiyou County, Hydrologic Unit 18010206, on left bank, 0.1 mi upstream from Shovel Creek, 0.3 mi upstream from Klamath Hot Springs, and 7.3 mi east of Copco.

DRAINAGE AREA.—4,164 mi².

PERIOD OF RECORD.—July 2002 to September, 2002.

CHEMICAL DATA: July 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: July 2002 to September 2002 (seasonal only).

pH: July 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: July 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: July 2002 to September 2002 (seasonal only).

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: July 2002 to September 2002 (seasonal only).

pH: July 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: July 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: July 2002 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since July 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated excellent except for Aug. 29 to Sept. 18, which are rated poor. pH, specific conductance and water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 11.8 mg/L, Sept. 9, 2002; minimum recorded, 7.1 mg/L, Aug. 1, 2, 2002.

pH: Maximum recorded, 9.0 standard units, Aug. 14, 2002; minimum recorded, 7.1 standard units, Aug. 20, 2002

SPECIFIC CONDUCTANCE: Maximum recorded, 304 microsiemens, Sept. 10, 11, 2002; minimum recorded, 151 microsiemens, July 23, 2002.

WATER TEMPERATURE: Maximum recorded, 23.5°C, July 20, 2002; minimum recorded, 12.0°C, Sept. 30, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 11.8 mg/L, Sept. 9; minimum recorded, 7.1 mg/L, Aug. 1, 2.

pH: Maximum recorded, 9.0 standard units, Aug. 14; minimum recorded, 7.1 standard units, Aug. 20.

SPECIFIC CONDUCTANCE: Maximum recorded, 304 microsiemens, Sept. 10, 11; minimum recorded, 151 microsiemens, July 23.

WATER TEMPERATURE: Maximum recorded, 23.5°C, July 20; minimum recorded, 12.0°C, Sept. 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- (FEET) (81903)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SOLVED SATUR- ATION) (00300)	PH WATER SPE- CIFIC FIELD (STAND- DUCT- ANCE UNITS) (00400)	PH WATER SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	
JUL									
19...*	1305	3.00	688	9.1	112	8.8	148	20.5	14.0
19...*	1310	3.50	688	9.1	112	8.8	149	20.5	38.0
19...*	1315	4.00	688	9.0	111	9.0	149	20.5	50.0
19...*	1320	3.30	688	9.1	112	9.1	148	20.5	61.0
19...*	1325	3.00	688	9.1	112	9.1	150	20.5	68.0
SEP									
18...*	1335	3.80	693	9.9	109	8.4	222	15.5	11.0
18...*	1340	3.60	693	9.8	108	8.2	222	15.5	33.0
18...*	1345	4.70	693	9.8	108	8.3	222	15.5	48.0
18...*	1350	3.40	693	9.8	108	8.3	222	15.5	59.0
18...*	1355	3.00	693	9.8	108	8.3	222	15.5	68.0

* Instantaneous discharge at the time of the cross-sectional measurement: July 19, 414 ft³/s; Sept. 18, 706 ft³/s.

KLAMATH RIVER BASIN

11510990 KLAMATH RIVER ABOVE SHOVEL CREEK NEAR COPCO, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LITY WAT. DIS FET LAB CACO3 (MG/L) (29801)
JUL 2002										
19...	1225	414	3.0	688	9.0	111	9.0	149	20.5	67
AUG										
20...	1125	428	1.9	690	9.9	111	8.4	176	16.0	80
SEP										
18...	1315	706	2.7	693	10.0	110	8.3	226	15.5	e84

Date	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
JUL 2002									
19...	.018	.47	.466	.13	.15	4.6	4.5	2.5	--
AUG									
20...	e.013	.44	.200	.11	.12	5.1	3.6	2.7	--
SEP									
18...	e.009	.76	.211	.12	.15	9.1	10.4	6.4	2

Date	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JUL 2002									
19...	--	--	--	--	--	--	--	--	--
AUG									
20...	--	--	--	--	--	--	--	--	--
SEP									
18...	.05	6	7	<.06	e.03	<.8	.15	.8	e.04

Date	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM DIS- SOLVED (UG/L AS U) (22703)
JUL 2002									
19...	--	--	--	--	--	--	--	--	--
AUG									
20...	--	--	--	--	--	--	--	--	--
SEP									
18...	4.9	e.01	<.01	1.7	.92	<2	<1	v5	.17

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

KLAMATH RIVER BASIN

11510990 KLAMATH RIVER ABOVE SHOVEL CREEK NEAR COPCO, CA—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	8.9	7.1	11.2	8.2
2	---	---	---	---	---	---	---	---	10.0	7.1	10.8	8.2
3	---	---	---	---	---	---	---	---	9.9	7.2	11.0	8.3
4	---	---	---	---	---	---	---	---	10.0	7.3	11.2	8.3
5	---	---	---	---	---	---	---	---	10.5	7.7	11.6	8.7
6	---	---	---	---	---	---	---	---	10.5	7.7	11.4	8.7
7	---	---	---	---	---	---	---	---	10.5	8.1	11.6	8.9
8	---	---	---	---	---	---	---	---	10.8	7.9	11.7	8.9
9	---	---	---	---	---	---	---	---	10.6	7.7	11.8	8.9
10	---	---	---	---	---	---	---	---	10.7	7.7	11.5	8.9
11	---	---	---	---	---	---	---	---	10.8	7.8	11.3	8.9
12	---	---	---	---	---	---	---	---	10.9	7.7	11.3	8.2
13	---	---	---	---	---	---	---	---	10.7	7.7	10.7	8.2
14	---	---	---	---	---	---	---	---	11.1	7.7	10.9	8.2
15	---	---	---	---	---	---	---	---	11.2	7.8	10.7	8.3
16	---	---	---	---	---	---	---	---	11.1	7.8	11.3	8.3
17	---	---	---	---	---	---	---	---	11.2	7.8	10.7	8.7
18	---	---	---	---	---	---	---	---	11.4	7.9	10.6	8.7
19	---	---	---	---	---	---	---	---	11.6	7.9	10.4	8.6
20	---	---	---	---	---	---	10.2	7.5	11.2	7.5	10.2	8.5
21	---	---	---	---	---	---	10.4	7.5	10.8	7.5	10.3	8.6
22	---	---	---	---	---	---	10.4	7.6	10.8	7.9	10.4	8.6
23	---	---	---	---	---	---	10.3	7.7	10.6	8.0	10.3	8.5
24	---	---	---	---	---	---	10.5	7.8	10.6	8.0	10.2	8.5
25	---	---	---	---	---	---	10.6	7.6	10.8	8.0	10.3	8.6
26	---	---	---	---	---	---	10.2	7.6	10.7	8.2	10.4	8.6
27	---	---	---	---	---	---	10.3	7.6	10.6	8.1	10.2	8.6
28	---	---	---	---	---	---	---	---	10.5	8.2	10.3	8.6
29	---	---	---	---	---	---	---	---	10.6	8.2	10.5	8.8
30	---	---	---	---	---	---	---	---	10.8	8.0	10.6	9.2
31	---	---	---	---	---	---	---	---	11.0	8.2	---	---
MONTH	---	---	---	---	---	---	---	---	11.6	7.1	11.8	8.2

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	8.7	7.9	8.2	7.6
2	---	---	---	---	---	---	---	---	8.6	7.8	8.2	7.6
3	---	---	---	---	---	---	---	---	8.6	7.8	8.3	7.6
4	---	---	---	---	---	---	---	---	8.6	7.8	8.6	7.7
5	---	---	---	---	---	---	---	---	8.6	7.8	8.5	7.7
6	---	---	---	---	---	---	---	---	8.7	7.8	8.3	7.7
7	---	---	---	---	---	---	---	---	8.9	7.8	8.5	7.7
8	---	---	---	---	---	---	---	---	8.6	7.9	8.4	7.8
9	---	---	---	---	---	---	---	---	8.7	7.8	8.4	7.8
10	---	---	---	---	---	---	---	---	8.7	7.8	8.5	7.8
11	---	---	---	---	---	---	---	---	8.7	7.8	8.7	7.8
12	---	---	---	---	---	---	---	---	8.7	7.8	8.6	7.8
13	---	---	---	---	---	---	---	---	8.7	7.8	8.6	7.9
14	---	---	---	---	---	---	---	---	9.0	7.8	8.5	7.9
15	---	---	---	---	---	---	---	---	8.7	7.9	8.6	7.9
16	---	---	---	---	---	---	---	---	8.7	7.8	8.7	7.9
17	---	---	---	---	---	---	---	---	8.6	7.8	8.6	7.8
18	---	---	---	---	---	---	---	---	8.6	7.8	8.6	7.9
19	---	---	---	---	---	---	---	---	8.8	7.9	8.6	7.9
20	---	---	---	---	---	---	8.6	7.7	8.6	7.1	8.6	7.9
21	---	---	---	---	---	---	8.6	7.7	8.7	7.8	8.6	7.9
22	---	---	---	---	---	---	8.6	7.7	8.4	7.6	8.6	7.9
23	---	---	---	---	---	---	8.7	7.8	8.4	7.5	8.6	7.8
24	---	---	---	---	---	---	8.9	7.8	8.3	7.5	8.5	7.8
25	---	---	---	---	---	---	8.7	7.9	8.2	7.5	8.6	7.8
26	---	---	---	---	---	---	8.7	7.8	8.4	7.5	8.5	7.9
27	---	---	---	---	---	---	8.7	7.8	8.3	7.6	8.5	7.9
28	---	---	---	---	---	---	8.7	7.8	8.6	7.6	8.6	7.9
29	---	---	---	---	---	---	8.7	7.8	8.4	7.5	8.5	7.9
30	---	---	---	---	---	---	8.7	7.8	8.4	7.6	8.5	7.9
31	---	---	---	---	---	---	8.7	7.9	8.3	7.6	---	---
MONTH	---	---	---	---	---	---	---	---	9.0	7.1	8.7	7.6

KLAMATH RIVER BASIN

11510990 KLAMATH RIVER ABOVE SHOVEL CREEK NEAR COPCO, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	179	160	265	193
2	---	---	---	---	---	---	---	---	181	160	265	193
3	---	---	---	---	---	---	---	---	182	161	267	197
4	---	---	---	---	---	---	---	---	183	161	265	196
5	---	---	---	---	---	---	---	---	183	161	272	195
6	---	---	---	---	---	---	---	---	185	161	277	199
7	---	---	---	---	---	---	---	---	185	162	285	204
8	---	---	---	---	---	---	---	---	186	163	289	207
9	---	---	---	---	---	---	---	---	188	163	295	209
10	---	---	---	---	---	---	---	---	190	164	304	209
11	---	---	---	---	---	---	---	---	191	166	304	214
12	---	---	---	---	---	---	---	---	195	164	302	210
13	---	---	---	---	---	---	---	---	198	166	303	213
14	---	---	---	---	---	---	---	---	199	166	294	209
15	---	---	---	---	---	---	---	---	201	167	290	207
16	---	---	---	---	---	---	---	---	205	168	268	195
17	---	---	---	---	---	---	---	---	209	170	266	190
18	---	---	---	---	---	---	---	---	215	172	253	220
19	---	---	---	---	---	---	---	---	219	174	220	210
20	---	---	---	---	---	---	165	152	225	176	212	205
21	---	---	---	---	---	---	166	153	225	179	208	202
22	---	---	---	---	---	---	165	152	230	179	203	200
23	---	---	---	---	---	---	162	151	234	180	213	203
24	---	---	---	---	---	---	162	153	237	182	223	213
25	---	---	---	---	---	---	163	152	246	185	223	218
26	---	---	---	---	---	---	164	152	255	187	222	219
27	---	---	---	---	---	---	164	152	261	191	224	220
28	---	---	---	---	---	---	165	153	261	194	229	224
29	---	---	---	---	---	---	169	154	269	194	230	222
30	---	---	---	---	---	---	173	156	269	195	222	205
31	---	---	---	---	---	---	177	158	268	194	---	---
MONTH	---	---	---	---	---	---	---	---	269	160	304	190

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	22.0	17.0	19.5	16.0
2	---	---	---	---	---	---	---	---	21.0	17.0	20.0	16.0
3	---	---	---	---	---	---	---	---	20.5	16.5	19.5	16.5
4	---	---	---	---	---	---	---	---	19.5	15.0	19.0	16.0
5	---	---	---	---	---	---	---	---	19.0	15.0	18.0	14.0
6	---	---	---	---	---	---	---	---	19.0	15.5	17.5	14.5
7	---	---	---	---	---	---	---	---	18.0	16.0	17.0	14.5
8	---	---	---	---	---	---	---	---	19.0	14.5	17.0	13.5
9	---	---	---	---	---	---	---	---	19.5	16.5	17.5	14.0
10	---	---	---	---	---	---	---	---	20.0	17.0	17.5	14.5
11	---	---	---	---	---	---	---	---	20.0	17.0	17.0	15.0
12	---	---	---	---	---	---	---	---	20.5	17.0	18.0	14.0
13	---	---	---	---	---	---	---	---	21.0	17.5	18.5	14.0
14	---	---	---	---	---	---	---	---	20.5	18.0	17.5	14.5
15	---	---	---	---	---	---	---	---	20.5	16.0	17.5	14.0
16	---	---	---	---	---	---	---	---	20.5	17.0	17.0	14.5
17	---	---	---	---	---	---	---	---	20.0	16.0	16.0	14.5
18	---	---	---	---	---	---	---	---	20.5	16.0	17.0	14.0
19	---	---	---	---	---	---	---	19.5	20.0	16.0	17.0	14.0
20	---	---	---	---	---	---	23.5	18.0	18.5	16.0	17.0	14.5
21	---	---	---	---	---	---	23.0	18.5	18.0	15.5	17.0	14.0
22	---	---	---	---	---	---	22.5	18.5	19.0	14.5	17.0	14.5
23	---	---	---	---	---	---	22.5	19.0	18.5	16.0	17.0	14.0
24	---	---	---	---	---	---	21.5	18.5	19.0	16.0	17.0	14.5
25	---	---	---	---	---	---	22.0	17.0	19.0	16.0	16.5	14.0
26	---	---	---	---	---	---	22.0	18.0	19.0	16.0	16.0	13.5
27	---	---	---	---	---	---	22.0	18.5	19.5	16.0	16.0	14.0
28	---	---	---	---	---	---	22.0	18.0	19.0	17.0	16.0	13.5
29	---	---	---	---	---	---	22.0	18.0	19.5	16.0	15.5	13.5
30	---	---	---	---	---	---	21.5	17.5	19.5	17.0	14.5	12.0
31	---	---	---	---	---	---	22.0	17.5	19.5	15.5	---	---
MONTH	---	---	---	---	---	---	---	---	22.0	14.5	20.0	12.0

KLAMATH RIVER BASIN

11516750 SHASTA RIVER NEAR EDGEWOOD, CA

LOCATION.—Lat 41°28'17", long 122°26'23", in NE 1/4 SE 1/4 sec. 20, T.42 N., R.5 W., Siskiyou County, Hydrologic Unit 18010207, on left bank, 0.8 mi downstream from Beaughton Creek, 1.0 mi downstream from Parks Creek, and 1.0 mi northeast of Edgewood.

DRAINAGE AREA.—70.3 mi².

PERIOD OF RECORD.—June 2002 to September 2002.

CHEMICAL DATA: June 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: June 2002 to September 2002 (seasonal only).

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: June 2002 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since June 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated good except for Aug. 29 to Sept. 30, which are rated fair. pH records rated excellent. Specific conductance records rated good except for June 25 to July 15 and Aug. 29 to Sept. 19, which are rated fair. Water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 12.5 mg/L, Aug. 17, 2002; minimum recorded, 5.9 mg/L, July 10, 2002.

pH: Maximum recorded, 9.4 standard units, several days during 2002; minimum recorded, 7.8 standard units, many days during 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 249 microsiemens, July 12, 2002; minimum recorded, 189 microsiemens, Aug. 31, 2002.

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 11, 2002; minimum recorded, 9.0°C, Sept. 30, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 12.5 mg/L, Aug. 17; minimum recorded, 5.9 mg/L, July 10.

pH: Maximum recorded, 9.4 standard units, several days during the year; minimum recorded, 7.8 standard units, many days during the year.

SPECIFIC CONDUCTANCE: Maximum recorded, 249 microsiemens, July 12; minimum recorded, 189 microsiemens, Aug. 31.

WATER TEMPERATURE: Maximum recorded, 30.0°C, July 11; minimum recorded, 9.0°C, Sept. 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
JUN							
25...	1010	687	8.5	101	8.0	187	18.5
25...	1015	687	8.5	101	8.0	187	18.5
25...	1020	687	8.6	102	8.0	188	18.5
SEP							
19...*	0855	685	9.7	99	7.8	209	11.5
19...*	0900	685	9.9	101	7.8	209	11.5
19...*	0905	685	9.9	101	7.8	209	11.5
19...*	0910	685	10.0	102	7.9	209	11.5

* Instantaneous discharge at the time of the cross-sectional measurements: Sept. 19, 12 ft³/s.

KLAMATH RIVER BASIN

11516750 SHASTA RIVER NEAR EDGEWOOD, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300) (00301)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LINITY WAT. DIS FET LAB CACO3 (MG/L) (29801)	
JUL 2002	11...	1330	8.6	1.6	682	7.5	108	8.9	238	28.0	120
AUG	15...	1130	12	2.8	680	9.9	127	8.0	219	22.0	111
SEP	19...	0815	12	1.6	685	10.4	106	7.7	201	11.5	e104
Date		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + DIS- ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	
JUL 2002	11...	e.009	.32	e.012	.07	.10	4.4	4.2	2.6	--	
AUG	15...	<.015	.23	<.013	.05	.07	3.9	4.7	6.5	--	
SEP	19...	<.015	.16	<.013	.06	.08	4.1	8.6	6.0	1	
Date		ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	
JUL 2002	11...	--	--	--	--	--	--	--	--	--	
AUG	15...	--	--	--	--	--	--	--	--	--	
SEP	19...	.07	e2	7	<.06	<.04	<.8	.09	.7	<.08	
Date		MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	
JUL 2002	11...	--	--	--	--	--	--	--	--	--	
AUG	15...	--	--	--	--	--	--	--	--	--	
SEP	19...	3.7	<.01	<.01	.5	9.28	<2	<1	v2	.07	

e Estimated.

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

v Analyte was detected in both the environmental sample and the associated blanks.

KLAMATH RIVER BASIN

11516750 SHASTA RIVER NEAR EDGEWOOD, CA—Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C) WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	221	211	---	---	210	190
2	---	---	---	---	---	---	221	211	238	224	214	194
3	---	---	---	---	---	---	223	209	236	222	219	201
4	---	---	---	---	---	---	225	216	---	---	216	202
5	---	---	---	---	---	---	225	216	---	---	212	195
6	---	---	---	---	---	---	227	215	---	---	207	194
7	---	---	---	---	---	---	228	218	---	---	210	192
8	---	---	---	---	---	---	246	220	---	---	211	195
9	---	---	---	---	---	---	246	233	---	---	221	200
10	---	---	---	---	---	---	243	217	---	---	221	203
11	---	---	---	---	---	---	248	228	---	---	221	204
12	---	---	---	---	---	---	249	239	---	---	223	204
13	---	---	---	---	---	---	247	231	---	---	217	201
14	---	---	---	---	---	---	240	229	---	---	213	200
15	---	---	---	---	---	---	239	229	---	---	215	198
16	---	---	---	---	---	---	---	---	219	202	221	198
17	---	---	---	---	---	---	---	---	219	201	219	203
18	---	---	---	---	---	---	---	---	220	204	215	199
19	---	---	---	---	---	---	---	---	222	205	208	195
20	---	---	---	---	---	---	---	---	218	197	209	196
21	---	---	---	---	---	---	---	---	213	198	208	195
22	---	---	---	---	---	---	---	---	226	200	207	191
23	---	---	---	---	---	---	---	---	229	194	212	196
24	---	---	---	---	---	---	---	---	226	212	222	202
25	---	---	---	---	---	---	---	---	222	202	220	201
26	---	---	---	---	203	192	---	---	222	207	225	200
27	---	---	---	---	203	195	---	---	219	200	220	200
28	---	---	---	---	209	201	---	---	219	194	213	200
29	---	---	---	---	214	206	---	---	216	193	211	198
30	---	---	---	---	216	210	---	---	214	194	213	197
31	---	---	---	---	---	---	---	---	209	189	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	225	190

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	26.0	14.5	---	---	24.5	13.0
2	---	---	---	---	---	---	26.5	14.5	26.0	15.5	25.5	14.0
3	---	---	---	---	---	---	26.5	15.0	25.0	15.0	23.0	14.0
4	---	---	---	---	---	---	26.0	14.0	---	---	22.5	13.0
5	---	---	---	---	---	---	26.5	14.0	---	---	22.0	11.5
6	---	---	---	---	---	---	27.5	15.0	---	---	18.5	11.0
7	---	---	---	---	---	---	25.0	15.5	---	---	20.0	10.5
8	---	---	---	---	---	---	26.5	13.5	---	---	21.5	10.0
9	---	---	---	---	---	---	29.0	14.0	---	---	22.5	11.0
10	---	---	---	---	---	---	29.0	15.5	---	---	23.5	11.5
11	---	---	---	---	---	---	30.0	16.5	---	---	24.0	12.5
12	---	---	---	---	---	---	27.5	18.5	---	---	24.0	13.0
13	---	---	---	---	---	---	27.0	17.5	---	---	23.0	13.5
14	---	---	---	---	---	---	28.5	17.5	---	---	19.0	13.0
15	---	---	---	---	---	---	27.0	16.5	---	---	19.5	13.0
16	---	---	---	---	---	---	---	---	27.0	14.5	21.0	11.5
17	---	---	---	---	---	---	---	---	25.5	15.0	18.5	12.5
18	---	---	---	---	---	---	---	---	24.5	13.5	21.5	12.5
19	---	---	---	---	---	---	---	---	23.5	13.5	22.0	11.5
20	---	---	---	---	---	---	---	---	23.0	13.0	22.5	12.0
21	---	---	---	---	---	---	---	---	23.5	12.5	22.0	11.5
22	---	---	---	---	---	---	---	---	25.0	12.5	22.0	11.5
23	---	---	---	---	---	---	---	---	25.0	13.5	22.0	11.5
24	---	---	---	---	---	---	---	---	26.0	14.0	22.0	11.5
25	---	---	---	---	---	---	---	---	24.5	14.0	21.0	11.0
26	---	---	---	---	27.0	15.5	---	---	24.0	13.5	20.0	10.0
27	---	---	---	---	25.5	15.5	---	---	24.5	13.0	20.0	11.0
28	---	---	---	---	25.5	15.5	---	---	26.0	14.5	20.0	10.5
29	---	---	---	---	27.0	15.5	---	---	25.5	15.0	18.0	11.5
30	---	---	---	---	26.5	14.5	---	---	26.0	14.5	17.5	9.0
31	---	---	---	---	---	---	---	---	24.5	13.5	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	25.5	9.0

KLAMATH RIVER BASIN

11517818 KLAMATH RIVER AT WALKER BRIDGE, NEAR KLAMATH RIVER, CA

LOCATION.—Lat 41°50'16", long 122°57'48", in SE 1/4 SW 1/4 sec. 11, T.46 N., R.9 W., Siskiyou County, Hydrologic Unit 18010206, on right bank, 0.7 mi upstream from Cedar Cove, 1.0 mi downstream from Grouse Creek, and 3.5 mi southwest of Klamath River.

DRAINAGE AREA.—5,885 mi².

PERIOD OF RECORD.—June 2002 to September 2002.

CHEMICAL DATA: July 2002 to September 2002 (seasonal only).

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: June 2002 to September 2002 (seasonal only).

PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: June 2002 to September 2002 (seasonal only).

pH: June 2002 to September 2002 (seasonal only).

SPECIFIC CONDUCTANCE: June 2002 to September 2002 (seasonal only).

WATER TEMPERATURE: June 2002 to September 2002 (seasonal only).

INSTRUMENTATION.—Water-quality monitor since June 2002. Electronic data logger with 60 minute interval.

REMARKS.—Dissolved oxygen records rated good except for July 10 to Aug. 1, which are rated fair. pH, specific conductance, and water temperature records rated excellent. Interruption in record due to malfunction of the recording equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.—

DISSOLVED OXYGEN: Maximum recorded, 13.2 mg/L, June 28, 2002; minimum recorded, 6.3 mg/L, Aug. 18, 2002.

pH: Maximum recorded, 9.1 standard units, Aug. 2, 3, 5, 2002; minimum recorded, 7.8 standard units, Aug. 23, 2002.

SPECIFIC CONDUCTANCE: Maximum recorded, 248 microsiemens, Aug. 26, 2002; minimum recorded, 192 microsiemens, Sept. 5, 2002.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 13, 14, 16, 21, 2002; minimum recorded, 15.5°C, Sept. 30, 2002.

EXTREME FOR CURRENT YEAR.—

DISSOLVED OXYGEN: Maximum recorded, 13.2 mg/L, June 28; minimum recorded, 6.3 mg/L, Aug. 18.

pH: Maximum recorded, 9.1 standard units, Aug. 2, 3, 5; minimum recorded, 7.8 standard units, Aug. 23.

SPECIFIC CONDUCTANCE: Maximum recorded, 248 microsiemens, Aug. 26; minimum recorded, 192 microsiemens, Sept. 5.

WATER TEMPERATURE: Maximum recorded, 26.0°C, July 13, 14, 16, 21; minimum recorded, 15.5°C, Sept. 30.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DEPTH BOTTOM AT SAMPLE LOC- (FEET)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	PH WATER SPE- CIFIC WHOLE FIELD (STAND- ARD UNITS)	CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	
		(81903)	(00025)	(00300)	(00301)	(00400)	(00095)	(00010)	(00009)
JUN									
27...	1700	--	722	9.5	117	8.5	202	23.0	30.0
27...	1705	--	722	9.4	116	8.5	202	23.0	55.0
27...	1710	--	722	9.4	116	8.5	202	23.0	80.0
27...	1715	--	722	9.3	115	8.6	202	23.0	105
27...	1720	--	722	9.2	113	8.6	202	23.0	130
SEP									
17...*	1135	2.60	712	9.9	113	8.6	197	18.5	123
17...*	1140	2.30	712	9.8	112	8.4	197	18.5	91.0
17...*	1145	3.50	712	9.9	113	8.4	197	18.5	62.0
17...*	1150	3.20	712	9.9	113	8.4	197	18.5	37.0
17...*	1155	5.70	712	9.8	112	8.4	197	18.5	19.0

* Instantaneous discharge at the time of the cross-sectional measurements: Sept. 17, 832 ft³/s.

KLAMATH RIVER BASIN

11517818 KLAMATH RIVER AT WALKER BRIDGE, NEAR KLAMATH RIVER, CA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID- ITY LAB HACH 2100AN (NTU) (99872)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LILITY WAT. DIS FET LAB CACO3 (MG/L) (29801)	
JUL	10...	1315	1010	2.4	712	8.8	111	8.6	218	23.5	85
AUG	14...	1020	758	4.2	713	8.1	99	8.3	202	22.0	88
SEP	17...	1245	832	1.8	712	11.2	128	8.4	200	18.5	e85

Date	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	
JUL	10...	<.015	.48	<.013	.10	.14	6.5	2.7	2.1	--
AUG	14...	.017	.59	.115	.12	.16	7.1	8.1	9.3	--
SEP	17...	e.011	.55	.127	.14	.17	7.0	7.3	5.2	2

Date	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JUL	10...	--	--	--	--	--	--	--	--
AUG	14...	--	--	--	--	--	--	--	--
SEP	17...	e.04	5	8	<.06	<.04	<.8	.13	.6

Date	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JUL	10...	--	--	--	--	--	--	--	--
AUG	14...	--	--	--	--	--	--	--	--
SEP	17...	6.1	e.01	e.01	1.0	1.00	<2	<1	v3

e Estimated.

< Actual value is known to be less than value.

v Analyte was detected in both the environmental sample and the associated blanks.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD SITES

KLAMATH RIVER BASIN

11517818 KLAMATH RIVER AT WALKER BRIDGE, NEAR KLAMATH RIVER, CA—Continued

OXYGEN DISSOLVED, (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	11.3	7.6	---	---
2	---	---	---	---	---	---	---	---	9.7	6.5	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	10.3	7.2	---	---	---	---
12	---	---	---	---	---	---	10.4	7.3	---	---	---	---
13	---	---	---	---	---	---	10.8	7.5	---	---	---	---
14	---	---	---	---	---	---	11.2	7.5	---	---	---	---
15	---	---	---	---	---	---	11.6	7.6	10.5	6.9	---	---
16	---	---	---	---	---	---	11.8	7.6	10.5	6.8	---	---
17	---	---	---	---	---	---	12.3	7.8	10.3	7.0	---	---
18	---	---	---	---	---	---	12.4	7.9	11.4	6.3	9.6	7.2
19	---	---	---	---	---	---	12.9	7.9	---	---	8.8	6.6
20	---	---	---	---	---	---	13.1	7.7	---	---	---	---
21	---	---	---	---	---	---	13.1	7.8	---	---	---	---
22	---	---	---	---	---	---	12.3	7.7	---	---	---	---
23	---	---	---	---	---	---	12.9	8.1	---	---	---	---
24	---	---	---	---	---	---	13.0	7.9	---	---	---	---
25	---	---	---	---	---	---	12.5	8.2	---	---	---	---
26	---	---	---	---	---	---	12.7	8.4	---	---	---	---
27	---	---	---	---	---	---	12.7	8.2	---	---	---	---
28	---	---	---	---	13.2	7.5	12.6	8.2	---	---	---	---
29	---	---	---	---	12.2	8.6	12.3	8.3	---	---	---	---
30	---	---	---	---	---	---	12.2	8.2	---	---	---	---
31	---	---	---	---	---	---	12.4	7.9	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	8.8	8.2	9.0	8.4	8.9	8.1
2	---	---	---	---	---	---	8.8	8.2	9.1	8.2	8.8	8.1
3	---	---	---	---	---	---	8.7	8.2	9.1	8.2	8.8	8.1
4	---	---	---	---	---	---	8.7	8.3	8.9	8.1	8.8	8.2
5	---	---	---	---	---	---	8.7	8.3	9.1	8.1	8.8	8.2
6	---	---	---	---	---	---	8.7	8.3	---	---	8.8	8.2
7	---	---	---	---	---	---	8.7	8.3	---	---	8.8	8.0
8	---	---	---	---	---	---	8.8	8.3	---	---	8.8	8.0
9	---	---	---	---	---	---	8.8	8.4	---	---	8.8	8.1
10	---	---	---	---	---	---	8.8	8.3	---	---	8.8	8.1
11	---	---	---	---	---	---	8.8	8.2	---	---	8.8	8.1
12	---	---	---	---	---	---	8.7	8.1	---	---	8.8	8.1
13	---	---	---	---	---	---	8.8	8.0	---	---	8.8	8.0
14	---	---	---	---	---	---	8.9	7.9	---	---	8.8	8.0
15	---	---	---	---	---	---	9.0	8.1	8.9	8.0	8.8	8.1
16	---	---	---	---	---	---	9.0	8.1	8.8	8.0	8.8	8.1
17	---	---	---	---	---	---	9.0	8.1	8.8	8.0	8.8	8.2
18	---	---	---	---	---	---	9.0	8.1	8.9	8.0	8.8	8.1
19	---	---	---	---	---	---	9.0	8.1	8.8	8.0	8.8	8.1
20	---	---	---	---	---	---	9.0	8.1	8.8	8.0	8.8	8.1
21	---	---	---	---	---	---	9.0	8.2	8.9	8.0	8.8	8.1
22	---	---	---	---	---	---	8.8	8.0	8.8	8.0	8.8	8.1
23	---	---	---	---	---	---	8.9	8.0	8.5	7.8	8.8	8.1
24	---	---	---	---	---	---	8.9	8.1	---	---	8.8	8.1
25	---	---	---	---	---	---	9.0	8.2	---	---	8.8	8.1
26	---	---	---	---	---	---	9.0	8.3	---	---	8.9	8.1
27	---	---	---	---	---	---	9.0	8.3	---	---	8.8	8.2
28	---	---	---	---	8.7	8.2	8.9	8.4	---	---	8.8	8.1
29	---	---	---	---	8.7	8.2	9.0	8.3	---	---	8.5	8.1
30	---	---	---	---	8.7	8.3	9.0	8.3	---	---	8.5	8.0
31	---	---	---	---	---	---	9.0	8.2	8.9	8.1	---	---
MONTH	---	---	---	---	---	---	9.0	7.9	---	---	8.9	8.0

KLAMATH RIVER BASIN

11517818 KLAMATH RIVER AT WALKER BRIDGE, NEAR KLAMATH RIVER, CA—Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	212	207	219	211	200	197
2	---	---	---	---	---	---	214	208	219	213	200	198
3	---	---	---	---	---	---	215	211	218	210	199	195
4	---	---	---	---	---	---	215	211	219	212	197	193
5	---	---	---	---	---	---	217	214	217	210	195	192
6	---	---	---	---	---	---	220	211	---	---	196	194
7	---	---	---	---	---	---	221	216	---	---	196	194
8	---	---	---	---	---	---	221	219	---	---	209	196
9	---	---	---	---	---	---	220	217	---	---	211	206
10	---	---	---	---	---	---	219	216	---	---	214	208
11	---	---	---	---	---	---	221	217	---	---	215	206
12	---	---	---	---	---	---	227	220	---	---	208	203
13	---	---	---	---	---	---	228	223	---	---	208	201
14	---	---	---	---	---	---	227	220	---	---	205	201
15	---	---	---	---	---	---	231	225	205	200	208	201
16	---	---	---	---	---	---	228	224	208	202	208	204
17	---	---	---	---	---	---	227	220	215	204	208	200
18	---	---	---	---	---	---	225	217	215	203	208	202
19	---	---	---	---	---	---	222	216	206	200	209	207
20	---	---	---	---	---	---	224	217	203	196	210	204
21	---	---	---	---	---	---	225	217	207	201	214	208
22	---	---	---	---	---	---	225	218	209	201	215	214
23	---	---	---	---	---	---	222	214	215	203	217	213
24	---	---	---	---	---	---	220	214	212	199	216	212
25	---	---	---	---	---	---	218	213	209	198	215	210
26	---	---	---	---	---	---	221	213	248	206	216	209
27	---	---	---	---	---	---	225	217	244	211	215	213
28	---	---	---	---	214	210	226	218	221	209	221	213
29	---	---	---	---	214	208	221	213	221	205	218	214
30	---	---	---	---	214	210	229	211	207	195	217	213
31	---	---	---	---	---	---	228	212	200	197	---	---
MONTH	---	---	---	---	---	---	231	207	---	---	221	192

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	23.5	21.0	24.0	22.0	23.0	19.5
2	---	---	---	---	---	---	23.5	21.0	24.0	21.0	23.0	20.0
3	---	---	---	---	---	---	23.0	21.5	22.0	20.0	23.0	20.5
4	---	---	---	---	---	---	23.0	21.0	21.0	19.5	21.0	19.0
5	---	---	---	---	---	---	23.0	21.0	20.5	18.0	20.0	17.5
6	---	---	---	---	---	---	23.5	21.0	---	---	19.5	17.5
7	---	---	---	---	---	---	23.0	21.5	---	---	19.0	16.5
8	---	---	---	---	---	---	23.0	20.5	---	---	20.0	17.0
9	---	---	---	---	---	---	23.5	21.0	---	---	20.5	17.5
10	---	---	---	---	---	---	25.0	22.5	---	---	21.0	18.0
11	---	---	---	---	---	---	25.5	23.0	---	---	21.5	18.5
12	---	---	---	---	---	---	25.5	23.5	---	---	22.0	18.5
13	---	---	---	---	---	---	26.0	23.0	---	---	22.0	19.0
14	---	---	---	---	---	---	26.0	22.5	---	---	21.0	18.5
15	---	---	---	---	---	---	25.5	22.5	25.0	21.0	20.0	18.0
16	---	---	---	---	---	---	26.0	22.5	24.5	21.0	19.5	17.5
17	---	---	---	---	---	---	25.5	22.5	23.5	20.5	19.5	18.0
18	---	---	---	---	---	---	25.0	22.5	23.0	19.5	20.0	17.5
19	---	---	---	---	---	---	25.5	22.5	22.5	20.0	20.5	17.5
20	---	---	---	---	---	---	25.5	22.5	21.5	19.0	21.0	18.0
21	---	---	---	---	---	---	26.0	23.0	22.0	18.5	20.5	18.0
22	---	---	---	---	---	---	25.0	23.0	22.5	19.0	20.5	18.0
23	---	---	---	---	---	---	25.0	22.0	23.0	19.5	20.5	18.0
24	---	---	---	---	---	---	24.5	22.0	23.0	20.0	20.5	17.5
25	---	---	---	---	---	---	24.5	21.0	23.0	20.0	20.0	17.5
26	---	---	---	---	---	---	24.5	21.5	23.0	19.5	19.0	16.5
27	---	---	---	---	---	---	25.0	22.0	22.5	19.5	19.0	16.5
28	---	---	---	---	22.5	21.0	24.0	21.5	23.5	20.0	19.0	17.0
29	---	---	---	---	23.0	21.0	24.5	22.0	24.0	21.0	18.0	16.5
30	---	---	---	---	22.5	20.5	24.5	22.5	23.5	20.5	16.5	15.5
31	---	---	---	---	---	---	24.5	21.5	23.0	19.5	---	---
MONTH	---	---	---	---	---	---	26.0	20.5	---	---	23.0	15.5

*THIS
PAGE
INTENTIONALLY
LEFT
BLANK*

	Page		Page
A			
ACCESS TO USGS WATER DATA	12	Base discharge (for peak discharge), definition of	13
Accuracy of the Records	7	Base flow, definition of	13
Acid neutralizing capacity, definition of	13	BEAN CREEK NEAR SCOTTS VALLEY	105
Acre-foot, definition of	13	Bed material, definition of	14
Adenosine triphosphate, definition of	13	Bedload discharge, definition of	13
AGUA FRIA CREEK AT WARM SPRINGS ROAD, AT FREMONT	145	Bedload, definition of	13
Alameda County, location of discharge and water-quality stations	29	Benthic organisms, definition of	14
ALAMEDA CREEK ABOVE DIVERSION DAM, NEAR SUNOL	155	BIG RIVER BELOW TWO LOG CREEK, NEAR COMPTCHE	316
ALAMEDA CREEK AT HIGHWAY 680, NEAR SUNOL	169	BIG SULPHUR CREEK AT GEYSERS RESORT, NEAR CLOVERDALE	270
Alameda Creek Basin, diversions and storage in	154	BIG SULPHUR CREEK NEAR CLOVERDALE	272
ALAMEDA CREEK BELOW CALAVERAS CREEK, NEAR SUNOL	160	BIG SUR RIVER NEAR BIG SUR	51
ALAMEDA CREEK BELOW WELCH CREEK, NEAR SUNOL	161	Biochemical oxygen demand (BOD), definition of	14
ALAMEDA CREEK FLOOD CHANNEL AT UNION CITY	193	Biomass, Pigment ratio, definition of	14
ALAMEDA CREEK NEAR NILES	185	Biomass, definition of	14
Alameda Creek Tributary Canal at Huntwood Avenue, at Hayward	456	Biovolume, definition of	14
Algae		BLACK BUTTE RIVER NEAR COVELO	338
Blue-green, definition of	14	Blank Samples	10
Euglenoids, definition of	16	Blue-green algae, definition of	14
Fire, definition of	16	BOD (See "Biochemical oxygen demand")	14
Green, definition of	16	Bottom material (See "Bed material")	14
Algal growth potential, definition of	13	Boulder, definition of	19
Alkalinity, definition of	13	Bulk electrical conductivity, definition of	14
Ambient blank	10	BULL CREEK NEAR WEOTT	356
ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD SITES	458	C	
Annual 7-day minimum, definition of	13	C. perfringens, definitions of	14
Annual mean, explanation of	7	CALAVERAS CREEK NEAR SUNOL	158
Annual runoff, definition of	13	Canister blank	10
Annual runoff, explanation of	7	CARBONERA CREEK AT SCOTTS VALLEY	111
Annual total, explanation of	7	CARMEL RIVER AT ROBLES DEL RIO	53
Aquifer, Unconfined, definition of	24	CARMEL RIVER NEAR CARMEL	55
Aquifer, water table, definition of	24	CARQUINEZ STRAIT AT CARQUINEZ BRIDGE, NEAR CROCKETT	233
Aroclor, definition of	13	CASTRO VALLEY CREEK AT HAYWARD	216
Arrangement of Records	8	Cells volume (biovolume), definition of	14
ARROYO DE LA LAGUNA AT BERNAL AVENUE, AT PLEASANTON	177	Cells/volume, definition of	14
ARROYO DE LA LAGUNA NEAR PLEASANTON	178	Cfs-day (See "Cubic foot per second-day")	14
ARROYO HONDO NEAR SAN JOSE	156	Channel bars, definition of	14
ARROYO MOCHO AT HOPYARD ROAD, AT PLEASANTON	171	Chemical oxygen demand (COD), definition of	14
ARROYO SECO BELOW RELIZ CREEK, NEAR SOLEDAD	77	Clair Engle Lake near Lewiston	423
Arroyo Seco near Greenfield	456	Classification of Records	8
ARROYO SECO NEAR SOLEDAD	75	Clay, definition of	19
ARROYO VALLE AT PLEASANTON	176	CLEAR CREEK NEAR IDRIA	88
ARROYO VALLE BELOW LANG CANYON, NEAR LIVERMORE	172	Clostridium perfringens, definition of	14
ARROYO VALLE NEAR LIVERMORE	174	Cobble, definition of	19
Artificial substrate, definition of	13	COD (See "Chemical oxygen demand")	14
Ash mass, definition of	13	COLGAN CREEK NEAR SEBASTOPOL	286
Aspect, definition of	13	Coliphages, definition of	14
B			
Bacteria		Color unit, definition of	14
Enterococcus, definition of	16	Conductivity, Bulk electrical, definition of	14
Escherichia coli (E. Coli), definition of	16	Conductivity, definition of	21
Fecal coliform, definition of	16	Confined aquifer, definition of	14
Fecal streptococcal, definition of	16	Contents, definition of	14
Total coliform, definition of	23	Continuing-record station	8
Bacteria, definition of	13	Continuous-record station, definition of	14
Bankfull stage, definition of	13	Contra Costa County, location of discharge and water-quality stations	30
		Control structure, definition of	14
		Control, definition of	14
		COOPERATION	1
		Cooperation paragraph	6
		COPCO LAKE NEAR COPCO	385
		CORRALITOS CREEK AT FREEDOM	101
		COYOTE CREEK ABOVE HIGHWAY 237, AT MILPITAS	144

	Page		Page
Cross-Sectional Data	10	DRY CREEK AT UNION CITY	191
CROW CREEK NEAR HAYWARD	202	DRY CREEK BELOW WARM SPRINGS DAM, NEAR GEYSERVILLE	281
CRYSTAL SPRINGS RESERVOIR AT DAM, NEAR SAN MATEO	128	DRY CREEK NEAR GEYSERVILLE	282
Cubic foot per second per day, definition of	15	DRY CREEK NEAR MOUTH, NEAR HEALDSBURG	284
Cubic foot per second per square mile, definition of	15	Dry mass, definition of	15
Cubic foot per second, definition of	14	Dry weight, definition of	15
CULL CREEK ABOVE CULL CREEK RESERVOIR, NEAR CASTRO VALLEY	208	E	
D		EAST FORK RUSSIAN RIVER NEAR CALPELLA	257
Daily mean suspended-sediment concentration, definition of	15	EAST FORK RUSSIAN RIVER NEAR UKIAH	259
Daily mean values, data table of	6	EEL RIVER AT FERNBRIDGE	364
Daily-record station, definition of	15	EEL RIVER AT FORT SEWARD	348
Data Collection and Computation	4	EEL RIVER AT SCOTIA	358
Data Collection Platform, definition of	15	EEL RIVER AT VAN ARSDALE DAM, NEAR POTTER VALLEY	334
Data logger, definition of	15	Eel River Basin, diversions and storage in	329
Data Precision	47	EEL RIVER BELOW SCOTT DAM, NEAR POTTER VALLEY	331
Data Presentation	5, 11	ELDER CREEK NEAR BRANSCOMB	350
Datum		Embeddedness, definition of	15
Gage, definition of	16	Enterococcus bacteria, definition of	16
Land-surface, definition of	17	EPT Index, definition of	16
NAVD of 1988, definition of	19	Equipment blank	10
NGVD of 1929, definition of	19	Escherichia coli (E. coli), definition of	16
Datum, definition of	15	Estimated (E) concentration value, definition of	16
Deadwood Creek at Lewiston	457	Euglenoids, definition of	16
DEFINITION OF TERMS	13	EXPLANATION OF THE RECORDS	3
Del Norte County, location of discharge and water-quality stations	31	Extractable organic halides, definition of	16
Diatoms, definition of	15	Extremes for current year paragraph	6
Diel, definition of	15	Extremes for period of record paragraph	6
Discharge		Extremes outside period of record paragraph	6
Base, definition of	13	F	
Bedload, definition of	13	Fecal coliform bacteria, definition of	16
Instantaneous, definition of	17	Fecal streptococcal bacteria, definition of	16
Mean, definition of	18	Field blank	10
Peak, definition of	13	Filter blank	10
Total sediment, definition of	24	Fire algae, definition of	16
Total, definition of	23	Flow	
Discharge at partial-record stations and miscellaneous sites	456	Annual 7-day minimum, definition of	13
Discharge measurements made at low-flow partial-record stations during water year 2002	457	Base, definition of	13
Discharge measurements made at special study and miscellaneous sites during water year 2002	456	Peak, definition of	19
Discharge, definition of	15	Seven-day 10-year low flow, definition of	21
DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS	xvii	Streamflow, definition of	22
DISCONTINUED GAGING STATIONS	xii	Flow-duration percentiles, definition of	16
DISCONTINUED LAKES AND RESERVOIRS	xvi	G	
Dissolved oxygen, definition of	15	GABILAN CREEK NEAR SALINAS	85
Dissolved Trace-Element Concentrations	47	Gage datum, definition of	16
Dissolved, definition of	15	Gage height, definition of	16
Dissolved-solids concentration, definition of	15	Gage paragraph	5
Diversions and storage in		Gage values, definition of	16
Alameda Creek Basin	154	Gaging station, definition of	16
Eel River Basin	329	Gas chromatography/flare ionization detector, definition of	16
Klamath River and Trinity River Basins	384	Geomorphic channel units, definition of	16
Russian River Basin	254	GRASS VALLEY CREEK AT FAWN LODGE, NEAR LEWISTON	427
Salinas River Basin	57	Gravel, definition of	19
Trinity River and Klamath River Basins	384	Green algae, definition of	16
Diversity index, definition of	15	GUADALUPE RIVER ABOVE HIGHWAY 101, AT SAN JOSE	141
Downstream Order System	3	GUADALUPE RIVER AT SAN JOSE	139
Drainage area paragraph	5		
Drainage area, definition of	15		
Drainage basin, definition of	15		

Page	Page
H	
Habitat quality index, definition of	17
Habitat, definition of	17
Hardness, definition of	17
High tide, definition of	17
Highest annual mean, explanation of	7
Highest daily mean, explanation of	7
Hilsenhoff's Biotic Index, definition of	17
Horizontal datum (See "Datum")	17
Humboldt County, location of discharge and water-quality stations	32
Hydrologic Benchmark Network	2
Hydrologic index stations, definition of	17
Hydrologic unit, definition of	17
I	
Identifying Estimated Daily Discharge	7
Inch, definition of	17
INDIAN CREEK NEAR HAPPY CAMP	411
Instantaneous discharge, definition of	17
Instantaneous low flow, explanation of	7
INTRODUCTION	1
IRON GATE RESERVOIR NEAR HORN BROOK	385
Island, definition of	17
J	
JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH	424
K	
KLAMATH RIVER ABOVE SHOVEL CREEK NEAR COPCO	466
Klamath River and Trinity River Basins, diversions and storage in	384
KLAMATH RIVER AT ORLEANS	415
KLAMATH RIVER AT WALKER BRIDGE NEAR KLAMATH RIVER	474
KLAMATH RIVER BELOW IRON GATE DAM	386
KLAMATH RIVER NEAR KLAMATH	446
KLAMATH RIVER NEAR SEIAD VALLEY	405
L	
Laboratory Measurements	10
Laboratory Reporting Level, definition of	17
LAGUNA DE SANTA ROSA AT STONY POINT ROAD, NEAR COTATI	285
LAGUNA DE SANTA ROSA NEAR GRATON	296
LAGUNA DE SANTA ROSA NEAR SEBASTOPOL	288
LAGUNITAS CREEK AT SAMUEL P. TAYLOR STATE PARK	251
LAGUNITAS CREEK NEAR POINT REYES STATION	252
Lake County, location of discharge stations	33
LAKE PILLSBURY NEAR POTTER VALLEY	330
Lakes and reservoirs	
Clair Engle Lake	423
COPCO LAKE NEAR COPCO	385
CRYSTAL SPRINGS RESERVOIR AT DAM, NEAR SAN MATEO	128
IRON GATE RESERVOIR NEAR HORN BROOK	385
LAKE PILLSBURY NEAR POTTER VALLEY	330
PILARCITOS LAKE NEAR HILLSBOROUGH	117
RUTH RESERVOIR NEAR FOREST GLEN	368
SPRING LAKE AT SANTA ROSA	290
TRINITY LAKE NEAR LEWISTON	423
Land-surface datum, definition of	17
Latent heat flux, definition of	17
Latitude-Longitude System	3
Light-attenuation coefficient, definition of	17
Lipid, definition of	17
LITTLE RIVER NEAR TRINIDAD	372
Location paragraph	5
Long-Term Method Detection Level, definition of	18
LOPEZ CREEK NEAR ARROYO GRANDE	49
LOST RIVER NEAR HATFIELD	458
Low flow, 7-day 10-year, definition of	21
Low tide, definition of	18
Lowest annual mean, explanation of	7
Lowest daily mean, explanation of	7
Low-flow partial-record stations	457
M	
Macrophytes, definition of	18
MAD RIVER ABOVE RUTH RESERVOIR, NEAR FOREST GLEN	366
MAD RIVER BELOW RUTH RESERVOIR, NEAR FOREST GLEN	369
MAD RIVER NEAR ARCATA	370
Marin County, location of discharge and water-quality stations	34
Mass	
Ash, definition of	13
Biomass, definition of	14
Dry, definition of	15
Organic, definition of	19
Wet, definition of	24
MATADERO CREEK AT PALO ALTO	137
MATTOLE RIVER NEAR ETTERSBURG	319
MATTOLE RIVER NEAR PETROLIA	323
Maximum Peak Flow, explanation of	7
Maximum Peak Stage, explanation of	7
Mean concentration of suspended sediment, definition of	18
Mean discharge, definition of	18
Mean high tide, definition of	18
Mean low tide, definition of	18
Mean sea level, definition of	18
Measuring point, definition of	18
Membrane filter, definition of	18
Mendocino County, location of discharge stations, in	35
Metamorphic stage, definition of	18
Method Detection Limit, definition of	18
Methylene blue active substance, definition of	18
Micrograms per gram, definition of	18
Micrograms per kilogram, definition of	18
Micrograms per liter, definition of	18
Microsiemens per centimeter, definition of	18
MIDDLE FORK EEL RIVER ABOVE BLACK BUTTE RIVER, NEAR COVELO	336
MIDDLE FORK EEL RIVER NEAR DOS RIOS	342
MILL CREEK BELOW DIVERSION DAM, NEAR DINSMORE	360
Milligrams per liter, definition of	18
Minimum Reporting Level, definition of	18
Miscellaneous and special study sites	456
Miscellaneous sampling site	8
Miscellaneous site, definition of	18
Miscellaneous sites and partial-record stations, discharge at	456
Monterey County, location of discharge and water-quality stations	36
Monthly mean data, statistics of	6
Most probable number (MPN), definition of	18
Multiple-plate samplers, definition of	18

	Page		Page
N			
NACIMIENTO RIVER BELOW NACIMIENTO DAM, NEAR BRADLEY	63	Period of record paragraph	5
NACIMIENTO RIVER BELOW SAPAQUE CREEK, NEAR BRYSON	60	Periodic-record station, definition of	20
Nanograms per liter, definition of	18	Periphyton, definition of	20
Napa County, location of discharge and water-quality stations	37	PESCADERO CREEK NEAR PESCADERO	113
NAPA RIVER AT MARE ISLAND CAUSEWAY, NEAR VALLEJO	242	Pesticides, definition of	20
NAPA RIVER NEAR NAPA	240	PETALUMA RIVER AT COPLAND PUMPING STATION, AT PETALUMA	249
NAPA RIVER NEAR ST. HELENA	238	pH, definition of	20
National Atmospheric Deposition Program	2	Phytoplankton, definition of	20
National Geodetic Vertical Datum of 1929, definition of	19	Picocurie, definition of	20
National Stream-Quality Accounting Network	2	PILARCITOS CREEK AT HALF MOON BAY	120
National Trends Network	2	PILARCITOS CREEK BELOW STONE DAM, NEAR HILLSBOROUGH	119
National Trends Network, change in procedures	8	PILARCITOS LAKE NEAR HILLSBOROUGH	117
National Water Data Exchange	8	Plankton	
National Water Information System (NWIS)	11	Phytoplankton, definition of	20
National Water-Quality Assessment Program	3	Zooplankton, definition of	24
Natural substrate, definition of	19	Plankton, definition of	20
NAVARRO RIVER NEAR NAVARRO	308	Polychlorinated biphenyls (PCBs), definition of	20
NAVD of 1988 (See "National American Vertical Datum of 1988")	19	Polychlorinated naphthalenes (PCNs), definition of	20
Nekton, definition of	19	Pool, definition of	20
Nephelometric turbidity unit, definition of	19	POTTER VALLEY POWERHOUSE INTAKE NEAR POTTER VALLEY	332
NGVD of 1929 (See "National Geodetic Vertical Datum of 1929")	19	POTTER VALLEY POWERHOUSE TAILRACE NEAR POTTER VALLEY	333
North American Vertical Datum of 1988, definition of	19	Preservation blank	10
NORTH EEL RIVER AT NEAR MINA	344	Primary productivity	
NOVATO CREEK AT NOVATO	250	Carbon method, definition of	20
NOYO RIVER NEAR FORT BRAGG	317	Oxygen method, definition of	20
O			
Onsite Measurements and Sample Collection	9	Primary productivity, definition of	20
Open or screened interval, definition of	19	Pump blank	10
Organic carbon, definition of	19	Q	
Organic mass, definition of	19	Quality-Control Data	10
Organism count/area, definition of	19	R	
Organism count/volume, definition of	19	Radioisotopes, definition of	20
Organisms, Benthic, definition of	14	Reach, definition of	20
Organochlorine compounds, definition of	19	RECLAMATION DITCH NEAR SALINAS	87
Other Records Available	8	Records of Stage and Water Discharge	4
P			
PAJARO RIVER AT CHITTENDEN	99	Records of Surface-Water Quality	8
PALOMARES CREEK NEAR HAYWARD	194	Recoverable from bed (bottom) material, definition of	20
Parameter Code, definition of	19	Recurrence interval, definition of	21
Partial-record station	8	REDWOOD CREEK AT ORICK	380
Partial-record station, definition of	19	REDWOOD CREEK NEAR BLUE LAKE	374
Partial-record stations and miscellaneous sites, discharge at	456	Reference Samples	11
Partial-record stations, low-flow	457	Remarks Codes	47
Particle size, definition of	19	Remarks paragraph	6
Particle-size classification		Replicate Samples	11
Clay, definition of	19	Concurrent sample	11
Gravel, definition of	19	Sequential samples	11
Sand, definition of	19	Split sample	11
Silt, definition of	19	Replicate samples, definition of	21
Particle-size classification, definition of	19	RESERVOIRS IN KLAMATH RIVER BASIN	385
PCBs (See Polychlorinated biphenyls)	20	Return period (See "Recurrence interval")	21
PCNs (See "Polychlorinated naphthalenes")	20	Revised record paragraph	5
Peak flow (peak stage), definition of	19	Revisions paragraph	6
Peak stage, definition of	19	Riffle, definition of	21
Percent composition (percent of total), definition of	20	River mileage, definition of	21
Percent shading, definition of	20	Run, definition of	21
		Runoff, Annual, definition of	13
		Runoff, definition of	21
		RUSSIAN RIVER AT DIGGER BEND, NEAR HEALDSBURG	273

Page	Page		
RUSSIAN RIVER AT JOHNSONS BEACH, AT GUERNEVILLE	305	SHASTA RIVER NEAR MONTAGUE	391
Russian River Basin, diversions and storage in	254	SHASTA RIVER NEAR YREKA	397
RUSSIAN RIVER NEAR CLOVERDALE	269	Shelves, definition of	21
RUSSIAN RIVER NEAR GUERNEVILLE	297	Silt, definition of	19
RUSSIAN RIVER NEAR HEALDSBURG	278	Siskiyou County, location of discharge and water-quality stations	43
RUSSIAN RIVER NEAR HOPLAND	261	SMITH RIVER NEAR CRESCENT CITY	452
RUSSIAN RIVER NEAR UKIAH	255	SMITH RIVER NEAR FORT DICK	454
RUTH RESERVOIR NEAR FOREST GLEN	368	Sodium adsorption ratio, definition of	21
S		Soil heat flux, definition of	21
SALINAS RIVER AT PASO ROBLES	58	Soil-water content, definition of	21
SALINAS RIVER AT SOLEDAD	73	Solano County, location of discharge and water-quality stations in	44
Salinas River Basin, diversions and storage in	57	Sonoma County, location of discharge and water-quality stations	45
SALINAS RIVER NEAR BRADLEY	69	SONOMA CREEK AT AGUA CALIENTE	247
SALINAS RIVER NEAR CHUALAR	79	SOQUEL CREEK AT SOQUEL	103
SALINAS RIVER NEAR SPRECKELS	83	Source solution blank	10
SALMON RIVER AT SOMES BAR	413	SOUTH FORK EEL RIVER AT LEGGETT	352
Sampler blank	10	SOUTH FORK EEL RIVER NEAR MIRANDA	354
SAN ANTONIO CREEK NEAR SUNOL	167	SOUTH FORK TRINITY RIVER BELOW HYAMPOM	437
SAN ANTONIO RIVER NEAR LOCKWOOD	64	SPECIAL NETWORKS AND PROGRAMS	2
San Benito County, location of discharge stations	38	Special study and miscellaneous sites	456
SAN BENITO RIVER AT STATE HIGHWAY 156, NEAR HOLLISTER	97	Specific electrical conductance (conductivity), definition of	21
SAN BENITO RIVER NEAR WILLOW CREEK SCHOOL	93	Spike Samples	11
San Francisco and San Mateo Counties, location of discharge and water-quality stations	39	Concurrent sample	11
SAN FRANCISCO BAY AT PIER 24, AT SAN FRANCISCO	125	Split sample	11
SAN FRANCISCO BAY AT PRESIDIO MILITARY RESERVATION	122	Splitter blank	10
SAN FRANCISCO BAY AT SAN MATEO BRIDGE, NEAR FOSTER CITY	130	SPRING LAKE AT SANTA ROSA	290
SAN FRANCISQUITO CREEK AT STANFORD UNIVERSITY	135	Stable isotope ratio, definition of	21
SAN GREGORIO CREEK AT SAN GREGORIO	115	Stage	
SAN LORENZO CREEK ABOVE DON CASTRO RESERVOIR, NEAR CASTRO VALLEY	195	Bankfull, definition of	13
SAN LORENZO CREEK AT HAYWARD	214	Peak, definition of	19
SAN LORENZO CREEK AT SAN LORENZO	217	Stage (See "Gage height")	21
SAN LORENZO CREEK BELOW BITTERWATER CREEK, NEAR KING CITY	71	Stage-discharge relation, definition of	22
SAN LORENZO RIVER AT BIG TREES	107	Standpipe blank	10
SAN LORENZO RIVER AT SANTA CRUZ	109	Station manuscript, explanation of	5
San Luis Obispo County, location of discharge and water-quality stations	40	Station-Identification Numbers	3
SAN PABLO BAY AT PETALUMA RIVER CHANNEL MARKER 9	219	Stations	
SAN PABLO STRAIT AT POINT SAN PABLO	ix, 222	Continuous-record, definition of	14
SAN RAMON CREEK AT SAN RAMON	227	Daily record, definition of	15
Sand, definition of	19	Gaging, definition of	16
Santa Clara County, location of discharge and water-quality stations	41	Hydrologic index, definition of	17
Santa Cruz County, location of discharge and water-quality stations	42	Miscellaneous site, definition of	18
SANTA ROSA CREEK AT ALDERBROOK DRIVE, AT SANTA ROSA	292	Partial-record, definition of	19
SANTA ROSA CREEK AT MISSION BOULEVARD, AT SANTA ROSA	291	Periodic-record, definition of	20
SANTA ROSA CREEK AT SANTA ROSA	293	Streamflow, definition of	22
SANTA ROSA CREEK AT WILLOWSIDE ROAD, NEAR SANTA ROSA	294	Substrate	
SARATOGA CREEK AT SARATOGA	142	Artificial, definition of	13
SCOTT RIVER NEAR FORT JONES	403	Embeddedness Class, definition of	22
Sea level, definition of	21	Natural, definition of	19
Sediment	9	Substrate, definition of	22
Sediment, definition of	21	SUISUN BAY AT BENICIA BRIDGE, NEAR BENICIA	228
Sensible heat flux, definition of	21	SULPHUR CREEK BELOW DIVERSION DAM, NEAR DINSMORE	361
Seven-day 10-year low flow, definition of	21	Summary statistics, explanation of	6
		Surface area of a lake, definition of	22
		Surficial bed material, definition of	22
		Suspended	
		Recoverable, definition of	22
		Total, definition of	22
		Suspended sediment	
		Concentration, definition of	22
		Discharge, definition of	22
		Load, definition of	22
		Suspended sediment, definition of	22
		Suspended solids, total residue, definition of	22
		Suspended, definition of	22

	Page		Page
Synoptic studies, definition of	23	U	
System for numbering miscellaneous sites (latitude and longitude)	4	Ultraviolet (UV) absorption, definition of	24
		Unconfined aquifer, definition of	24
T			
Taxa (Species) richness, definition of	23	V	
Taxonomy, definition of	23	VAN DUZEN RIVER NEAR BRIDGEVILLE	362
TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS		Vertical datum (See "Datum")	24
OF THE U.S. GEOLOGICAL SURVEY	25	VOCs (See "Volatile organic compounds")	24
Thalweg, definition of	23	Volatile organic compounds (VOCs), definition of	24
Thermograph, definition of	23		
Time-weighted average, definition of	23	W	
Tons per acre-foot, definition of	23	WALKER CREEK NEAR MARSHALL	253
Tons per day, definition of	23	Ward Creek at Folsom Street, at Hayward	456
TOROGES CREEK AT WARM SPRINGS ROAD, AT FREMONT	146	Water table, definition of	24
Total coliform bacteria, definition of	23	Water Temperature	9
Total discharge, definition of	23	Water year, definition of	24
Total in bottom material, definition of	23	Water-Data Report (See "WDR")	24
Total length, definition of	23	Water-Supply Paper (See "WSP")	24
Total load, definition of	23	Water-table aquifer, definition of	24
Total organism count, definition of	23	WDR, definition of	24
Total recoverable, definition of	23	Weighted average, definition of	24
Total sediment discharge, definition of	24	Wet mass, definition of	24
Total sediment load, definition of	24	Wet weight, definition of	24
Total, definition of	23	WHEATFIELD FORK GUALALA RIVER ABOVE SOUTH FORK	
Transect, definition of	24	GUALALA RIVER, NEAR ANNAPOLIS	307
TRES PINOS CREEK NEAR TRES PINOS	95	WSP, definition of	24
Trinity County, location of discharge and water-quality stations	46		
TRINITY LAKE NEAR LEWISTON	423	Z	
TRINITY RIVER ABOVE COFFEE CREEK,		ZONE 6 LINE B AT WARM SPRINGS BOULEVARD,	
NEAR TRINITY CENTER	421	AT FREMONT	148
Trinity River and Klamath River Basins, diversions and storage in	384	Zooplankton, definition of	24
TRINITY RIVER AT HOOPA	439		
TRINITY RIVER AT LEWISTON	425		
TRINITY RIVER NEAR BURNT RANCH	435		
Trip blank	10		
TULELAKE CANAL AT SHEEPY RIDGE PUMPING STATION,			
NEAR HATFIELD	462		
Turbidity, definition of	24		

CALENDAR FOR WATER YEAR 2002

2001

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

2002

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

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

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

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
Area		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
Volume		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
Flow		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
Mass		
ton (short)	9.072×10^{-1}	megagram or metric ton